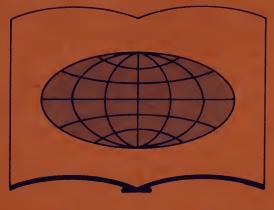
# Pesticides pocumentation bulletin

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Volume 5 June 6, 1969

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# PESTICIDES DOCUMENTATION BULLETIN

# A Bi-Weekly Publication of U.S. Department of Agriculture

# **OBJECTIVES AND SCOPE**

The Pesticides Documentation Bulletin is compiled by the National Agricultural Library's Pesticides Information Center to facilitate national research efforts in all aspects of pest control. This bi-weekly index to the literature includes coverage of diseases, insects, nematodes, parasites, weeds and other pests affecting plants, animals, man, our natural resources and other values in man's environment. Special emphasis is given to the literature on toxicological, physiological and epidemiological aspects of pests and their control by chemical biological and integrated methods.

For broader coverage of literature on agriculture and related subjects, please consult the *Bibliography of Agriculture*, a monthly publication of the National Agricultural Library.

# FORMAT

The *Bulletin* is a categorized bibliography, with citations arranged alphabetically by author under the following major subjects:

- 10 Entomology
- 20 Crop Protection
- 30 Livestock Protection
- 40 Commodity Protection
- 50 Environmental Contamination
- 55 Residues
- 60 Toxicology
- 65 Plant Physiology & Biochemistry
- 70 Chemistry
- 80 Engineering
- 90 Industry

*Citations:* Each citation consists of an accession number assigned serially with the last two digits representing the Bulletin's issue year, i.e. 3286-67. The citation number (minus the year) is used in all indices. Following the accession number is the full title of the article; all personal authors; an abbreviated journal title; volume, issue and inclusive page numbers; date of publication; language abbreviation, if other than English; and the National Agricultural Library's call number. Subject descriptors, patent or grant numbers, bibliographer's notes, and abstracts or extracts may follow each citation when appropriate.

Subject Index: Subject descriptors appear in the index followed by title arranged numerically by accession number. The Agricultural/Biological Vocabulary developed by the National Agricultural Library is used as a basic thesaurus of descriptors.

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The INTREDIS Register is a computer data bank in the field of forest pathology. It contains title and author references to abstracted articles including subject, country, host plant genus or species, organisms causing the diseases, abstracting journal and year of publication. The computer search uses boolean parameters in any combination of elements listed.

The Herbicides Data File consists of reports on field tests conducted by the Crops Protection Research Branch, Crop Research Division, Agriculture Research Service. Each test record contains the following items of information:

Compound Tested Company furnishing the compound Author or Investigator Test Sponsor Date Location Mode of Application Rates of Application Soil Types Carriers Crops or Weeds tested with phytotoxicity ratings Associated documentation

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# ACKNOWLEDGMENT

The Pesticides Information Center, National Agricultural Library, gratefully acknowledges the cooperation and assistance of the Department of Defense; Health, Education, and Welfare; and Interior; the Federal Committee on Pest Control, and state and industrial organizations in the development of the Center and preparation of this Bulletin. Special thanks are expressed to the Federal Committee on Pest Control for its suggestions and support. We hope the Bulletin will serve as an example of the effectiveness of interdepartmental cooperation and the speed with which effective services can be developed through a coordinated and cooperative interdepartmental effort.

Use of funds for printing this publication approved by the Director of the Bureau of the Budget (May 23, 1968).

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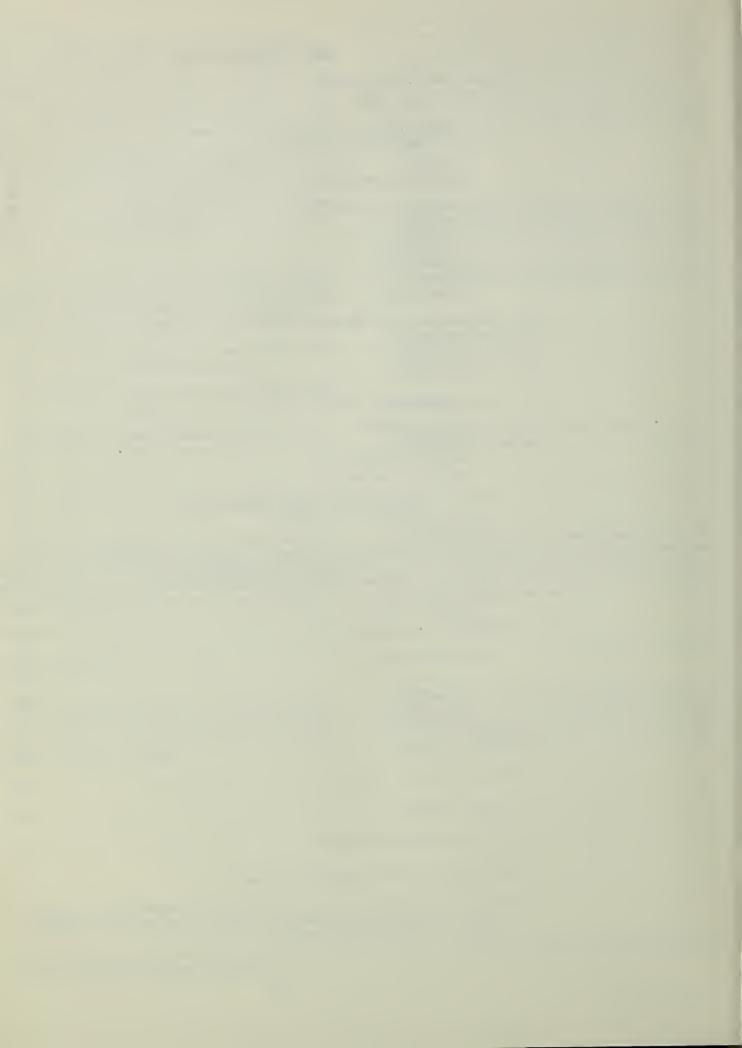
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# 4965-69

ODOUR SIMILARITIES BETWEEN THE SLAVE-KEEPING ANTS FORMICA SAN-GUINEA AND POLYERGUS RUFESCENS AND THEIR SLAVES FORMICA FUSCA AND FOR-MICA RUFIBARBIS.

Gunnar Bergstrom J Lofquist J Insect Physiol 14(7):995-1011 REF

Jul 1968 421 J825

Formica fusca, Formicidae, Odors, Scent glands.

4966-69

SOVIET ENTOMOLOGY DURING THE PERIOD 1917-1967. (JPRS 43,647) TRANSL. 16962.

G Y Bcy-Biyenko

75P REF

08 Dec 1967

Entomology, Forest insects, Insect biology, Insect ecology, Insect morphology, Insect pests, Insect physiology, Insect taxonomy, Zoogeography. Translation from Entomologicheskoye Obozreniye 46(3): 505-550, 1967. issued by CFSTI.

# 4967-69

THE INSECT WORLD. SERIES: THE UNIVERSE OF KNOWLEDGE. (FR) R Chauvin

Librairie Hachette, Paris, France 254P REF 1967 QL496.C4

Entomology, Insect control, Insect populations, Insects, Microclimate, Soil insects.

#### 4968-69

DIVISION OF ENTOMOLOGY ANNUAL RE-PORT, 1966-67.

Australia Csiro Div Ent Annu Rep 49P REF 1967 423.92 AU722

Acrididae, Biological control (insects), Boophilus annulatus, Diptera, Forest insects, Insect ecology, Insect pests, Insect physiology, Insect taxonomy, Stored products.

#### 4969-69

# A SIMPLIFIED METHOD OF FREEZE-DRYING CATERPILLARS.

H Flaschka J Floyd Lepidopterists Soc J 23(1):43-48 1969 421 L554 Caterpillars, Freeze drying, Methodology.

4970-69

A SOUND-ACTIVATED METHOD FOR RECORDING INSECT ACTIVITY.

J L Frazier F W Fisk

Ohio J Sci 67(1):42-45

Blattidac, Byrsotria fumigata, Equipment, Experimental insects, Insect behavior, Methodology, Orthoptera, Sound waves, Stridulation, Supella supellectilium.

# 4971-69

APPLYING INSECTICIDES TO COTTON CROPS.

R F Locke

Rhodesian Farmer 39(27):13-15

15 Nov 1968 24 R347

Acrial spraying, Cotton, Insecticide application, Insecticides, Methodology, Mist blowers, Plant protection, Spraying equipment, Tractors.

#### 4972-69

#### A CARBON DIOXIDE BAIT TRAP FOR COL-LECTING TICKS AND FLEAS FROM ANIMAL BURROWS.

V I Miles

J Med Entomol 5(4):491-495

30 Oct 1968 421 J828

Baits, Carbon dioxide, Ectoparasites, Insect collecting equipment, Ixodides, Medical entomology, Siphonaptera.

#### 4973-69

THE SEXUAL DIFFERENCE IN THE SILK WORM COCOONS RELATIVE TO THE OPTI- CAL PROPERTIES, 2. FLUORESCENT SPEC-TRO-CHARACTERISTICS OF COCOONS. (JA ) K Ninokata M Miyazato Kagoshima Univ Fac Agr Bull 18:199-205 Feb 1968 107.6 K114B Bombyx mori, Fluorescence, Optics, Properties, Pupal cases, Sex determination, Spectroscopy. English summary. 4974-69 A FALLING CAGE FOR SAMPLING TSETSE FLIES (GLOSSINA; DIPTERA). R J. Phelps Rhodesia, Zambia, Malawi J Agr Res 6(1):47-53 1968 24 R3472 Baits, Diurnal rhythm, Feeding, Glossina, Insect cages, Insect collecting equipment. 4975-69 A TEMPERATURE-CONTROLLED FEEDING APPARATUS FOR HEMATOPHAGOUS ARTHROPODS. A C Pipkin T J Connor J Med Entomol 5(4):507-509 30 Oct 1968 421 J828 Arthropoda, Blood, Cimex lectularius, Culex pipiens, Dairy equipment, Feeding, Medical entomology. 4976-69 THE STIMULATION OF 2,4-DINITROPHENOL-ACTIVATED ATPASE BY ANIONS. R C Santalo Can J Biochem 46(9):1161-1163 REF Sep 1968 470 C16E Adenosinetriphosphatase, Chemistry, Culture media, Dinitrophenol, 2,4-, Ions, Mitochondria, Research, Stimulants. 4977-69 A BRIEF NOTE ON ENTOMOLOGY. N Sengupta Tocklai Exp Sta Newslett 13(3):105-107 Sep 1966 68.18 T93 Entomology, Insect anatomy, Insect control, Insect morphology, Insect names, Insect Metamorphosis, Pesticides. pests, 4978-69 **BIBIONID LARVAE IN THE STOMACH OF A** DEER. M E Smith Brooklyn Entomol Soc Bull 54(1):27 Feb 1959 420 B79 Bibionidac, Deer, Entomology, Larvae, Stomach. 4979-69 A SUMMARY OF FOREST AND SHADE TREE INSECT-DISEASE CONDITIONS FOR MAINE 1967. Augusta State of Maine Forestry Dept. Maine Forest Serv Div Entomol Forest Pest Notes 6:11 P. MAP 17 Jun 1968 423.9 M282 Coleoptera, Diptera, DDT, Forest insects, Homop-

Coleoptera, Diptera, DDT, Forest insects, Homoptera, Hymenoptera, Lepidoptera, Plant diseases, Spraying, Weather.

# SYSTEMATICS

4980-69

THE MICROPEPLIDAE AND STAPHYLINIDAE (I. STENINAE, EUAESTHETINAE AND OX-YPORINAE), COLEOPTERA OF PAKISTAN WITH DESCRIPTIONS OF A NEW TRIBE, GENUS AND THREE SPECIES FROM KARACHI. M Abdullah N N Qadri Pakistan J Sci Indus Res 11(3):303-312 Jul 1968 475 P174

Coleoptera, Insect taxonomy, Staphylinidae.

**4981-69** A KEY TO THE IPSWICH FOSSIL BEETLES (COLEOPTERA) FROM THE PERMIAN OF AUSTRALIA. M Abdullah Pakistan J Sci Indus Res 11(3):299-302 Jul 1968 475 P174

Colcoptera, Insect taxonomy, Paleoentomology.

# 4982-69

NEW SPECIES OF CHIRONOMIDS (DIPTERA, CHIRONOMIDAE) FROM YASHIL-KUL AND BULUN-KUL LAKES (PAMIRS). (RUS) F Ahrorov

Akad Nauk Tadzh Ssr Dokl 10(11):68-70 1967 511 AK193D

Chironomidae, Diptera, Insect identification, Insect taxonomy, Lakes, Zoogcography.

# 4983-69

UNDESCRIBED SPECIES OF NE-MATOCEROUS DIPTERA. IX. C Alexander Brooklyn Entomol Soc Bull 55(5):114-120

Dec 1960 420 B79

Diptera, Insect genetics, Insect taxonomy, Nomenclature, Tanyderidae.

#### 4984-69

UNDESCRIBED SPECIES OF NE-MATOCEROUS DIPTERA, PART VII.

# C P Alexander

Brooklyn Entomol Soc Bull 54(3):53-59 Jun 1959 420 B79

Diptera, Insect anatomy, Insect genetics, Insect taxonomy.

# 4985-69

UNDESCRIBE SPECIES OF NEMATOCEROUS DIPTERA. PART VI. C P Alexander

Brooklyn Entomol Soc Bull 54(2):37-43 Apr 1959 420 B79

Diptera, Insect anatomy, Insect taxonomy.

4986-69

BEES OF THE NEVADA TEST SITE.

D M Allred Great Basin Natur 39(1):20-24 REF 28 Mar 1969 410 G79 Bees, Hymenoptera, Insect taxonomy, Zoogeography.

#### 4987-69

LEPIDOPTERA OF THE NEVADA TEST SITE. D M Allred Great Basin Natur 39(1):42 28 Mar 1969 410 G79

Insect identification, Insect traps, Lepidoptera, Zoogeography.

# 4988-69

THREE NEW SOUTHERN AFRICAN SPECIES OF OOBIUS TRJAPITZIN, 1963 (HYMENOP-TERA: ENCYRTIDAE). D P Annecke

Ann Mag Natur Hist 1(3,JUL-SEP):319-325

Scp 1967 410 AN77

Catalogs, Encyrtidae, Insect taxonomy.

### 4989-69

A CRITICAL NOTE ON THE STRUCTURE AND FUNCTION OF STERNAL SPATULA IN GALL MIDGES BY S. N. PRASAD AND P. GROVER. M H Ansari Zool Anz 181(1-2,JUL-SEP):75-76 Sep 1968 410 Z7 Cecidomylidae, Gall-making insects, Insect taxonomy, Reviews.

#### 4990-69

A REPORT ON THE EULOPHID (HYMENOP-TERA: CHALCIDOIDEA) FAUNA OF TWO SCOTTISH BIRCH WOODS. R R Askew

Ann Mag Natur Hist 1(4,0CT-DEC):571-573 Dec 1967 410 AN77

Eulophidae, Insect taxonomy, Surveys.

4991-69

TWO NEW INOCELLIIDAE SPECIES FROM ASIA (NEUROPTERA, RAPHIDIODEA). (GE )

# 4992-69

**U** Aspock H Aspock Entomol Ber 28(10):184-189 01 Oct 1968 420 N38B Insect taxonomy, Neuroptera. English abstract

#### 4992.69

A NIMBASPIS BALACHW. (COCCOIDEA-ODONASPIDINI) NEW IN THE CENTRAL AFRICAN GRASSLANDS. (FR ) A S Balachowsky D Ferrero

Inst Fondamental Afr Noire Bull Ser A Sci Natur (SER A)29(3):1021-1025 Jul 1967 515 D14

Coccoidca, Insect taxonomy, Pastures.

#### 4993-69

WINGLESS CAMEL CRICKETS IN LAN-CASHIRE. R M Band

Entomologist (london) 102(1271):74 Apr 1969 421 EN8

Gryllacrididae, Insect identification, Orthoptera.

# 4994-69

# THE BUPRESTIDAE AND CLERIDAE OF THE NEVADA TEST SITE (COLEOPTERA). W F Barr

Great Basin Natur 39(1):11-19 REF

28 Mar 1969 410 G79 Buprestidae, Cleridae, Coleoptera, Insect taxono-

my.

4995-69

ARGAS (SECRETAGAS) TRANSGARIEPINUS WHITE, 1846, NEW TICK FOR FRANCE AND ALGERIA. (FR )

J C Beaucournu B Clcrc

Vie Milieu Ser C Biol Terrestre 19(1-C):233-236 MAP REF 1968 QH301.V5

Argas, Zoogcography.

#### 4996-69

#### A PROBABLE DOCHTHONIUS **PSEU-**TROGLOBIONT (PSEUDOSCORP.) FROM BRAZIL. (GE) M Beier

Rev Suisse Zool 76(1):1-2

Mar 1969 410 R324

Chelonethida, Insect taxonomy, Zoogeography.

# 4997-69

#### TWO VARIANT FEMALES OF COLIAS (ZERENE) CESONIA (PIERIDAE). D Bennett

Lepidopterists Soc J 22(4):253 MAP

1968 421 L554 Insect identification, Picridac, Zoogcography.

4998-69

CONTRIBUTION TO THE FAUNA OF THE CONGO (BRAZZAVILLE). MISSION A. VIL-LIERS AND A. DESCARPENTRIES. LXV. LEPIDOPTERA HESPERIIDAE. (FR ) L A Bcrgcr

Inst Fondamental Afr Noire Bull Ser A Sci Natur (SER A)29(4):1763-1781 REF

Oct 1967 515 D14

Catalogs, Hesperiidae, Insect taxonomy, Zoogeography.

#### 4999-69

# NOTES OF LARVAE OF AQUATIC COLEOP-TERA IN THE ETHIOPIAN REGION (WESTERN AND EQUATORIAL AFRICA). (FR ) H Bertrand

Inst Fondamental Afr Noire Bull Ser A Sci Natur (SER A)29(3):1334-1341

Jul 1967 515 D14

Aquatic insects, Catalogs, Colcoptera, Insect taxonomy, Larvac.

# 5000-69

COLEOPTERA FROM SOUTHEAST ASIA AR-RANGED BY M. CHUJO (VII). COCCINELLID-BEETLES FROM E. NEPAL, THAILAND, CAM-BODIA, VIET-NAM, S. KOREA AND IS. AM-BON, WITH DESCRIPTIONS OF 4 NEW SPE-CIES AND 33 FIGURES.

# BIBLIOGRAPHY

R Biclawski M Chujo Shikoku Entomol Soc Trans 9(4):119-128 Apr 1968 420 SH6 Coccinellidae, Colcoptera, Insect identification, Insect taxonomy. 16 previously known species of Coccinellidae are also described. 5001-69 **MOSQUITOES FROM THE WESTERN BAL-**KAN MOUNTAINS. (GE ) **D** Bozkov Bulgarska Akad Nauk Zool Inst Muz Izv 25:62-64 1967 410.9 B8721 Catalogs, Culicidac, Diptera. German abstract 5002-69 NEW LAMIIDAE FROM THE BRITISH MUSE-UM (NATURAL HISTORY), (COLEOPTERA, CERAMBYCIDAE). (FR ) S Brcuning Ann Mag Natur Hist 1(2, APR-JUN):295-297 Jun 1967 410 AN77

Ccrambycidae, Insect taxonomy, Zoogeography. 5003-69

# SYSTEMATIC REVISION OF THE SPECIES OF THE GENUS OBEREA MULSANT ALL OVER THE WORLD. (COLEOPTERA CERAM-BYCIDAE). SECOND PART. (FR) S von Brcuning

Frustula Entomol 4(4):61-140

1961 421 F94

Cerambycidae, Insect identification, Insect taxonomy, Zoogeography. Description of 127 species and many subspecies.

#### 5004-69

# SYSTEMATIC REVISION OF THE SPECIES OF THE GENUS OBEREA MULSANT ALL OVER THE WORLD. (COLEOPTERA CERAM-BYCIDAE) THIRD PART. (FR )

S von Brcuning

Frustula Entomol 5(4):141-232

1961 421 F94

Cerambycidae, Insect identification, Insect taxono-my, Zoogeography. Description of 117 species and many subspecies.

# 5005-69

# TAXONOMIC NOTES ON THE LARVAE OF BRITISH DIPTERA. NO. 26. THE PRESUMES LARVA OF DIOCTRIA OELANDICA (LIN-NAEUS) (ASILIDAE).

A Brindle

Entomologist (london) 102(1268):3-6

Jan 1969 421 EN8

Asilidae, Dioctria oclandica, Insect taxonomy, Larvac.

5006-69

# CHEMOTAXONOMY AND CHEMOMIMICRY: THE CASE OF 3-HYDROXYKYNURENINE. K S Brown

Syst Zool 16(3):213-216 REF Scp 1967 410 SY8

Chemical analysis, Insect taxonomy, Nymphalidae.

# 5007-69

#### IMMUNOTAXONOMIC INVESTIGATIONS OF THE COLEOPTERA.

J E Butler C A Leone

Syst Zool 16(1):56-63 REF

Mar 1967 410 SY8

Coleoptera, Immunochemistry, Insect taxonomy, Precipitin test, Proteins.

5008-69

# A NEW CHILEAN SPECIES OF OPSOPHAGUS ALDRICH, 1926, (DIPTERA, TACHINIDAE). (SP)

L Caltagironc Chile Univ Centro Estud Entomol Publ (8):61-68 1966 420 C432

Insect identification, Insect taxonomy, Tachinidae.

# 5009-69

**NEW LEPTOCENTRUS (HOMOPTERA:** MEMBRACIDAE) FROM THE CONGO. A L Capener

2

N Y Entomol Soc J 76(1):37-38 Mar 1968 420 N48J

Insect taxonomy, Leptocentrus, Membracidae.

5010-69

HORSE-FLIES (DIPTERA, TABANIDAE) COL-LECTED IN THE EAST HINDUKUSH MOUN-TAINS, AFGHANISTAN. M Chvala J Moucha

Folia Parasitol 14(2):189-191 May 1967 436.8 C33

Insect ecology, Surveys, Tabanidae.

5011-69

NEW SPELEOGNATHINAE FROM CENTRAL AMERICAN SOUTH MAMMALS AND (ACARINA, TROMBIDIFORMES). G M Clark

Helminthol Soc Wash Proc 34(2):240-243 Jul 1967 436.9 H36

Acarina, Host records, Insect taxonomy.

#### 5012-69

### **IXODES WALKERAE, N. SP. FROM A BIRD IN** KENYA. (ACARINA: IXODIDAE).

C M Clifford G M Kohls H Hoogstraal J Med Entomol 5(4):513-514

30 Oct 1968 421 J828

Birds, Insect identification, Insect taxonomy, Ix-

odidac, Medical entomology.

#### 5013-69

NOTES ON MACROCHELIDS ASSOCIATED WITH MANURE AND COPRID BEETLES IN ISRAEL. II. THREE NEW SPECIES OF THE MACROCHELES PISENTII COMPLEX, WITH NOTES ON THEIR BIOLOGY. M Costa

Acarologia 9(2):304-329 REF

Jul 1967 434.8 AC1

01 Jun 1968 420 M923

Insect behavior, Insect biology, Insect taxonomy, Macrocheles, Mites, Parasitic insects. English abstract

Munich Mus G Frey Entomol Arb 19:176-178

Colcoptera, Insect identification, Insect taxonomy,

A NEW GENERA OF PACHYDEMINAE (COLEOPTERA, MELOLONTHIDAE) OF

Colcoptera, Insect identification, Insect taxonomy,

CONTRIBUTION TO THE FAUNA OF THE CONGO (BRAZZAVILLE). MISSION A. VIL-LIERS AND A. DESCARPENTRIES. XLIV.

Inst Fondamental Afr Noire Bull Ser A Sci Natur

Aquatic insects, Catalogs, Coleoptera, Insect tax-

CONTRIBUTION TO THE FAUNA OF THE CONGO (BRAZZAVILLE). MISSION A. VIL-LIERS AND A. DESCARPENTRIES. XLIII. ORTHOPTERA EUSMASTACIDAE. (FR )

Inst Fondamental Afr Noire Bull Ser A Sci Natur 29(1):295-317 REF

Acrididae, Catalogs, Insect taxonomy.

**COLEOPTERA ELMINTHIDAE. (FR )** 

Munich Mus G Frey Entomol Arb 19:254-256

# 5014-69 THE PACHYDEMINAE (COLEOPTERA, MELOLONTHIDAE) COLLECTED BY THE HUNGARIAN ZOOLOGICAL EXPEDITION TO THE BRAZZAVILLE CONGO. (FR )

I Decelle

5015-69

J Decelle

5016-69

J Deleve

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**M** Descamps

Jan 1967 515 D14

29(1):318-343

Jan 1967 515 D14

onomy, Zoogcography.

Scarabaeidae.

Scarabacidae.

SOMALIA. (FR)

01 Jun 1968 420 M923

taxonomy, Lepidoptera,

# 5043-69

#### 5018-69

A REVISION OF THE LEAFHOPPER GENUS MACROPSIDIUS RIB. (HOM., AUCHENORR-HYNCHA). I Diabola

Acta Ent Bohemoslov 60(1-2):114-124 1963 420 C33

Cicadellidae, Insect identification, Insect taxonomy, Zoogeography. Czech summary.

The following species are discussed: M. dispar, M. parvus, M. punicus, M. sahlbergi, M. ioculator, M. vallarís, M. calaber, M. involutus, and M. valiturus.

#### 5019-69

NEW AND SO FAR UNDESCRIBED CICADEL-LIDAE SPECIES FROM RUMANIA AND ITALY (HOM., AUCHENORRH.). (GE) I Diabola

Acta Ent Bohemoslov 58(4):310-323 REF 1961 420 C33

Cicadellidae, Insect identification, Insect taxonomy, Zoogcography. Czech summary. many other species are described.

#### 5020-69

THE IMBECILLUS AND RUFUS GROUPS OF THE SPIDER GENUS PHILODROMUS IN NORTH AMERICA. (ARANEIDA: THOMIS-IDAE).

C D Dondace J H Redner Entomol Soc Can Mem 55:78P MAP REF

1968 420 EN824

Insect identification, Insect taxonomy, Philodromus, Spiders, Thomisidae, Zoogeography.

# 5021-69

# A NEW TINGID FROM PAKISTAN (HEMIP-TERA).

C J Drake J Maldonado Capriles Brooklyn Entomol Soc Bull 54(1):25-26 Feb 1959 420 **B**79

Insect anatomy, Insect taxonomy, Tingidae.

#### 5022-69

#### TWO NOCTUIDAE NEW FOR THE FAUNA OF BELGIUM. (FR) C Dufay

Lambillionea 66(9/10):65-67

05 Sep 1967 420 N15

Insect identification, Insect taxonomy, Noctuidae, Zoogeography.

#### 5023-69

NOTES ON THE GENUS ELYMANA DELONG (HOMOPTERA CICADELLIDAE).

I Dworakowska

Polska Akad Nauk Bull Ser Sci Biol 16(4):233-238

1968 512 W262

Cicadellidae, Homoptera, Insect identification, Insect taxonomy. The species of Elymana described are: bambusae, sulphurella, kozhevnikovi and pallidipennis.

# 5024-69

SOME TYPHLOCYBINAE (HOMOPTERA, CICADELLIDAE) FROM MONGOLIA WITH DESCRIPTION OF A NEW SPECIES AND A NEW SUBSPECIES. I Dworakowska

Polska Akad Nauk Bull Ser Sci Biol 16(6):365-371

1968 512 W262

Cicadellidae, Insect taxonomy.

# 5025-69

SOME OBSERVATIONS ON THE CHAETOTAXY OF THE LEGS OF LARVAL IX-ODIDAE (ACARI: METASTIGMATA). M A Edwards G O Evans

Ann Mag Natur Hist 1(4,0CT-DEC):595-601 Dcc 1967 410 AN77

Host relationships, Insect taxonomy, Ixodidae, Larvae, Legs. 5026-69 THE PHENETIC RELATIONSHIPS OF THE BUTTERFLIES. I. ADULT TAXONOMY AND THE NONSPECIFICITY HYPOTHESIS. P R Ehrlich A H Ehrlich Syst Zool 16(4):301-317 REF Dec 1967 410 SY8 Insect taxonomy, Lepidoptera, Methodology, Statistical analysis. 5027-69 FLUKEA VOCKEROTHI, A NEW GENUS AND NEW SPECIES OF CHILEAN SYRPHIDAE (DIP-TERA). (SP) M Etcheverry Chile Univ Centro Estud Entomol Publ (8):1-22 1966 420 C432 Illustrations, Insect identification, Insect taxonomy, Syrphidae. English summary. 5028-69 MALAYOGLYPHUS INTERMEDIUS N. G., N. SP., A NEW MITE FROM HOUSE DUST IN SIN-GAPORE AND DJAKARTA (PYROGLY-PHIDAE: SARCOPTIFORMES). A Fain A M Cunnington F Th M Spicksma Acarologia 11(1):121-126 Jan 1969 434.8 AC1 Habitats, Insect taxonomy, Mites, Sarcoptiformes, Zoogcography. 5029-69 EPIMYODEX TALPAE N. G., N. SP., A SUB-CU-TANEOUS PARASITE OF THE MOLE IN BELGIUM (DEMODICIDAE: TROM-**BIDIFORMES). (FR )** A Fain S Orts Acarologia 11(1):65-68 Jan 1969 434.8 ACI Demodecidae, Epimyodex talpae, Insect taxono-my, Mites, Moles, Parasitic insects, Trom-bidiformes. 5030-69 MITES COLLECTED FROM DOUGLAS-FIR FOLIAGE IN MONTANA. D G Fellin J Econ Entomol 61(3):877-878 Jun 1968 421 J822 Choristoneura fumiferana, DDT, Insect collecting equipment, Insect pests, Oligonychus ununguis, Pseudotsuga menzicsii. 5031-69 CHIRONOMUS STRENZKEIN. SP. (CHIRONOMIDAE, DIPT), A NEW LABORATO-RY ANIMAL. (GE) E J Fittkau

Z Morphol Okolog Tiere 63(3):239-250 1968 442.8 7.33

Chironomidac, Chironomus strenzkei, Insect biology, Insect rearing, Insect taxonomy, Laboratory animals, Zoogcography. English summary.

# 5032-69

THE IMMATURE STAGES OF LYPE DIVERSA (BANKS) (TRICHOPTERA, PSYCHOMYIIDAE). O S Flint

Brooklyn Entomol Soc Bull 54(2):44-47 Apr 1959 420 B79

Insect anatomy, Insect taxonomy, Larvae, Lype, Pupae, Trichoptera.

#### 5033-69

A TECHNIQUE FOR SAMPLING POPULA-TIONS OF THE JACK-PINE BUDWORM. J L Foltz F B Knight D C Allen W J Mattson Forest Sci 14(3):277-281 Sep 1968 99.8 F7632 Choristoneura pinus, Demography, Methodology,

Pinus banksiana, Sampling (statistics).

# 5034-69

CONTRIBUTION TO THE FAUNA OF THE CONGO (BRAZZAVILLE). MISSION A. VIL-LIERS AND A. DESCARPENTRIES. LXXVIII. LEPIDOPTERA: NYMPHALIDAE, DANAIDAE AND RIODINIDAE. (FR)

Nymphalidae, Riodinidae, Zoogcography. 5035-69 THE GENUS PLECTRIS (PHILOCHLAENIA) (COLEOPTERAMELOLONTHINAE). (GE) E Frey Munich Mus G Frey Entomol Arb 18:1-136 01 Jul 1967 420 M923 Insect taxonomy, Scarabaeidae, Zoogeography. 5036-69 NEW MELOLONTHIDS (COL.). (GE ) G Frey Munich Mus G Frey Entomol Arb 18:419-424 01 Jul 1967 420 M923 Catalogs, Coleoptera, Scarabacidae, Zoogeography. Insect taxonomy, 5037-69 A KEY TO ALL STAGES OF THE BRITISH SPECIES OF THE FAMILY NEOBISIIDAE (P-SEUDOSCORPIONES: DIPLOSPHYRONIDA). P D Gabbutt Ann Mag Natur Hist 3(2, APR-JUN):183-195 REF Jun 1969 410 AN77 Adults, Catalogs, Insect taxonomy, Larvae, Neobisiidae, Nymphs. 5038-69 A NEW SPECIES OF LESTINOGOMPHUS 1912 (ODONATA), AND THE D UNDEXCRIBED MALE OF MARTIN HITHERTO MICROGOMPHUS CAMERUNENSIS LONG-**FIELD 1951. R** M Gambles Entomologist (london) 101(1267):281-288 Dcc 1968 421 EN8 Insect taxonomy, Odonata. 5039-69 TWO NEW GALERUCINAE FROM NAINITAL DISTRICT (COLEOPTERA-CHRYSOME-LIDAE). L Gangola Entomologist (london) 102(1270):55-59 Mar 1969 421 EN8 Chrysomclidae, Insect taxonomy, Zoogeography. 5040-69 THE GENUS PROTOGAMASELLUS KARG (ACARI) WITH DESCRIPTIONS OF NEW SPE-CIES AND SUBSPECIES FROM THE ETHIOPI-AN REGION. N dc L Genis G C Loots P A J Ryke Ann Mag Natur Hist 1(3, JULOSEP):337-353 Sep 1967 410 AN77

Inst Fondamental Afr Noire Bull Ser A Sci Natur

Acarina, Habitats, Insect taxonomy, Zoogeography.

# 5041-69

**R** M Fox

30(3):1236-1280 REF

Danaidae, Insect

Jul 1968 515 D14

#### FIVE TYDEID MITES FROM ISRAEL (ACARINA: PROSTIGMATA). U Gerson

Israel J Zool 17(4):191-198 REF 1968 410 IS7

Acarina, Insect taxonomy, Tydeus, Zoogeography.

#### 5042-69

THE SPIDER GENUS LOXOSCELES IN SOUTH AMERICA (ARANEAE, SCYTODIDAE). W J Gertsch

Amer Mus Nat Hist Bull 136(3):117-174 MAP REF

1967 500 N483B

Insect taxonomy, Spiders, Zoogeography.

#### 5043-69

**BEETLE FINDS IN THE SOUTH TICINO, JULY 1964. (GE )** W Gfcller R Heinertz

Entomol Gesell Basel (N s)15(1, JAN-FEB):12-17 1965 QL461,E58

# 5044-69

Carabidac, Cerambycidac, Insect identification, Scarabacidac, Tenebrionidac, Zoogcography.

#### 5044-69

STUDY OF THE CYCLE OF GECKOBIA LATASTEI AND GECKOBIA LORICATA, ACARINE PARASITES OF THE GECKO TARENTOLA MAURITANICA. (FR ) **B** Girot

Vie Milieu Ser C Biol Terrestre 19(1-C):63-141 REF

1968 QH301.V5

Insect biology, Insect taxonomy, Life cycle, Mites, Ptcrygosomidac. English and German abstracts.

#### 5045-69

NEW SPECIES OF PSEUDOSINELLA FROM CAVES (INSECTA: COLLEMBOLA). (FR ) H Gisin M M da Gama

Rev Suisse Zool 76(1):143-181 REF Mar 1969 410 R324

Cave fauna, Collembola, Insect evolution, Insect

taxonomy, Pscudosinella, Surveys, Zoogcography. English and German abstracts.

#### 5046-69

THE ENDEMIC RHYCOPHILA FROM COR-SICA. DESCRIPTION OF RHYACOPHILA TARDA SP. N. (TRICOPTERA). (FR ) J Giudicelli

Vie Milieu Ser C Biol Terrestre 19(1-C):49-54 1968 OH301 V5

Insect taxonomy, Trichoptera. English and German abstracts.

#### 5047-69

A NEW TINEID FROM AFRICA: TINEA ROESLERI N. SP. (LEP.). (GE ) L Gozmany Entomol Z 79(7):69-72 01 Apr 1969 421 EN85

Insect taxonomy, Tincidac. English abstract.

#### 5048-69

CONSIDERATIONS ON THE CLASSIFICA-TIONS OF THE ORIBATIDAE. THEIR DIVI-SION INTO SIX MAJOR GROUPS. (FR) F Grandican

Acarologia 11(1):127-153 REF Jan 1969 434.8 AC1

Insect taxonomy, Oribatidac.

# 5049-69

THE GENUS TRICHOPSIDEA WESTWOOD, WITH A DISCUSSION OF ITS RELATION TO OTHER GENERA OF NEMESTRINIDAE (DIP-TERA).

D. J. Greathead

Ann Mag Natur Hist 1(3, JUL-SEP): 305-313 REF Scp 1967 410 AN77

Catalogs, Insect taxonomy, Nemestrinidae.

#### 5050-69

**NEW SPECIES OF PHEIDOLE FROM PACIFIC** COAST ISLANDS (HYMENOPTERA: FOR-MICIDAE).

R E Grcgg

Entomol News (philadelphia) 80(4):93-101 Apr 1969 421 EN88

Formicidac, Insect taxonomy, Pheidole, Western North America.

# 5051-69

THE ALYSIINATE (HYM. BRACONIDAE) PARASITES OF THE AGROMYZIDAE (DIP-TERA). V. THE PARASITES OF LIRIOMYZA MIK AND CERTAIN SMALL GENERA OF PHYTOMYZINAE.

G C D Griffiths

Beitr Entomol 18(1-2):5-62 REF

1968 421 B392

Braconidac, Catalogs, Insect taxonomy, Liriomyza, Parasitism, Zoogcography.

# 5052-69

THE SPECIES OF THE SUB-FAMILY CAS-SIDINAE (CHRYS., COL.) IN BULGARIA. (GE ) B Grucy

# **BIBLIOGRAPHY**

Skoplje Prirodonaucen Muz Acta 11(2):17-37 REF

30 Nov 1967 510 SK52

Cassidinac, Chrysomclidac, Insect identification, Insect taxonomy, Zoogcography. Bulgarian summary. description of 22 species.

5053-69

# A NEW SPECIES CHRYSOMELA RUFOAENEA SUFF. FOR THE FAUNA OF BULGARIA FROM THE COLLECTION OF THE ZOOLOGICAL MUSEUM IN SOFIA, CHRYSOM., COL.

**B** Grucv Deut Entomol Ges Mitt 26(3):42

15 Jul 1967 420 D482

Chrysomela rufoacnea, Insect ecology, Insect identification, Insect taxonomy, Zoogcography. German summary

#### 5054-69

### NEW TETRANYCHIDAE OF MADAGASCAR. (FR)

J Guticrrcz

Acarologia 11(1):43-64 REF

Jan 1969 434.8 ACI

Insect ccology, Insect taxonomy, Malagasy Republic, Tetranychidae. English abstract.

#### 5055-69

A NEW SPECIES OF TRIBOLIUM FROM NORTH AMERICA PREVIOUSLY CONFUSED WITH TRIBOLIUM MADENS (CHARP.) (COLEOPTERA: TENEBRIONIDAE). D G H Halstcad

J Stored Prod Res 4(4):295-304 REF

Fcb 1969 421 J829

Bccs, Insect identification, Insect taxonomy, Tenebrionidae, Tribolium,

#### 5056-69

NOTES ON THE TRIGONODERUS-GROUP (HYM., CHALCIDOIDEA). K J Hcdqvist

Entomol Tidskr 89(1-2):35-63

421 EN891

Catalogs, Chalcidoidca, Hymcnoptera, Insect taxonomy, Zoogcography.

The Trigonoderus-group is placed in a tribe which may belong to either the Cleonymidae or Ptcromalidac family. A kcy is given for the genera, including morphology, host and distribution when known.

#### 5057-69

**BURMESE ICHNEUMONINAE IV. (GE) G H Hcinrich** 

Entomol Tidskr 89(1-2):77-106

10 Aug 1968 421 EN891

Ichncumonidac, Insect taxonomy, Zoogcography.

The descriptions of some lehneumoninae genera found in Burma arc given here. Male and female morphology and distributions arc provided.

#### 5058-69

A NEW KIND OF MACROSIPHONIELLA (MACROSIPONIELLA HAERELLI N. SP.(A-PHIDIDAE)) OF ARTEMISIA RUPESTRIS. (GE ) K Hcinzc

Deut Entomol Ges Mitt 19(3):54-55

15 Jun 1960 420 D482

Aphididac, Insect identification, Taxonomy.

#### 5059-69

# X-RAY ANALYSIS OF HYPHAL AND SCLERO-TIAL WALLS OF SCLEROTIUM ROLFSII SACC.

C Henis Y Henis

Can J Microbiol 14(7):815

Jul 1968 448.8 C162

Anatomy, Cell wall, Cellulose, Chitin, Extracts, Research, Selerotium rolfsii, X-rays.

#### 5060-69

A NEW GENUS AND NEW SPECIES OF THE **OXYTELINAE FROM BRAZIL (COLEOPTERA,** STAPHYLINIDAE). L H Hcrman

4

Amer Mus Novitates 2336:1-8 19 Jul 1968 500 N483N Insect taxonomy, Staphylinidae.

5061-69

GENITALIA OF THE TYPES OF CHILEAN SATYRIDAE ON DEPOSIT AT THE BRITISH MUSEUM. (SP) J Herrera T H Howarth

Chile Univ Centro Estud Entomol Publ (8).73-126 REF

1966 420 C432

Illustrations, Insect identification, Insect names, Inscct taxonomy, Reproductive organs, Satyridae. English summary. 12 species were reclassified.

#### 5062-69

NEW AFRICAN GEOMETRIDAE). (FR ) **ENNOMINAE** (LEP. C Hcrulot

Lambillionea 66(9/10):67-70 05 Scp 1967 420 N15

UNDESCRIBED

Entomologist (london) 102(1270):60

Insect taxonomy, Satyridae, Zoogcography.

Aphididac, Aulacorthum, Insect taxonomy.

Shikoku Entomol Soc Trans 10(1):29-31

Shikoku Entomol Soc Trans 10(1):11-14

A NEW SPECIES OF AULACORTHUM MORD-VILKO (HOMOPTERA, APHIDIDAE) FROM

A NEW SPECIES OF EPURAEA ASSOCIATED WITH EASTERN GALL RUST (COLEOPTERA:

Cronartium quercuum, Fungus diseases (plants),

Insect taxonomy, Insect vcctors, Nitidulidac, Pinus,

THE GENUS LASIODACTYLUS PERTY IN JAPAN (COLEOPTERA: NITIDULIDAE).

Insect identification, Insect taxonomy, Nitidulidae,

DESCRIPTIONS OF NEW SPECIES OF THE ENCYRTIDAE

CZECHOSLOVAKIA (HYM., CHALCIDOIDEA).

Encyrtidac, Insect identification, Insect taxonomy,

CONTRIBUTION TO THE FAUNAL LIST OF THE CONGO (BRAZZAVILLE). MISSION A. VILLIERS AND A. DESCARPENTRIES. LXI.

Inst Fondamental Afr Noire Bull Ser A Sci Natur (SER A)29(3):1311-1318

Acta Ent Bohemoslov 60(1-2):125-134 REF

Zoogcography. Czcch summary.

**COLEOPTERA ANTHRIBIDAE. (FR )** 

TERFLY:(LEP. SATYRIDAE).

Gcometridae, Insect identification, Insect taxonomy, Zoogcography.

#### 5063-69

5064-69

5065-69

JAPAN.

5066-69

L G Higgins

AN

A NEW GENUS OF EUROPEAN BUTTERFLIES (LEP. LYCAENIDAE).

**EUROPEAN** 

BUT-

Insect taxonomy, Lycacnidac, Zoogcography.

L G Higgins Entomologist (london) 102(1270):67

Mar 1969 421 EN8

Mar 1969 421 EN8

**D** Hillc Ris Lambers

NITIOULIDAE).

Aug 1968 420 SH6

Aug 1968 420 SH6

Plant galls, Rust.

5067-69

S Hisamatsu

Zoogcography.

5068-69

FAMILY

A Hoffcr

5069-69

A Hoffmann

1963 420 C33

П.

S Hisamatsu

01 Jul 1967 420 N38B

Entomol Ber 27(7):132-134

5094-69

Jul 1967 515 D14 Anthribidae, Catalogs, Insect taxonomy. 5070-69 IS ONE ABLE TO DIAGNOSE THE SEX OF THE MOTH, CELERIO EUPHORBIAE (LEP., SPHINGIDAE) IN THE CATERPILLAR STAGE . (GE) R Hofmann Entomol Z 78(14):161 15 Jul 1968 421 EN85 Insect identification, Larvac, Sex determination, Sphingidae. 5071-69 NEW COMBINATIONS AFFECTING THE GENUS AIOLOPUS (ORTHOPTERA: ACRI-DOIDEA) AND A DESCRIPTION OF A RE-LATED NEW GENUS AND SPECIES FROM AUSTRALIA. **D** Hollis Ann Mag Natur Hist 1(2, APR-JUN):157-162 REF Jun 1967 410 AN77 Aeridoidea, Insect taxonomy, Surveys, Zoogeography. 5072-69 DESCRIPTIONS OF TWO NEW APHID SPE-CIES (SITOBION EQUISETI SP. N. AND LINOSIPHON ASPERULOPHAGUS SP. N.) FROM CZECHOSLOVAKIA (HOMOPTERA, APHIDIDAE). J Holman Acta Ent Bohemoslov 58(4):324-332 1961 420 C33 Aphididae, Insect identification, Insect taxonomy, Zoogcography. Czcch summary. 5073-69 A LARVA OF CITHERONIA SEPULCHRALIS (CITHERONIIDAE) FROM NEW JERSEY. D J Horn Lepidopterists Soc J 23(1):25 1969 421 L554 Citheroniidae, Larvae, Zoogeography. 5074-69 CICADIDAE OF THE THE RYUKYU **ARCHIPELAGO (HEMIPTERA).** T Ishihara Shikoku Entomol Soc Trans 9(4):129-145 MAP REF Apr 1968 420 SH6 Cicadidae, Insect identification, Insect taxonomy. 26 previously know species of Cicadidae are also described. 5075-69 THE SYNONOMY IN CITRINOPHILA KIRBY AND FURTHER NOTES ON EPITOLA WEST-WOOD AND ALAENA BOISDUVAL (LEPIDOP-TERA: LYCAENIDAE). T H E Jackson Ann Mag Natur Hist 1(3, JUL-SEP): 327-336 REF Sep 1967 410 AN77 Insect names, Insect taxonomy, Lycaenidae, Zoogcography. 5076-69 HADRODACTYLUS BRANDERI N. SP. (HYM., ICHNEUMONIDAE) FROM FINLAND. R Jussila Suomen Hyonteistieteellinen Aikakauskir Ann Entomol Fenn 33(3):148-151 REF 1967 421 SU7

Hadrodaetylus branderi, lehneumonidae, Inseet identification, Insect taxonomy, Zoogeography.

# 5077-69

NEW SPECIES OF THE GENUS DIPLATYS SERVILLE FROM INDIA (DERMAPTERA: DIPLATYINAE). V C Kapoor Zool Anz 18(1-2, JUL-SEP):118-128 Sep 1968 410 Z7

Dermaptera, Diplatys, Insect taxonomy.

5078-69 ON A NEW GENUS OF DERMAPTERA FROM SOUTH INDIA. V C Kapoor Ann Mag Natur Hist 1(3, JUL-SEP):355-358 Sep 1967 410 AN77 Dermaptera, Insect taxonomy, 5079-69 THE BUTTERFLY IN THE VERNACULAR. (GE H Kemper Deut Entomol Ges Mitt 26(3):45-49 15 Jul 1967 420 D482 Butterflies, Caterpillars, Lepidoptera, Moths, Nomenelature. 5080-69 ORTHOPTERA-CAELIFERA FROM NORTHERN KENYA AND JUBALAND. IV. ACRIDIDAE, S. STR.: CALOPTENINAE, EU-RYPHYMINAE, EYPREPOCNEMIDINAE, CA-TANTOPINAE, CYRTACANTHACRIDINAE. D K McE Keyan Ann Mag Natur Hist 1(1, JAN-MAR):75-96 REF Mar 1967 410 AN77 Acrididac, Insect taxonomy, Surveys, Zoogcography. 5081-69 FURTHER RECORDS OF SOME LITTLE-KNOWN **PYRGOMORPHIDAE** AND TRIGONOPTERYGIDAE FROM FLJI, NEW **GUINEA AND BORNEO (ORTHOPTERA: ACRI-**DOIDEA). D K McE Kevan Entomologist (london) 102(1270):68-69 Mar 1969 421 EN8 Acridoidea, Insect taxonomy, Pyrgomorphidae. 5082-69 A NEW SPECIES OF BATYLE FROM UTAH (COLEOPTERA: CERAMBYCIDAE). J N Knull Ohio J Sci 68(4):233 Jul 1968 410 OH3 Batyle, Colcoptera, Insect identification, Taxonomy. 5083-69 IXODES (LEPIDIXODES) KOPSTEINI OU-DEMANS, 1925, VALID NAME FOR I. (L.) PARADOXUS KOHLS AND CLIFFORD, 1961, WITH NOTES ON DISTRIBUTION AND HOSTS (ACARINA: IXODIDAE). G M Kohls C M Clifford J Med Entomol 5(4):503-506 30 Oct 1968 421 J828 Bats, Insect names, Insect taxonomy, 1xodidae, Medical entomology, Zoogcography. 5084-69 FAUNISTIC STUDIES ON SOME ACARI OF THE FAMILIES MYOBIIDAE AND CHEYLETIDAE, PARASITIZING ON SMALL MAMMALS IN BULGARIA. M Kolebinova Bulgarska Akad Nauk Zool Inst Muz Izv 25:77 1967 410 9 B8721 Acarina, Catalogs, Insect identification, Mites, Parasitic insects. English abstract 5085-69 PROTELEAS, PROTELEAS, A NEW GENUS OF SCELIONIDAE WITH THREE NEW SPECIES NEW GENUS OF FROM THE USSR. (GE) M A Koslow Acta Ent Bohemoslov 58(4):333-339 1961 420 C33 Insect taxonomy, Seclionidae, Ussr, Zoogeography. Russian summary. 5086-69 THE CAPTURE OF DIPTERA SIMULIIDAE BY NIGHT IN A DRY GRASSLAND ZONE. (FR) M Lamontellerie

Inst Fondamental Afr Noire Bull Ser A Sci Natur (SER A)29(4):1812-1832 REF Oct 1967 515 D14

Catalogs, Simuliidae. 5087-69

CONTRIBUTION TO THE STUDY OF APHIDIDAE (HOM) OF THE FRENCH FORESTS. (FR ) I E Laurent

Nancy Ecole Nat Super Agron Bull 9(2):93-101 Dec 1967 64.9 N15

Aphididae, Forest insects, Host indexing (plants), Insect identification, Insect pests, Zoogeography.

#### 5088-69

INVESTIGATION INTO THE SYNANTHROPIC FLIES IN THE FAMILY MUSCIDAE (DIPT.) IN BULGARIA. (GE )

V Laveiev

Bulgarska Akad Nauk Zool Inst Muz Izv 25:37-39 1967 410.9 B872I

Catalogs, Diptera, Insect taxonomy, Museidae. German abstract

# 5089-69

ON THE PRESENCE IN FRANCE OF NEARC-TAPHIS BAKERI COWEN, A DANGEROUS PEST OF CULTIVATED CLOVER IN THE U. S. A. (HOMOPTERA, APHIDIDAE). (FR) F Leelant

Paris Acad Agr France Compt Rend Hebd Seances 53(2):159-163 REF 1967 14 P215BC

Clover, Insect biology, Insect pests, Nearetaphis bakeri, Zoogeography.

#### 5090-69

DENNYUS AEQUATORIALIS N. SP. (MAL-LOPHAGA: MENOPONIDAE) FROM THE MOTTLED SWIFT, APUS AEQUATORIALIS. J A Ledger Novos Taxa Entomol (61):3-8 Jul 1968 421 N853

Birds, Dennyus acquatorialis, Insect taxonomy, Menoponidae, Parasitie insects.

#### 5091-69

NOTES ON SOME NEW OR LITTLE KNOWN LUCANIDAE COLEOPTERA. (FR) M O de Lisle Rev Suisse Zool 74(2):521-544

Sep 1967 410 R324

Insect taxonomy, Lucanidae, Zoogeography.

#### 5092-69

CONTRIBUTION TO THE KNOWLEDGE OF INDO-AUSTRALIAN, SOUTH PACIFIC AND EAST ASIATIC PSENINI GENUS PSEN LATREILLE (HYMENOPTERA, SPHECIDAE). J P Van Lith

Tijdschr Entomol 111(4):89-135

10 Oct 1968 421 T21

Hymenoptera, Insect taxonomy, Psenini. Sphecidae. English abstract

#### 5093-69

NEW DESCRIPTIONS OF PSORERGATE SPE-CIES (PSORERGATIDAE: BIDIFORMES). (DU ) TROM-F Lukoschus A Fain M M J Beaujean Tijdschr Entomol 110(7):133-181 15 Nov 1967 421 T21 Insect taxonomy, Mites, Myobiidae, Psorergates, Zoogeography.

#### 5094-69

FIELD TEST OF LINDANE AGAINST OVER-WINTERING BROODS OF THE WESTERN PINE BEETLE.

R L Lyon K M Swain

USDA Forest Serv Res Note PSW- (176):4 1968 A99.9 F7652

Chemical control (insects), Chlorinated hydrocarbons, Dendroctonus brevicomis, Dosage, Forest insects, Hibernation, Insecticides, Methodology, Pyraustidae. Lindane.

# 5095-69

5095-69 CATALOGUE OF THE OEDEMERIDAE OF ITALY (COLEOPTERA). (IT) M Magistretti Soc Entomol Ital Mem 46(2):181-200 1967 420 IT1M Catalogs, Colcoptera, Insect taxonomy, Ocdemeridae, Zoogeography. 5096-69 COLEOPTERA FROM NORTHEAST AFRICA. CICINDELIDAE AND CARABIDAE: CARABINI. (GE) K Mandl Notulae Entomol 48(3):126-130 MAP 1968 421 N84 Carabidae, Catalogs, Cicindelidae, Insect taxonomy, Zoogeography.

# 5097-69

DESCRIPTION OF A NEW SPECIES OF THE GENUS BOVICORINA DELAMARE DEBOUT-TEVILLE 1947 (COLLEMBOLA, SYMPHYLLA) AND A KEY FOR IDENTIFICATION OF THE SPECIES IN THE GENUS. (FR)

Z Massoud C Delamere Deboutteville Ann Mag Natur Hist 1(1, JAN-MAR):69-74 Mar 1967 410 AN77

Catalogs, Collembola, Insect taxonomy, Zoogcography.

# 5098-69

FIRST RECORDS OF TWO BUTTERFLIES IN WISCONSIN (NYMPHALIDAE, PIERIDAE). J H Masters

Lepidopterists Soc J 22(4):252 1968 421 L554

Insect identification, Nymphalidae, Pieridae, Zoogcography.

# 5099-69

COSYMBIA PUPILLARIA HBN. AT AN AL-TITUDE OF 3200 METERS. (GE) K Mazzueeo

Wien Entomol Ges Z 77(12):154

30 Dec 1966 421 OS7 Geometridae, Herse convolvuli, Insect identification, Insect migration, Zoogcography.

#### 5100-69

THE GENUS CAIRNSIMYIA MALLOCH (DIP-TERA, HELEOMYZIDAE, RHINOTORINI). **D** K McAlpine

Aust Mus Rec 27(12):263-283

29 Jul 1968 514 AU7 Diptera, Heleomyzidae, Insect taxonomy, Zoogeography.

#### 5101-69

NOTES ON SOME LARVAL AND PUPAL CHIRONOMIDS (DIPTERA) FROM LAKE KARIBA, RHODESIA.

A J McLachlan

Ann Mag Natur Hist 3(2, APR-JUN):261-293 Jun 1969 410 AN77 Catalogs, Chironomidae, Insect taxonomy, Larvae,

Pupac, Zoogeography.

# 5102-69

SOME REMARKS ON THE TAMPANS OF THE ORNITHODOROS MOUBATA COMPLEX IN SOUTHERN AFRICA. S van der Merwe

Zool Anz 181(3-4, SEP-OCT): 280-289 MAP Oct 1968 410 Z7

Insect biology, Insect taxonomy, Ixodides, Ornithodoros, Surveys, Zoogcography.

#### 5103-69

CONTRIBUTION TO THE ARTHROPOD FAUNA OF THE RESINS OF LARGE CAVES AND THE KYFFHAUSERS. III. COLEOPTERA. (GE )

B Messner B V Broen W Mohrig M Moritz Deut Entomol Z 15(1-3):1-8 REF

15 Jul 1968 421 D48

Arthropoda, Catalogs, Cave fauna, Colcoptera, Resins

# **BIBLIOGRAPHY**

5104-69 **A REVISION OF THE FERN APHIDS OF JAPAN** WITH DESCRIPTIONS OF THREE NEW SPE-CIES (HOMOPTERA: APHIDIDAE). M Miyazaki Insecta Matsumurana 31(PT 3):13-24 Oct 1968 421 1N77 Aphididae, Catalogs, Insect taxonomy, Pteridophyta.

#### 5105-69

THE ELECTRENTOMOID PSOCIDS (PSOCOP-TERA). E L Mockford Psyche 74(2):118-165 REF Jun 1967 421 P95 Catalogs, Insect evolution, Insect geography, Insect taxonomy, Psocoptera.

# 5106-69

SOME NEW ANALYTIC AND GRAPHIC AP-PROACHES TO NUMERICAL TAXONOMY, WITH AN EXAMPLE FROM THE DERMANYS-SIDAE (ACARI). W W Moss Syst Zool 16(3):177-207 REF Sep 1967 410 SY8

Dermanyssus, Acarina, Insect taxonomy, Methodology, Statistical analysis.

#### 5107-69

#### PARACHERNES (ARA CHELONETHIDA, CHERNETIDAE) THE COAST OF NORTH CAROLINA. (ARACHNIDA. CHERNETIDAE) FROM

W B Muchmore C H Alteri Entomologist (london) 80(5):131-137 May 1969 421 EN8

Chelonethida, Taxonomy, Zoogeography.

#### 5108-69

SCORPIONS, WHIP SCORPIONS AND WIND SCORPIONS OF FLORIDA.

M H Muma Fla Dep Agr Arthropods Fla 4:28P MAP REF 1967 410.9 F6632

Insect identification, Insect taxonomy, Pedipalpida, Scorpionida, Solpugida.

#### 5109-69

# CONTRIBUTIONS TO A STUDY OF THE PYRAUSTINAE (LEPIDOPTERA: PYRALIDAE) OF TEMPERATE EAST ASIA. V. E Munroe A Mutuura

Can Entomol 101(3):299-305

Mar 1969 421 C16

Insect identification, Insect taxonomy, Pyralidae, Pyraustinac.

5110-69

### DESCRIPTION OF BLASTOPHAGUS KHA-SIANUS, NEW SPECIES (COLEOPTERA: SPECIES (COLEOPTERA: SCOLYTIDAE). J J Murayama

Brooklyn Entomol Soc Bull 54(3):75-76 Jun 1959 420 B79 Colcoptera, Insect anatomy, Insect taxonomy,

Scolvtidae.

# 5111-69

# A NEW SPECIES AND NEW RECORDS OF MACKIENA (ACARINA, TROMBICULIDAE).

M Nadchatram N Wilson J Med Entomol 6(1):99-101

30 Jan 1968 421 J828

Insect identification, Insect taxonomy, Medical entomology, Trombiculidac.

### 5112-69

#### DISTRIBUTIONAL AND BIOLOGICAL NOTES ON THE TREE HOLE MOSQUITOES OF THE WESTERN UNITED STATES.

L T Neilsen J H Linam J H Arnell T J Zavortink Mosquito News 28(3):361-365 REF Sep 1968 421 M85 Acdes, Anopheles, Insect biology, Orthopodomyia, Zoogeography.

5113-69 A NEW SPECIES OF DERMANYSSUS FROM MARINE BIRDS, WITH OBSERVATIONS ON ITS BIOLOGY (ACARINA: DERMANYSSIDAE). **B C Nelson D P Furman** Acarologia 9(2):330-337 REF Jul 1967 434.8 AC1 Aquatic birds, Dermanyssus, Insect biology, Insect taxonomy, Mites, Parasitic insects. 5114-69 NOTES BUPRESTIDAE ON AND SCHIZOPODIDAE. G H Nelson Brooklyn Entomol Soc Bull 55(3):70-74 Jun 1960 420 B79 Buprestidae, Insect anatomy, Insect taxonomy, Schizopinac. 5115-69 THE GENERA OF PALEARCTIC TOR-TRICIDAE. II. THE SUBFAMILY OLETHREU-TINAE 7TH PART. EUCOSMINI (HEINR. 1923) **TRIBE--CONTINUATION. (DU)** N S Obraztson Tijdschr Entomol 110(4):65-88 18 Sep 1967 421 T21 Catalogs, Insect taxonomy, Lepidoptera, Olethreu-tidae, Zoogeography. English abstract 5116-69 NOTES RHYNCHOCEPHALUS ON TAUSCHERI FISCHER (DIPTERA: NEMES-TRINIDAE). H Oldroyd Ann Mag Natur Hist 1(2, APR-JUN):153-156 REF Jun 1967 410 AN77 taxonomy, Insect Nemestrinidae, Ncorhynchocephalus tauscheri, Zoogeography. 5117-69 SYSTEMATIC ENTOMOLOGY: DISTRIBU-TION OF INSECTS IN THE PACIFIC. P Oman K V Krombein Science 161(3836) :78-79 05 Jul 1968 470 SCI2 Entomology, Insect adaptation, Insect evolution, Insect taxonomy, Zoogcography. Letter concerning seminar held in Washington, D. C., Dec. 4-8, 1967, sponsored jointly by the Japan Society for the Promotion of Science and the NSF. 5118-69 NEW THYSANOPTERA FROM CENTRAL ASIA (U. S. S. R.). J Pelikan Acta Ent Bohemoslov 60(1-2):99-113 1963 420 C33 Insect identification, Insect taxonomy, Thysanop-

tera, Zoogcography. Czech summary.

# 5119-69

### TWO NEW SPECIES OF OEDALEOTHRIPS (THYSANOPTERA) FROM ASIA. J Pelikan

Acta Ent Bohemoslov 58(4):302-309 1961 420 C33

Insect identification, Insect taxonomy, Thysanoptera, Zoogeography. Czech summary.

# 5120-69

A NEW SPECIES OF POECILMITIS BUTLER (RHOPALOCERA) FROM THE SOUTH WESTERN CAPE.

**K M Pennington** 

Novos Taxa Entomol (56):1-8

# Feb 1968 421 N853

Insect taxonomy, Poecilmitis, Lycaenidae, Zoogeography.

#### 5121-69

ON THE KNOWLEDGE OF GERMAN FLEAS. II. FAUNA AND ECOLOGY OF THE FLEAS OF BIRDS (INSECTA, SIPHONAPTERA). (GE ) F Pcus

# ENTOMOLOGY

5146-69

Zool Jahrbucher Abt Allg Zool Physiol Tiere 95(4):571-633 REF 196, 410 Z751Z Birds, Catalogs, Insect taxonomy, Parasitic insects, Siphonaptera. 5122-69

# GENERA AND SPECIES OF THE DERMAP-TERA. 10. FORFICULINAE (FORFICULIDAE). E J Popham A Brindle

Entomologist (london) 102(1270):61-66 Mar 1969 421 EN8 Catalogs, Dermaptera, Inseet taxonomy, Zoogcog-

raphy.

# 5123-69

**GENERA AND SPECIES OF DERMAPTERA (9) OPISTHOCOSMINAE (FORFICULIDAE).** E J Popham

Entomologist (london) 101(1267)276-280 Dcc 1968 421 EN8 Dermaptera, Forficulidae, Insect taxonomy,

Zoogcography.

# 5124-69

**A NEW SPECIES OF TRACHYSPHYRUS FROM** THE ANDES OF ECUADOR (HYMENOPTERA, ICHNEUMONIDAE). C C Porter

Psyche 74(1):27-33 MAP Mar 1967 421 P95

Ichneumonidae, Insect geography, Insect taxonomy, Trachysphyrus, Zoogcography.

#### 5125-69

ON THE SYSTEM OF CLASSIFICATION OF TICKS OF THE FAMILY ARGASIDAE CAN., 1890. I. TWO CLASSIFICATIONS OF AR-GASIDAE. M V Pospelova-Shtrom

Acarologia 11(1):1-22 REF Jan 1969 434.8 AC1

Argasidae, Insect taxonomy.

# 5126-69

#### NEW DESCRIPTION OF PALEARCTIC SCROBIPALPA SPECIES. (LEPIDOPTERA, GELECHIIDAE). (GE ) **D** Povolny

Acta Ent Bohemoslov 5(63):394-408 1966 420 C33

Gelechiidae, Insect identification, Insect taxonomy, Zoogcography. 14 new species are described.

5127-69

# **REVIEW OF THE GENUS DICTEISIA** BEDFORD (MALLOPHAGA: MENOPONIDAE) WITH DESCRIPTION OF A NEW SPECIES. **R** D Price

J Med Entomol 5(4):445-452

30 Oct 1968 421 J828

Dieteisia, Dieteisia keleri, Inseet identification, Insect taxonomy, Medical entomology, Menoponidae.

#### 5128-69

**CYNIPINAE (HYMENOPTERA) OCCURRING ON PHLOMIS L.** 

J Ouinlan

Roy Entomol Soc London Trans 120(13):275-286 REF

20 Dcc 1968 420 L84

Aulacidea, Cynipidae, Gall-making insects, Insect morphology, Insect taxonomy, Phanacis, Phlomis, Rhodus oriundus. Panteliella.

# 5129-69

NEW AND KNOWN DERMAPTERA FROM SOUTH INDIA WITH TWO GENERIC RECORDS NEW TO INDIA. **B** N Ramamurthi

Zool Anz 18(1-2, JUL-SEP): 128-136

Sep 1968 410 Z7

Dermaptera, Insect taxonomy, Zoogcography.

5130-69 A REDESCRIPTION OF THE TYPE SPECIMEN A REDESCRIPTION OF THE TYPE SPECIMEN OF CROTONIA (0ACRONOTHRUS) OBTECTA (0. PICKARD-CAMBRIDGE, 1875), (ACARI, CRYPTOSTIGMATA) AND A DISCUSSION OF ITS TAXONOMIC RELATIONSHIPS. G W Ramsay M Luxton Ann Mag Natur Hist 1(4, OCT-DEC):473-480 Dec 1967 410 AN77 Acarina, Insect taxonomy, Zoogcography. 5131-69 A NEW GENUS OF WINGLESS N. AMERICAN SPHAEROCERID FLIES. **O W Richards** Ann Mag Natur Hist 1(3, JUL-SEP):373-376 Scp 1967 410 AN77 Insect taxonomy, Sphaeroeeridae. 5132-69 NORTH AMERICAN SPECIES OF TAENIOP-TERYX (PLECOPTERA, INSECTA). W E Ricker H H Ross Can Fish Res Board J 25(7):1423-1439 Jul 1968 442.9 C161

Catalogs, Insect taxonomy, Plecoptera, Zoogcography.

# 5133-69

WHAT IS PIERIS DUBIOSA ROBER (LEP., PIERIDAE).

N D Riley S R Bowden Entomologist (london) 102(1270):49-54

Mar 1969 421 EN8

Insect names, Insect taxonomy, Pieris, Pieris rapae, Zoogcography.

#### 5134-69

A NEW SPECIES OF NEPYTIA FROM THE SOUTHERN ROCKY MOUNTAINS (LEPIDOP-TERA: GEOMETRIDAE). F H Rindge N Y Entomol Soc J 75(2):74-76 Jun 1967 420 N48J Geometridae, Insect taxonomy, Nepytia.

#### 5135-69

# A REVISION OF THE NEOTROPICAL SPECIES OF THE MOTH GENUS GLENA (LEPIDOP-TERA, GEOMETRIDAE).

F H Rindge Amer Mus Nat Hist Bull 135(3):107-171 REF 1967 500 N483B

Geometridae, Insect taxonomy, Zoogcography.

5136-69

ON THE SYNONYMY OF LEUCOPHLEBIA ON THE SYNONYMY OF LEUCOPHLEBIA LINEATA BRUNNEA CLOSS WITH REMARKS ON SOME SPHINGIDS COLLECTED BY SAUTER IN FORMOSA, NOW IN THE GER-MAN ENTOMOLOGICAL INSTITUTE. (LEPIDOPTERA: SPHINGIDAE). (GE)

J C E Riotte

Beitr Entomol 18(1-2):229-232

1968 421 B392

Insect taxonomy, Sphingidae. English and Russian abstracts

#### 5137-69

SIGNOUTH AMERICAN THROMBIDIIDAE. II. CHYZERINI THROMBIDIINAE; SOLENOCYTE TAXONOMY OF THE PALPUS IN SEVERAL THROMBIDII A ; TH R LATIO-SHIP BETWEEN PODOTHROMBIUM BERLESE 1910 --VARIATHROMBIUM N. G., AND THROM-BIDIINAE. (FR )

P Robaux Acarologia 11(1):69-93 REF

Jan 1969 434.8 AC1 Mites, Trombidiidae, Insect taxonomy,

Variathrombium, Zoogeography.

#### 5138-69

CONTRIBUTION TO THE FAUNA OF THE CONGO (BRAZZAVILLE). MISSION A. VIL-LIERS AND A. DESCARPENTRIES. XLVI. LEPIDOPTERA, ATTACIDAE. (FR ) P C Rougcot

7

Inst Fondamental Afr Noire Bull Ser A Sci Natur 29(1):345-346 Jan 1967 515 D14

Insect taxonomy, Saturniidae, Zoogeography.

#### 5139-69

PRELIMINARY NOTE ON A REVIEW OF SUB-GENUS TAENIOTHRIPS (ISOCHAETOTHRIPS) (THYSANOPTERA: THRIPIDAE). K Sakimura

Pacific Insects 9(4):721-726 REF

20 Nov 1967 421 P11 Catalogs, Insect taxonomy, Taeniothrips, Zoogeography.

#### 5140-69

CONTRIBUTIONS TO THE KNOWLEDGE OF THE FAMILY ANOETIDAE (ACARI). (GE ) K Samsinak Acta Ent Bohemoslov 59(1):87-97 REF 1962 420 C33 Anoctidae, Insect ecology, Insect taxonomy, Parasitism. Czech summary.

5141-69

NEW CONTRIBUTION TO THE KNOWLEDGE OF THE ITALIAN PSYCHODIDAE (DIPTERA).  $(\mathbf{T}\mathbf{I})$ 

M Sara G Salamanna

Soc Entomol Ital Mem 46(1):27-72 MAP REF 1967 420 ITIM

Catalogs, Insect taxonomy, Psychodidae, Zoogcography. English abstract

#### 5142-69

SCOLYTIDAE ON SOME AND PLATYPODIDAE OF ECONOMIC IM-PORTANCE FROM THE TERRITORY OF PAPUA AND NEW GUINEA. 250. CONTRIBU-TION TO THE MORPHOLOGY AND TAXONO-MY OF THE SCOLYTOIDEA). K E Schedl

Pacific Insects 10(2):261-270

1968 421 P11

Cacao, Forest insects, Hevea, Insect pests, Insect taxonomy, Platypodidac, Scolytidac.

Species of Scolytidae and Platypodidae many, of which are major forest pests in Papua and New Guinea, are listed. Several new species are described.

5143-69

THE IDENTITY OF NAPHIUS SEED BUG PESTS IN AFRICA (HEMIPTERA: LYGAEIDAE).

G C E Scudder

Bull Entomol Res 58(PT 2):205-212 MAP REF Nov 1968 421 B87

Hemiptera, Insect identification, Insect pests, Lygaeidae, Sceds, Zoogeography.

#### 5144-69

A CONTRIBUTION TO THE SYSTEMATICS OF ORIENTAL AND AUSTRALIAN BLISSINAE (HEMIPTERA: LYGAEIDAE). I A Slater

Pacific Insects 10(2):275-294 MAP

1968 421 P11

Australian Region, Insect taxonomy, Lygaeidac,

Acta Ent Bohemoslov 5(63):380-393 REF

Acta Ent Bohemoslov 58(4):340-343

Oriental region.

# 5145-69

**KEY FOR THE DETERMINATION OF SPECIES** FROM U.S.S.R. BELONGING TO THE GENUS SCOLYTUS GEOFFROY (SCOLYTIDAE, COLEOPTERA). (RU)

Insect identification, Insect taxonomy, Scolytidae,

TWO NEW SPECIES OF PRAON HALIDAY

(HYM.,

CZECHOSLOVAKIA

**B** V Sokanovskii

1966 420 C33

Zoogcography.

APHIDIIDAE). P Stary

5146-69

FROM

# 5147-69

#### 1961 420 C33

Braconidae, Inscet identification, Insect taxonomy, Praon, Zoogeography. Czech summary.

#### 5147-69

**ENTOMOLOGICAL RESULTS OF CATCHES IN** THE AREA OF SAN BERNARDINO (MISOX GR), WHICH HAS NOT BEEN FULLY EX-PLORED LEPIDOTEROLOGICALLY. (A **BUILDING BLOCK OF THE SWISS LEPIDOP-**TERA FAUNA). (GE)

#### O Sterzl

Entomol Gesell Basel (N s)15(1, JAN-FEB):1-9 1965 OL 461 E58

Geometridae, Insect identification, Insect taxonomy, Lepidoptera, Microlepidoptera, Noctuidae, Zoogcography. 187 different species were eaught and are listed.

#### 5148-69

DISCOVERY FINNISH ALEOCHARA OF LOHSE (COLEOPTERA, PEEZIANA STAPHYLINIDAE). (SW) S Stockmann

Notulae Entomol 48(3):135

421 N84

Alcochara, Insect taxonomy, Staphylinidae.

#### 5149-69

SAPRINUS CUSPIDATUS IHSSEN FROM FIN-LAND (COLEOPTERA, HISTERIDAE). (SW) S Stockmann

Notulae Entomol 48(3):136

1968 421 N84

Histeridae, Insect taxonomy, Saprinus.

#### 5150-69

A WIDELY DISTRIBUTED PINE SAP INJURI-OUS, ACANTHOPHILA PICEANA N. SP. (LEP. GELECHIDAE) IN LATVIA. (GE ) A Sules

Deut Entomol Z 15(4-5):427-430

01 Oct 1968 421 D48

Gelechiidae, Inseet pests, Inseet taxonomy, Lepidoptera, Parasitie inseets, Pinus, Sap.

# TWO SPECIES OF COPIDOSOMA PARASITIC ON THE POTATO TUBER MOTH (HYMENOP-TERA: CHALCIDOIDEA-ENCYRTIDAE). T Tachikawa

Shikoku Entomol Soc Trans 9(4):112-116 Apr 1968 420 SH6

Copidosoma, Copidosoma kochleri, Encyrtidae, Gnorimoschema opereulella, Hymenoptera, Inseet taxonomy, Parasitism.

#### 5152-69

# DISCOVERY OF THE GENUS ANUSIOIDEA GIRAULT FROM ASIA (HYMENOPTERA: CHALCIDOIDEA-ENCYRTIDAE). T Tachikawa

Shikoku Entomol Soc Trans 9(4):117-118 Apr 1968 420 SH6

Hymenoptera, Insect identification, Insect taxonomy, Pseudococcus.

#### 5153-69

# A NEW NAME FOR METAPHYCUS ERIOCOC-CI ALAM (HYMENOPTERA: CHALCIDOIDEA-ENCYRTIDAE).

T Tachikawa Shikoku Entomol Soc Trans 9(4):111

Apr 1968 420 SH6

Encyrtidae, Hymenoptera, Insect identification, Insect names, Insect taxonomy.

# 5154-69

#### METAPSAENYTHIA, A NEW PANURGINE BEE **GENUS (HYMENOPTERA, ANDRENIDAE).** P H Timberlake Entomol News (philadelphia) 80(4):89-92

Apr 1969 421 EN88 Andrenidae, Insect taxonomy.

# 5155-69

THE BUMBLEBEE FAUNA IN THE NEIGHBORHOOD OF THE KUKU-NOR. (HYMENOPTERA, BOMBINAE). (GE)

# **BIBLIOGRAPHY**

#### **B** Tkaleu

Acta Ent Bohemoslov 58(4):344-379 MAP REF 1961 420 C33

Bombinae, Insect ecology, Insect taxonomy, Zoogcography. Czech summary. many other species are described.

#### 5156-69

# EVANSIPSYLLA THYSANOTA, A NEW GENUS, NEW SPECIES OF FLEA FROM NEPAL (SIPHONAPTERA: HYSTRICHOPSYLLIDAE). R Traub

J Med Entomol 5(4):411-421

30 Oct 1968 421 J828

Evansipsylla thysanota, Hystrichopsyllidae, Insect identification, Insect taxonomy, Medical entomology, Siphonaptera.

# 5157-69

# ON SOME SPHECOIDEA FROM THE RYU-**KYUS (HYMENOPTERA).**

K Tsuncki

Shikoku Entomol Soc Trans 9(4):107-111

Apr 1968 420 SH6

Hymenoptera, Insect identification, Spheeoidea, Zoogcography.

#### 5158-69

# PROCEEDINGS OF THE ENTOMOLOGICAL SOCIETY OF ONTARIO.

Entomol Soc Ontario Proc 97:1-141

1966 420 ON8

Entomology, Indexing, Insect pests, Reports, Research.

#### 5159-69

#### STUDIES ON THE AGE COMPOSITION OF ANOPHELES CULICIFACES POPULATIONS IN INDIA AT DIFFERENT PHASES OF DEVELOP-MENT OF RESISTANCE TO DDT.

Entomol Soc Amer Ann 58(6):918-923, 17 REFS., 3 TABS., 3 FIGS. Nov 1965 420 EN82

Anopheles, DDT, India, Insecticide resistant insects.

#### 5160-69

#### APPEAL CONCERNING THE CLASSIFICA-TION OF INVERTEBRATE VIRUSES.

C Vago 354-355

1967 SB932.15

Classification, Invertebrates, Virology, Virus diseases (insects).

### 5161-69

A RE-ASSESSMENT OF THE GENERA HOLORUSIA LOEW (OCTENACROSCELIS EN-DERLEIN), ISCHNOTOMA SKUSE AND ZE-LANDOTIPULA ALEXANDER (DIPTERA: TIPULIDAE), WITH NOTES ON THEIR PHYLOGENY AND ZOOGEOGRAPHY. R 1 Vane-Wright Ann Mag Natur Hist 1(4,OCT-DEC):511-547

NAP RĔF

Dec 1967 410 AN77

Insect evolution, Insect taxonomy, Tipulidae, Zoogcography.

#### 5162-69

#### A REVISION OF THE NEDTROPICAL GENUS METAMASIUS (COLEOPTERA, LIONIDAE, RHYNCHOPHORINAE). CURCU-P Vaurie

Amer Mus Nat Hist Bull 136(4):175-268 MAP REF

1967 500 N483B

Curculionidae, Insect taxonomy, Metamasius, Zoogcography.

#### 5163-69

# THE ESTABLISHMENT OFA LECTOTYPE FOR LEPTOTROMBIDIUM (LEPTOTROMBIDIUM) AKAMUSHI (BRUMPT, 1910) (ACARINA: TROMBICULIDAE). (FR )

8

P H Vereammen-Grandjean Acarologia 11(1):94-102 REF Jan 1969 434.8 AC1

Insect taxonomy, Leptotrombidium, Mites, Trombiculidae, Zoogcography. English abstract.

#### 5164-69

NOTES ON SYNOMYNUS OF AFRICAN REDU-VIIDAE. (FR) A Villiers

Inst Fondamental Afr Noire Bull Ser A Sci Natur 29(1):159-162

Jan 1967 515 D14

Catalogs, Insect taxonomy, Reduviidae.

#### 5165-69

WHAT IS PSALLUS DILUTUS FIEBER 1858 (HEM.,HET.,MIRIDAE. (GE)

E Wagner

Deut Entomol Ges Mitt 20(5-6):74-78 15 Nov 1961 420 D482

31 Dec 1968 420 L84

MATOMORPHA).

28 Mar 1969 410 G79

43(3):19-40 MAP REF

25 Sep 1968 410.9 L59

hukkineni, Thrips physapus.

Great Basin Natur 39(1):44 REF

Hemiptera, Heteroptera, Miridae, Nomenelature,

Taxonomy.

THRIPS PHYSAPUS L. AND T. HUKKINENI PRIESNER (THYSANOPTERA: THRIPIDAE).

Roy Entomol Soc London Trans 120(18):395-416

Antennae, Insect biology, Insect morphology, Lar-

vac, Oviposition, Taraxacum, Thripidac, Thrips

THE INFECTION OF IMMATURE AQUATIC

**INSECTS BY LARVAL PARAGORDIUS (NE-**

Aquatic insects, Bactidac, Brachycentridae, Corix-

idae, Ephemerellidae, Larvae, Leptophlebiidae, Nematomorpha, Paragordius, Pupae, Simuliidae.

CATALOGUE OF THE COLEOPTERA CETONIIDAE IN THE LEIDEN MUSEUM. I. GOLIATHUS LAMARCK, SENSU LATO.

**REDESCRIPTION OF SYCAPHAGINAE FROM CEYLON AND INDIA, WITH DESCRIPTION OF** LECTOTYPES, AND A WORLD CATALOGUE

MALACHIIDAE AND DASYTIDAE FROM NEW

CALEDONIA, NEW HEBRIDES AND FIJI IN BISHOP MUSEUM, HONOLULU.

Cantharidae, Coleoptera, Insect taxonomy, Me-

SPIDER WASPS OF FINLAND (HYM., POMPI-

Hymenoptera, Insect taxonomy, Pompilidae,

Acta Entomol Fenn 23:7-46 MAP REF

Insect

**OTITESELLINI (HYMENOPTERA,** 

taxonomy,

CANTHARIDAE,

Leiden Rijksmus Natuur Hist Zool Mededel

Colcoptera,

OF THE OTITESELLINI (HY CHALCIDOIDEA, TORYMIDAE).

Tijdschr Entomol 110(13):399-442 REF

Catalogs, Insect taxonomy, Torymidae.

### 5166-69 THE VALIDITY OF THE SEPARATION OF

L K Ward

REF

5167-69

D A White

5168-69

J T Wiebes

Catalogs, Scarabacidae.

5169-69

J T Wiebes

5170-69

30 Dec 1967 421 T21

Pacific Insects 10(2):345-352

**COLEOPTERA:** 

W Wittmer

lyridae.

5171-69

H Wolf

1968 421 P11

LOIDEA). (FI)

1967 421 AC8

Zoogcography.

#### 5172-69

**REASSIGNMENT OF THE AMBIGUA GROUP** OF PRISTIPHORA TO A NEW GENUS, SHAR-LIPHORA (HYMENOPTERA: TENTHREDINIDAE).

H R Wong

Can Entomol 101(3):332-335 Mar 1969 421 C16 identification, Insect Insect taxonomy, Tenthredinidae.

#### 5173-69

A REVIEW OF SIMULIUM (PTERNASPATHA) ENDERLEIN (SIMULIIDAE, DIPTERA). P Wygodzinsky S Coscaron

Amer Mus Nat Hist Bull 136(2):47-116 MAP REF

1967 500 N483B

Insect taxonomy, Simuliidac, Zoogeography.

# 5174-69

ARGAS (ARGAS) JAPONICUS, NEW SPECIES, ASSOCIATED WITH SWALLOWS IN JAPAN aND KOREA (IXODOIDEA, ARGASIDAE). N Yamaguti C M Clifford V J Tipton

J Med Entomol 5(4):453-459

30 Oct 1968 421 J828

Argas japonicus, Argasidac, Birds, Insect identification, Insect taxonomy, Ixodides, Medical entomology, Parasitism.

### 5175-69

FATTY ACID COMPOSITION OF LIMITED USE IN APHID TAXONOMY.

W J Yurkiewicz

Entomol News (philadelphia) 80(4):85-87 Apr 1969 421 EN88

Aphididae, Chromatography, Fatty acids, Insect biochemistry, Insect taxonomy.

#### 5176-69

# THE MORPHOLOGY AND SYSTEMATIC OF COPTOPTERYX GAYI (BLANCHARD) 1851 (MANTIDAE). (SP) S Zapata

Chile Univ Centro Estud Entomol Publ (8):23-44 1966 420 C432

Coptopteryx gayi, Illustrations, Insect biology, Insect morphology, Insect names, Insect taxonomy, Zoogcography. English summary.

The author studies the synonymy of the species Coptopteryx gayi.

#### 5177-69

#### THE COSMOPOLITES BANANA WEEVILS (COLEOPTERA: **CURCULIONIDAE:** RHYNCHOPHORINAE).

E C Zimmerman Pacific Insects 10(2):295-299 1968 421 PI1

Bananas, Cosmopolites, Curculionidac, Inseet identification, Insect taxonomy.

A taxonomic comparison of two species of weevils belonging to the genus Cosmopolites is presented. Both species are banana pests.

# PHYSIOLOGY AND BIOCHEMISTRY

# 5178-69

**FLYING BEETLES.** C E Abbott Science 163(3874):1400 28 Mar 1969 470 SCI2 Colcoptera, Insect behavior, Insect flight, Mimiery. Letter to the editor concerning article in Science 163(38866)486-488.

### 5179-69

# **REMARKS ON SOME LARCH-FEEDING TOR-**TRICIDS (LEPIDOPTERA, TORTRICIDAE). S F Adamczewski

Pol Akad Nauk Inst Zool Ann Zool 25(5):5P 1967 410.9 W26

Feeding, Insect behavior, Larix, Laspeyresia, Tortricidae. Polish and Russian summaries.

# 5180.69

**CONTINUOUS VARIATION IN RELATED SPE-**CIES OF THE GENUS CATOCALA (NOC-TUIDAE). M S Adams M S Bertoni

Lepidopterists Soc J 22(4):231-236

1968 421 L554

Catocala, Insect morphology, Noctuidac, Statistical analysis.

#### 5181-69

COMPARATIVE ELECTROPHORESIS A STUDY OF THE TRIATOMA RUBIDA COM-PLEX (HEMIPTERA: REDUVIIDAE: **REDUVIIDAE:** TRIATOMINAE).

# R R Adams R E Ryekman

J Med Entomol 6(1):1-18 REF 30 Jan 1969 421 J828

Electrophoresis, Hemolymph, Insect identification, Insect physiology, Medical entomology, Proteins, Reduviidae, Triatoma.

#### 5182-69

THE INDUCTION OF NAD KINASE BY DDT IN TRIATOMA INFESTANS.

M Agosin J Ilivicky S Litvak Can J Biochem 45(5);619-626 REF May 1967 470 C16E

DDT, Enzymes, Kinases, Nymphs, Triatoma infestans. Abstract

# 5183-69

### SOME PROPERTIES OF THE MICROSOMAL SYSTEM METABOLIZING DDT IN TRIATOMA INFESTANS.

M Agosin N Scaramelli L Gil M E Letelier Compar Biochem Physiol 29(2):785-793

May 1969 444.8 C73

DDT, Enzymes, Insect metabolism, Larvae, Microsomes, Triatoma infestans.

# 5184-69

#### ANTS IN THE HOME AND GARDEN; HOW TO CONTROL THEM.

USDA Home Gard Bull (28):8P

Apr 1969 1 AG84HG

Accident prevention, Chemical control (insects), Chlordanc, Chlorinated hydrocarbons, Diazinon, Dieldrin, Formieidae, Household inseets, Insectieide application, Insecticides, Lindane, Malathion, Organophosphorus compounds, Social insects.

# 5185.69

HOW TO CONTROL BED BUGS.

U S D A Leafl (453):8P Feb 1969 1 AG84L

Chemical control (insects), Chlorinated hydroearbons, Cimex leetularius, DDT, Insecticide resistant ganophosphorus compounds, Pyrethrum, Ronnel, Spraying. Insecticides, Malathion,

#### 5186-69

### WATCH FOR THE CEREAL LEAF BEETLE. USDA PA- (550):4P

Jan 1964 I AG84PRO

Grain, Insect identification, Insect pests, Oulema melanopus, Plant injuries, Plant pest control, Quarantine.

#### 5187-69

### **CONTROLLING THE JAPANESE BEETLE.** USDA Home Gard Bull (159):15P

Mar 1969 1 AG84HG

Accident prevention, Chemical control (insects), Chlordane, Chlorinated hydrocarbons, Cultural control (insects), DDT, Milky disease, Natural control (insects), Plant injuries, Popillia japonica, Toxaphene.

#### 5188-69

HUGHES VIRUS FROM TRINIDADIAN TICKS AND TERNS.

9

T H G Aitken A H Jonkers E S Tikasingh C B Worth J Med Entomol 5(4):501-503 MAP 30 Oct 1968 421 J828 Arboviruses, Birds, Ixodides, Medical entomology, Zoogcography.

# 5189-69

OXIDATIVE METABOLISM OF CAR-**BOHYDRATES IN PHYTOPHAGOUS INSECTS.** I. GLYCOLYSIS IN THE COTTON STAINER DYSDERCUS FASCIATUS SIGNORET (PYRR-HOCORIDAE, HEMIPTERA). M A Alikhan Cur Sci 36(16):443 20 Aug 1967 475 SCI23

Carbohydrates, Dysdereus fasciatus, Glyeolysis, Inbiochemistry, Insect metabolism, Phytophagous insects.

#### 5190-69

ON THE MULTIPLE EFFECTS OF OEDYMER-ISM IN THE MALES OF NESOTHRIPS FAL-CATUS ANANTHAKRISHNAN. T N Ananthakrishnan Cur Sci 36(22):610-611

20 Nov 1967 475 SCI23

Development, Inseet morphology, Thysanoptera.

# 5191-69

THE BIOLOGY OF THE CONENOSE BUG PARASITE, PIMELIAPHILUS NEWELL AND RYCKMAN PLUMIFER (ACARINA: PTERYGOSOMIDAE) (HEMIPTERA: REDU-VIIDAE).

R C Anderson

J Med Entomol 5(4):473-477

30 Oct 1968 421 J828

Eetoparasites, Insect biology, Medical entomology, Pimeliaphilus plumifer, Pterygosomidae, Reduviidae.

#### 5192-69

ECOLOGICAL OBSERVATIONS ON THREE SPECIES OF PIMELIAPHILUS PARASITES OF TRIATOMINAE IN THE UNITED STATES (ACARINA: PTERYGOSOMIDAE) (HEMIP-TERA: REDUVIIDAE).

R C Anderson

J Med Entomol 5(4):459-464 REF

Entomol Exp Appl 11(2):231-240

Tortrieidae. German summary.

**BOMBS AWAY ON BUGS.** 

WOOLLY APPLE-APHID.

cides, Plant injuries, Spraying.

demeton-s-methyl and menazon.

following

Fruit World Market Grower 69(9):34

Nations Agr 44(2):15-16

Feb 1969 280.82 B89

Pestieide application.

10 Sep 1968 80 F948

30 Oet 1968 421 J828

Ectoparasites, Insect ecology, Medical entomolo-gy, Pimeliaphilus plumifer, Pterygosomidae, Reduviidac. Triatominae.

### 5193.69

5194-69

5195-69

Anonymous

Anonymous

1968 421 EN895

THE PHOTOPERIOD AS A CONTROL AGENT AGAINST ADOXOPHYES R (LEPIDOPTERA; TORTRICIDAE). RETICULANA G W Ankersmit

Culture media, Insect control, Photoperiodism,

Aerial spraying, Carbamates, Carbaryl, Chemical

control (insects), Costs, Dimethoate, Insect pests,

HARD TO KILL PESTS OF FRUIT TREES -

Aphididae, Apples, Chemical control (insects),

Citrus, Eriosoma lanigerum, Fruit trees, Insect identification, Insecticide resistant insects, Insecti-

insceticides

vamidothion, mevinphos, thiometon, dimethoate,

were

tested:

5196-69

#### 5196-69 EARLY SEASON INSECTS NO PROBLEM FOR B. A. JORDAN. Anonymous Miss Farmer 17(5):6 May 1969 6 M6992

Aphididac, Chemical control (insects), Chlorinated hydrocarbons, Crop yields, DDT, Insect pests, Insecticides, Plant injuries, Plant protection, Thysanoptera, Toxaphene.

#### 5197-69

ULTRASTRUCTURE OF A CYTOPLASMIC POLYHEDROSIS VIRUS AFFECTING THE MONARCH BUTTERFLY, DANAUS PLEXIP-PUS. I. DEVELOPMENT OF VIRUS AND NOR-MAL POLYHEDRA IN THE LARVA.

H J Arnott K M Smith S L Fullilove J Ultrastruct Res 24(516):479-507 REF

Sep 1968 440.8 J822

Danaus plexippus, Insect diseases, Larvae, Polyhcdroscs, Virology.

# 5198-69

POLARIZED LIGHT OBSERVATIONS ON STRIATED MUSCLE CONTRACTION IN A MITE.

J F Aronson

J Cell Biol 32(1):169-179 REF

Jan 1967 442.8 J828

Insect physiology, Light, Microscopy, Mites, Muscles, Polarization, Tarsonemus.

#### 5199-69

**BROMOLYSERGIC ACID DIETHYLAMIDE IN** PHYSIOLOGICAL STUDIES OF LEPIDOP-TEROUS LARVAE.

W C Ashcr

J Econ Entomol 62(2):386-388

15 Apr 1969 421 J822

Amines, Bromolyscrgic acid diethylamide, Dorsal vessel, Gastrointestinal system, Indole, Insect physiology, Larvae, Lepidoptera, Paralysis.

#### 5200-69

CONDITIONS OF FORMATION OF WATER **RESERVOIRS-BREEDING PLACES OF BLOOD-**SUCKING MOSQUITOES (CULICIDAE). (RUS) **G** A Babayants

Med Parazitol Parazitarn Bolezni 37(5,SEP/OCT):565-570 1968 448.8 M469

Culicidac, Habitats, Insect rearing, Reservoirs. English summary.

#### 5201-69

#### **UNIT-HAIR RECEPTOR ACTIVITY FROM THE** TELSON OF THE SCORPION, HETEROMETRUS FULVIPES. K S Babo P S Reddy

Cur Sci 36(22):599-600

20 Nov 1967 475 SCI23

Hair, Heterometrus fulvipes, Mechanoreceptors, Sound waves.

STUDY OF VARIATIONS IN NEUROSECRE-TION AT THE LEVEL OF THE BRAIN AND THE SUB-ESOPHAGEAL GANGLION IN THE FEMALE IMAGOS OF RHODNIUS PROLIXUS (STAL) HEMIPTERA. (FR) J C Bachr

Acad Sci Compt Rend Ser D Sci Nat 268(1, 1ST SEMESTER):151-154 REF

06 Jan 1969 505 P21

Insect physiology, Nervous system, Reduviidae, Rhodnius prolixus, Secretion.

# 5203-69

THE ARTHROPOD FAUNA OF SAMBHAR SALT LAKE, RAJASTHAN, INDIA. I C Baid

Oikos 19(2):292-303 MAP REF

1968 410 OI4

Aquatic insects, Arthropoda, Ecology, Marine biology, Surveys.

# **BIBLIOGRAPHY**

#### 5204-69

#### **EXPERIMENTS ON THE ETIOLOGY OF EU-ROPEAN FOUL BROOD OF THE HONEYBEE.** L Bailey N Locher

J Apicult Res 7(2):103-107 REF

1968 424.8 J82

Apis mellifera, Bacteria, European foulbrood, Insect diseases, Larvae.

5205-69

#### ANALYSIS OF BARK BEETLE MORTALITY IN SPRUCE FORESTS IN POLAND. **S** Balazy

Ekol Pol Ser A (SER A)16(33):657-688 REF 1968 512 W263

Bionomics, Forest insects, Insect pests, Mortality, Scolytidac. Polish summary.

#### 5206-69

### **REARING OF IPS CEMBRAE LARVAE ON AR-**TIFICAL DIETS: SOME ESSENTIAL AMINO ACIDS AND SUGARS.

R A Balogun

J Insect Physiol 15(1):141-148 REF

Jan 1969 421 J825

Amino acids, Insect diets, Insect metabolism, Insect rearing, lps, Larvac, Sugars, Variance analysis.

# 5207-69

THE QUESTION OF RESISTANCE TO PESTI-CIDES.

**B** Banerjcc

Tocklai Exp Sta Newslett 13(3):101-102

Scp 1966 68.18 T93

Chlorinated hydrocarbons, Insect pests, Insecticide resistant insects, Organophosphorus compounds, Pesticide application, Tea.

#### 5208-69

#### NEW THRUST AGAINST BOLL WEEVILS. **B** Barksdalc

Farm Quart 24(1,SPRING):100-103,108-109,112 1969 6 F22995

Anthonomus grandis, Chemical control (insects), Insecticides.

#### 5209-69

#### **CHANGE IN THE PHOTIC REACTION DUE TO** DDT IN THE GRAIN WEEVIL, SITOPHILUS GRANARIUS (L.)(COLEOPTERA: CURCU-LIONIDAE).

C A Barlow

Can J Zool 46(1):35-40 REF

Jan 1968 470 C16D

DDT, Light, Photosensitization, Sitophilus granarius.

5210-69

# LOCOMOTORY RESPONSES TO TEMPERA-TURE IN THE GRAIN WEEVIL, SITOPHILUS GRANARIUS (L.) (COLEOPTERA: CURCU-LIONIDAE). C A Barlow W D Kcrr

Can J Zool 47(2):217-224 Mar 1969 470 C16D

Curculionidac, Insect behavior, Locomotion, Sitophilus granarius, Temperature.

#### 5211-69

# CAVE CARABIDAE (COLEOPTERA) OF MAM-MOTH CAVE, PART II. T C Barr Psyche 74(1):24-26

Mar 1967 421 P95 Carabidac, Colcoptera, Insect ecology, Surveys. Part 1. published in Psyche--vol. 73:284-287, Dec., 1966

#### 5212-69

#### INFLATED PLASTIC BAGS AS CAGES FOR IN-SECTS ON POTTED PLANTS. **B R Bartlett G Kats** J Econ Entomol 62(2):524-525

15 Apr 1969 421 J822

Bags, Equipment, Insect cages, Insect rearing, Ornamental plants, Tetranychidac.

10

# 5213-69

HISTOPHYSIOLOGICAL STUDIES ON NEU-ROSECRETION IN THE VENTRAL NERVOUS SYSTEM OF RHODNIUS PROLIXUS STAL (HEMIPTERA) DURING THE IMAGO STAGE. (FR)

#### N Baudry

Acad Sci Compt Rend Ser D Sci Nat 268(1, 1ST SEMESTER):147-150 REF

06 Jan 1969 505 P21

Insect histology, Insect physiology, Nervous system, Reduviidae, Rhodnius prolixus, Secretion.

#### 5214-69

**OBSERVATION ON LASPEYRIA PACTOLANA** ZELL.: A PYRALID OF VERTICILLATE PICEA. (FR )

# **R** Baurant

Gembloux Inst Agron Etat Bull 3(2):217-225 MAP

1968 105.1 G285

Chemical control (insects), Cultural control (insects), Olcthreutidac, Zoogcography. English summary.

The biology of Laspeyresia pactolana, its geo-graphical distribution in Belgium and its chemical and cultural methods of control arc discussed.

#### 5215-69

**R** Bayer

5216-69

(IT)

F Bcccari

5217-69

5218-69

K Benes

5219-69

1962 420 C33

Czechoslovakia

1967 26 AG82

Spanish summarics.

13 Jun 1969 470 SCI2

CZECHOSLOVAKIA

TENTHREDINIDAE).

raphy. Czech summary.

and Nematus frenalis.

COURTSHIP OF DROSOPHILA.

1968 444.8 Z3

**INVESTIGATIONS INTO THE CIRCULATORY** SYSTEM OF THE MIGRATORY LOCUST (LOCUSTA MIGRATORIA MIGRATORIA MIGRATORIOIDES TR. ET F., ORTH.) WITH SPECIAL REFERENCE TO THE BLOOD PRESSURE. (GE

Blood pressure, Circulatory system, Insect morphology, Insect physiology, Locusta migratoria migratorioides. English summary.

CONTRIBUTION TO THE KNOWLEDGE OF THE COSMOPOLITES SORDIDUS (GER-

MAR)(COLEOPTERA, CURCULIONIDAE). (2).

Riv Agr Subtrop Trop 41(4-6,APR-JUN):131-150 REF

Aldrin, Bananas, Chemical control (insects), Chlorinated hydrocarbons, Coleoptera, Cosmopolites sordidus, Curculionidae, Dieldrin,

Insect biology, Insect morphology, Plant protec-tion, Predaccous insects. English, French and

WESTERN PINE BEETLE: FIELD RESPONSE

TO ITS SEX PHEROMONE AND A SYNER-GISTIC HOST TERPENE, MYRCENE.

Attractants, Dendroctonus brevicomis, Insect behavior, Insect biochemistry, Myrcene,

NOTES ON SOME NEMATINAE FROM

Insect identification, Tenthredinidac, Zoogeog-

The six species of the subfamily Nematinae new to

Hoplocampa alpina, Pontopristia amentorum, Pon-

topristia borcoalpina, Amauronematus lcucopyga

THE WING MECHANISM INVOLVED IN THE

arc Priophorus lacvifrons,

Pheromones, Predaceous insects, Synergism.

Acta Ent Bohemoslov 59(1):38-41 REF

Myrcene,

(HYM.,

W D Bedard P E Tilden D L Wood R M Silverstein R G Brownlee

Science 164(3885):1284-1285 REF

Z Vergleichende Physiol 58(1):76-135 REF

5242-69

H C Bennet-Clark A W Ewing J Exp Biol 49(1):117-128 REF Aug 1968 442.8 B77 Drosophila melanogaster, Insect behavior, Insect flight, Sex behavior, Wings (insects).

#### 5220-69

A SEASONAL FORM OF BALIOCHILA SINGU-LARIS STEMPFFER AND BENNETT FROM SOUTHERN RHODESIA (LEPIDOPTERA: LYCAENIDAE). N H Bennett

Entomologist (london) 102(1271):73-74 Apr 1969 421 EN8 Baliochila singularis, Butterflies, Insect morphology, Lycaenidae.

#### 5221-69

THE TOXIC ACTION OF BACILLUS THURIN-GIENSIS EXOTOXIN ON DROSOPHILA REARED IN YEAST-CONTAINING AND YEAST-FREE MEDIA. G Benz J M Perron

Experientia 23(10):871-872 15 Oct 1967 475 EX7

Bacillus thuringiensis, Biological assay, Culture media, Drosophila, Insect rearing, Toxicology, Yeasts.

#### 5222-69

THE ACTION OF IONTOPHORETICALLY AP-PLIED GLUTAMATE ON INSECT MUSCLE FIBRES.

R Beranek P L Miller J Exp Biol 49(1):83-93 REF

Aug 1968 442.8 B77

Acrididae, Electrophoresis, Glutamate, Inseet biology, Locusta migratoria, Muscles, Schistocerea gregaria.

#### 5223-69

PUPARIUM FORMATION IN FLIES: CON-TRACTION TO PUPARIUM INDUCED BY EC-DYSONE.

P Berreur G Fraenkel

Science 164(3384):1182-1183 REF

06 Jun 1969 470 SC12 Calliphora vicina, Ecdysone, Insect hormones, In-

sect physiology, Pupal cases.

# 5224-69

BEHAVIOR OF THE GERMAN COCKROACH, BLATTELLA GERMANICA (L.), IN RESPONSE TO SURFACE TEXTURES.

R Berthold

N Y Entomol Soc J 75(3):148-153 Sep 1967 420 N48J

Blattella germanica, Insect behavior, Surface finish.

### 5225-69

THE ACTION OF EXTRACTS OF PARASYM-PATHETIC ORGANS AND CORPORA CAR-DIACA ON DIURESIS IN SEVERAL INSECTS. (FR)

N de Besse M Cazal

Acad Sci Compt Rend Ser D Sci Nat 266(6, 1ST SEMESTER):615-618 REF

05 Feb 1968 505 P21

Corpora cardiaca, Diuresis, Insect physiology, Locusta migratoria, Nervous system, Periplaneta americana.

#### 5226-69

LEPTOCONOPS IRRITANS NOE' IN THE PROVINCE OF GROSSETO: CONTROL PROBLEMS. (IT) S Bettini E Finizio

Riv Parassitol 29(1):33-47 REF

Mar 1968 436.8 R52

Insect behavior, Insect biology, Insect breeding, In-

scet control, Leptoconops irritans, Leptoconops kerteszi. English summary.

# 5227-69

STRUCTURE AND DEVELOPMENT OF VESI-CLES IN LARVAL TISSUE CULTURE OF AEDES AEGYPTI (L.). UKM BhatKRP Singh

J Med Entomol 6(1):71-74 30 Jan 1969 421 J828 Acdes acgypti, Insect histology, Larvae, Medical entomology, Tissue culture. 5228-69 COTTON PESTS CONTROL BY ULTRA LOW VOLUME SPRAYING FROM THE AIR. G N Bhatia Agr Aviation 8(3):81-82 Jul 1966 333.8 AG8 Acrial spraying, Chemical control (insects), Chlorinated hydrocarbons, Cotton, Dosage, Endrin, Insect pests, Insecticide application, Malathion, Organophosphorus compounds. 5229-69 STUDIES ON THE ANATOMY OF THE MALE REPRODUCTIVE SYSTEM OF THE RED-COT-TON BUG, DYSDERCUS CINGULATUS (FABR.), (HETEROPTERA, PYRR-HOCORIDAE). R D S Bhatnagar P Singh Panjab Univ Res Bull (N S)19(1-2):89-95 Jun 1968 513 EA72 Dysdereus eingulatus, Inseet histology, Inseet morphology, Pyrrhoeoridae, Reproductive organs. 5230-69 NUTRITIONAL BEHAVIOR OF **TROGODE RMA** GRANARIUM EVERTS (COLEOPTERA: DERMESTIDAE) ON LEGU-MINOUS SEEDS. A K Bhattacharya N C Pant J Stored Prod Res 4(4):305-315 REF Feb 1969 421 J829 Deficiency diseases, Dermestidae, Insect behavior, Legumes, Nutrition, Trogoderma granarium, Yeast cultures. 5231-69 THE CHELICERAL FLAGELLUM OF PSEU-**DOSCORPIONS.** C P Bishop Ann Mag Natur Hist 1(3, JUL-SEP):393-397 Sep 1967 410 AN77 Chelonethida, Flagella, Insect morphology, Insect taxonomy, Metamorphosis. 5232-69 **EFFECTS OF THE INHIBITOR OF XANTHINE** DEHYDROGENASE, 4-HYDROX-YPYRAZOLO(3,4 D)PYRIMIDINE (OR HHP) ON THE RED EYE PIGMENTS OF DROSO-PHILA MELANOGASTER. P Boni B De Lerma G Parisi Experientia 23(3):186-187 REF 15 Mar 1967 475 EX7 Biochemistry, Drosophila melanogaster, Eyes, Inseet physiology, Xanthine dehydrogenase. 5233-69 OBSERVATION ON THE SEX RATIO IN PIERIS BRASSICAE (L.) (LEPIDOPTERA-PIERIDAE). J S Boparai Panjab Univ Res Bull (N S)19(1-2):251-252 Jun 1968 513 EA72 Pieridae, Pieris brassicae, Population, Sex. 5234-69 NEW CONTRIBUTIONS TO THE STUDY OF CHALCIDS IN THE SOCIALIST REPUBLIC OF RUMANIA (XIV). (RUM) M Botoe Cluj Univ Babes Bolyai Stud Ser Biol 13(1):95-98 REF 1968 442.9 C62 Chaleididae, Insect collection, Insect identification, Reproductive organs, Zoogeography. English and Russian summaries. 13 species of 6 families are listed.

#### 5235-69

PA RASITISM IN FALL POPULATIONS OF THE BOLLWORM (HELIOTHIS ZEA BODDIE) AND THE TOBACCO BUDWORM (HELIOTHIS VIRESCENS F.) FROM COTTON ON THE HIGH AND ROLLING PLAINS, 1967.

D G Bottrell D M Arnold Tex Agr Exp Sta Progr Rep (2628):7P Dec 1968 100 T31P (2) Cotton, Heliothis virescens, Heliothis zea, Parasitism.

#### 5236-69

**EFFECTS OF RERODUCTIVE-DIAPAUSE BOLL WEEVIL (HELIOTHIS ZEA BODDIE) IN-**SECTICIDAL CONTROL PROGRAMS ON THE **ABUNDANCE OF BOLLWORMS AND TOBAC-CO BUDWORMS (HELIOTHIS VIRESCENS F.)** IN COTTON IN THE ROLLING PLAINS OF **TEXAS, 1967** 

D G Bottrell D M Arnold L K Almand

Tex Agr Exp Sta Progr Rep (262/):10P REF Dec 1968 100 T31P (2)

Azinphosmethyl, Chemical control (insects), Chlorinated hydrocarbons, Cotton, Heliothis vireseens, Heliothis zea, Insecticides, Malathion,

Reproduction. 5237-69

THE STUDY OF THE AERIAL MIGRATION OF **INSECTS AS APPLIED TO PHYTO-SANITARY** CONTROL. (FR) L Bouyx

Phytoma 19(190, JUL-AUG): 22-23

1967 464.8 P563

Insect migration, Insect populations, Insect traps, Spodoptera exigua. Experiments in various parts of the world are described.

5238-69

JUVENILE HORMONE: ACTIVITY OF NATU-**RAL AND SYNTHETIC SYNERGISTS.** 

W S Bowers Science 161(3844):895-897 REF

30 Aug 1968 470 SCI2

Chemical control (insects), Insect biochemistry, Insect hormones, Insecticides, Juvenile hormone, Synergists.

5239-69

FRIEDRICH KLUGS MATERIAL OF SCOLIIDAE WITH ESPECIAL REFERENCE TO HIS TYPE-SPECIMENS.

J C Bradley J G Betrem

Deut Entomol Z 15(4-5):321-334 01 Oct 1968 421 D48

Catalogs, Scoliidae. Hymenoptera, Insect taxonomy,

#### 5240-69

INSECTICIDAL **OPERATIONS** AGAINST CHIRONOMID MIDGES ALONG THE BLUE NILE.

A W A Brown D J McKinley H W Bedford M Qutubuddin

Bull Entomol Res 51(4):789-801

Jan 1960 421 B87

Chlorinated hydrocarbons, Dichloro-2,2-bis(pchlorophenyl) ethylene, 1,1-, DDT, Insecticide ap-plication, Tanytarsus lewisi.

# 5241-69

A REDESCRIPTION OF PTERONYSSOIDES TYRRELLI (CANESTRINI, 1899). A FEATHER MITE FROM THE TREE SWALLOW (ACARI-ACARIFORMES). W A Bruce D E Johnston

Acarologia 11(1):104-120 REF 434.8 AC1

Acarina, Birds, Fcathers, Insect taxonomy, Zoogcography.

### 5242-69

**RESULTS OF CONSECUTIVE MATINGS OF** FEMALE ANOPHELES GAMBIAE SPECIES B WITH FERTILE AND STERILE MALES. J H Brvan

Nature 218(5140):489

04 May 1968 472 N2I

Anopheles gambiae, Biological control (insects), Insect eggs, Insect pests, Medical entomology, Reproduction, Sterility.

### 5243-69

#### 5243-69

**MECHANISM OF RHYTHMIC SYNCHRONOUS** FLASHING OF FIREFLIES. J Buck E Buck Science 159(3821):1319-1327 REF

22 Mar 1968 470 SCI2

Central nervous system, Insect physiology, Lampyridae.

5244-69

# CONTRIBUTION TO THE STUDIES OF THE ACTIVITY SPECTRA OF THE STRAINS OF BACILLUS THURINGIENSIS BERLINER. A Burgerjon G Biache

294-296

1967 SB932.15

Bacillus thuringiensis, Bacterial diseases (insects), Biological assay, Culture media, Lepidoptera. 24 species of Lepidoptera were tested with different strains of Bacillus thuringicnsis.

#### 5245-69

#### THE STANDARDIZATION OF PRODUCTS **BASED ON BACILLUS THURINGIENSIS.** H D Burges

306-314 REF

1967 SB932.15

Bacillus thuri ngiensis, Bacteria, Bi ological assay, Biological control (insects), Insect pests, Methodology.

#### 5246-69

A LOW VOLUME SPRAY SYSTEM FOR TWIN-ENGINE AIRCRAFT USED IN MOSQUITO CONTROL.

W E Burgoyne N B Akesson

Calif Vector Views 16(2):17-18

Feb 1969 449.8 C12

Acrial spraying, Chemical control (insects), Culicidae, Insecticide application, Naled.

#### 5247-69

EFFECTS OF TEMPERATURE ON DROSO-PHILA--V. WEIGHT AND WATER, PROTEIN AND RNA CONTENT. M J Burr A S Hunter

Compar Biochem Physiol 29(2):647-652 REF May 1969 444.8 C73

Development, Drosophila, Insect biochemistry, Proteins, Ribonucleic acid, Temperature, Water.

#### 5248-69

STUDIES ON THE SEX RATIO OF THE GYPSY мотн.

R W Campbell

Forest Sci 13(1):19-22

Mar 1967 99.8 F7632

Aging, Metamorphosis, Porthetria dispar, Sex.

The sex ratio of the gypsy moth at the time of hatching was found to be 50:50; however, by the time of the fourth instar the ratio was 66:34, with more females. Results of this study provide a basis for evaluating the determinants of numerical change among the female components of gypsy moth populations.

#### 5249-69

AN ACARID ( ERYTHRAEIDAE ) PARASITE OF JASSIDS (HOMOPTERA, AUCHENORR-HYNCHA). (FR)

P Carle

Rev Zool Agr Appl 66(1-3, 1ST TRIMESTER):1L-19

1967 410.9 SO12

Acaridae, Cicadellidae, Homoptera, Insect biology, Natural control (insects), Parasitic insects.

#### 5250-69

INSECT HORMONES: OLIVE OIL IS NOT AN INERT VEHICLE FOR HORMONE INJECTION INTO LOCUSTS.

D B Carlisle P E Ellis

Science 162(3860):1393-1394 REF

20 Dec 1968 470 SC12

Biological assay, Insect biochemistry, Insect biology, Insect hormones, Olive oil, Schistocerea gregaria.

### 5251-69

**BRACKEN AND LOCUST ECDYSONES: THEIR** EFFECT ON MOLTING IN THE DESERT LOCUST.

**BIBLIOGRAPHY** 

D B Carlisle P E Ellis Science 159(3822):1472-1474 REF

29 Mar 1968 470 SCI2

Acrididac, Ecdysonc, Hormones, Insect physiolo-

gy, Mctamorphosis, Molting (insects), Pteridium, Schistocerea gregaria.

### 5252-69

# **ELECTRORETINOGRAM OF THE SCORPION** ANDROCTONUS AUSTRALIS IN RESPONSE TO PERIODICAL ILLUMINATION. (FR ) P Carricaburu M Cherrak

Acad Sci Compt Rend Ser D Sci Nat 266(12, 1ST SEMESTER):1299-1301

18 Mar 1968 505 P21

Electrophysiology, Electroretinograms, Insect behavior, Photoperiodism, Scorpionida.

#### 5253-69

CONTROL OF GRASSHOPPERS (PHAU-LACRIDIUM VITTATUM) BY ULTRA-LOW **VOLUME AERIAL APPLICATION OF TECHNI-**CAL MALDISON.

M Casimir

Australian J Exp Agr Anim Husb 8(34):631-636 Oct 1968 23 AU792

Acrial spraying, Chemical control (insects), Malathion, Phaulacridium vittatum, Ultra low volume application.

#### 5254-69

THE GOLGI BODY ORIGIN AND THE DEVELOPMENT OF THE VACUOLARY BODIES IMPLIED IN THE DEGENERATION OF THE MOLT GLANDS OF LOCUSTA **MIGRATORIA MIGRATORIOIDES (R. AND F.).** (**FR**)

P Cassier M A Fain-Maurel

Acad Sci Compt Rend Ser D Sci Nat 266(12, 1ST SEMESTER):1290-1292

18 Mar 1968 505 P21

Glands (insects), Insect cytology, Insect physiology, Locusta migratoria migratorioides.

#### 5255-69

THE EFFECTS OF IMPLANTATIONS OF COR-PORA ALLATA ON REPRODUCTION OF COL-LECTED FEMALES OF SCHISTOCERCA GREGARIA (FORSK.) AND ON THE POLYMORPHISM OF THEIR PROGENY. (FR ) P Cassier M Papillon

Acad Sci Compt Rend Ser D Sci Nat 266(10, 1ST SEMESTER):1048-1051

04 Mar 1968 505 P21

Corpora allata, Polymorphism, Reproduction, Schistocerea gregaria, Tissue transplants.

#### 5256-69

ON THE PRESENCE OF MICROTUBULES IN THE ERGASTOPLASM AND THE PERINUCLEAR SPACE OF THE OENOCY-TOIDS OF THE MIGRATORY LOCUST, LOCUSTA MIGRATORIA MIGRATORIOIDES (R. AND F.). (FR) P Cassier M A Fain-Maurel

Acad Sci Compt Rend Ser D Sci Nat 266(7, 1ST SEMESTER):686-689 REF

12 Feb 1968 505 P21

Electron microscopy, Histochemistry, Insect cytology, Locusta migratoria migratorioides.

5257-69

INSECT VENOMS, ATTRACTANTS, AND REPELLENTS. XI. MASSOILACTONE FROM TWO SPECIES OF FORMICINE ANTS, AND SOME OBSERVATIONS ON CONSTITUENTS OF THE BARK OIL OF CRYPTOCARYA MAS-SOIA.

G W K Cavill D V Clark F B Whitfield Australian J Chem 21(2):2819-2823 Nov 1968 475 AU73

Attractants, Camponotus, Chromatography, Ex-tracts, Formicidac, Glands (insects), Insect repel-lents, Odors, Social insects, Venoms.

12

# 5258-69

SPRAYING IN MUSTARD IS A MUST. B S Chahal H S Sukhija

Com Hort Floristry 5(3):14 Jan 1969 S19.P7

Aphididae, Brassiea, Chemical control (insects), Insect pests, Insecticide application, Insecticides, Malathion, Menazon, Phosphamidon, Spraying.

#### 5259-69

INCORPORATION OF TRITIATED THYMIDINE INTO THE OVARIAN DNA OF TRITIATED STABLE FLIES: EFFECTS OF TREATMENT WITH APHOLATE.

W F Chamberlain C C Barrett

Nature 218(5140):471-472

04 May 1968 472 N21

Apholate, Biological control (insects), Chemical control (insects), Chemosterilants, Dcoxyribonucleic acid, Insect eggs, Insect genetics, Insect mutation, Stomoxys calcitrans, Thymidine.

# 5260-69

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C Chararas

penes.

5263-69

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J Chlodny

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J Claret

sicac.

SEMESTER):1156-1159

11 Mar 1968 505 P21

1968 512 W263

1967 14 P215BC

MODIFICATIONS

Jan 1969 442.8 ST1

J S Chen M G M Chen

Stain Technol 44(1):50-51

**MECHANICAL** 

**B** N Chaniotis

**OVIPOSITION** RESPONSES BY APHIDOPHAGOUS SYRPHIPAE (DIPTERA). A E F Chandler

Nature 213(5077):736

18 Feb 1967 472 N21

J Med Entomol 5(4):509-511

**OF SEVERAL CONIFERS. (FR )** 

30 Oct 1968 421 J828

Aphididae, Biological control (insects), Insect behavior, Insect eggs, Predaceous insects, Syrphidae.

TRYPANOSOMA LEWISI (KINETOPLASTIDA: TRYPANOSOMIDAE) BY RHODNIUS PROLIX-US (HEMIPTERA: REDUVIIDAE).

Discase transmission, Inseet physiology, Inseet vec-tors, Medical entomology, Reduviidae, Rhodnius prolixus, Trypanosoma lewisi, Trypanosomidae.

**RESEARCH ON THE REACTIONS OF IPS SEX-**

DENTATUS BOERNER TO TERPENIC FUMES

Paris Acad Agr France Compt Rend Hebd Seances 53(3):226-231

Coniferac, Insect physiology, Ips sexdentatus, Ter-

OF

Grasshoppers, Insect histology, Methodology,

EVALUATION OF SOME PARAMETERS OF THE INDIVIDUAL ENERGY BUDGET OF THE LARVAE OF PTEROMALUS PUPARUM (L.) (P-TEROMALIDAE) AND PIMPLA INSTIGATOR (FABR.) (ICHNEUMONIDAE).

Energy, Ichneumonidac, Insect biology, Insect physiology, Larvac, Parameters, Parasitism, Pieris brassicae, Pteromalidae. Polish summary.

PHYSIOLOGICAL MODIFICATIONS CAUSED

BY THE PHOTOPERIOD DURING THE TIME PRECEEDING DIAPAUSE IN THE PIERIS BRASSICAE L. LARVAE. (FR )

Acad Sci Compt Rend Ser D Sci Nat 266(11, 1ST

Insect physiology, Photoperiodism, Pieris bras-

Nerves, Periplaneta americana, Staining.

Ekol Pol Ser A (SER A)16(24):505-513

**TECHNIQUE APPLIED TO INSECT NERVES.** 

THE

**BODIAN** 

TRANSMISSION

OF

5291-69

#### 5266-69 THE PHYSIOLOGY OF MOSQUITOES. A N Clements

Int Ser Monogr Pure Appl Biol 17:393P REF 1963 428 C59

Circulatory system, Culicidae, Diapause, Feeding, Insect behavior, Insect eggs, Insect flight, Insect metabolism, Insect nutrition, Insect physiology, In-scct reproduction, Larvae, Metamorphosis, Sense organs.

# 5267-69

EVOLUTIONARY TRENDS IN HETEROPTERA. PART I EGGS. ARCHITECTURE OF THE SHELL, GROSS EMBRYOLOGY AND ECLO-SION.

R H Cobben

Wageningen Cent Landouwpubl Landbou Verslag Landbouwkund Ore (707):475P REF 1968-105.2 V61V

Entomology, Heteroptera, Insect biology, Insect eggs, Insect evolution, Insect morphology. Dutch summary.

### 5268-69

# EFFECT OF FOOD AVAILABILITY ON RATES OF LOSS OF 45CALCIUM FROM HYPHAN-TRIA CUNEA (LEPIDOPTERA: ARCTIIDAE). D C Colcman C D Monk J T Callahan

Can Entomol 101(3):328-332

Mar 1969 421 C16

Calcium, Hyphantria cunca, Inscet nutrition, Isotopes, Parasitism.

### 5269-69

SELECTION FOR DIVERGENT EMIGRATION RATES IN LABORATORY POPULATIONS OF MUSCA DOMESTICA. **B** Collier

Res Population Ecol 10(1):99-104 REF Jun 1968 420 K99

Insect ceology, Insect migration, Insect rearing, Musea domestica, Population. Japanese summary.

#### 5270-69

LIFE HISTORY NOTES ON LITHOPHANE SUB-TILIS (NOCTUIDAE).

J A Comstock C Henne Lepidopterists Soc J 23(1):15-18 1969 421 L554

Metamorphosis, Noctuidae, Zoogcography.

#### 5271-69

**D-AMINO ACIDS IN ANIMALS.** 

J J Corrigan

Science 164(3876):142-149 REF

11 Apr 1969 470 SC12 Amino acids, Animal physiology, Biochemistry, Deoxyribonucleic acid, Enzymes, Insect physiology, Metabolism, Ribonueleie aeid, Serine.

#### 5272-69

STERILIZATION OF FEMALE MOSQUITOES WITH A HORMONE DERIVED FROM MALE MOSQUITOES, PATENT 3,450,816. **G B Craig M Fuchs** 

Us Patent Office Offic Gaz 863(3):902 17 Jun 1969 156.65 OF2

Chemical control (insects), Chemosterilants, Cu-licidae, Insect hormones, Patents.

#### 5273-69

# SEX-DETERMINATION.

FAE Crew

Methuen And Co. Ltd., London, England 188P REF

# 1965 QP251.C7

Bacteria, Evolution, Genetics, Humans, Insects, Parthenogenesis, Plants, Sex determination.

#### 5274-69

**RATES OF COMPETITIVE EXCLUSION BY** THE ARGENTINE ANT IN BERMUDA. K L Crowell

Ecology 49(3):551-555 MAP REF SPRING 1968 410 EC7

Competition, Ecology, Iridomyrmex humilis, Pheidole megacephala, Population.

#### 5275-69

CHEMOSTERILIZATION OF SCREW-WORM FLIES, COCHLIOMVIA HOMINIVORAX (COQUEREL) (DIPTERA: CALLIPHORIDAE): INFLUENCE OF AGE AT TREATMENT AND MATING, EFFECT ON SURVIVAL, AND TRANSFER OF CHEMOSTERILANT BY CON-TAMINATION.

M M Crystal

J Med Entomol 5(4):439-445 REF

30 Oct 1968 421 J828

Biological control (insects), Bis(1-aziridinyl)phosphinyl)-3-(3,4-dichlorophenyl)urea, 1-(, Calliphoridae, Chemical control (insects), Chemosterilants, Cochliomyia hominivorax, Insect physiology, Medical entomology, Tetramethylene bis(1-aziridinecarboxamide), N,N'-.

#### 5276-69

CHEMOSTERILANT-INDUCED INCREASE IN MATING ABILITY OF MALE SCREW-WORM FLIES (DIPTERA: CALLIPHORIDAE). M M Crystal

J Med Entomol 6(1):90-91

30 Jan 1969 421 J828

Calliphoridae, Chemosterilants,

Cochliomyia hominivorax, Insect behavior, Medical entomology.

# 5277-69

THE DEVELOPMENT OF FAT BODIES IN THE LARVAE OF C. ERYTHROCEPHALA MEIG,. (GE ) CALLIPHORA

D Dahlhelm

Biol Zentralbl 86(3, MAY-JUN):273-301 REF Jun 1967 442.8 B523

Calliphora vicina, Fat body, Insect morphology, In-sect physiology, Larvae, Metamorphosis. English abstract.

5278-69

# THE DISTRIBUTION AND HOST-RANGE OF THE SHOT-HOLE BORER (XYLEBORUS FOR-NICATUS EICHH.) OF TEA. W Danthanarayana

Ceylon Tea Res Inst Tea Quart 39(3):61-69 REF Sep 1968 68.18 C33

Host plants, Oriental region, Tea, Xyleborus, Zoogcography.

# 5279-69

ON THE FUNCTIONAL MORPHOLOGY OF WATER STRIDERS. I. THE MORPHOLOGY OF THE LOCOMOTIVE APPARATUS OF GERRIS LACUSTRIS L. (HETEROPTERA: GERRIDAE). (GE)

**B** Darnhofer-Demar

Zool Jahrbucher Abt Allg Zool Physiol Tiere 86(1):28-66 REF 1969 410 Z751Z

Gerridae, Insect behavior, Insect morphology, Locomotion, Museles.

# 5280-69

SEROLOGICAL IDENTIFICATION. (FR)

H De Barjae

71-81 REF

1967 SB932.15 Bacteria, Diagnosis, Immunochemistry, Insect dis-cases, Methodology, Serological tests, Viruses. English summary.

#### 5281-69

# TWO MAJOR EFFECTS OF THE CORPUS AL-LATUM IN THE ADULT COLORADO BEETLE (LEPTINOTARSA DECEMLINEATA SAY). J De Wilde D Stegwee

Arch Neer Zool 23(1):277-289 REF 1958 410 AR27 Corpora allata, Diapause, Endocrine glands, Insect biology, Insect physiology, Leptinotarsa decem-lineata, Photoperiodism.

### 5282-69

STUDIES OF HOUSE FLIES. I. BREEDING OF **MUSCA SORBENS, WIED..** P J Dedras K Karnikar Cur Sci 36(18):491-493 20 Sep 1967 475 SC123

13

Culture media, Insect morphology, Insect rearing, Life cycle, Musea, Tissue transplants.

#### 5283-69

A NOTE ON THE FEEDING MECHANISM OF TWO FLEAS.

P J Dedras R S Prasad

Cur Sci 36(19):518-519

05 Oct 1967 475 SCI23

Feeding, Insect physiology, Methodology, Mice, Mouth parts, Xenopsylla, Xenopsylla cheopis.

#### 5284-69

PESTICIDE SAFETY IN YOUR HOME. USDA PA- (895):7P Dec 1968 1 AG84PRO

Accident prevention, Household pests, Pesticides.

#### 5285-69

BIOLOGICAL OBSERVATIONS ON THE DESERT LOCUST (SCHISTOCERCA MIGRA-TORIA MIGRATORIOIDES) IN CHAD. (FR ) M Deseamps

Agron Trop 22(6-7, JUN-JUL):641-662 MAP REF Jul 1967 26 AG86

Insect ecology, Insect migration, Locusta migratoria migratorioides, Schistocerea gregaria. English and Spanish abstracts

### 5286-69

ON THE METABOLISM OF PTERINE AND ITS HYDROGEN DERIVATIVES IN COLIAS CROCEUS (FOURCROY) (LEPIDOPTERA PIERIDAE). (FR)

H Descimon

Acad Sci Compt Rend Ser D Sci Nat 268(2, 1ST SEMESTER):416-417 REF

13 Jan 1969 505 P21

Nature 214(5087):508-509

gy, Ixodidac, Molting (insects).

URIDINE INCORPORATION.

Nat Acad Sci Proc 58(6):2367-2371 REF

PATHOGENS OF THE GYPSY MOTH.

29 Apr 1967 472 N21

A S Dion E Herbst

Dec 1967 500 N21P

(insects), Tritium, Uridine.

Streptococcus faccalis, Viruses.

Science 164(3885):1243-1249 REF

Entomologist (london) 102(1271):75-79

Colias croccus, Insect biochemistry, Insect metabolism, Pieridae.

CHANGES IN NEUROSECRETORY ACTIVITY AT DIFFERENT STAGES IN THE ADULT HYALOMMA DROMEDARII KOCH, 1844.

Cytology, Hyalomma dromedarii, Insect physiolo-

THE LOCALIZATION OF SPERMIDINE IN SALIVARY GLAND CELLS OF DROSOPHILA MELANOGASTER AND ITS EFFECT ON H-3-

Amines, Aminopropyl)-1,4-butanediamine, N-(3-, Autoradiography, Biochemistry, Drosophila melanogaster, Radioactive tracers, Salivary glands

Insect diseases, Polyhedroses, Porthetria dispar,

BIOLOGICALLY ACTIVE COMPOUNDS IN ORCHID FRAGRANCES.

C H Dodson R L Dressler H G Hills R M Adams

Attractants, Euglossini, Insect behavior, Insect

**RATES OF EVOLUTION IN THE DERMAP-**

#### 5287-69

V Dhanda

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TERA.

E J Dopham

Apr 1969 421 EN8

C C Doane

200-203 REF

N H Williams

13 Jun 1969 470 SC12

biology, Odors, Orchidaceae.

1967 SB932.15

# 5292-69

Dermaptera, Insect evolution, Reproductive organs.

#### 5292-69

INTEGRATED CONTROL OF FRUIT TREE PESTS. ORCHARD MITES. ORCHARD IN-SECTS.

**R S Downing H F Madsen** 

Canada Agr 14(1,WINTER):

1969 7 R31

Carpocapsa pomonella, Fruit, Insect pests, In-tegrated control (pests), Mites, Panonychus ulmi, Tetranychus mcdanieli.

#### 5293-69

# GROWTH, SPORULATION AND GERMINA-TION OF SPORES OF BACILLUS THURIN-GIENSIS VAR. THURINGIENSIS BERLINER. A Drozdowic

Ekol Pol Ser A (SER A)16(34):689-698 REF 1968 512 W263

Bacillus thuringiensis, Biological control (insects), Culture media, Insecticides, Spore germination, Sporulation. Polish summary.

# 5294-69

# BIOLOGY AND CONTROL OF LEOPARD MOTH ON PEAR TREES IN THE UNITED **ARAB REPUBLIC.**

M E Eldefrawi I Hanbal S M Hammad Fao Plant Protect Bull 15:70-76 REF Aug 1967 421 P692 Carbaryl, Chemical control (insects), DDT,

Malathion, Metamorphosis, Pears, Plant pest control, Zeuzera pyrina.

#### 5295-69

#### NICOTINAMIDE-ADENINE DINUCLEOTIDE-LINKED FORM OF LACTIC DEHYDROGENASE OF THE SYMBIONTS AND FAT BODIES OF A COCKROACH. S Epstein L L Pierre

Nature 214(5087):488-489 REF

29 Apr 1967 472 N21

Biological assay, Blattidae, Coenzymes, Culture media, Fat body, Insect histology, Insect metabol-ism, Lactate dehydrogenase, Nicotinamide adenine dinueleotide.

#### 5296-69

PIPERONYLIC ACID CONJUGATES WITH ALANINE, GLUTAMATE, GLUTAMINE, GLYCINE, AND SERINE LIVING IN HOUSEFLIES.

E G Esaac J E Casida

J Insect Physiol 14(7):913-925 REF Jul 1968 421 J825

Allyl-1,2-(methylenedioxy)benzene, 4-, Amino acids, Biochemistry, Biosynthesis, Insect metabolism, Musca domestica, Piperonal, Piperonyl alcohol.

#### 5297-69

### THE CONTROL OF THE HOUSE FLY IN THE CITY OF TUNIS. (FR)

M Essafi J L Romain

Inst Pasteur Tunis Arch 45(1):85-109 REF Mar 1968 448.3 IN72

Chemical control (insects), Insect migration, Lar-vicides, Musea domestica, Public health, Regula-tions. Aside from Musea domestica the article also applies to Calliphora and similar insects.

# 5298-69

### PHORETIC COPULATION IN HYMENOP-TERA.

**H E Evans** 

Entomol News (philadelphia) 80(5):113-124 May 1969 421 EN88

Hymenoptera, Insect adaptation, Insect behavior, Insect evolution, Insect morphology, Sex behavior.

#### 5299-69

# ENTOMOPHTHOROUS FUNGI AS A NATURAL FACTOR IN DECREASING PEA APHID POPU-LATIONS.

A A Evlakhova E G Voronina 280-281

#### 1967 SB932.15

Acyrthosiphon pisum, Biological control (insects), Climate, Entomophthoraceous fungi, Insect pests, Insect population control.

BIBLIOGRAPHY

#### 5300-69

OBSERVATIONS ON THE BIOLOGY AND BEHAVIOR OF CICINDELA HYBRIDA L. AND CICINDELA CAMPESTRIS L. AND EXPERI-MENTAL ANALYSIS OF THEIR BEHAVIOR. (**GE**)

# **H** Faasch

Zool Jahrbucher Abt Allg Zool Physiol Tiere 95(4):477-522 REF 196, 410 Z751Z

Cieindelidae, Insect behavior, Insect biology.

#### 5301-69

### SIMPLE, SAFE, EFFECTIVE FLY CONTROL FOR DAIRY FARMS.

# J Falter M Senger

N C Univ Ext Ext Folder (241):5P Mar 1969 275.29 N811EX

Chemical control (insects), Dairy farms, Insecticide application, Insecticides, Musea domestica, Stomoxys calcitrans.

#### 5302-69

#### ON A NEW SPECIES OF MIRZAIELLA BASIR, 1942 FROM GRYLLOTALPA AFRICANA. M N Farooqui

Riv Parassitol 29(1):21-24

Mar 1968 436.8 R52 Gryllidae, Gryllotalpa africana, Nematodes, Parasitism, Taxonomy. Italian summary.

#### 5303-69

#### JUVENILE STERILITY IN MALE TICKS OF **ORINTHODOROS THOLOZANI.**

B Feldman-Muhsam Y Havivi Nature 213(5074):422-423

28 Jan 1967 472 N21 Insect physiology, Ixodides, Spermatophores,

Sterility.

# 5304-69

# THE POSSIBILITIES OF THE MICROBIOLOG-ICAL CONTROL OF MELOLONTHA MELOLONTHA L. BY MEANS OF THE MYCO-SIS CAUSED BY BEAUVERIA TENELLA (DELACR.) SIEMASZKO. (FR ) P Ferron

204-209 REF

1967 SB932.15

Beauveria tenella, Biological control (insects), Fungus diseases (insects), Melolontha melolontha. English summary.

5305-69

A SYNTHETIC ATTRACTANT FOR THE MALE BUDWORM SPRUCE MOTH CHORISTONEURA FUMIFERANA (CLEM.). J A Findlay D R Macdonald C S Tang

Experientia 23(5):377-378

15 May 1967 475 EX7

Choristoneura fumiferana, Insect behavior, Sex attractants.

#### 5306-69

#### ON THE REPRODUCTIVE BIOLOGY OF **CHIRONOMUS NUDITARSIS STR,. (GE)** J Fischer

Rev Suisse Zool 76(1):23-55 REF Mar 1969 410 R324

Chironomus nuditarsis, Insect behavior, Insect biology, Insect genetics, Insect rearing. English and French abstracts.

#### 5307-69

THE IN VITRO PATHOGENESIS OF INSECT VIROSES. (FR) O Flandre 6-21 REF

1967 SB932 15

In vitro, Insect diseases, Methodology, Microorganisms, Tissue culture, Virology.

14

### 5308-69

THE DIVERSITY OF CELL TYPES IN THE NEUROSECRETORY SYSTEM OF THE BEE-TLE BLAPS MUCRONATA. **B** S Fletcher J Insect Physiol 15(1):119-134 REF

Jan 1969 421 J825

Brain, Cells, Colcoptera, Insect histology, Insect physiology, Neurosecretion.

#### 5309-69

RELATION OF EYE COLOR TO MOLTING IN PERIPLANETA AMERICANA L. R Flint R L Patton

Brooklyn Entomol Soc Bull 54(5):140

Dec 1959 420 B79 Eyes, Insect physiology, Molting (insects), Periplaneta americana.

#### 5310-69

ACTION SPECTRA FOR PHASE SHIFTS OF A CIRCADIAN PHYTHM IN DROSOPHILA.

K D Frank W F Zimmerman

Science 163(3868):688-689 REF

14 Feb 1969 470 SCI2 Drosophila pseudoobseura, Emergence, Insect physiology, Insect populations, Insect rearing.

### 5311-69

CENTRAL CONTROL OF AN INSECT SEG-MENTAL REFLEX. II. ANALYSIS OF THE IN-HIBITORY INPUT FROM THE METATHORACIC GANGLION. C H Fraser Rowell

J Exp Biol 50(1):191-201 REF Feb 1969 442.8 B77

Central nervous system, Insect physiology, Reflexes, Schistocerea gregaria.

Formicidae, Insect behavior, Insect ecology, Insect

PROCEDURES AND MATERIALS PERFECTED FOR THE REARING AND COLLECTION OF HOMOPTERANS (APHIDIDAE AND JASSIDAE)

**DURING VIRUS TRANSMISSION STUDIES. (FR** 

Aphididae, Cicadellidae, Insect collecting equip-

THE POLLINATION OF RUNNER BEANS

Apis mellifera, Bombus, Greenhouses, Insect

Baits, Chemical control (insects), Insect pests, In-

secticides, Tobacco. Many insecticides were men-

NONSPECIFIC ESTERASES IN MOSQUITOS.

Anopheles stephensi, Culicidae, Electrophoresis,

J Histochem Cytochem 16(12):765-790 REF

T A Freyvogel R L Hunter E M Smith

MULTIFLORUS)

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#### 5312-69

nests.

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A Fraval

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tioned.

5316-69

J C French

1968 410.9 SO12

(PHASEOLUS

GLASSHOUSE.

1968 424.8 J82

J B Free P A Racey

J Apicult Res 7(2):67-69

Oct 1968 275.29 G29C

Dec 1968 381 J8222

Esterases, Insect biochemistry.

behavior, Searlet runner beans.

TOBACCO INSECT CONTROL.

Ga Univ Coll Agr Ext Serv Circ (413):3P

Mar 1969 421 EN8

**AUSTRALIA'S HONEYPOT ANTS.** H Frauca

Rev Zool Agr Appl 67(7-9, 3RD TRIMESTER):87-94 REF

ment, Insect rearing, Methodology.

Entomologist (london) 102(1270):70-72

# **ENTOMOLOGY**

5340-69

5317-69

TREHALOSE REGULATION OF GUCOSE-6-PHOSPHATE HYDROLYSIS IN BLOWFLY EX-TRACTS. S Friedman

Science 159(3810):110-111

05 Jan 1969 470 SCI2

Calliphoridac, Enzymes, Fat body, Glucosc-6-phosphatase, Hydrolysis, Insect biochemistry, Inseet histology, Phormia regina, Trehalose.

#### 5318-69

STUDIES ON INTERSPECIES COMPETITION BETWEEN THE AZUKI BEAN WEEVIL AND THE SOUTHERN COWPEA WEEVIL. III. SOME CHARACTERISTICS OF STRAINS OF TWO SPECIES.

# K Fujii

Res Population Ecol 10(1):87-98 REF Jun 1968 420 K99

Adsuki beans, Bruchidae, Callosobruchus chinensis, Callosobruchus maculatus, Insect ecology, Inseet rearing, Reproduction, Zoogcography. Japanese summary

#### 5319-69

A SIMPLE METHOD FOR COUNTING LEAF-HOPPER EGGS INSERTED IN PLANT ISSUE. W M Gaddoura T V Venkatraman Cur Sci 36(22):619

20 Nov 1967 475 SCI23

Empoasea, Insect eggs, Methodology, Surveys.

#### 5320-69

EFFECT OF CULTIVATION ON EMERGENCE OF EYE GNATS (HIPPELATES SPP.) IN SOUTH CAROLINA.

D M Gaydon T R Adkins

J Econ Entomol 62(2):312-314 15 Apr 1969 421 J822

Emergence, Hippelates, Insect collecting equipment, Tillage.

#### 5321-69

THE IMAGINAL CELLS OF THE CLYPEO-LABRUM AND THE DEVELOPMENT OF THE PROBOSCIS OF DROSOPHILA **MELANOGASTER. (GE )** W Gehring S Scippel Rev Suisse Zool 74(3):589-596 Dec 1967 410 R324

Cells, Drosophila melanogaster, Insect cytology, Insect morphology, Insect physiology, Mouth parts. English and French abstracts

#### 5322-69

LONG-TERM REGULATION OF SUGAR IN-TAKE BY THE BLOWFLY.

A Gelperin V G Dethier Physiol Zool 40(3):218-228 REF

Jul 1967 410 P56.

Food habits, Fructose, Insect biochemistry, Insect nutrition, Phormia regina, Sucrose.

#### 5323-69

FINAL REPORT, STUDIES ON SCALE IN-SECTS, FRUIT FLIES AND MITES, AND THEIR NATURAL ENEMIES IN WEST PAKISTAN; JUNE 1961-JUNE 1966. PART I. SCALE IN-SECTS.

M A Ghani

Commonwealth Inst Biol Contr Rep Pakistan 1 1961/1966(PT 1):51P REF Jun 1966 SB975.G42

Biological control (insects), Coccoidea, Insect biology, Insect identification, Parasitism, biology, Predaccous insects, Reports, Zoogcography.

# 5324-69

FINAL REPORT, STUDIES ON SCALE IN-SECTS, FRUIT FLIES AND MITES, AND THEIR NATURAL ENEMIES IN WEST PAKISTAN. JUNE 1961 - JUNE 1969. PART II. FRUIT FLIES.

#### M A Ghani

Commonwealth Inst Biol Contr Rep Pakistan 2 1961/1966(PT 2):87P MAP REF Jun 1966 SB975.G42

Biological control (insects), Hibernation, Insect biology, Insect identification, Parasitism, Predaceous insects, Tephritidae, Reports, Zoogcography.

#### 5325-69

FINAL REPORT. STUDIES ON SCALE IN-SECTS, FRUIT FLIES AND MITES, AND THEIR NATURAL ENEMIES IN WEST PAKISTAN, JUNE 1961 - JUNE 1966. PART III. MITES. M A Ghani

Commonwealth Inst Biol Contr 3 1961/1966(PT 3):57P REF

#### Jun 1966 SB975.G42

Biological control (insects), Host indexing (plants), Insect pests, Mites, Predaceous insects, Reports.

#### 5326-69

THE MALE GENETALIA OF SEPULLIA MUR-**RAYI (FAIRMAIRE SIGNORET (HOMOPTERA:** CERCOPOIDEA). M S K Ghauri

Ann Mag Natur Hist 1(2, APR-JUN):169-171 Jun 1967 410 AN77

Cercopidae, Insect morphology, Reproductive organs.

#### 5327-69

OBSERVATIONS IN KENYA ON THE FLIGHT ACTIVITY OF STORED PRODUCTS INSECTS, PARTICULARLY SITOPHILUS ZEAMAIS MOTSCH. P H Gilcs

J Stored Prod Res 4(4):317-329 REF Fcb 1969 421 J829

Climate, Flight activity, Insect behavior, Sitophilus zcamais. Twelve species of stored-products insects are discussed.

#### 5328-69

#### AIRBORNE FACTOR AFFECTING GROUPING BEHAVIOUR OF LOCUSTS. THE S Gillett

Nature 218(5143):782-783 25 May 1969 472 N21 Insect behavior, Insect cultures, Insect rearing, Pheromones, Schistocerea gregaria.

#### 5329-69

FEATURES OF MICROCLIMATIC REGIMEN **OF HABITATS OF SANDFLIES IN A VILLAGE OF KARSHINSKY OASIS. (RUS )** F V Gitsu

Med Parazitol Parazitarn Bolezni 37(5,SEP/OCT):574-582 REF 1968 448.8 M469 Climate, Habitats, Human discases, Insect diseases,

Lcishmaniasis, Medical entomology, Parasitic in-sects, Phlebotomus. English summary.

#### 5330-69

# PYRIDINE COMPOSITION AND METHOD FOR ATTRACTING INSECTS. PATENT 3,325,355. L D Goodhuc

Us Patent Office Offic Gaz 839(2):693 13 Jun 1967 156.65 OF2 Attractants, Chemical control (insects), Insecti-

cides, Patents, Pyridine compounds.

#### 5331-69

# NOTES ON LARVAL HOST ACCEPTANCE IN A CALIFORNIA POPULATION OF PLEBEJUS ACMON (LYCAENIDAE). **G** A Gorclick

Lepidopterists Soc J 23(1):31-32 1969 421 L554 Insect nutrition, Larvac, Lycaenidae, Plants.

#### 5332-69

# SYNECOLOGICAL STUDIES OF SOIL MACROENTOMOFAUNA IN TWO DIFFERENT **AGRICULTURAL BIOTOPES.** M Gorny

Ekol Pol Ser A (SER A)16(20):412-443 REF 1968 512 W263

Environment, Feeding habits (insects), Insect ecology, Land, Soil fauna, Soil insects, Wind-breaks. Polish summary.

15

# 5333-69

FAUNAL AND ZOOCENOLOGICAL ANALYSIS OF THE SOIL INSECT COMMUNITIES IN THE ECOSYSTEM OF SHELTERBELT AND FIELD. ' M Gorny

Ekol Pol Ser A (SER A)16(14):297-324 REF 1968 512 W263

Insect ecology, Insect identification, Land, Soil in-sects, Windbreaks. Polish summary.

#### 5334-69

COMPOSITION, STRUCTURE, AND MODE OF FORMATION OF MINERAL GRANULES IN THE MIDDLE INTESTINES OF THE HOMOP-TERAN CERCOPIDAE. (FR)

**J** Gouranton

J Cell Biol 37(2):316-328 REF

May 1968 442.8 J828

Cercopidae, Chromatography, Electron microscopy, Homoptera, Insect histology, Insect physiology, Intestines, Minerals. English abstract.

#### 5335-69

THE PRESENCE OF A DIFFERENTIATED CYTOPLASMIC ZONE AROUND THE NUCLEI IN THE CELLS OF THE MIDDLE INTESTINE OF CIXIUS NERVOSUS L. (HOMOPTERA, FUL-GOROIDEA). (FR)

J Gouranton

Acad Sci Compt Rend Ser D Sci Nat 266(8, 1ST SEMESTER):818-819

19 Feb 1968 505 P21

Electron microscopy, Fulgoroidea, Insect cytology, Intestines

5336-69

# EFFECTS ON AQUATIC INSECTS OF FOREST SPRAYING WITH PHOSPHAMIDON IN NEW BRUNSWICK.

C D Grant

Can Fish Res Board J 24(4):823-832 MAP Apr 1967 442.9 C16J

Aquatic insects, Chemical control (insects), Insecticides, Organophosphorus Phosphamidon, Water pollution. compounds,

No harmful effects were detected on aquatic insects in streams of forested areas sprayed with phosphamidon. The resulting population dynamics are described.

#### 5337-69

5338-69

5339-69

5340-69

3.433.865.

S B Greenbaum

J M Grayson

A SODIUM AND POTASSIUM STIMULATED ADENOSINE TRIPHOSPHATASE IN THE COCKROACH NERVE CORD. A Grasso

Adenosine triphosphatase, Hemolymph, Insect

biochemistry, Insect physiology, Microsomes, Ner-vous system, Periplaneta americana, Potassium, Sodium.

FIELD STUDIES OF AN ATTRACTANT IN THE

J B Graves N W Earle J R Bradley D W Clower

Anthonomus grandis, Diapause, Insect biology, In-sect traps, Methodology, Sex attractants.

Blatta orientalis, Blattella germanica, Carbamates, Chemical control (insects), Chlorinated hydrocar-bons, Insecticide resistant insects, Insecticides, Periplaneta brunnea, Zoogeography. Many chemi-

CONTROLLING INSECTS WITH FUROYLOX-

Y-ALKENYL THIO PHOSPHATES. PATENT

Us Patent Office Offic Gaz 860(3):908

Life Sci 6(18,PT 2):1911-1918 REF

15 Scp 1967 442.8 L62

MALE BOLL WEEVIL.

1969 100 L939

La Agr 12(3,SPRING):14-15

**VPI COCKROACH RESEARCH.** 

Pest Contr 37(4):18-24 REF

cal insecticides are mentioned.

Apr 1969 449.8 EX8

#### 5341-69

18 Mar 1969 156.65 OF2

Chemical control (insects), Furoyloxyalkenyl thio phosphates, Insecticides.

# 5341-69

**BIBLIOGRAPHY OF NEW GUINEA EN-**TOMOLOGY.

J L Gressitt J J H Szent-Ivany

Pacific Insects (18):676P MAP

30 Oct 1968 421 P11

Bibliography, Entomology, Zoogcography. T bibliography lists 6140 references through 1967. This

# 5342-69

# EFFECT OF CERTAIN ALKYLATING AND NON-ALKYLATING CHEMOSTERILANTS ON CULEX FATIGANS WEID.

K K Grover M K K Pillai C M S Dass Cur Sci 36(23):625-627 05 Dec 1967 475 SC123

Apholate, Chemosterilants, Culex quinquefasciatus, Hemel, Hempa, Insect reproduction, Metepa, Tepa, Toxicology.

#### 5343-69

BLACUS-DANCES, EXPERIENCES AND STU-DIES (BRACONIDAE, HYMENOPTERA). (GE ) K Gruhl

Deut Entomol Ges Mitt 26(3):49-51 REF 15 Jul 1967 420 D482

Braconidae, Chironomidae, Hymenoptera, Insect behavior, Insect physiology, Swarming. Second and concluding article.

#### 5344-69

BLACUS-DANCES, EXPERIENCES AND STU-DIES (BRACONIDAE, HYMENOPTERA). (GE ) K Gruhl

Deut Entomol Ges Mitt 26(2):33-36

15 May 1967 420 D482

Braconidae, Chironomidae, Insect behavior, Insect identification, Swarming. The author decribes the types of dances and the dancing societies of the Blacus types.

#### 5345-69

METHOD OF KILLING PESTS BY APPLICA-TION OF AN 0,0DILOWERALKYL PHOSPHORODITHIOYL METHYL-SUB-STITUTED MERCAPTOACETATE. PATENT 3.433.870.

A D Gutman J P Orr

Us Patent Office Offic Gaz 860(3):909

18 Mar 1969 156.65 OF2

Diloweralkyl Chemical control (pests), Diloweralkyl phosphorodithioyl methyl, O,O-, Habitats, Insects, Pesticide application, Thioglycolic acids.

#### **STUDIES ON CONTROL OF HOUSE FLIES IN** EGYPT BY CHEMOSTERILANTS. I. LABORA-TORY STUDIES ON MUSCA DOMESTICA VICINA.

M Hafez M F Osman S El-Ziady A A El-Moursy M A S Erakey

J Econ Entomol 62(2):324-329 REF

15 Apr 1969 421 J822

Apholate, Biological control (insects), Chemical Hempa, control (insects), Chemosterilants, Hempa Metepa, Musca domestica vicina, Residues, Tepa.

#### 5347-69

# EFFECT OF THE AGE OF POLLEN USED IN POLLEN SUPPLEMENTS ON THEIR NUTRI-TIVE VALUE FOR THE HONEYBEE- II. EF-FECT OF VITAMIN CONTENT OF POLLENS. H H Hagedorn M Burger

J Apicult Res 7(2):97-101 REF

1968 424.8 J82

Apis mellifera, Feed supplements, Insect nutrition, Insect physiology, Pollen, Vitamins.

#### 5348-69

EFFECT OF THE AGE OF POLLEN USED IN POLLEN SUPPLEMENTS ON THEIR NUTRI-TIVE VALUE FOR THE HONEYBEE. I. EF-FECT ON THORACIC WEIGHT, DEVELOP-MENT OF HYPOPHARYNGEAL GLANDS, AND **BROOD REARING.** 

H H Hagedorn F E Moeller J Apicult Res 7(2):89-95 REF

1968 424.8 182

Apis mellifera, Feed supplements, Glands (insects), Insect diets, Insect nutrition, Insect physiology, Insect rearing, Pollen, Thorax.

**BIBLIOGRAPHY** 

# 5349-69

**OBSERVATIONS ON TWO SPECIES OF** THE CULEX OF MELANOCONION. SUBGENUS J A Hair

Mosquito News 28(3):425-429

Scp 1968 421 M85

Culex, Insect behavior, Insect biology, Insect rearing, Ovulation.

#### 5350-69

# STUDIES ON OPILIOACARIDA (ARACHNIDA). II. REDESCRIPTION OF PARALARUS HEX-OPHTHALMUS (REDIKORZEV). L van der Hammen

Leiden Rijksmus Natuur Hist Zool Mededel 43(5):57-76

25 Sep 1968 410.9 L59

Catalogs, Acarina, Insect taxonomy, Opilioacharidae. English abstract

#### 5351-69

#### NOTES ON THE MOSQUITOES OF THE ISLAMIC REPUBLIC OF MAURITANIA. (DIPT. CULICIDAE). (2). (FR)

J Hamon M Maffi P Grenier C S Ouedraogo D Djime

Soc Entomol France Ann 11(2):371-383 REF 1966 420 F84

Anopheles, Culicidae, Dieldrin, DDT, Insect ecology, Insect vectors, Insecticide resistant insects, Malaria.

#### 5352-69

#### TRAIL LAYING IN THE SUBTERRANEAN ANT, ACANTHOMYOPS INTERJECTUS. W Hangartner

J Insect Physiol 15(1):1-4

Jan 1969 421 J825

Acanthomyops interjectus, Insect behavior, Social insects.

#### 5353-69

### THE HEMLOCK SAWFLY IN SOUTHEAST ALASKA.

J S Hard D C Schmiege US Forest Serv Res Pap PNW 65:1-12, MAP 1968 A99.9 F7625UNI

Fertility, Histology, Insect behavior, Insect migration, Insect morphology, Insect taxonomy, Laboratorics, Neodiprion tsugae, Research.

#### 5354-69

LIFE HISTORY OF HELIOLONCHE CAROLUS (NOCTUIDAE).

D F Hardwick

Lepidopterists Soc J 23(1):26-30 1969 421 L554

Insect behavior, Insect physiology, Metamorphosis, Noctuidae.

#### 5355-69

#### **DDT RESISTANCE IN ONCOPERA.**

**R J Hardy** Tasmanian J Agr 39(4):338-342

Nov 1968 23 T182T

Chemical control (insects), DDT, Dosage, Insect pests, Insecticide application, Larvae, Spraying.

#### 5356-69

#### **ELECTRON MICROSCOPIC AND BIOCHEMI-CAL CHARACTERIZATION OF COLLAGEN IN** BLATTARIAN INSECTS.

E Harper S Seifter B Scharrer J Cell Biol 33(2):385-393 REF

May 1967 442.8 J828 Blaberus craniifer, Collagen, Electron microscopy, Insect biochemistry, Leucophaca maderae.

16

#### 5357-69

#### **TOXICOLOGICAL STUDIES ON CUTWORMS.** I. LABORATORY STUDIES ON THE TOXICITY OF INSECTICIDES TO THE DARK-SIDED CUT-WORM.

C R Harris H J Svec

J Econ Entomol 61(3):788-793 REF

Jun 1968 421 J822

Biochemistry, DDT, Euxoa messoria, Experimental insects, Insecticides, Larvae, Research, Soil series, Toxicology.

#### 5358-69

#### CONTROL HOME VEGETABLE GARDEN IN-SECTS.

E D Harris

Ga Univ Coll Agr Ext Serv Circ (594):7P Feb 1969 275.29 G29C

Accident prevention, Chemical control (insects), Chlorinated hydrocarbons, Gardens, Insect pests, Insecticide application, Insecticides, Vegetables.

The following insecticides were mentioned: chlordane, diazinon, kelthane, lindane, malathion, tde, toxaphene scvin and dylox.

#### 5359-69

5360-69

ZANIA.

raphy.

5361-69

355-359

Viruses.

5362-69

S Heinig

492 REF

stract

A

133

5363-69

J Herrera

1966 420 C432

physiology, Satyridae.

1967 410 Z751

A M Heimpel

1967 SB932.15

LUS DOMESTICUS. (GE)

TERA, SATYRIDAE). (SP)

W Hausermann

1969 475 AC8

**MOSQUITOES FEEDING ON INSECT LARVAE.** P Harris D F Riordan D Cookc

Acdes acgypti, Culex tarsalis, Insect behavior, In-

ON THE BIOLOGY OF SIMULIUM DAM-

NOSUM THEOBALD, 1903, THE MAIN VEC-

MAHENGE MOUNTAINS, ULANGA, TAN-

Chemical control (insects), DDT, Epidemiology,

Insect control, Insect ecology, Insect vectors,

Onchocerciasis, Simulium damnosum, Zoogeog-

The ecology, population variations, and distribu-

tion of Simulium damnosum, the insect vector of

human onchocerciasis in Tanzania are discussed.

THE PROBLEMS ASSOCIATED WITH THE

Biological assay, Classification, Insect diseases,

THE MODIFICATION OF EMBRYOLOGIC

DIFFERENTIATION PROCESSES THROUGH TOTAL RADIOTHERAPY IN EGGS OF GRYL-

Zool Jahrbucher Abt Anat Ontog Tiere 84(4):425-

Embryology, Gryllidae, Insect eggs, Insect physiology, Orthoptera, Radiation. German ab-

HERMAPHRODITE QUILAPHOETOSUS

JANIRIOIDES (BLANCHARD). (LEPIDOP-

Chile Univ Centro Estud Entomol Publ (8):127-

Hermaphroditism, Insect abnormalities, Insect

STANDARDIZATION OF INSECT VIRUSES.

THE

sect food, Insect nutrition, Larvae, Parasitism.

TOR OF ONCHOCERCIASIS IN

Acta Trop 26(1):29-69 MAP REF

Control with DDT is recommended.

Science 164(3876):184-185 11 Apr 1969 470 SCI2

5388-69

### 5364-69

**RELATIONSHIP BETWEEN SEROTONIN AND** THE CIRCADIAN RHTHYM IN SOME NOC-TURNAL MOTHS. C F Hinks

Nature 214(5086):386-387 REF 22 Apr 1967 472 N21

Brain, Diurnal rhythm, Insect biochemistry, Insect histology, Moths, Scrotonin, Tryptophan.

#### 5365-69

#### THE FLIGHT TIMES OF SOME NOCTURNAL MOTHS.

J M Hitchen E T Hitchen C M Jackson G H A Mecrs

Entomologist (london) 02(1271):80-85

Apr 1969 421 EN8

Diurnal rhythm, Insect behavior, Insect flight, Lepidoptera, Weather.

#### 5366-69

INSECT-FLOWER ASSOCIATIONS IN THE HIGH ARCTIC WITH SPECIAL REFERENCE TO NECTAR. **B** Hocking

Oikos 19(2):359-387 MAP REF 1968 410 014 Dryas, Insect ceology, Insect populations, Nectar, Papaver, Pollination, Surveys.

5367-69

STUDY OF THE HEMOCYTES OF LOCUSTA MIGRATORIA L. (ORTHOPTERA). (FR ) J A Hoffmann

Arch Zool Exp Gen 108(2):259-291 REF

15 Sep 1967 410 AR24

Blood cells, Histochemistry, Inseet physiology, Locusta migratoria, Molting (insects). English and German abstracts.

#### 5368-69

METABOLISM OF ANILINE IN THE CATTLE TICK BOOPHILUS MICROPLUS CANESTRINI. G M Holder A J Ryan Life Sci 8(6,PT 2):313-318 REF 15 Mar 1969 442.8 L62

Anilinc, Boophilus microplus, Insect biochemistry, Insect metabolism, Radioactive tracers.

#### 5369-69

CONTRIBUTION TO THE PHYSIOLOGY OF THE GUEST-HOST-RELATIONS (MYRMECO-PHILY) IN ANTS. I. THE RELATION BETWEEN THE MYRMECOPHILIC ATEMELES- AND LOMECHUSA-LARVAE AND FORMICA. (GE ) **B** Holldohler

Z Vergleichende Physiol 56(1):1-21 REF 1967 444.8 7.3

Acetone, Attractants, Extracts, Formieidae, Insect physiology, Parasitism, Radioactive tracers, Social insects. English summary.

#### 5370-69

**GAS-LIQUID CHROMATOGRAPHY ANALYSIS** OF DDT METABOLISM IN AEDES AEGYPTI. G H S Hooper

J Econ Entomol 61(3):858-859

Jun 1968 421 J822

Acdes acgypti, Assay, Biochemistry, Chromatog-raphy, DDT, Extracts, Insect physiology, Larvae, Metabolism, Water.

#### 5371-69

# MEDIUM AND LONG-TERM CHANGES IN THE BEHAVIOR OF VISUAL NEURONES IN THE TRITOCEREBRUM OF LOCUSTS. G Horn C H F Rowell

J Exp Biol 49(1):143-169 REF

Aug 1968 442.8 B77

Acrididae, Brain, Insect physiology, Nervous system, Schistocerea gregaria, Vision.

#### 5372-69

PIGMENT MOVEMENT AND THE CRYSTAL-LINE THREADS OF THE FIREFLY EYE. G A Horridge

Nature 218(5143):778-779

25 May 1968 472 N21 Eycs, Insect anatomy, Insect morphology, Lampyridac, Optics, Pigments, Retina.

#### 5373-69

**MECHANISM OF THE INSECT EAR.** P F Howse Nature 213(5074):367-369 REF

28 Jan 1967 472 N21 Insect anatomy, Legs, Locusta migratoria, Sense organs, Stridulation.

5374-69

ELECTRON MICROSCOPY FOR THE DIAG-NOSIS OF INSECT DISEASES. (GE)

A M Huger

29-53 REF

1967 SB932.15 Diagnosis, Electron microscopy, Inscct diseases, Methodology. English summary.

#### 5375-69

HETEROTYLENCHUS SPP. PARASITISING THE AUSTRALIAN BUSH FLY: ADDITIONAL INFORMATION ON THE ORIGIN OF THE PARASITE OF THE FACE FLY. R D Hughes W L Nicholas

J Econ Entomol 62(2):520-521

15 Apr 1969 421 J822 Heterotylenchus, Musea autumnalis, Parasitism, Sphaerulariidae, Zoogeography.

#### 5376-69

THE INFLUENCE OF THE DURATION OF COPULATION ON THE FERTILITY OF THE FEMALES OF ACANTHOSCELIDES OBTEC-TUS SAY (INSECTA COLEOPTERA). (FR ) J Huignard

Acad Sci Compt Rend Ser D Sci Nat 266(12, 1ST SEMESTER):1311-1313

18 Mar 1968 505 P21 Acanthoseclides obtectus, Copulation, Fertility, Inseet behavior, Reproduction, Sex behavior.

#### 5377-69

UPTAKE OF ATMOSPHERIC WATER BY THE HEN FLEA CERATOPHYLLUS GALLINAE (SCHRANK).

**D** A Humphrics

Nature 214(5086):426

22 Apr 1967 472 N21

Ceratophyllus gallinae, Insect p Metamorphosis, Water consumptive use. Insect physiology,

#### 5378-69

THE INFLUENCE OF ENVIRONMENTAL FAC-TORS. (FR)

B Hurpin 135-161 REF

1967 SB932.15

Biological control (insects), Climate, Environment, Epizootic discases, Microbiology, Soil properties.

English summary.

# 5379-69

METEOROLOGICAL ASPECTS OF INSECT **MIGRATIONS.** G W Hurst

Endeavour 28(104):77-81 MAP REF

May 1969 472 EN2

Insect migration, Meteorology, Myzus persicae, Schistocerea gregaria, Spodoptera exigua.

A study is made of wind currents and the migration of insects. Migratory behavior of Spodoptera ex-igua, Myz00 persicae, Phytometra biloba and Schistocerca gregaria are analyzed.

#### 5380-69

**EFFECTS OF FOREST SPRAYING WITH DDT** ON AQUATIC INSECTS OF STREAMS IN NEW BRUNSWICK. SALMON F P Ide

Can Fish Res Board J 24(4):769-805 MAP REF Apr 1967 442.9 C16J

Aquatic insects, Chemical control (insects), DDT, Insect populations, Insecticide residues, Insecti-eides, Water pollution.

17

The changes in aquatic insect populations were analyzed after aerial applications of DDT were made in forested areas of New Brunswick.

# 5381-69

POSSIBILITIES OF MASS-PRODUCING IN-SECT PATHOGENS. C M Ignoffo 91-117 REF

1967 SB932.15

Biological control (insects), Cultural control (insects), Insect diseases, Insecticide resistant insects, Methodology, Microbial insecticides, Microorganisms

# 5382-69

INFECTION RATE OF CULEX PIPIENS L. MOSQUITOES WITH PARASITIZING FUNGUS ENTOMOPHTHORA CONGLOMERATA SOROK. IN THE VICINITY OF NOVOCHER-KASSK. (RUS) L Y Ilehenko

Med Parazitol Parazitarn Bolezni 37(5,SEP/OCT):613-615

1968 448.8 M469

Culex pipiens, Entomophthora, Fungus diseases (insects), Habitats, Parasitism, Vegetation. English summary.

# 5383-69

A NOTE ON THE ANATOMICAL DERANGE-MENT IN THE ROOT TISSUE OF ROOT (WILT) DISEASED COCONUT PALM. P Indira A Ramadasan

Cur Sci 37(10):290-291

20 May 1968 475 SCI23

N T lordanou F L Watters

17 Feb 1969 421 J822

J Econ Entomol 62(1):130-135 REF

eastaneum, Tribolium confusum.

N P Isakova T S Moisceva

IN IPHITA LIMBATA STAL..

**GESAPON FOR INSECT PESTS.** Weeds Tech Bull (219):4P

P I lttycheriah K K Nayar

Cur Sci 36(22):608-609

20 Nov 1967 475 SC123

Coconuts, Phytopathology, Plant morphology, Roots, Virus diseases (plants), Wilt (coconuts).

Bromophos, Chemical control (insects), Cryp-

tolestes ferrugineus, DDT, Insecticides, Lindane,

Malathion, Methoxychlor, Oryzacphilus su-rinamensis, Temperature, Toxicology, Tribolium

DECREASE IN IMMUNITY OF INSECTS

UNDER THE INFLUENCE OF BACTERIAL IN-

FECTION TRANSMITTED BY HYMENOP-TEROUS PARASITES.

Bacterial diseases (insects), Disease transmission,

Epizootic diseases, Hymenoptera, Immunology,

**OVARIAN RESPONSE TO CORPUS ALLATUM** 

Corpora allata, Insect physiology, Insect reproduction, Iphita limbata, Juvenile hormone, Ovaries.

Chemical control (insects), Diazinon, Equipment,

Insect pests, Insecticides, Organophosphorus com-

The insect pests mentioned were armyworm, black

field cricket, diamond back moth, nysius, springtail

DIFFERENCES IN LIGHT REACTIONS OF LARVAE OF THE ARMYWORM LEUCANIA

# 5384-69 TEMPERATURE EFFECTS ON THE TOXICITY OF FIVE INSECTICIDES AGAINST FIVE SPE-CIES OF STORED-PRODUCT INSECTS.

5385-69

281-282

Parasitism.

5386-69

5387-69

pounds.

5388-69

1966 79.9 W323

and grass grub.

1967 SB932.15

5389-69 SEPARATA WALKER IN RELATION TO THEIR PHASE STATUS. S Iwao Nature 213(5079):941-942 04 Mar 1967 472 N21 Insect behavior, Insect physiology, Larvac, Lcucania scparata, Light. 5389-69 LABORATORY TESTS OF LARVICIDES FOR **MOSQUITO CONTROL IN POTABLE WATERS.** (ABSTRACT). W L Jakob Pesticide Progr 5(3):74 May 1967 79.8 P434 Acdcs acgypti, Chemical control (insects), Dieldrin, DDT, Insceticide residues, Inscetieide re-sistant insects, Larvicides, Water. This abstract is from Mosquito News 25 (3): 316-319. 1965. 5390-69 CHEMOSTERILIZATION OF THE TWO-SPOTTED SPIDER MITE. I. EFFECT OF EFFECT OF CHEMOSTERILANTS ON THE BIOLOGY OF THE MITE. II. HISTOPATHOLOGICAL EF-FECT OF APHOLATE AND 5-FLUOROURACIL **ON THE REPRODUCTIVE ORGANS.** M Jalil P E Morrison J Econ Entomol 62(2):393-403 REF 15 Apr 1969 421 J822 Apholatc, Biological control (insccts), Chemical control (insects), Chemosterilants, Fluoroorotie acid, 5-, Fluorouraeil, 5-, Histopathology, Inscet biology, Inscet mortality, Reproductive organs, Stcrility, Tepa, Tctranychus urtieae. 5391-69 CHEMOSTERILIZATION OF THE TWO-SPOTTED SPIDER MITE. IV. EFFECT ON POPULATION. M Jalil P E Morrison J Econ Entomol 62(2):415-419 REF 15 Apr 1969 421 J822 Apholate, Biological control (inscets), Chemical control (insects), Chemosterilants, Fluoroorotie acid, 5-, Fluorouracil, 5-, Insect populations, Tepa, Tctranyehus urtieac. 5392-69

OBSERVATIONS ON VARIOUS TREATMENTS APPLIED IN LEBANON IN 1966 AGAINST CERATITIS CAPITATA WIED. (FR ) A Jalloul

Fruits 23(8):415-421

Sep 1968 80 F9492

Attractants, Ccratitis capitata, Chemical control

(insects), Dimethoate, Fenthion, Formothion, Inseet biology, Phosphamidon, Spraying.

#### 5393-69

CERTAIN HOST-PARASITE RELATIONSHIPS BETWEEN RODENTS (MURIDAE) AND FLEAS (APHANIPTERA). S M Janion

Ekol Pol Ser A (SER A)16(28):561-607 REF 1968 512 W263

Insect behavior, Inseet eeology, Parasitism, Rodents, Siphonaptera. Polish summary.

5394-69

#### **INSECT ANSWERS; INSECTICIDE TOXICITY** TO ALFALFA-POLLINATING BEES.

C Johansen A H Retan Wash State Univ Ext E M (2784):2P

Jan 1969 275.29 W27MI Alfalfa, Bees, Inscct pollinators, Insccticides, Plant

protection, Toxicology. Many insecticides are listed.

#### 5395-69

**INSECTS AND RELATED PESTS OF HOUSE** PLANTS; HOW TO CONTROL THEM.

G V Johnson F F Smith

USDA Home Gard Bull (67):16P

Jan 1969 I AG84HG

Chemical control (pests), Chlordane, Chlorinated hydrocarbons, DDT, Household pests, Insect pests,

BIBLIOGRAPHY Lindane, Malathion, Organophosphorus compounds, Pesticide application, Rotenone, Spraying. Many household pests were discussed. 5396-69 CHANGES IN THE HEMOCYTE PICTURE OF GALLERIA MELLONELLA (LINNAEUS). J C Jones Biol Bull 132(2):211-221 Apr 1967 442.8 B52 Blood eells, Galleria mcllonclla, Hemolymph, Inseet eytology, Mctamorphosis. 5397-69 SPERMATOCYSTS IN AEDES AEGYPTI (LIN-NAEUS). J C Jones Biol Bull 132(1):23-33 Feb 1967 442.8 B52 Aedes aegypti, Inscct histology, Inscct physiology, Metamorphosis, Spcrmatocytcs, Spcrmatogenesis. 5398-69 **REDUCTION OF FLIGHT ORGANS IN SOME** CRYPTOBRACHYPTEROUS LYGAEIDAE (HEM., HET., LYGAEIDAE). (GE) K H C Jordan Deut Entomol Ges Mitt 20(4):59-62 15 Aug 1961 420 D482 Hemiptera, Heteroptera, Inseet flight, Lygaeidae, Physiology, Visecra, Wings (inscets). 5399-69 CYTODIFFERENTIATION DURING INSECT METAMORPHOSIS: THE GALEA OF SILK-MOTHS. F C Kafatos N Feder Science 161(3840):470-472 02 Aug 1968 470 SCI2 Anthcraea pernyi, Antheraea polyphemus, Cytology, Dcoxyribonucleic acid, Enzymes, Metamorpho-sis, Ribonucleie acid, Synthesis. 5400-69 **RECORD OF A TACHINID PARASITE, ALSO-**MYIA ANOMALA VILLEN, SESAMIA IN-FERENS WLK.. A N Kalra T N Srivastava Cur Sci 36(2):51 20 Jan 1967 475 SCI23

15 Jan 1967 442.8 L62

Drosophila melanogaster, Fatty acids, Hex-adecenoie aeid compounds, 9-, Inseet bioehemistry, Insect metabolism, Radioaetive tracers.

#### 5405-69

**COMMON SOYBEAN INSECTS.** 

D L Keith R E Roselle L W Anderson Nebr Univ Ext Ec (69-1521):2P 1969 275.29 N272EX

Insect pests, Insect physiology, Soybcans. Fifteen different soybcan insects are discussed.

**INCIDENCE OF BACILLUS POPILLIAE (DUT-KY) IN COSTELYTRA ZEALANDICA (WHITE)** LARVA.

J M Kclscy

New Zeal Entomol 3(5):67-68

Dcc 1966 421 N48

Baeillus popilliae, Baeteria, Biochcmistry, Costclytra zcalandica, DDT, Larvac, Population, Statistieal analysis, Superphosphates.

#### 5407-69

**BIOSYSTEMATICS OF PHYTOSEIULUS PER-**SIMILIS ATHIASHENRIOT (ACARINA: PHYTOSEIIDAE).

C E Kennett L E Caltagirone Acarologia 10(4):563-577 REF

Dcc 1968 434.8 AC1

Amblyseius, Biological control (inscets), Inseet biology, Inseet genetics, Inscet rearing, Inseet tax-onomy, Mites, Phytoseiulus persimilis, Tetranychus urtieae, Zoogeography.

#### 5408-69

**BIOCHEMICAL CORRELATES OF RESPIRA** TORY AND DEVELOPMENTAL CHANGES IN ANOXIC TRIBOLIUM CONFUSUM PUPAE. G S Kennington S Cannell

Physiol Zool 40(4):403-408

Oct 1967 410 P56

Anoxia, Fats, Insect biochcmistry, Insect morphology, Insect respiration, Lactic aeid, Metamorphosis, Pupae, Tribolium confusum.

5409-69

INVESTIGATIONS CONCERNING RE-SISTANCE TO COLD OF ARANEUS CORNU-TUS (ARANEIDAE). (GE ) W Kirchner P Kestler

J Insect Physiol 15(1):41-53 REF

Jan 1969 421 J825

Hibernation, Inscet physiology, Spiders, Temperature. English summary.

#### 5410-69

FABR.

THE SIGNIFICANCE OF OVIPOSITION RATES IN THE EGG PARASITE, TRICHOGRAMMA EMBRYOPHAGUM HTG..

H Klomp B J Tcerink Arch Neer Zool 17(3):350-375 REF

Nov 1967 410 AR27

Insect ecology, Insect eggs, Ovulation, Population, Trichogramma cmbryophagum.

#### 5411-69

**GRASSHOPPER CONTROL, 1969.** 

**G** F Knowlton

Utah State Univ Ext Ext Leafl (75):11P 1969 275.29 UTIL

Aeeident prevention, Alfalfa, Carbamates, Chemical control (insects), Chlorinated hydrocarbons, Grasshoppers, Insect pests, Insecticide application, Insecticides, Methodology, Organophosphate compounds, Pastures.

#### 5412-69

ACTION OF PROTEINIC BRAIN HORMONE TO THE PROTHORACIC GLAND IN AN IN-SECT, BOMBYX MORI L. (LEPIDOPTERA: BOMBYCIDAE).

M Kobayashi Y Ishitoya M Yamazaki

Appl Entomol Zool 3(3):150-152

Sep 1968 SB599.A6

Bombyx mori, Brain, Hormoncs, Inscct biology, Nucleic acids, Proteins, Ribonucleie acid.

FLUCTUATIONS IN NUMBERS AND REDUC-TION OF THE COLORADO BEETLE (LEP-TINOTARSA DECEMLINEATA SAY) IN NATU-**RAL CONDITIONS.** J Karg P Trojan

**HISTO-MORPHOLOGY OF THE OVARIOLE IN** 

Carabidae, Insect histology, Reproductive organs.

Ekol Pol Ser A (SER A)16(5):147-169 REF

Insect eggs, Insect populations, Larvae, Leptinotar-

sa decemlincata, Natural control (insects). Polish

METABOLISM OF THE MUSCLE OF THE

Enzymes, Glycolysis, Insect metabolism, Muscles,

MELANOGASTER: FORMATION OF PAL-

METABOLISM

IN

D.

HILARIS,

Scsamia inferens, Tachinidae.

(CHRABIDAE: COLEOPTERA).

N P Kalyanam K Shanmugham

5401-69

5402-69

PHEROSOPHUS

1968 512 W263

summary.

SCORPION.

Scorpionida.

MITOLEATE.

5404-69

FATTY

A D Kcith

G Kaur M S Kanungo

Life Sci 6(2,PT 2):113-117 REF 15 Jan 1967 442.8 L62

ACID

Life Sci 6(2,PT 2):213-218 REF

5403-69

Cur Sci 37(4):105-106

20 Feb 1968 475 SCI23

5436-69

#### 5413-69

ESTIMATION OF THE INDIVIDUAL NUMBER ENTERING EACH DEVELOPMENT STAGE IN AN INSECT POPULATION.

S Kobayashi

Res Population Ecol 10(1):40-44 REF Jun 1968 420 K99

Insect ecology, Insect eggs, Insect physiology, In-sect rearing, Mortality, Pieris rapae, Population, Reproduction. Japanese summary.

CHLORINATED HYDROCARBON INSECTI-CIDE INHIBITION OF COCKROACH AND HONEY BEE ATPASES.

R B Koch L K Cutkomp F M Do Life Sci 8(6,PT 2):289-297 REF

15 Mar 1969 442.8 L62

Apis mellifera, Chlordane, Chlorinated hydrocarbons, Dicofol, DDT, Insect metabolism, Insecticide resistant insects, Insecticides, Lindane, Periplaneta americana, Toxicology.

Specific enzyme inhibitory activities of DDT and its derivatives, dicofol, chlordane and lindane have been studied on Na&-K& ATPase and Mg& AT-Pase from nerve cord and muscle tissue of the American cockroach and brain from worker honey bees. There were considerable differences in magnitude of inhibition and in the type of ATPase in-hibition by the different insecticides acting on the different tissues.

#### 5415-69

ON ECOLOGY AND PHENOLOGY OF HEP-TATOMA PELLUCENS F. (TABANIDAE, DIP-TERA). (RUS)

**O F Kolesova** 

Med Parazitol Parazitarn Bolezni 37(5,SEP/OCT):585-588

1968 448.8 M469

Diptera, Insect ecology, Larvac, Reservoirs, Tabanidae. English summary.

#### 5416-69

THE EFFECT OF BAROMETRIC PRESSURE AND OTHER FACTORS ON ECLOSION OF THE CABBAGE BUTTERFLY PIERIS RAPAE (PIERIDAE).

J M Kolyer H B Palmer Lepidopterists Soc J 22(4):211-225 REF

1968 421 L554

Barometric pressure, Insect physiology, Picris rapac.

#### 5417-69

**CONTRIBUTION TO THE STUDY OF HIGHER TERMITE DIGESTION. (FR )** 

J Kovoor

Paris Acad Agr France Compt Rend Hebd Seances 53(4):331-332

1967 14 P215BC

Bacteria, Cytology, Digestion, Insect histology, In-sect morphology, Insect physiology, Isoptera.

### 5418-69

RADIOGRAPHIC STUDY OF INTESTINAL TRANSIT IN A HIGHER TERMITE. (FR )

Ј Коуоог Experientia 23(10):820-821 15 Oct 1967 475 EX7

Gastrointestinal system, Insect physiology, Isop-tera, Radiography. English abstract.

AN OCTOSPOREOSIS OF THE BLACK BLOWFLY PHORMIA REGINA: EFFECT OF TEMPERATURE ON THE LONGEVITY OF DIS-EASED ADULTS. J P Kramer

Tex Rep Biol Med 26(2,SUMMER):199-204 1968 448.8 T31

Insect diseases, Longevity, Octosporca, Phormia regina, Protozoa, Temperature.

# 5420-69

INDUCED VIRESCENT-BUD MUTATION IN **GOSSYPIUM HIRSUTUM.** R Krishnaswami

Cur Sci 36(14):387

20 Jul 1967 475 SCI23 Coccus viridis, Entomophthora, Fungus discases (insects), Morphology.

SOME REGULARITIES IN THE ZONAL DIS-**TRIBUTION OF ORIBATOID MITES. (RU)** 

D A Krivolutsky Oikos 19(2):339-344

1968 410 OI4

Humidity, Insect ecology, Oribatei, Solar radiation, Vegetation. English abstract.

#### 5422-69

# NOTES ON THE SWEDISH SPECIES OF THE GENUS CENTROMERUS F. DAHL. (ARANEAE, ELINYPHIIDAE). A FAUNISTIC REPORT WITH ECOLOGICAL REMARKS.

T Kronestedt Entomol Tidskr 89(1-2):111-127 MAP REF

10 Aug 1968 421 EN891

Ecology, Life cycle, Linyphiidae, Spiders, Zoogcography. English abstract

CO-RESISTANCE AND RESISTANCE IN-HERITANCE IN A DIELDRIN RESISTANT LABORATORY STOCK OF THE CLOTHES MOTH (TINEOLA BISSELLIELLA (HUM.), LEP.). (GE)

H Kuhne Zool Beitr 13(2-3):397-407 REF 1967 410 2753

Chlordanc, Dieldrin, DDT, Endrin, Inheritance, Insect breeding, Insecticide resistant insects, Labora-tory insects, Tincola bisselliella.

#### 5424-69

A TECHNIQUE FOR MAINTENANCE AND REARING OF ODOIPORUS LONGICOLLIS. K Kumar

J Econ Entomol 62(2):528-529

15 Apr 1969 421 J822

Bananas, Insect pests, Insect rearing, Insect rearing equipment, Odoiporus longicollis.

#### 5425-69

# EFFECT OF AERIAL SPRAYING FOR THE CONTROL OF GREEN RICE LEAFHOPPER IN AUTUMN, TRANSL. 17058.

T Kumazawa S Yanaka K Oda F Toyoda 5P

Aerial spraying, Chemical control (insects), Insecticides, Malathion, Nephotettix cineticeps. Translation from Proc. Kanto-Tosan Plant Protect. Soc. 10:45, 1963. translated by Y. Tsukano.

#### 5426-69

CONDITIONS FOR THE MASSIVE MULTIPLI-CATION OF THE INTESTINAL CYTOPLASMIC VIRUS OF MAMESTRA BRASSICAE L. (LEPIDOPTERA). (FR)

E Kurstak 131-132

1967 SB932.15

Cytoplasm, Insect diseases, Intestines, Mamestra brassicae, Reproduction, Virology.

#### 5427-69

MALE GENITALIA OF THE SPECIES OF DEPRESSARIA HAWORTH S. L. (LEPIDOP-TERA, OECOPHORIDAE) OCCURRING IN THE NETHERLANDS (ADDENDA). W Van Laar

Leiden Rijksmus Natuur Hist Zool Mededel 43(7):95-96

25 Scp 1968 410.9 L59

Insect morphology, Lepidoptera, Occophoridae, Reproductive organs.

5428-69

# LIFE HISTORY AND LIFE TABLE OF TETRANYCHUS URTICAE KOCH. J E Laine Acarologia 11(1):32-42 REF

Jan 1969 434.8 AC1

Inscet biology, Tetranychus urticae. French abstract.

19

5429-69

TRANSMISSION EXPERIMENTS ON THE TUN-GRO VIRUS IN THAILAND. H A Lamcy P Surin J Leeuwangh Int Rice Comm News Lett 16(4):15-19 Dcc 1967 59.9 IN83N

Insect collecting equipment, Insect physiology, Inscct vcctors, Nephotettix impicticeps, Plant disease transmission, Plant diseases, Symptomatology, Tables (data), Tungro discase, Virus diseases (plants).

Inazuma dorsalis, Thrips sp., Sogatella furcifcra, Thaia oryzivora, Balclutha viridis, Nilaparvata lugens and Nephotettix viridis were also tested for transmission ability.

#### 5430-69

HOUSE FLY CONTROL BY CHEMICAL STERILIZATION WITH APHOLATE. J L Lancaster J S Simeo Ark Agr Exp Sta Bull (737):12P REF

Jan 1969 100 AR42

Apholate, Chemical control (insects), Insecticides, Musca domestica, Sterility.

# 5431-69

EXPERIMENTS WITH AN ARTIFICIAL SPER-MATOPHORE **COCKCHAFER** (MELOLONTHA MELOLONTHA L.). V Landa

Acta Ent Bohemoslov 58(4):297-301 1961 420 C33

Glands (insects), Insect morphology, Melolontha melolontha, Reproductive organs, Spermatophores. Czcch summary.

#### 5432-69

EFFECT OF LIGATURING ON PUPARIUM FORMATION IN THE LARVA OF THE TSETSE FLY, GLOSSINA MORSITANS WESTWOOD. P A Langley

Nature 214(5086):389-390

22 Apr 1967 472 N21

Brain, Ecdysone, Glossina morsitans, Insect physiology, Larvac, Metamorphosis, Pupal cases, Sutures.

#### 5433-69

1967 SB932.15

69

5434-69

N V Lappa

Inscct pests.

FROM RESEARCH.

May 1969 80 G85

Amer Fruit Grower 89(5):32

(F. AND R.) LARVAE. (FR)

27 Nov 1967 505 P21

J R Le Berre Y Sinoir C Boulay

5435-69

P Larsen

5436-69

1967 SB932.15

264-265

COMPARISON OF THE STRUCTURE OF SYM-BIOTIC BACTERIA IN VARIOUS SAP SAP SUCKING INSECTS. (FR) M Laporte

Aphididac, Baeteria, Electron microscopy, Pen-tatomidac, Symbiosis.

USE OF HISTOPATHOLOGY INDICES OF HAEMOLYMPH FOR THE PROGNOSIS OF MASS PROPAGATION OF PESTS.

Biological control (insects), Diagnosis, Epizootic

diseases, Haemolymph, Histology, Insect diseases,

**INTEGRATED INSECT CONTROL - A PAYOFF** 

Agricultural research, Entomology, Fruit culture, Insect ecology, Integrated control (insects), Predaccous insects.

STUDY OF THE SENSORY EQUIPMENT OF THE DISTAL JOINT OF THE PALPI IN LOCUSTA MIGRATORIA MIGRATORIOIDES

Acad Sci Compt Rend Ser D Sci Nat 265(22, 2ND SEMESTER):1717-1720

# 5437-69

Insect physiology, Locusta migratoria migratorioides, Mechanorceeptors, Mouth parts.

#### 543.7-69

MUTATIONS PRODUCED BY TRANSMUTA-TION OF PHOSPHORUS-32 TO SULFUR-32 WITHIN DROSOPHILA DNA. W R Lcc G A Sega C F Alford

Nat Acad Sci Proc 58(4):1472-1479 REF

Oct 1967 500 N21P

Deoxyribonueleie acid, Drosophila melanogaster, Insect biochemistry, Insect geneties, Phosphorus isotopes, Sulfur isotopes.

#### 5438-69

CYCLOPHORA PUPILLARIA HB. IN BELGIUM (LEPIDOPTERAGEOMETRIDAE). (FR ) A Legrain

Lambillionea 66(9110):76

05 Sep 1967 420 N15

Geometridae, Insect behavior, Insect migration, Zoogeography.

#### 5439-69

# REGULATION OF TRYPTOPHAN METABOL-ISM IN THE PARASITIC WASP, HABROBRACON JUGLANDIS.

F Leibenguth

Experientia 23(12):1069-1071 REF

15 Dec 1967 475 EX7 Enzymes, Habrobracon, Insect metabolism, Tryp-

tophan.

SUSCEPTIBILITY OF INSECTS TO ENTOBAC-TERIN.

A Leskova

214-215

1967 SB932.15

Bacillus cercus, Bacterins, Biological control (insects), Insect pests, Insecticide resistant insects.

#### 5441-69

# A MOLECULAR BOMB FOR THE WAR AGAINST INSECTS.

L Lessing

Amer Forests 75(1):16-19,42-44

Jan 1969 99.8 F762

Chemical control (insects), Insect pests, Insectieides.

The history and application of hormonal insecticides are discussed. This may greatly relieve the chemical contamination of the environment with presently used synthetic organic compounds.

#### 5442-69

#### SEX ATTRACTANT IDENTIFIED IN CLICK BEETLES OF THE SUGAR-BEET WIREWORM. C E Lilly

Canada Agr 14(1,WINTER):14-15

1969 7 R31

Biological control (inscets), Elateridac, Inscet pests, Limonius californicus, Sex attractants.

### 5443-69

THE RELATIONS BETWEEN TRANSPIRA-TION, HUMIDITY REACTION, THIRST AND WATER CONTENT IN THE SHOREBUG SAL-DULA SALTATORIA L. (HETEROPTERA: SAL-DIDAE).

P Lindskog

Arkiv Zool 20(6):465-493 REF

15 Nov 1968 410.9 SV22

Insect physiology, Mctabolism, Saldidac, Water, Weather.

#### 5444-69

SOME OBSERVATIONS ON FLAGELLATE PARASITES OF HEMIPTERANS CORIMELAENA, EUSCHISTUS, GERRIS, LEP-TOCORIS AND ONCOPELTUS IN THE UNITED STATES.

J J Lipa

Acta Protozool 6(1-11):59-67 REF

1969 439.8 AC8

Flagella, Hemiptera, Insect diseases, Parasitism, Trypanosomatidae.

#### 5445-69

# BREEDING LYSANDRA CORIDON AB. SYN-GRAPHA.

BIBLIOGRAPHY

C G Lipscomb

Entomol Rec J Variation 80(11):284-285

Nov 1968 421 EN89

Food, Insect biology, Insect rearing, Lysandra coridon.

5446-69

#### THE BIOLOGY AND CONTROL OF THE CEANOTHUS STEM-GALL MOTH, PERIPLOCA CEANOTHIELLA (COSENS). N F Lolonis

Calif Hort Soc J 29(3):89-92 Jul 1968 81 C1293

Biological control (insects), Ceanothus, Chemical control (insects), Chlorinated hydrocarbons, Cultural control (insects), Diazinon, Dimethoate, DDT, Insect biology, Insecticides, Organophosphorus compounds, Oxydemetonmethyl, Plant pest control.

# 5447-69

# THE LEATHERJACKET RISK GROWS. E Long

Farmers Weekly 70(5):V-VI

31 Jan 1969 10 F2226

Baits, Benzenc hexachloridc, Chemical control (insects), Chlorinated hydroearbons, DDT, Insect behavior, Insect outbreak forecasting, Insect pests, Insect traps, Larvae, Tipulidae, Zoogeography.

#### 5448-69

QUANTITATIVE STUDY OF DIVERGENCE IN THE MORPHOLOGICAL EVOLUTION OF CERTAIN INFRASPECIFIC ENTITIES IN DOMESTIC HONEYBEES (A. MELLIFERA L.). (FR)

J Louis J Lefebvre

Acad Sci Compt Rend Ser D Sci Nat 266(11, 1ST SEMESTER):1131-1133

11 Mar 1968 505 P21

Apis mellifera, Insect evolution, Insect morphology, Statistical analysis.

#### 5449-69

#### MORPHOLOGY, ANATOMY AND DEVELOP-MENT OF THE GALL OF RHABDOPHAGA RAMICOLA RUBS. IN SALIX PURPUREA L. (FR)

E Loux J Mcycr

Marcellia 34(3):135-169 REF

Dcc 1967 421 M33

Cccidomyiidac, Insect anatomy, Insect morphology, Plant galls, Rhabdophaga, Silvex.

5450-69

#### MORPHOLOGY AND CHEMISTRY OF THE PARASPORAL BODY OF BACILLUS FRIBOUR-GENSIS.

P Luthy L Ettlinger

54-58

1967 SB932.15

Bacillus fribourgensis, Biochemistry, Insect discases, Melolontha melolontha, Methodology, Milky discase, Sporangia.

#### 5451-69

#### A BIOASSAY TO CHARACTERIZE STRAINS AND PREPARATIONS OF BACILLUS THURIN-GIENSIS BERLINER.

H P Maas Geesteranus J P W Noordink C A Van Den Anker

302-306

1967 SB932.15

Bacillus thuringiensis, Bacterial discases (insects), Biological assay, Caterpillars, Insect behavior, Methodology, Radioactive tracers.

# 5452-69

SUITABILITY OF PATHOGENS FOR BIOLOGI-CAL CONTROL. J W MacBain Cameron

182-196 REF

1967 SB932.15

Bacteria, Biological control (insects), Costs, Fungi, Insect diseases, Viruses.

20

5453-69

THE DISTRIBUTION OF NYMPHS OF BRACHYPTERA RISI MORT. AND NEMOURA FLEXUOSA AUB. (PLECOPTERA) IN RELA-TION TO OXYGEN. B L Madscn

Oikos 19(2):304-310

1968 410 OI4

26 Feb 1968 505 P21

Microorganisms, Ova.

C M C Martinez

Jun 1967 421 F55

27 Fcb 1968 501 L84B

ON

Cur Sci 36(13):356-357

05 Jul 1967 475 SCI23

Scp 1968 SB599.A6

**BORER CONTROL.** 

15 Apr 1969 80 AM371

secticides, Spraying, Trees.

GANIC SULFUR COMPOUNDS.

Y Matsumoto A J Thorstcinson

Amer Nurseryman J 129(8):10,85

(ACARINA: TETRANYCHIDAE).

Appl Entomol Zool 3(3):107-111 REF

Larvae, Smell, Sulfur compounds, Thiols.

Insect behavior, Insect ecology, Nemoura, Nymphs, Oxygen, Plecoptera.

#### 5454-69

5455-69

5456-69

REF

5457-69

NOTES

Larvac.

5458-69

5459-69

5460-69

ticae.

W D McEnroe

Acarologia 11(1):29-31

Jan 1969 434.8 AC1

C McComb

K C Mathur

(SP)

ON THE TRANSPORT OF MICROORGANISMS (PHI PARTICLES) BY THE FEMALE GER-MINAL CELLS IN THE HOMOPTERAN TYPHLOCYBA DOUGLASI EDW.. (FR ) P L Maillet R Folliot

Acad Sci Compt Rend Ser D Sci Nat 266(9, 1ST SEMESTER):923-925 REF

Cicadellidae, Electron microscopy, Insect vectors,

**DIAGNOSIS OF THE DISEASES OF INSECTS.** 

Fungus diseases (insects), Insect diseases, Nc-

THE CALCIUM SENSITIVITY OF ATPASE AC-

TIVITY OF MYOFIBRILS AND ACTOMYOSINS FROM INSECT FLIGHT AND LEG MUSCLES.

Roy Soc Proc Ser B, Biol Sci 169(1016):229-240

Actomyosins, Adenosine triphosphatase, Antimetabolites, Apis mellifera, Calcium, Enzymes,

Insect physiology, Lethoeerus maximus, Locusta migratoria, Museles, Xyloryetes jamaicensis.

CAMERON (HYM.: ICHNEUMONIDAE) AN IN-

TERNAL LARVAL PARASITE OF HELIOTHIS ARMIGERA (HUBNER) IN INDIA.

Heliothis armigcra, Ichneumonidac, Insect rearing,

**OLFACTORY RESPONSE OF LARVAE OF THE** 

ONION MAGGOT, THYLEMYA ANTIQUA MEIGEN (DIPTERA: ANTHOMYIIDAE) TO OR-

Anthomyiidae, Hylemya antiqua, Insect behavior,

SOUTHERN TREE CHAPTER BRIEFED ON

Chemical control (insects), Chlorinated hydrocarbons, Dieldrin, Dimethoate, DDT, Insect pests, In-

A TACTILE SETA OF THE TWO-SPOTTED SPIDER MITE, TETRANYCHUS URTICAE K.

Electron microscopy, Hair, Insect morphology, Mechanoreceptors, Sense organs, Tetranychus ur-

BANCHOPSIS RUFICORNIS

matodes, Protozoa, Virus diseases (insects).

K Maruyama J W S Pringle R T Tregear

Fitofilo (58, APR-MAY, JUN): 17-37

5484-69

# 5461-69

HOST PREFERENCES AND DISCRIMINATION BY THE MOSQUITOES AEDES AEGYPTI AND CULEX TARSALIS (DIPTERA: CULICIDAE). S B Melver

J Med Entomol 5(4):422-428 REF

30 Oct 1968 421 J828

Acdes acgypti, Attractants, Chicks, Culex tarsalis, Culicidae, Insect behavior, Medical entomology, Mice, Odors.

#### 5462-69

**IMMUNITY IN THE INVERTEBRATES. I. STU-**DIES ON THE NATURALLY OCCURRING HAEMAGGLUTININS IN THE FLUID FROM INVERTEBRATES.

D McKay C R Jenkin D Rowley

Australian J Exp Biol Med Sci 47(1):125-134 Feb 1969 442.8 AU7

Hemagglutination, Hemolymph, Immunology, Invertebrates, Opsonins.

Investigations have been made on the distribution of hacmagglutinins in the hacmolymph of various invertebrates. Studies indicate they may serve as opsonins. The importance of this aspect with respect to invertebrate immunology is discussed.

#### 5463-69

THE 24-INCH BRANCH AS A SAMPLE UNIT FOR EGG MASS SURVEYS OF THE WESTERN **BUDWORM.** 

M E McKnight

Pacific Southwest Forest Range Exp Sta Res Note PSW- (122):2P

1968 A99.9 F7632US

Choristoneura occidentalis, Inseet eggs, Inseet populations, Methodology, Pruning, Pseudotsuga menziesii, Sampling (statistics).

# 5464-69

#### COLUMBIAN TIMBER BEETLE, THE CORTHYLUS COLUMBIANUS. VII. THE EF-FECT OF CLIMATIC INTEGRANTS ON HISTORIC DENSITY FLUCTUATIONS. M L McManus R L Giese

Forest Sci 14(3):242-253 MAP REF Sep 1968 99.8 F7632

Acer rubrum, Acer saccharinum, Climate, Demography, Predaceous insects, Seolytidae.

#### 5465-69

POLYNEMA STRIATICORNE GIRAULT (HYMENOPTERA: MYMARIDAE), (HYMENOPTEKA: MYMAKIDAE), A PARASITE OF THE BUFFALO TREEHOPPER, STICTOCEPHALA BUBALUS (F.) (HOMOP-TERA: MEMBRACIDAE), IN QUEBEC. B P Mehra R O Paradis

Entomol Soc Quebec Ann 12(2):97-99 REF

May 1967 420 EN822

Eggs, Hymenoptera, Insect biology, Parasitic insects, Stietocephala bubalus.

#### 5466-69

**INVESTIGATIONS INTO THE HONEY BEE'S** LEARNING OF SPECTRAL COLORS. (GE) R Menzel

Z Vergleichende Physiol 56(1):22-62 REF 1967 444.8 Z3

Apis mellifera, Color, Experimental insects, Insect behavior. English summary.

# 5467-69

# THE INFLUENCE OF LIGHT AND TEMPERA-TURE VARIATIONS ON THE BEHAVIOR AND FECUNDITY OF THE LARCH-BUD MOTH ZEIRAPHERA DINIANA (GN.) (LEPIDOPTERA: TORTRICIDAE). (GE)

D Meyer

Rev Suisse Zool 76(1):93-141 REF

Mar 1969 410 R324

Diurnal rhythm, Fertility, Insect behavior, Insect rearing, Larix, Light, Temperature, Zeiraphera diniana. English and French abstracts.

#### 5468-69

THE BREEDING OF LYTTA VESICATORIA IN THE LABORATORY AND DEMONSTRATION

#### OF CANTHARIDIN SYNTHESIS IN LARVAE. (GE)

D Meyer Ch Schlatter I Schlatter-Lanz H Schmid P Bovey

Experientia 24(10):995-998

15 Oct 1968 475 EX7

Cantharidin, Insect rearing, Larvae, Lytta vesicatoria, Meloidae, Metamorphosis, Polymorphism, Sex, Synthesis.

5469-69

IN VIVO AND IN VITRO CYTOLOGICAL DIAGNOSIS OF DENSONUCLEOSIS IN DIAGNOSIS LEPIDOPTERA. (FR) G Meynadier

22-25

1967 SB932.15

Biopsy, Cytology, Diagnosis, Electron microscopy, Galleria mellonella, Insect diseases, Lepidoptera, Symptomatology, Tissue culture, Virology.

#### 5470-69

MOSQUITO CONTROL AGENTS DERIVED FROM PETROLEUM HYDROCARBONS. III. THE EFFECT OF FLIT MLO ON FIRST AND SECOND LARVAL INSTARS.

D W Micks G V Chambers S Montalbano C

Daoud J Econ Entomol 62(2):455-458

15 Apr 1969 421 J822

Acdes acgypti, Chemical control (insects), Culex pipiens quinquefasciatus, Culicidae, Dosage, Hydrocarbons, Insect abnormalities, Insect physiology, Larvae, Petroleum.

# 5471-69

INSECT AND MITE CONTROL ON ORNAMEN-TALS.

R L Miller R L Campbell Ohio State Univ Ext Bull (504):24P

1969 275.29 OH32

Accident prevention, Chemical control (insects), Dairy equipment, Dosage, Insecticide application, Insecticide resistant insects, Insecticides, Light traps, Mites, Oils, Ornamental plants.

#### 5472-69

HOME GARDEN INSECT CONTROL.

R L Miller J P Sleesman

Ohio State Univ Ext Bull 498:16P

Jan 1969 275.29 OH32

Acaricides, Accident prevention, Chemical control (insects), Dairy equipment, Gardens, Insect pests, Insecticides, Light traps, Mitcs, Slugs, Soil insects. Many insecticides and acaricides are recom-mended.

5473-69

#### THE OPTICS OF INSECT COMPOUND EYES.

W H Miller G D Bernard J L Allen Science 162(3855):760-767 REF 15 Nov 1968 470 SCI2 Compound eye, Insect anatomy, Insect physiology,

Light.

# 5474-69

**BIOCHEMICAL ASPECTS OF JUVENILE HOR-**MONE ACTION IN THE ADULT LOCUSTA MIGRATORIA. A K Minks

Arch Neer Zool 17(2):175-257 REF Jun 1967 410 AR27

Electron microscopy, Electrophoresis, Insect biochemistry, Juvenile hormone, Locusta migratoria, Tissue culture.

# 5475-69

THE EFFECT OF REDUCTION IN STREAM FLOW ON INVERTEBRATE DRIFT. G W Minshall P V Winger Ecology 49(3):580-582 SPRING 1968 410 EC7 Distribution, Invertebrates, Light, Streams, Velocity, Zoogcography.

21

A BIPOLAR DIFFERENTIATED GYNAN-DROMORPH OF CULEX TARSALIS COQUIL-LETT, FROM TEXAS. C J Mitchell T B Hughes J Med Entomol 6(1):78 30 Jan 1969 421 J828 Culex tarsalis, Culicidae, Gynandromorphism, Insect morphology, Medical entomology.

#### 5477-69

5476-69

COMPARISONS OF CELLS, REFRACTILE BODIES, AND SPORES OFF BACILLUS POPIL-LIAE. B M Mitruka R N Costilow S H Black R E Pepper J Bacteriol 94(3):759-765 REF Scp 1967 448.3 J82 popilliae, Bacillus Biochemistry, Electron microscopy, Physiology, Spores.

#### 5478-69

KARYOLOGICAL STUDIES ON THE INDIAN SPIDERS. VIII. MITOSIS AND MEIOSIS IN TWO SPECIES BELONGING TO THE FAMILY GNAPHOSIDAE. O P Mittal

Genetica 38(4):516

1967 442.8 G282

Chromosomes, Cytology, India, Meiosis, Mitosis, Research, Sex, Spiders.

5479-69

# EFFECT ON APHID FEEDING OF DIETARY METHIONINE.

T E Mittler Nature 214(5086):386 22 Apr 1967 472 N21 Amino acids, Aphididae, Feeding, Insect behavior, Insect nutrition, Insect physiology, Methionine, Myzus persicae.

#### 5480-69

1967: THE RESULTS OF ARTIFICIAL BIOLOGICAL CONTROL OF THE OLIVE FLY. THE  $(\mathbf{IT})$ 

#### S Monastero

Agricoltura 17(6):50-53 MAP

Jun 1968 16 AG8226

Biological control (insects), Costs, Dacus oleac, Insect dissemination, Insect rearing, Olives, Opius, Parasitism. English and French summarics.

#### 5481-69

5482-69

MORI L.

5483-69

5484-69

M Muhlenberg

T D Mukerjea

Oct 1968 410 Z7

LET AND PINK MITE.

**UTILIZATION OF LARVAL CHOLESTROL-4-C14 FOR REPRODUCTION IN HOUSE FLIES** FED UNLABELED CHOLESTEROL IN THE ADULT DIET.

Carbon isotopes, Cholesterol, Insect eggs, Insect

metabolism, Larvae, Musca domestica, Oogenesis,

**PRODUCTION OF DAUER PUPAE IN BOMBYX** 

Bombyx mori, Brain, Hormones, Insect morphology, Metamorphosis, Pupae, Secretion.

ON THE MORPHOLOGY OF THE LAST AB-

DOMINAL SEGMENT OF FEMALE BOM-BYLIIDAE (DIPTERA). (GE )

A NEW CHEMICAL FOR CONTROL OF SCAR-

Zool Anz 181(3-4, SEP-OCT): 277-279

Tocklai Exp Sta Newslett 13(3):94-100

Abdomen, Bombyliidae, Insect morphology.

R E Monroe C S Polityka N J Lamb Entomol Soc Amer Ann 61(2):292-296 15 Mar 1968 420 EN82

Radioactive tracers, Sterols.

S Morohoshi N Urabe

Nature 213(5077):736

18 Feb 1967 472 N21

# 5485-69

Scp 1966 68.18 T93

Acaricides, Binapacryl, Brevipalpus phoenicis, Chemical control (insects), Insect pests, Tea.

# 5485-69

THE EFFECT OF PREDATOR AGE ON THE FUNCTIONAL RESPONSE OF PODISUS MACU-LIVENTRIS TO THE PREY SIZE OF GAL-LERIA MELLONELLA. M K Mukerji E J LeRoux

Can Entomol 101(3):314-327 REF Mar 1969 421 C16

Aging, Galleria mellonella, Podisus maculiventris, Predaceous insects, Starvation.

#### 5486-69

# CONTROL OF PASTURE AEDES MOSQUITOES BY DRIPPING LARVICIDES INTO FLOWING WATER, WITH NOTES ON **RESIDUES IN A PASTURE HABITAT.**

M S Mulla H A Darwazch A F Gcib W E

Westlake

J Econ Entomol 62(2):365-370

15 Apr 1969 421 J822

Acdes, Chemical control (insects), Diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate, d. Fenthion, Insect behavior, Insecticide application, Insecticide residues, Irrigation, Larvicides, Methyl parathion, Organophosphorus compounds, Pastures.

#### 5487-69

A NEW FOODPLANT FOR EUPHYDRYAS PHAETON (NYMPHALIDAE). J Muller

Lepidopterists Soc J 23(1):48

1969 421 1.554

Food plants, Insect nutrition, Nymphalidae.

#### 5488-69

A DAMSEL-FLY AS THE SECOND INTER-MEDIATE HOST OF A PLEUROGENETINE TREMATODE. K Muraleedharan B P Pande

Cur Sci 36(23):639-641

05 Dec 1967 475 SC123

Enallagma, Metacerearia, Morphology, Trematodiasis.

#### 5489-69

### A TECHNIQUE FOR REARING TROMBICULID MITES (ACARINA) DEVELOPED IN A TROPI-CAL LABORATORY.

M Nadchatram

J Med Entomol 5(4):465-469 REF

30 Oct 1968 421 J828

Climate, Environment, Insect rearing, Laboratory animals, Medical entomology, Mites, Trombiculidae.

#### 5490-69

#### THE RELATION BETWEEN TEMPERATURE AND LETHAL ACTION OF CARBARYL ON ADULTS ON THE HOUSEFLY AND THE ORIENTAL HOUSEFLY (DIPTERA: MUSCIDAE).

S Nagasawa W M Hoskins

Appl Entomol Zool 3(3):139-147

Sep 28-1 SB599.A6

Carbamates, Carbaryl, Insect biology, Musca domestica, Musca domestica vicina, Temperature, Toxicology.

### 5491-69

**TEMPERATURE AND TERMINATION OF** DIAPAUSE IN EPICAUTA GORHAMI MAR-SEUL (COLEOPTERA, MELOIDAE), WITH PARTICULAR REFERENCE TO THE MECHANISM OF **CONTEMPORANEOUS EMERGENCE.** (JA)

A Nagatomi

Kagoshima Univ Fac Agr Bull 18:1-11

Feb 1968 107.6 K114B

Diapause, Epicauta gorhami, Insect morphology, Meloidae, Temperature, Time. English summary.

**BIBLIOGRAPHY** 

5492-69 THE FEMALES OF LAELIUS ANTHRENIVORUS TRANI (HYM. BETHYLIDAE) ATTACKING MAN. (FR) C G Nagy

Riv Parassitol 29(1):71-74

Mar 1968 436.8 R52

Bethylidae, Insect behavior, Insect identification. Italian and English summaries.

THE INGESTION IN WOLF SPIDERS. I. CAPACITY OF GUT OF LYCOSA PSEUDOAN-NULATA. K Nakamura

Res Population Ecol 10(1):45-53 REF Jun 1968 420 K99

Digestion,

Drosophila melanogaster, Insect physiology, Insect rearing, Lycosa pseudoannulata, Predaccous insects, Spiders. Japanese summary.

# 5494-69

COLOUR VISION AND COLOUR PREFERENCE IN THE TROPICAL EYE-FLY. M J Narasimhan M J Kasthuri-Thirumalachar V G Ganla

Experientia 23(10):818-819

15 Oct 1967 475 EX7

# Chloropidae, Color, Color preference, Insect physiology, Ultraviolet rays, Vision.

#### 5495-69

A POSSIBILITY OF USING DIMETHYL-DICHLORVINYLPHOSPHATE IN THE FIGHT AGAINT RED COCKROACHES. (ABSTRACT). (RUS)

V N Nefedov V F Ponomarenko

Zhur Mikrobiol Epidemiol Immunobiol 4:135 1968 448.3 Z4

Blattidae, Chemical control (insects), Dichlorvos, Insect control, Insect pests.

5496-69

FLIGHT ACTIVITY OF HONEYBEES IN A FLIGHT AND REARING ROOM. II. THE IN-FLUENCE OF CONSTANT AND CYCLING TEMPERATURES. E V Nelson S C Jay J Apicult Res 7(2):71-76 REF

1968 424.8 J82

Apis mellifera, Insect behavior, Insect flight, Temperature.

#### 5497-69

NOTE ON THE OVARY, RACHIS, AND SPER-MATHECA OF AN INSECT PARASITIC NE-(MASSEY, 1960) NICKLE, 1963. W R Nickle

Helminthol Soc Wash Proc 33(1):37-40 Jan 1966 436.9 H36

Contortylenchus elongatus, Insect diseases, Insects, Nematodes, Parasitism, Reproductive organs.

#### 5498-69

**EVOLUTION TOWARD A SINGLE PHENO-**TYPE AND PERSISTANCE OF THE MOLTING GLANDS IN LOCUSTA MIGRATORIA CINERASCENS, GREGARIOUS PHASE, UNDER THE INFLUENCE OF CARBONIC GAS. EX-PERIMENTAL AND ULTRASTRUCTURAL STUDY. (FR) G Nicolas P Cassier M A Fain-Maurel

Acad Sci Compt Rend Ser D Sci Nat 268(11, 1ST SEMESTER):1532-1534 17 Mar 1969 505 P21

Carbon dioxide, Corpora allata, Glands (insects), Insect physiology, Locusta migratoria, Ultrastructure.

#### 5499-69

THE NEMATODES DD-136 (NEOAPLECTANA SP.) AND NEOAPLECTANA CARPOCAPSAE WEISER, 1955 (RHABDITOIDEA) AS INSECT **PARASITES. A LITERATURE REVIEW. (GE) O F Niklas** 

22

Berlin Biol Bundesanst Land-forstwirtsch Mitt (124):1-40 REF

#### Aug 1967 410.9 G31M

Bacteria, Culture media, Insect diseases, Morphology, Nematodes, Neoplectana, Physiolo-gy, Reviews. English abstract.

#### 5500-69

CENTRAL NERVOUS SYSTEM CONTROL OF CIRCADIAN RHYTHMICITY IN THE COCKROACH. II. THE PATHWAY OF LIGHT SIGNALS THAT ENTRAIN THE RHYTHM. J Nishiitsutsuji-Uwo C S Pittendrigh

Z Vergleichende Physiol 58(1):1-13

1968 444.8 73

Blattidae, Central nervous system, Diurnal rhythm, Eyes, Insect physiology, Photosensitization. German summary.

#### 5501-69

CENTRAL NERVOUS SYSTEM CONTROL OF CIRCADIAN RHYTHMICITY IN THE COCKROACH. III. THE OPTIC LOBES, LOCUS OF THE DRIVING OSCILLATION .

J Nishiitsutsuji-Uwo C S Pittendrigh Z Vergleichende Physiol 58(1):14-46 REF

1968 444.8 Z3

Blattidae, Brain, Central nervous system, Diurnal rhythm, Insect physiology. German summary.

5502-69

EXUDATES OF GERMINATING SPORES OF BACILLUS THURINGIENSIS.

J P W Noordink H P Maas Geesteranus C A Van Den Anker

249-250

1967 SB932.15

**INSECT OPTIC LOBES.** 

Nature 218(5143):780

25 May 1968 472 N21

**R** H Nordlander J S Edwards

A A Odincts T A Oktyabrskaya

Med Parazitol Parazitarn Bolezni

NORWEGIAN

Opusc Entomol 33(1-2):95-106 REF

37(5,SEP/OCT):609-613 REF

pounds. English summary.

1968 448.8 M469

Bacillus thuringicnsis, Biological control (insects), Culture media, Exudates, Methodology, Pieris brassicae, Spore germination.

Brain, Central nervous system, Danaus plexippus,

TRIAL OF CARBOPHOS ON LARVAE OF

Acdes, Chemical control (insects), Culex pipiens,

DDT, Dosage, Malathion, Organophosphorus com-

DICHRORAMPHA GN. LEP. TORTRICIDAE.

Catalogs, Insect taxonomy, Tortricidae, Zoogeog-

CONDITIONS DETERMINING THE INITIA-

TION AND DEVELOPMENT OF NUCLEAR POLYHEDROSIS EPIZOOTICS IN LEPIDOP-

Epizootic diseases, Insect populations, Lepidop-tera, Polyhedroses, Virus diseases (insects).

A LIST OF NAMES OF INSECT CONTROL CHEMICALS TO BE USED IN ENTOMOLOGY RESEARCH DIVISION MANUSCRIPTS.

Department Of Agriculture, Washington, D. C.

SPECIES

OF

**AEDES AND CULEX MOSQUITOES. (RUS )** 

Death, Insect histology, Insect morphology.

# 5503-69 MORPHOLOGICAL CELL DEATH IN THE POST-EMBRYONIC DEVELOPMENT OF THE

5504-69

5505-69

M Ophcim

1968 421 OP7

E V Orlovskaya

1967 SB932 15

E M Osborne R L Busbey

Jun 1966 ASB951.08

THE

raphy.

5506-69

TERA.

282-283

5507-69

5531-69

Chemical control (insects), Pesticides.

A complete cross index of names to be used, chemical names, and other designations that have been used, and main use is given.

#### 5508-69

PRELIMINARY NOTE ON A CHEMICAL AT-TRACTANT FOR THE GRASS GRUB BEETLE (COSTELYTRA ZEALANDICA (WHITE)) FROM THE FLOWERS OF ELDER (SAMBU-CUS NIGRA L.).

G O Osborne C P Hoyt New Zealand J Sci 2(1):137-139

Mar 1968 514 N482

Attractants, Costelytra zealandica, Insect traps, Sambucus nigra, Scarabacidac.

# 5509-69

THE DETERMINATION OF THE INSEC-TICIDAL ACTIVITY OF AN 8 YEAR OLD SAM-PLE OF DDT BY BIOLOGICAL METHOD. (TU ) A N Ozkazanc

Ankara Univ Vet Fak Dergisi 15(1):92-108

1968 41.9 AN4D

Biological assay, Blattella germanica, Chlorinated hydrocarbons, DDT, Insectic domestica, Storage. English abstract Insecticides, Musea

#### 5510-69

PERFUSION FLUID FOR THE SCORPION, **HETEROMETRUS FULVIPES.** 

B Padmanabhanaidu

Nature 213(5074):410

28 Jan 1967 472 N21

Blood, Dorsal vessel, Heterometrus fulvipes, Hydrogen-ion concentration, Insect physiology, Scorpionida.

#### 5511-69

THE DEVELOPMENT OF MALE GENITAL DUCTS AND THE ASSOCIATED STRUCTURES IN CALLOSOBRUCHUS MACULATUS (F.) (BRUCHIDAE: COLEPTERA). H R Pajni

Panjab Univ Res Bull (N S)19(1-2):81-88 REF Jun 1968 513 EA72

Callosobruchus maculatus, Insect histology, Insect physiology, Reproductive organs.

#### 5512-69

THE LARVAL AND IMAGINAL OENOCYTES OF CALLOSOBRUCHUS MACULATUS (FABRICIUS) (COLEOPTERA: BRUCHIDAE). H R Pajni

Beitr Entomol 18(1-2):233-238 REF 1968 421 B392

Callosobruchus maculatus, Circulatory system, Cuticle, Insect biology, Insect histology, Larvac, Molting (insects).

### 5513-69

A NOTE ON THE METAMORPHOSIS OF THE MID-GUT EPITHELIUM IN LOSOBRUCHUS MACULATUS CAL-(F.) (BRUCHIDAE: COLEOPTERA). H R Pajni

Panjab Univ Res Bull (N s)18(PT 1-2):75-78 REF

Jun 1967 513 EA72

Callosobruchus maculatus, Embryology, Gastrointestinal system, Insect morphology, Metamorphosis.

#### 5514-69

NEW RECORD OF A BRACONID PARASITE, APANTALES COLEMANI VIERECK., FROM THE LARVAE OF EUPROCTIS LUNATA WALKER. S N Pandey

Cur Sci 36(18):498

20 Sep 1967 475 SC123

Apanteles, Euproetis lunata, Larvac, Predaceous insects.

# 5515-69

ON THE THEORETICAL CONCEPT OF SELF-**EXTINCTION OF BARK BEETLES. (TT 68-**50402) TRANSL. 17066.

I V Panishin

#### 2P

Biological control (inscets), Forest insects, Insect behavior, Pinus, Scolytidae. Translated from Vestnik Sel'skokhozyaistvennoi Nauki 7(3):133-134, 1962. issued by CFSTI.

#### 5516-69

EVIDENCE OF A NONSPECIFIC TYPE RE-SISTANCE TO INSECTICIDES BY A RE-SISTANT STRAIN OF THE TOBACCO BUD-WORM. T L Pate S B Vinson

J Econ Entomol 61(5):1135-1137 REF

15 Oct 1968 421 J822

Biochemistry, Chemical control (insects), Cuticle, DDT, Dosage, Endrin, Heliothis virescens, Immunity, Injections, Insecticides.

#### 5517-69

AN ATTEMPT TO CORRECT SOME MISTAKES AND MISCONCEPTIONS ABOUT SOME FUNGUS BEETLES AND HABITATS. THEIR

#### K Paviour-Smith

Entomologist (london) 102(1271):86-96 REF Apr 1969 421 EN8

Cis bilamellatus, Ganoderma, Habitats, Insect nutrition.

#### 5518-69

THE BEETLES (COLEOPTERA) OF BABIA GORA MOUNTAIN (POLISH WESTERN CAR-PATHIANS). (POL )

J Pawlowski Acta Zool Cracov 12(16):419-665 MAP REF 30 Dec 1967 410 AC86

Coleoptera, Insect collecting equipment, Insect ecology, Insect identification, Insect populations, Insect taxonomy, Zoogcography. English and Russian summaries. more than 8400 specimens representing 891 species were collected.

#### 5519-69

THE EVOLUTION AND BIOLOGICAL SIG-NIFICANCE OF MULTIPLE PAIRING IN LEPIDOPTERA. **R W Pease** 

Lepidopterists Soc J 22(4):197-209 REF

1968 421 L554

Insect biology, Lepidoptera, Spermatophores.

# 5520-69

NEW STRATEGY AGAINST THE CODLING мотн.

# C K Peck

World Farming 11(2):6-10 Feb 1969 30.08 W89

Apples, Azinphosmethyl, Carpocapsa pomonella, Chemical control (insects), Chlorinated hydrocar-bons, Cobalt, Diazinon, DDT, Insect pests, Insecticide resistant insects, Insecticides, Isotopes, Organophosphorus compounds, Parathion, Radiation, Sterility.

#### 5521-69

THE CLASSIFICATION OF STRAINS OF BACILLUS THURINGIENSIS ON THE BASIS OF THE ANTIGENIC PATTERNS OF THE TOXIC PROTEIN INCLUSIONS. I R Pendleton R B Morrison

82-85

#### 1967 SB932.15

Bacillus thuringiensis, Bacteria, Crystallography, Immunochemistry, Insect diseases, Serological tests, Taxonomy.

# 5522-69

HORMONAL CONTROL OF THE REPRODUC-OEDIPODA MINIATA. M P Pener M Broza Experientia 25(4):414-415 15 Apr 1969 475 EX7 Acrididae, Corpora allata, Hormones, Insect physiology, Reproduction.

23

# 5523-69

PEST CONTROL BY THE BIOLOGICAL METHOD.

PACR Perera

Ceylon Coconut Planters Rev 5(2):63-73 Mar 1968 77.8 C333

Balance of nature, Biological control (insects), Chemical control (insects), Coconuts, Insect pests, Integrated control (insects), Nomenclature. Many coconut pests were discussed and how they are best controlled by the biological method.

#### 5524-69

NEW HORIZONS IN THE FIGHT AGAINST IN-SECTS. (FR)

# M P Pesson

Rev Zool Agr Appl 00(1-3):1-13

# 1968 410.9 SO12

Biological control (insects), Chemical control (in-sects), DDT, Insect control, Insect pests, Insect physiology, Insecticide residues.

#### 5525-69

DISASTER AID FOR MOSQUITO CONTROL AGENCIES.

**R F Peters M C Kramer** Calif Vector Views 16(2):15-16 Feb 1969 449.8 C12

Culicidae, Government aid, Insect control.

#### 5526-69

**RECENT ADVANCES IN THE PHYSIOLOGY** AND BIOCHEMISTRY OF PLASMODIA. W Peters Trop Dis Bull 66(1):1-29 REF Jan 1969 448.8 T752 Biochemistry, Culicidae, Insect vectors, Malaria, Parasitism, Physiology, Plasmodium, Protozoa.

#### 5527-69

SIMULTANEOUSLY EFFECTIVE ANTI-FUN-GAL AND INSECTICIDAL OR ACARICIDAL PESTICIDES. PATENT 3,450,818. M Pianka J D Edwards Us Patent Office Offic Gaz 863(3):902

17 Jun 1969 156.65 OF2

Acaricides, Fungicides, Insect pests, Microorganisms, Patents, Pestieides.

IONIC COMPOSITION OF HAEMOLYMPH AND NERVOUS FUNCTION IN THE COCKROACH, PERIPLANETA AMERICANA L.

Haemolymph, Insect physiology, Ions, Nervous

OOGENESIS IN THE PARTHENOGENETIC

STICK INSECT SIPYLOIDEA SIPYLUS WEST-

Chromosomes, Cytology, Cytoplasm, Insect identification, Meiosis, Oogenesis, Parthenogene-

STERILIZING EFFECT OF A PHOSPHORA-

Chemosterilants, Culex pipiens quinquefasciatus,

THE DECARBOXYLATION OF LUCIFERIN IN

Biochem Biophys Res Commun 31(1):98-103

system, Periplaneta americana, Potassium.

WOOD (ORTHOPTERA, PHASMIDAE).

5528-69

5529-69

5530-69

5531-69

REF

L P Pijnacker

1967 442.8 G282

Genetica 38(4):504-515

M K K Pillai K K Grover

Cur Sci 37(9):257-258

05 May 1968 475 SCI23

Mortality, Phosphoric triamide.

FIREFLY BIOLUMINESCENCE.

05 Apr 1968 442.8 B5236

P J Plant E H White W D McElroy

sis, Phasmatidae, Reproduction.

MIDE ON CULEX FATIGANS WEID.

Y Pichon J Boistel

Aug 1968 442.8 B77

J Exp Biol 49(1): 31-38 REF

# 5532-69

Adenosine triphosphates, Biochemistry, Decarboxylases, Enzymes, Luciferins, Luminescence, Oxidation-reduction potential, Photinus.

#### 5532.69

**INSECTICIDE RESISTANCE IN THE HOUSE** FLY: DECREASED RATE OF ABSORPTION IS THE MECHANISM OF ACTION OF A GENE THAT ACTS AS AN INTENSIFIER OF RE-SISTANCE.

F W Plapp R F Hoyer

J Econ Entomol 61(5):1298-1303 REF

15 Oct 1968 421 J822

Absorption, Biochemistry, Chemical control (insects), Dicldrin, DDT, Genes, Insect genetics, Insecticides, Musea domestica, Parathion.

#### 5533-69

DESCRIPTION AND TAXONOMIC POSITION OF THE DD-136 NEMATODE (STEINERNE-MATIDAE, RHABDITOIDEA) AND ITS RELA-TIONSHIP TO NEOAPLECTANA CARPOCAP-SAE WEISER.

G O Poinar

Helminthol Soc Wash Proc 34(2):199-209 REF Jul 1967 436.9 H36

Host relationships, Insect nematodes, Morphology, Nematodes, Neoaplectana, Taxonomy.

#### 5534-69

**DEVELOPMENT OF VIRUS ANTIGEN IN TIS-**SUES OF PIERIS BRASSICAE INOCULATED WITH TIPULA IRIDESCENT VIRUS.

M B Ponsen

86-89

1967 SB932.15

Antigens, Blood cells, Fluorescent antibody technic, Insect diseases, Metamorphosis, Pieris brassicae, Tipula iridescent virus, Tissue culture, Virology.

# 5535-69

#### ELECTRON MICROSCOPY OF THE DEVELOPMENT OF THE LINING OF THE SPOROBLAST IN THE COCCIDIAN COELOTROPHA DURCHONI. (FR)

E Porchet-Hennere

Acad Sci Compt Rend Ser D Sci Nat 267(22, 2ND SEMESTER):1856 1857

25 Nov 1968 505 P21

Coccidiosis, Cytology, Electron microscopy, Spores.

# 5536-69

#### FOODPLANTS OF CALLOPHRYS (INCISALIA) **IROIDES.**

J A Powell

Lepidopterists Soc J 22(4):225-226

1968 421 L554

Food plants, Incisalia iroides, Insect nutrition, Lycacnidae.

#### 5537-69

ON THE USE OF BACILLUS THURINGIENSIS-INSECTICIDE COMBINATIONS TO CONTROL INSECT PESTS. W P Pristavko

212-214 REF

1967 SB932.I5

Bacillus thuringicnsis, Biological control (insects), Chemical control (insects), Chlorinated hydrocarbons, DDT, Insect pests, Insecticides.

#### 5538-69

THE MASS PRODUCTION OF BEAUVERIA BASSIANA.

W P Pristavko V M Goral 118-119 REF

1967 SB932.15

Bcauveria bassiana, Biological control (insects), Fungi, Fungus cultures, Methodology.

# 5539-69

**REPEATED PREGNANCY AND DURATION OF** THE GESTATION PERIOD IN THE SCORPION, **ISOMETRUS MACULATUS DE GEER (FAM.,** BUTHIDAE). (GE) P Probst

Rev Suisse Zool 75(4):1066-1070 Dec 1968 410 R324

Buthidac, Insect physiology, Insect reproduction, lsometrus maculatus.

**BIBLIOGRAPHY** 

# 5540-69

# PHYTOPHAGOUS MITES; SPECIES OF WIDEST DISTRIBUTION IN ARGENTINA. (SP) OF R H Quintanilla O G Cordoba

Biblioteca Central, Buenos Aires, Argentina 59P REF

1967 QL458.A2Q5

Acaricides, Insect morphology, Insect physiology, Insect taxonomy, Mites, Zoogeography.

#### 5541-69

# DIPTERA LARVAE IN SOIL TREATED WITH ORGANIC AND MINERAL FERTILIZERS. (I). FAMILY ASILIDAE-DIPTERA-BRACHYCERA. (RUM)

#### V Gh Radu F Dan

Cluj Univ Babes Bolyai Stud Ser Biol 13(1):69-74 REF

#### 1968 442.9 C62

Asilidae, Asilus, Brachycera, Diptera, Fertilizers, Insect morphology, Insect taxonomy, Larvac, Lasiopogon, Leptogaster, Machimus, Philonicus, Soil treatment. French and Russian summaries.

#### 5542-69

**OBSERVATIONS ON THE OXYGEN CON-**SUMPTION OF TSETSE LARVAE (GLOSSINA **MORSITANS).** P K Rajagopal

Rhodesia, Zambia, Malawi J Agr Res 6(1):60-61 1968 24 R3472

Glossina morsitans, Insect metabolism, Insect respiration, Oxygen.

#### 5543-69

AN APPARENT DISCONTINUITY IN THE Relation between temperature and the respiratory rate of tsetse pu-PAE. (GLOSSINA MORSITANS). P K Rajagopal

Rhodesia, Zambia, Malawi J Agr Res 6(1):59 1968 24 R3472

Glossina morsitans, Insect respiration, Temperaturc.

#### 5544-69

#### AN ENTEROBRYUS (TRICHOMYCETES, EC-**CRINALES) IN A MILLIPED.**

C Rajagopalan Cur Sci 36(1):20-22 05 Jan 1967 475 SCI23

Diplopoda, Fungus discases (insects), Taxonomy.

#### 5545-69

ANTENNAL SCOLOPENDRA PULSATILE ORGANS MORSITANS

# (CHILOPODA:MYRIAPODA).

**G** S Rajulu Cur Sci 36(9):242-243

05 May 1967 475 SCI23

# Antennae, Chilopoda, Heart rate, Insect histology, Insect physiology.

# 5546-69

# EFFECT OF NATURAL PARASITIZATION ON THE POPULATION OF PADDY GALLFLY, PACHYDIPLOSIS ORYZAE MANI. E Ramiah

Allahabad Farmer 42(5):263-267

Scp 1968 22 AL5

# Biological control (insects), Insect pests, Pachydiplosis oryzae, Parasitism, Rice. Four other, less promising parasites are identified.

5547-69

#### **CODLING MOTH CONTROL WITH CARBOFU-**RAN. I A Rammer E A Kurtz

J Econ Entomol 62(2):356-357

15 Apr 1969 421 J822

# Apples, Carbofuran, Carpocapsa pomonella, Chemical control (insects), Chlorinated hydrocarpomonclla, bons, Dosage, Insect pests, Pears, Walnuts.

24

5548-69

SYNOPTIC TABLES OF LARVAE AND IMAGOS OF THE SPECIES OF THE FAMILY CHRYSOTRIBAX REITTER. (COL. CARABIDAE). (FR)

P Raynaud

Entomops (9):1-16 REF

28 Scp 1967 QL461.E53

Carabidae, Insect taxonomy, Larvae, Mctamorphosis, Ontogeny, Zoogeography.

#### 5549-69

THE INFLUENCE OF SITE APPLICATION ON THE TOXICITY OF INSECTICIDES IN RED COTTON BUG, DYSDERCUS CINGULATUS, F. G Reddy M B Naidu

Indian J Entomol 29(4):325-328

Dcc 1967 420 IN23

USED PESTICIDES.

Fcb 1968 421 J822

W T Rccd A J Forgash

Dec 1968 241.64 EX23

W T Reed A J Forgash

Science 160(3833):1232

ACANTHOMYOPS CLAVIGER.

J Insect Physiol 14(7):955-970 REF

T Reichstein J von Euw J A Parsons M

Science 161(3844):861-866

30 Aug 1968 470 SCI2

14 Jun 1968 470 SCI2

F E Regnier E O Wilson

Jul 1968 421 J825

Volatile substances.

K R Redmond J R Brazzel

J Econ Entomol 61(1):327-328

aphene. Toxaphene-DDT mixture used.

Excerpta Med Pharm Toxicol 21(12):600

OF PENTACHLOROCYCLOHEXENE.

Dinitrocresol, DDT, Dysdereus cingulatus, Insecticide application, Insecticides, Schistocerca gregaria, Toxicology.

**RESPONSE OF THE STRIPED LYNX SPIDER,** 

**OXYOPES SALTICUS, TO TWO COMMONLY** 

DDT, Methyl parathion, Oxyopes salticus, Tox-

LINDANE: METABOLISM TO A NEW ISOMER

Biochemistry, Chlorinated hydrocarbons, Chro-matography, Insect physiology, Insecticides, Isomerism, Lindane, Metabolism, Musea

Isomcrism, Lindanc, Mctabolism, Musca domestica, Pentachlorocyclohexene, Spectrosco-py. From Science, 1968, 160/3833,(1232).

LINDANE: METABOLISM TO A NEW ISOMER

Chemical control (insects), Chlorinated hydrocar-

bons, Insect biochemistry, Insect metabolism, In-

sccticide resistant insects, Insecticides, Lindane, Musca domestica, Pentachlorocyclohexene.

THE ALARM-DEFENCE SYSTEM OF THE ANT

Acanthomyops claviger, Biochemistry, Formic

acid, Insect protective devices, Pheromones,

HEART POISONS IN THE MONARCH BUT-

Asclepias, Danaidae, Danaus plexippus, Dorsal vessel, Insect biochemistry, Insect nutrition, Poisons, Toxicology.

SPIDER FROM NEW CALEDONIA (ARANEAE:

Arancac, Formicidac, Insect behavior, Insect

morphology, Insect taxonomy, Mimicry, New

AN ANT-MIMICKING THERIDID

PENTACHLOROCYCLOHEXENE. (AB-

#### 5550-69

OF

STRACT).

5552-69

5553-69

5554-69

TERFLY.

Rothschild

5555-69

ANATEA,

Calcdonia.

THERIDIIDAE). J Reiskind H W Levi

Psyche 74(1):20-23

Mar 1967 421 P95

IN

#### 5556-69

SOME NOTES ON THE REARING OF USEFUL INSECTS. (CZ)

**J** Rekos

Pol'nohospodarstvo 14(10):806-808 1968 19.5 P752

Beneficial insects, Insect cultures, Insect rearing.

#### 5557-69

SEASONAL DEVELOPMENT AND HABITS OF **PSEUDOPITYOPHTHORUS** SPP. (COLEOP-TERA: SCOLYTIDAE) IN SOUTHERN OHIO. C O Rexrode

Can Entomol 101(3):306-313

Mar 1969 421 C16

Forest insects, Insect physiology, Scolytidae.

#### 5558-69

FLEA CTENOPHTHALMUS: HETEROGENE-**OUS HEXAGONALLY ORGANIZED LAYER IN** THE MIDGUT.

A G Richards P A Richards Science 160(3826):423-426

26 Apr 1968 470 SCI2

Biochemistry, Cells, Chemicals, Ctenophthalmus,

Electron microscopy, Gastrointestinal system, In-sect anatomy, Insect physiology, Muscles, Stomach, Tissues.

#### 5559-69

TWO METHODS OF OPERATING A VACUUM SAMPLER TO SAMPLE POPULATIONS OF THE COTTON FLEAHOPPER ON WILD HOSTS.

C A Richmond H M Graham

J Econ Entomol 62(2):525-526

15 Apr 1969 421 J822

Herbs, Insect collecting equipment, Insect populations, Methodology, Psallus seriatus, Shrubs.

#### 5560-69

ARTIFICIAL DIET FOR CECROPIA AND OTHER SATURNIID SILKWORMS.

L M Riddiford

Science 160(3835):1461-1462 REF

28 Jun 1968 470 SCI2 Bombyx mori, Food habits, Hyalophora eceropia, Insect nutrition, Samia cynthia, Wheat germ.

#### 5561-69

THE NATURAL AND ARTIFICIAL DISPER-SION OF PATHOGENS. C F Rivers

252-263 REF

1967 SB932.15

Biological control (insects), Insect diseases, Insect populations, Viruses.

#### 5562-69

ULTRASTRUCTURE OF THE SECRETORY IN-CLUSIONS OF THE SALIVARY GLAND CELL IN DROSOPHILA. T M Rizki

J Cell Biol 32(2):531-534 Feb 1967 442 8 1828

Cytology, Drosophila, Electron microscopy, Inclusion bodies, Salivary glands (insects), Secretions.

#### 5563-69

MAINTENANCE OF IMAGINAL DISCS OF DROSOPHILA MELANOGASTER IN CHEMI-CALLY DEFINED MEDIA. J A Robb J Cell Biol 41(3):876-885 REF Jun 1969 442.8 J828 Biochemistry, Culture media, melanogaster, Tissue culture. Drosophila

# 5564-69

SOME EFFECTS OF ANISOPLIAE AND ITS MOSQUITO LARVAE. METARRHIZIUM ITS TOXINS ON D W Roberts 243-246 1967 SB932 15

Biological control (insects), Culicidae, Fungus dis-cases (insects), Larvae, Metarrhizium anisopliae, Toxicology.

# 5565-69

SUBSTANCES THAT ATTRACT CAGED HONEYBEE COLONIES TO CONSUME POL-LEN SUPPLEMENTS AND SUBSTITUTES. F A Robinson J L Nation

J Apicult Res 7(2):83-88 REF

1968 424.8 J82

Acetone, Apis mellifera, Attractants, Insect cages, Insect diets, Insect nutrition, Lipids, Pollen, Volatile substances.

#### 5566-69

THE USE OF RADIOACTIVITY FOR THE AS-SESSMENT OF DOSE IN BIOASSAYS INVOLV-ING BACTERIAL INSECT PATHOGENS. A H Rogers A G White J Wolf N H E Gibson

# 296-302

1967 SB932.15

Bacterial diseases (insects), Biological assay, Dosage, Methodology, Radioactive tracers.

ACCESSORY GLANDS OF FEMALE CULEX PIPIENS QUINQUEFASCIATUS SAY AND AU-**TOGENOUS CULEX PIPIENS PIPIENS L. (DIP-**TERA, CULICIDAE): APPEARANCE A BEHAVIOR IN RELATION TO OOGENESIS. AND **B** Rosay

J Med Entomol 5(4):478-482 REF

30 Oct 1968 421 J828

Culex pipiens pipiens, Culex pipiens quinquefasciatus, Culicidae, Glands (insects), Inseet behavior, Inseet physiology, Medical entomology, Oogenesis.

#### 5568-69

DISHABITUATION AND AROUSAL IN THE RESPONSE OF SINGLE NERVE CELLS IN AN INSECT BRAIN. C H F Rowell G Horn J Exp Biol 49(1):171-183 REF Aug 1968 442.8 B77 Brain, Central nervous system, Insect physiology, Schistocerea gregaria.

#### 5569-69

NOTE ON THE DEPORTMENT PARTICU-LARLY TOWARDS THE DEAD IN COP-TOTERMES INTERMEDIUS SILVESTRI (ISOP-TERE RHINOTERMITIDAE). (FR ) J Roy-Nocl

Insectes Sociaux 14(4):349-350 Dec 1967 421 IN79

Coptotermes intermedius, Insect behavior, Social

insects, Termites.

THE BIOLOGY OF SCRAPTER AND ITS CUCKOO BI (HYMENOPTERA: BEE, **PSEUDODICHRDA** COLLETIDAE AND ANTHROPHORIDAE). J G Rozen C D Miehener Amer Mus Novitates 2335:1-13 19 Jul 1968 500 N483N Apoidea, Insect behavior, Insect biology, Parasitie insects, Scrapter. 5571-69

ACTIVATION OF THE MYOFIBRILLAR AT-PASE ACTIVITY BY EXTENSION OF GLYCEROLEXTRACTED INSECT FIBRILLAR MUSCLE. J C Rucgg H Stumpf Pflugers Arch Gesamte Physiol Menschen Tiere 305(1):34-46 REF 1969 447.8 AR2 Adenosine triphosphatase, Glycerol, Insect biochemistry, Insect flight, Museles, Tension.

THE COUPLING OF POWEROUTPUT AND MYOFIBRILLAR ATPASE ACTIVITY IN GLYCEROL-EXTRACTED INSECT FIBRILLAR MUSCLE AT VARYING AMPLITUDE OF ATP-DRIVEN OSCILLATION.

25

J C Ruegg H Stumpf

Pflugers Arch Gesamte Physiol Menschen Tiere 305(1):21-33 REF 1969 447.8 AR2 Adenosine triphosphatase, Energy, Glycerol, Insect biochemistry, Insect flight, Muscles.

# 5573-69

COLONIZATION OF TWO SPECIES OF FLORIDA CHIRONOMIDS.

# J P Ruff

Fla Anti-mosquito Ass Rep 39:61-62 REF 1968 420 F663

Biological control (insects), Chironomidae, Chironomus carus, Chironomus crassicaudatus, Glyptotendipes paripes, Insect eggs.

#### 5574-69

AN INSTRUMENT TO HOLD RABBITS FOR BLOOD SUCKING SIMULIID EXPERIMENTS. (GE) W Ruhm

Angew Parasitol 09(1):41-44

Fcb 1968 436.8 AN4

Equipment, Insect nutrition, Insect rearing equipment, Methodology, Rabbits, Simuliidae. German, russian, and english abstract

#### 5575-69

UTILIZATION OF BACILLUS THURINGIENSIS IN THE CONTROL OF PORTHETRIA DISPAR IN SPAIN. (FR) A Ruperez 266-274 REF 1967 SB932.I5 Baeillus thuringiensis, Biological control (insects), Methodology, Porthetria dispar.

#### 5576-69

VAPONA FOR THE CONTROL OF MUSEUM PESTS.

R E Ryckman

J Med Entomol 6(1):98

30 Jan 1969 421 J828

Chemical control (insects), Dermestidae, Dichlorvos, Insect pests, Insecticide application, Medical entomology, Triatoma dimidiata.

#### 5577-69

ZOOLOGICAL NOMENCLATURE IN THE JET AGE.

C W Sabrosky Helminthol Soc Wash Proc 34(2):236-240 Jul 1967 436.9 H36 Nomenelature, Taxonomy, Zoology.

PHYSIOLOGICAL

Scp 1968 SB599.A6

H Sandner S Stanuszek

# 5578-69

5579-69

HABITS.

H Sakurai

sects.

5580-69

ARCHITECTURE AND BROOD NEST DEVELOPMENT IN A NEOTROPICAL BUM-BLEBEE, BOMBUS ATRATUS. S F Sakagami Y Akahira R Zucchi

Bombus, Insect behavior, Insect breeding, Insect

DIGESTION OF COCCINELLID BEETLES (COLEOPTERA: COCCINELLIDAE), WITH

SPECIAL REFERENCE TO THEIR FOOD

Coccinellidae, Food habits, Insect biology, Insect

metabolism, Phytophagous insects, Predaceous in-

The following species were tested: Coccinella sep-

tempunetata.bruekii, Harmonia axyridis, Chilocorus kuwanae, Rodolia cardinalis, Epilachna vigintiopunetata.and E. vigintiomaculata.

LIMITATION OF THE COLORADO BEETLE BY NEMATODES AND PROSPECTS FOR THEIR PRACTICAL UTILIZATION.

STUDIES

ON

THE

Insectes Sociaux 14(4):389-414 REF Dec 1967 421 IN79

Appl Entomol Zool 3(3):130-138 REF

rearing, Nesting. German summary

# 5581-69

210-212

1967 SB932.15

Biological control (insects), Culture media, Diplogaster, Insect diseases, Leptinotarsa decemlincata, Nematode vectors.

#### 5581-69

A NEW APHID HOST OF APHELINUS MALI (HALDEMAN) IN INDIA. T S Sankaran

Cur Sci 36(8):216-217 20 Apr 1967 475 SCI23 Aphclinus mali, Aphis gossypii.

#### 5582-69

OCCURRENCE OF ANTIMICROBIAL SUB-STANCE IN THE EXUDATE OF PHYSOGAS-TRIC QUEEN TERMITE TERMES REPEMANNI WASMANN.

A Sannasi G S Rajulu

Cur Sci 36(16):436-437

20 Aug 1967 475 SCI23

Aspergillus flavus, Fungicides, Insect biochemistry, Insect biology, Isoptera, Secretions.

#### 5583-69

BEHAVIORAL ADAPTATIONS OF CRYPTIC MOTHS. I. PRELIMINARY STUDIES ON BARK-LIKE SPECIES.

T D Sargent R R Kcipcr Lepidopterists Soc J 23(1):1-9

1969 421 L554

Gcometridae, Insect adaptation, Insect behavior, Moths, Noctuidae. Many species of moths are discussed.

# 5584-69

CRYPTIC MOTHS: EFFECTS ON BACKGROUND SELECTIONS OF PAINTING THE CIRUMOCULAR SCALES.

T D Sargent

Science 159(3810):100-101

05 Jan 1969 470 SCI2

Insect behavior, Insect genetics, Moths, Scales (inscets).

#### 5585-69

# POSTEMBRYONIC DEVELOPMENT OF THE BRAIN OF MUSCA DOMESTICA.

R C Satija M L Sharma

Panjab Univ Res Bull (N S)19(1-2):71-80 REF Jun 1968 513 EA72

Brain, Insect physiology, Mctamorphosis, Musea domestica.

#### 5586-69

# **BRAIN OF APHIS GOSSYPII GLOVER.**

R C Satija S K Dhindsa Panjab Univ Res Bull (N S)19(1-2):39-45 Jun 1968 513 EA72

Aphis gossypii, Brain, Insect morphology.

# 5587-69

MORPHOLOGY AND HISTOLOGY OF THE BRAIN OF MYLABRIS PHALERATA. R C Satija S Tangri

Panjab Univ Res Bull (N S)19(1-2):123-129 Jun 1968 513 EA72

Bruchidae, Insect histology, Insect Brain. morphology.

#### 5588-69

#### CENTERS DURING POSTEMB-VISUAL RYONIC LIFE OF CALLOSOBRUCHUS MACU-LATUS (F.).

R C Satija R P Kaur

Panjab Univ Res Bull (N S)19(1-2):101-112 REF Jun 1968 513 EA72

Brain, Callosobruchus maculatus, Eycs, Inseet physiology, Larvae, Mctamorphosis, Pupac.

#### 5589-69

CONTRIBUTIONS TO THE STUDY OF THE BIOMETRIC CHARACTERISTICS OF THE SILKWORM AS INFLUENCED BY NUTRITION. (POR)

E Scarpelli P Abramides O C Abrev Bol Tec Sericult (49):13P

# BIBLIOGRAPHY

1967 425.9 SA6B

Biometry, Bombyx mori, Insect nutrition, Morus, Statistical analysis. English summary.

#### 5590-69

PASTURE MOSOUITO RESISTANCE IN CALIFORNIA.

C H Schacfer

Pest Contr 37(1):36-37 Jan 1969 449.8 EX8

Acdes nigromaculis, Carbamates, Chemical control (insects), Chlorinated hydrocarbons, Insectieide resistant insects, Organophosphorus compounds, Pastures. Dursban, fenthion, abate, baygon, ethyl parathion and methyl parathion were tested.

#### 5591-69

**STUDIES ON THE MODE OF ACTION OF THE** CHEMOSTERILANTS 5-IMIDAZOLIDINONE AND 4-IMIDAZOLIN-2-ONE IN THE HOUSE FLY AND IN THE LARGE MILKWEED BUG. C H Schacfer

Life Sci 6(24,PT 2):2677-2683

15 Dec 1967 442.8 L62

Chemosterilants, Imidazolidinone, 5-, Imidazolin-2-one, 4-, Inscct physiology, Musea domestica, Oncopcltus fasciatus.

#### 5592-69

CHANGES IN THE CONTENT OF FIXED AMINO ACIDS IN TISSUES OF SILK WORM DURING DEVELOPMENT. (RUS) L I Schegoleva J B Filippovich

Biokhimiya 33(3,MAY-JUN):488-492 REF. 1968 385 B523

Amino acids.

Bombyx mori, Fat body, Hemolymph, Insect biology, Metamorphosis, Tissucs. English summary.

#### 5593-69

**CONTROL OF HOUSEHOLD INSECTS.** R A Scheibner F Parker

Ky Univ Ext Home Econ (5-206B):11P 1969 275.29 K415H

Chemical control (insccts), Dried food, Household insects, Insect identification, Insect pests, Insecticide application, Insecticides, Sanitation, Stored products.

# 5594-69

#### ON THE BIOSYNTHESIS OF CANTHARIDINS. I. (GE)

C. Schlatter E E Waldner H Schmid

Experientia 24(10):994-995

15 Oct 1968 475 EX7

Biochemistry, Cantharides, Cantharidin, Lytta vesicatoria, Meloidae, Metabolism, Radiobiology.

5595-69 THE SPIKE-FREQUENCY IN MOTOR NEU-

RONS OF THE COCKROACH PERIPLANETA AMERICANA L. (GE ) W R Schule

Experientia 23(1):38-39

15 Jan 1967 475 EX7

Insect physiology, Nerves, Periplaneta americana. English abstract

#### 5596-69

SOUNDS PRODUCED BY NEPTIS HYLAS (NYMPHALIDAE).

F W Scott Lepidopterists Soc J 22(4):254

1968 421 L554

Insect behavior, Nymphalidae, Stridulation.

5597-69

# INHIBITION OF DNA-DEPENDENT RNA POLYMERASE BY THE EXOTOXIN OF BACIL-LUS THURINGIENSIS VAR. GELECHIAE. K Sebesta K Horska

Biochim Biophys Acta 169(1):281-282

20 Nov 1968 381 B522

Adenosine triphosphates, Bacillus thuringiensis, Biochemistry, Deoxyribonucleic acid, Escherichia coli, Inhibitors, Ribonucleic acid, Toxins.

26

5598-69

#### INTRACELLULAR CONCENTRATION OF **ELECTROLYTES IN THE HOUSEFLY.** H H Shatoury Nature 222(5188):82

05 Apr 1969 472 N21

Blood composition, Blood volume, Electrolytes, Haemolymph, Inscct physiology, Musca domestica, Potassium, Sodium.

#### 5599-69

PARASITES AS VECTORS OF GRANULOSIS VIRUS OF HADENA SORDIDA BKH. T A Shekhurina

loses, Hadena sordida, Insect diseases, Parasitism,

INTRASPECIES COMPETITION IN A FIELD

HIMALAYENSIS (HYMENOPTERA: 1CHNEU-

MONIDAE) PARASITIC ON MALACOSOMA NEUSTRIA TESTACEA (LEPIDOPTERA:

Grcgopimpla himalayensis, Ichneumonidac, Inscet

ecology, Larvae, Lasiocampidae, Malacosoma neustria, Mortality, Parasitic insects, Population,

PRIORITY

Biological control (insects), Chemical control (in-

scets), Chlorinated hydrocarbons, Culieidac, DDT, Inseet pests, Inseet vectors, Inseetieide residues, In-secticides, Legislation.

A MODEL OF THE PLANT-TO-PLANT MOVE-MENT OF APHIDS. II. ESTIMATION OF PARAMETERS AND THE APPLICATION.

Aphididae, Barley, Insect ecology, Parameters, Rhopalosiphum maidis. Japanese summary.

SEX PHEROMONES OF NOCTUID MOTHS. XIII. CHANGES IN PHEROMONE QUANTITY,

AS RELATED TO REPRODUCTIVE AGE AND MATING HISTORY, IN FEMALES OF SEVEN SPECIES OF NOCTUIDAE (LEPIDOPTERA).

Hormones, Insect behavior, Insect eggs, Noctuidae,

**OXIDATIVE METABOLISM OF C14-LABELED** 

**BAYGON BY LIVING HOUSE FLIES AND BY** 

Carbon isotopes, Enzymes, Insect metabolism,

Isopropoxyphenyl methylearbamate, o-, Musca domestica, Oxidation, Radioactive isotopes, Synergism. The author lists the chemicals, syner-

gists, enzymes and the distribution of radiocarbons

ALTERATION OF SOME PROPERTIES OF BACILLUS THURINGIENSIS BY MEANS OF PASSAGES THROUGH THE INSECTS AND CULTIVATION ON NUTRIENT MEDIA.

HOUSE FLY ENZYME PREPARATIONS.

S P Shrivastava M Tsukamoto J E Casida

J Econ Entomol 62(2):483-498 REF

Res Population Ecol 10(1):105-114 REF

H H Shorey S U McFarland L K Gaston

Pheromones, Pupae, Sex behavior.

Entomol Soc Amer Ann 61(2):372-376 REF

OF

Res Population Ecol 10(1):69-86 REF

Reproduction. Japanese summary

GREGOPIMPLA

WAR

ON

279-280

Viruses.

5600-69

5601-69

M Shinkle

5602-69

M Shiyomi

5603-69

5604-69

Jun 1968 420 K99

15 Mar 1968 420 EN82

15 Apr 1969 421 J822

O I Shvetzova E R Zurabova

in the house flies.

5605-69

MICHIGAN'S

MOSQUITOES.

Pest Contr 37(4):15-17

Apr 1969 449.8 EX8

1967 SB932.I5

Disease transmission, Epizootic diseases, Granu-

POPULATION

LASIOCAMPIDAE).

M Shiga A Nakanishi

Jun 1968 420 K99

5630-69

# 216-217

1967 SB932.15

Bacillus thuringiensis, Bacterial diseases (insects), Culture media, Galleria mellonella, Hadena sor-dida, Mamestra brassicae, Morphology.

# 5606-69

THE OXYGEN BINDING PROPERTIES OF SOME LARVAL HEMOGLOBINS OF CHIRONOMUS TH. THUMMI. (GE ) H Sick K Gersonde

European J Biochem 7(2):273-279 REF Jan 1969 QP501.E8

Biochemistry, Chironomus thummi, Hemoglobin, Hydrogen-ion concentration, Insect physiology, Mathematical analysis, Oxygen, Polymerization. English summary

#### 5607-69

**RESISTANCE OF CHAOBORUS LIGHT. LAR-**VAE TO LACK OF FOOD.

A Sikorowa

Ekol Pol Ser A (SER A)16(10):243-251 REF 1968 512 W 263

Aquatic insects, Chaoborus, Insect nutrition, Insect physiology, Lakes, Larvae. Polish summary.

### 5608-69

THE BEHAVIOUR OF CHAOBORUS LICHT. LARVAE UNDER UNFAVOURABLE OXYGEN CONDITIONS.

A Sikorowa

Ekol Pol Ser A (SER A)16(7):185-192 1968 512 W 263

Aquatic insects, Chaoborus, Insect physiology, Lakes, Larvae, Oxygen. Polish summary

#### 5609-69

**CELL CULTURES DERIVED FROM LARVAE** OF AEDES ALBOPICTUS (SKUSE) AND AEDES AEGYPTI (L.).

K R P Singh

Cur Sci 36(19):506-508 REF 05 Oct 1967 475 SCI23

Acdes acgypti, Acdes albopictus, Cytology, Larvac.

#### 5610-69

# LIFE-HISTORY AND BIOLOGY OF TABANUS **RUBIDUS.**

S Singh Panjab Univ Res Bull (N S)19(1-2):113-122

Jun 1968 513 EA72

Feeding, Insect behavior, Insect biology, Tabanus rubidus.

# 5611-69

CYTOCHEMICAL STUDIES ON THE NEU-ROSECRETORY CELLS OF THE BRAIN OF LABIDURA RIPARIA PALLAS (DERMAP-TERA).

# C L Singla

Panjab Univ Res Bull (N S)19(1-2):247-248 Jun 1968 513 EA72

Brain, Cells, Cytology, Insect biochemistry, Labidura riparia, Phase-contrast microscopy, Secretion.

#### 5612-69

# **EFFECT OF STARVATION ON THE SCORPION** PALAMNAEUS BENGALENSIS.

R C Sinha M S Kanungo Physiol Zool 40(4):386-390 Oct 1967 410 P56

Amino acids, Glycogen, Insect biochemistry, Insect morphology, Proteins, Scorpionida, Starvation, Water.

# 5613-69

SOME FACTORS THAT CONDITION FEEDING IN LARVAE OF THE MIGRATORY LOCUST, LOCUSTA MIGRATORIA MIGRATORIOIDES (ORTHOPTERA, ACRIDIDAE). I. EXTERNAL FACTORS. (FR.) Y Sinoir

Entomol Exp Appl 11(2):195-210 REF 1968 421 EN895

Cellulose, Excreta, Insect diets, Insect metabolism, Locusta migratoria migratorioides. English summary.

# 5614-69

**RATIONAL PESTICIDE APPLICATION. (IT )** G Sitta Agr Ferrarese 71(2):31-39 28 Fcb 1967 16 AG87

Beneficial insects, Biological control (insects), Costs, Fruit culture, Insect pests, Pesticide application.

# 5615-69

INFLUENCE OF TEMPERATURE ON THE RATE OF DEVELOPMENT OF SIX VARIETIES OF THE BACILLUS CEREUS GROUP. W A Smirnoff 125-130

1967 SB932.15

Bacillus cercus, Bacillus thuringiensis, Culture media, Growth factors, Temperature.

#### 5616-69

THE ROLE OF PHYTOCIDES ON THE PATHOLOGY OF THE PHYTOPHAGOUS IN-VERTEBRATES. W A Smirnoff 179-180 1967 SB932.15 Biological control (insects), Disease transmission, Insect diseases, Insect pests, Plant extracts, Plant pest control. 5617-69

THE BLACK FLY, SIMULIUM VENUSTUM, ATTRACTED TO THE TURTLE, CHELYDRA SERPENTINA. S M Smith

Entomol News (philadelphia) 80(4):107-108 Apr 1969 421 EN88

Insect behavior, Simulium venustum, Turtles. 5618-69

**COLLECTING METHOD AND PRELIMINARY** ANALYSIS OF THE SOLUBLE SALIVARY SECRETIONS OF THE PLANTHOPPERS. K Sogawa

Appl Entomol Zool 3(3):152-154 REF Scp 1968 SB599.A6

Insect biology, Laodelphax striatellus, Methodology, Nilaparvata lugens, Phytophagous insects, Salivary glands (insects), Secretions.

#### 5619-69

EFFECT OF INSECTICIDE POISONING ON CHEMORECEPTION IN THE HOUSE FLY, MUSCA DOMESTICA VICINAL. (DIPTERA: MUSCIDAE). S A Soliman

Soc Entomol Egypte Bull 49:243-257 1966 420 EG9 Chemotropism, DDT, Musca domestica.

Parathion.

# 5620-69

DOMESTIC QUARANTINE NOTICES. WHITE-FRINGED BEETLE.

J F Spears Fed Regist 34(92):7643-7649 14 May 1969 L1.451 Graphognathus, Infestation, Insect pests, Quarantine, Regulations. 5621-69 SEMINAL LOSS IN REPEATEDLY MATED

FEMALE AEDES AEGYPTI. A Spielman M G Leahy V Skaff Biol Bull 132(3):404-412 REF Jun 1967 442.8 B52

Acdes acgypti, Insect behavior, Mating, Semen.

# 5622-69

APPARENT DDT TOLERANCE IN AQUATIC INSECT DISPROVED BY TEST. AN J B Sprague Can Entornol 100(3):279-284 REF 15 Mar 1968 421 C16

27

Aquatic insects, DDT, Ephemeroptera, Insecticide resistant insects, Plecoptera.

# 5623-69

FEEDING MECHANISM OF FRUIT-Α MOTH ' OTHREIS SUCKING MATERNA (LEPIDOPTERA: NOCTUIDAE). R P Srivastava J K Bogawat Ann Mag Natur Hist 3(2, APR-JUN):165-181 REF

Jun 1969 410 AN77

Food habits, Insect adaptation, Insect morphology, Mouth parts, Muscles, Noctuidae.

# 5624-69

**EMIGRATION AND MORTALITY RATES AND** THE FOOD-SHELTER CONDITIONS LIGIDIUM HYPNORUM L. (ISOPODA), OF A Stachurski Ekol Pol Ser A (SER A)16(21):445-460 1968 512 W263 Insect migration, Insect nutrition, Isopoda, Mortality. Polish summary.

#### 5625-69

THE STUDY OF VIRUS EPIZOOTICS IN IN-SECT POPULATIONS.

**G** R Stairs

275-279 REF

1967 SB932.15

Epizootic discases, Histopathology, Insect discases, Insect populations, Polyhedroses, Viruses.

#### 5626-69

**MOSQUITO COLLECTIONS IN A HIGH RAIN-**FALL AREA OF NORTH QUEENSLAND, 1963-1964.

H A Standfast G J Barrow J Med Entomol 6(1):37-43 MAP REF 30 Jan 1969 421 J828 Climate, Culex annulirostris, Culicidae, Insect vcctors, Medical entomology, Zoogcography.

#### 5627-69

# INSECTICIDAL AND ACARICIDAL EFFECT OF SOME BINARY MIXTURES. (CZ)

A Stanova J Drabek S Gaher J Jurigova Agrochemia 8(7):203-205 REF 1968 385 AG88 Acaricides, Chemical control (insects), Experi-

mental insects, Formulations, Insect biology, Insecticides, Malathion, Musca domestica, Organophosphorus compounds, Tetranychus urticae. English, Russian, and German summarics.

# 5628-69

APHIDOFAUNA OF HONEY PLANTS AS A SOURCE OF SUBSIDIARY HOSTS OF APHIDIID WASPS (HYMENOPTERA, (HYMENOPTERA, APHIDIIDAE). (RUS) P Stary

Acta Ent Bohemoslov 59(1):42-58 REF

1962 420 C33

Aphididac, Beneficial insects, Braconidac, Food habits, Host indexing (plants), Insect ecology, In-sect pests, Parasitism. English summary.

#### 5629-69

A RELATIONSHIP BETWEEN IONIC EN-VIRONMENT AND HORMONAL ACTIVATION **OF PHOSPHORYLASE IN AN INSECT.** J E Steele Compar Biochem Physiol 29(2):755-763 REF May 1969 444.8 C73 Fat body, Hormones, Insect biochemistry, Insect physiology, lons, Periplaneta americana, Phosphor-ylases, Potassium, Sodium.

FIELDS ON DROSOPHILA EGG HATCHING

Drosophila melanogaster, Hatching, Insect eggs,

#### 5630-69 LACK OF EFFECT OF CONSTANT MAGNETIC

H B Steen P Oftedal

Experientia 23(10):814

15 Oct 1967 475 EX7

TIME.

Magnets.

#### 5631-69

# 5631-69

### **RELATIVE SUSCEPTIBILITY OF STORED-PRODUCT INSECTS TO INSECTICIDES.** R G Strong

Pest Contr Oper News 28(2):22-23,30 Fcb 1968 SB951.AIP4

Diazinon, Insect cultures, Insect pests, Insecticide residues, Insecticides, Malathion, Organophosphorus compounds, Spraying, Stored products, Surface-active agents. Many other insecticides and their effectiveness against specific insects are discussed.

#### 5632-69

IMMATURE STAGES OF ELASMOTROPIS TESTACEA (H. -S.) AND NOTES ON THE BIONOMICS OF THE SPECIES (HETEROP-TERA, TINGIDAE).

J M Stusak

Acta Ent Bohemoslov 59(1):19-27 REF 1962 420 C33

Bionomics, Host indexing (plants), Insect identification, Insect physiology, Metamorphosis, Tingidac. Czech summary.

#### 5633-69

#### **REPORT OF THE SUFFOLK COUNTY MOSQUITO CONTROL COMMISSION.** *16P MAP*

1967 428 SU2

Costs, Culicidac, Insect control, Insect populations, Insect traps, Larvieides, Oils, Precipitation, Temperature, Zoogeography.

#### 5634-69

STERILIZING EFFECT OF HIGH TEMPERA-TURE ON THE MALE SILKWORM, BOMBYX MORI L. (LEPIDOPTERA: BOMBYCIDAE). E Sugai I Ashoush

Appl Entomol Zool 3(3):99-102

Scp 1968 SB599.A6

Bombyx mori, Insect physiology, Sterility, Temperature.

#### 5635-69

#### DOSE RATE EFFECT OF RADIATION ON SPERMATOGONIA OF THE SILKWORM. E Sugai T lijima

Nature 213(5079):943-944 REF

04 Mar 1967 472 N21

Bombyx mori, Dosage, Insect biology, Irradiation.

# 5636-69

BASIC FUNCTIONS IN BACILLUS THURIN-GIENSIS AFFECTING ITS MODE OF PATHOGENSIS. P Surany

247-248

1967 SB932.15

# Bacillus thuringiensis, Genetics, Parasitism, Viruses.

#### 5637-69

TEMPERATURE AND HUMIDITY EFFECTS ON THE OVIPOSITION OF HYALOMMA AE-GYPTIUM TICKS OF DIFFERENT ENGORGE-MENT WEIGHTS.

G K Swcatman

J Med Entomol 5(4):429-439 REF

30 Oct 1968 421 J828

Environment, Humidity, Hyalomma acgyptium, Insect temperature, Lizards, Medical entomology, Ovipositors, Turtles.

#### 5638-69

#### GROWTH OF CELLS DERIVED FROM CU-LISETA INORNATA AND AEDES VEXANS IN TISSUE CULTURE. A PRELIMINARY NOTE. B H Sweet L T Dupree

Mosquito News 28(3):368-373 REF

Sep 1968 421 M85

Acdes vexans, Culiscta inornata, Cytology, Pupae, Tissue culture.

#### 5639-69

DIEL PATTERNS OF SWARMING AND OTHER ACTIVITIES OF TWO ARCTIC DIPTERANS

# **BIBLIOGRAPHY**

(CHIRONOMIDAE AND TRICHOCERIDAE) ON SPITSBERGEN.

J Syrjamaki

Oikos 19(2):250-258 REF 1968 410 Ol4 Chironomidac, Diptera, Insect behavior, Photoperiodism, Swarming.

5640-69

### FUNCTIONAL RESPONSE TO HOST DENSITY IN A PARASITIC WASP, WITH REFERENCE TO POPULATION REGULATION.

F Takahashi

Res Population Ecol 10(1):54-68 REF Jun 1968 420 K99

Jun 1968 420 K99

Cadra cautella, Chemoreceptors, Ichneumonidae, Insect behavior, Insect ecology, Insect rearing, Larvae, Parasitic insects, Population, Pyralidae, Venturia canescens. Japanese summary.

#### 5641-69

SALIVARY SECRETION IN THE CATTLE TICK AS A MEANS OF WATER ELIMINA-TION.

R J Tatchell

Nature 213(5079):940-941 REF

04 Mar 1967 472 N21

Boophilus annulatus microplus, Insect pests, Insect physiology, Salivary glands (insects), Secretion, Water.

#### 5642-69

#### BIOLOGICAL OBSERVATIONS ON AEGERIA APIFORMIS CL. (SP)

J Templado

Soc Espan Hist Natur Bol Secc Biol 65(1-2):65-78 MAP REF 30 Scp 1967 442.9 SO18

Acgeria apiformis, Insect biology, Insect pests, Mimiery, Populus. English summary.

#### 5643-69

# WING REDUCTION IN ENDEMIC HAWAIIAN PSOCIDS.

I W B Thornton

Ann Mag Natur Hist 1(1, JAN-MAR):149-150 Mar 1967 410 AN77

Insect evolution, Insect morphology, Psocoptera, Wings (insects).

#### 5644-69

# ON THE BIOLOGY AND ECOLOGY OF THE OPILIONID MITOPUS MORIO F.. (GE )

W Tischler

Biol Zentralbl 86(4,JUL-AUG):473-484 REF Aug 1967 442.8 B523

Insect behavior, Insect biology, Insect ecology, Oviposition, Phalangida, Zoogcography. English abstract.

#### 5645-69

#### ON EMERGENCE TIMES WITHIN THE GENUS POLAMORPHYLAX WALLENGREN (TRICHOPTERA, LINNEPHILIDAE). (GE ) W Tobias D Tobias

Oikos 19(2):396-399

1968 410 OI4

Insect behavior, Insect emergence, Limnephilidac, Photoperiodism, Statistical analysis, Zoogeography.

#### 5646-69

#### BIOLOGY OF DUFOUREA AND OF ITS CLEP-TOPARASITE, NEOPASITES (HYMENOP-TERA: APOIDEA).

P F Torchio J G Rozen G E Bohart M S Favreau N Y Entomol Soc J 75(3):132-146

Sep 1967 420 N48J

Anthophoridae, Apidac, Dufourca, Food habits, Habitats, Halictidae, Insect biology, Insect ecology, Neopasites, Ovulation, Parasitic insects.

#### 5647-69

#### VARIATION IN CHLORION LATREILLEI (HYMENOPTERA, SPHECIDAE). (SP) H Toro S Gallardo

Chile Univ Centro Estud Entomol Publ (8):45-60 1966 420 C432

28

Insect anatomy, Insect identification, Spheeidae.

#### 5648-69

THE FINE STRUCTURE OF THE VENTRAL IN-TERSEGMENTAL ABDOMINAL MUSCLES OF THE INSECT RHODNIUS PROLIXUS DURING THE MOLTING CYCLE. II MUSCLE STRUC-TURE AT MOLTING.

P A Toselli F A Pepe

J Cell Biol 37(2):445-461 REF

May 1968 442.8 J828

Abdomen, Electron microscopy, Insect histology, Molting (insects), Museles, Rhodnius prolixus.

#### 5649-69

THE FINE STRUCTURE OF THE VENTRAL IN-TERSEGMENTAL ABDOMINAL MUSCLES OF THE INSECT RHODNIUS PROLIXUS DURING THE MOLTING CYCLE. II. MUSCLE CHANGES IN PREPARATION FOR MOLTING. P A Tosclii F A Pcpe

J Cell Biol 37(2):462-481 REF

May 1968 442.8 J828

Abdomen, Electron microscopy, Insect histology, Insect physiology, Molting (insects), Muscles,

EGG REDUCTION OF THE COLORADO BEE-TLE (LEPTINOTARSA DECEMLINEATA SAY)

Aphididac, Insect eggs, Leptinotarsa decemlineata,

TRIPHOSPHATASE FROM THE POTASSIUM-

TRANSPORTING MIDGUT OF THE LARVA OF

Biochim Biophys Acta Enzymol 163(3):354-361

Adenosinetriphosphatase, Biological assay, Biolog-

ical transport, Gastrointestinal system, Hyalophora

cecropia, Hydrogen-ion concentration, Insect

THE OCCURRENCE OF ARGAS JAPONICUS

AND IXODES LIVIDUS IN NAGANO PREFEC-

TUR, JAPAN (IXODOIDEA: ARGASIDAE; IX-

Argas japonicus, Argasidac, Insect ecology, Insect pcsts, Ixodidae, Medical entomology, Zoogeog-

LIFE CYCLES OF BENTHIC INSECTS IN

LAPLAND STREAMS (EPHEMEROPTERA, PLECOPTERA, TRICHOPTERA, DIPTERA

Aquatic insects, Ephemeroptera, Life cycle,

AN INFECTION OF STREPTOCOCCUS FAE-

CALLS ANDREWES ET HORDER IN THE PINE LOOPER MOTH, BUPALUS PINIARIUS L.

Bacterial diseases (insects), Bupalus piniaria,

Geometridac, Larvac, Pupae, Streptococcus fac-

Plecoptera, Simuliidae, Streams, Trichoptera.

(LEPIDOPTERA, GEOMETRIDAE). (GE)

Biol Zentralbl 87(5,SEP-OCT):617-624 REF

ADENOSINE

triphosphatasc,

AS A HUNGER-DEPENDENT REACTION.

Ekol Pol Ser A (SER A)16(6):171-183 REF

Potatocs, Predaceous insects. Polish summary.

ANION-STIMULATED

**B O Turbeck S Nedergaard H Kruse** 

HYALOPHORA CECROPIA.

05 Nov 1968 381 B522

physiology, Ions, Potassium.

J Med Entomol 6(1):95-97 MAP

Oikos 19(2):167-190 MAP REF

#### 5650-69

P Trojan

5651-69

AN

REF

Adcnosinc

5652-69

ODIDAE).

raphy.

5653-69

SIMULIIDAE).

1968 410 OI4

S Ulfstrand

5654-69

S Urban

Oct 1968 442.8 B523

calis. English abstract

K Uchikawa A Sato

30 Jan 1969 421 J828

1968 512 W263

Rhodnius prolixus.

5678-69

### 5655-69

SEASONAL DISTRIBUTION, SEX RATIOS, AND MATING OF FEMALE NOCTUID MOTHS IN BLACKLIGHT TRAPPING STUDIES. P V Vail A F Howland T J Henneberry

Entomol Soc Amer Ann 61(2):405-411

15 Mar 1968 420 EN82

Insect populations, Insect traps, Noctuidae, Temperature.

#### 5656-69

FEWER PESTICIDES- MORE CONTROL.

R Van Den Bosch

Science 164(3879):497

02 May 1969 470 SCI2

Chemical control (pests), Chlorinated hydrocarbons, DDT, Ecology, Pesticides, Regulations.

#### 5657-69

INSECT PATHOLOGY AND MICROBIAL CON-TROL PROCEEDINGS OF THE INTERNA-TIONAL COLLOQUIUM ON INSECT PATHOLOGY AND MICROBIAL CONTROL, WAGENINGEN, THE NETHERLANDS, SEP-TEMBER 5/10, 1966.

P A Van Dcr Laan

North-Holland Publishing Co., Amsterdam, Netherlands 360P 1967 SB932.15

Biological control (insects), Entomology, Insect diseases, Insecticide resistant insects, Insecticides, Integrated control (insects).

#### 5658-69

LAWN INSECTS; HOW TO CONTROL THEM. A M Vance B A App USDA Home Gard Bull (53):24P Mar 1969 1 AG84HG

Accident prevention, Chemical control (insects), Insect pests, Insecticides, Lawns, Plant injuries.

#### 5659-69

SEXUAL DIMORPHISM OF LARVAE AND PUPAE OF AEDES AEGYPTI (LINN.). V M Vargas

Mosquito News 28(3):374-379 REF Scp 1968 421 M85

Acdes acgypti, Gonads, Insect morphology, Lar-vac, Polymorphism, Pupac.

#### 5660-69

DEVELOPMENT AND STUDY OF FILLER COMPOSITION OF AEROSOL DISPENSERS FOR CONTROLLING FLYING INSECTS.

V I Vashkov V M Tsctlin A P Volkova L I Brikman I V Bessonova

J Hyg Epidemiol Microbiol Immunol 11(3):301-308 REF

1967 448.8 J826

Chemical control (insects), Dichlorvos, Insect control, Insecticidal acrosols, Pyrethrum.

#### 5661-69

LACE BUGS.

L M Vasvary

Rutgers State Univ Ext Leafl (213-A):2P 1969 275.29 N46L

Carbamates, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, Dimethoate, Insect pests, Insecticides, Lindane, Malathion, Organophosphorus compounds, Tingidac.

# 5662-69

BAGWORM.

# L M Vasvary

Rutgers State Univ Ext Leafl (192-A):2P 1969 275.29 N46L

Carbamates, Carbaryl, Chemical control (insects), Chlordanc, Chlorinated hydrocarbons, Diazinon, Insect pests, Insecticides, Malathion, Or-ganophosphorus compounds, Plant injuries, Psychidac, Shrubs, Thuja, Thyridopteryx ephemeraeformis, Trees.

5663-69

**EUROPEAN PINE SHOOT MOTH.** L M Vasvary Rutgers State Univ Ext Leafl (129-B):2P 1969 275.29 N46L

Carbamates, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, DDT, Insect identification, Insect pests, Insecticide application, Olethreutidac, Rhyacionia buoliana.

5664.69

RESEARCH ON THE DISEASE DUE TO METARRHIZIUM ANISOPLIAE, IN THE ANISOPLIAE, IN THE **MIGRATORY LOCUST. (FR )** 

K H Vccn

Wageningen Landvouw Lab Fytopathol Med 68(5):77P REF

1968 464.04 W12

Biological control (insects), Disease transmission, Fungi, Insect discases, Mctarrhizium anisopliae, Schistocerca gregaria. English summary.

#### 5665-69

SENSITIVITY DURATION IN THE PHOTOPERIOD FOR THE INHIBITION OF MATURATION OF A GROUP OF LOCUSTA MIGRATORIA MIGRATORIA L. (ORTHOP-TERA), GROUP KAZALINSK . (FR ) M Verdier

Acad Sci Compt Rend Ser D Sci Nat 268(2, 1ST SEMESTER):333-336 REF

13 Jan 1969 505 P21

Acrididac, Locusta migratoria, Mctamorphosis, Photoperiodism.

#### 5666-69

DEVELOPMENT COURSE OF NORTHERN CATTLE GRUB, HYPODERMA BOVIS, MALE REPRODUCTIVE CELLS. (LA )

**R** Vitomska

Latv P Sr Zinat Akad Vestis 7(240):100-103 1967 511 R442

Hypoderma bovis, Insect biology, Insect physiology, Mctamorphosis, Reproductive organs. English and Russian summarics.

5667-69

#### INTEGRATED AND HARMONIOUS CONTROL OF INSECT PESTS. (DU) A D Voutc

T N O (toegepast- Natuurwetensch Onderz)-nieuws 23(10):397-399 REF Oct 1968 475 T11

Biological control (insects), Chemical control (insccts), Insect pests, Integrated control (insects), Nomenclature. English summary.

#### 5668-69

SUSCEPTIBILITY OF AN ALFALFA LEAF-CUTTING BEE TO RESIDUES OF INSECTI-CIDES ON FOLIAGE. G D Waller

J Econ Entomol 62(1):189-192 17 Feb 1969 421 J822 Alfalfa, Carbaryl, Chemical control (insects), DDT, Insecticide residues, Leaves, Megachile rotundata, Mortality, Susceptibility.

#### 5669-69

THE GROWTH AND ACTIVITY OF THE COR-PORA ALLATA IN THE LARVAL FIREBRAT, THERMOBIA DOMESTICA (PACKARD) (THYSANURA, LEPISMATIDAE). JAL Watson

Biol Bull 132(2):277-291 REF

Apr 1967 442.8 B52

Corpora allata, Cuticle, Insect histology, Larvae, Thermobia domestica, Tissue transplants.

5670-69

STUDIES OF PHYSIOLOGICALLY ACTIVE ARTHROPOD SECRETIONS. II. SOME OBSER-VATIONS ON THE SCENT PENCILS OF MALE VITULA ED PHYCITIDAE). (LEPIDOPTERA: EDMANDSAE J Weatherston J E Percy Can Entomol 101(3):280-285 REF Mar 1969 421 C16 Glands (insects), Insect histology, Insect morphology, Pheromones, Phycitidae, Secretion, Scx attractants. French summary.

29

5671-69

OPTICAL ORIENTATION MECHANISMS IN THE HOMING BEHAVIOR OF CATAGLYPHIS BICOLOR FAB. (FORMICIDAE, HYMENOP-TERA). (GE ) R Wchner

Rev Suisse Zool 75(4):1076-1085 REF Dce 1968 410 R324

Cataglyphis bicolor, Formicidac, Insect behavior,

Insect physiology, Vision.

# 5672-69

HOMING IN THE ANT CATAGLYPHIS BICOLOR.

R Wchner R Menzel

Science 164(3876):192-194

11 Apr 1969 470 SCI2

Cataglyphis bicolor, Insect bchavior, Insect ecology, Social insects, Zoogcography.

#### 5673-69

THERMOBIA DOMESTICA (PACKARD 1873). (GE)

H Wcidncr

Prakt Schadlingsbekampfer 20(5):55-56

May 1968 421 P882

Flour, Insect ceology, Insect morphology, Lepisma saccharina, Thermobia domestica, Thysanura.

#### 5674-69

stracts

5675.69

CONTRIBUTION TO THE STUDY OF THE POPULATION DYNAMICS OF THE PLANT LOUSE TOXOPTERA AUTANTII (BOYER) ON LEMON TREES (CITRUS LIMON BURM). (CZ) L Weismann M M Diaz

Toxoptera aurantii. Czech, russian and german ab-

ECOLOGICAL STUDIES ON APHIDS. I. ON

THE TEMPERATURE RELATIONS OF THE

VIRGINOPARAE (ALIENCOLAE) OF MYZUS

PERSICAE AT CONSTANT TEMPERATURES

Insect coology, Myzus persicae, Natural control (insects), Rape, Reproduction, Temperature. En-

POSTNATAL TREATMENT OF THE CABBAGE APHID WITH A SYNTHETIC JUVENILE HOR-

Biochemistry, Brevicoryne brassicae, Hormones,

**USE OF BIOASSAY IN PLANT PROTECTION.** 

Bacteria, Biological assay, Biological control (in-

sects), Insect pests, Mcthodology, Plant protection.

Summary of 2 articles by H. Wiegand. Testing of

plant protection preparations in bioassay to be

published in archiv fur Pflanzcnschutz and Taking

natural mortality into account in bioassay to be

CONTROLLING INSECT PESTS IN HEADER-

Chemical control (insects), Insect control, Insect

published in Biometrische Zeitschrift.

Entomol Exp Appl 11(2):115-132 REF

J Insect Physiol 14(7):901-912 REF

Insect abnormalities, Insect morphology.

Biologia (bratislava) 23(2):132-137 1968 442.8 B5265

Aphididac, Dcmography, Insect pests, Lcmons,

ON SWEDES. (GE) K Wcitzel A Raeuber

1968 421 EN895

glish summary.

5676-69

MONE.

5677-69

338-339

5678-69

HARVESTERS. P Williams

J Agr 67(1):8-10

pests, Whcat.

Jan 1969 23 V66J

H Wiegand

1967 SB932.15

D F White

Jul 1968 421 J825

5679-69

#### 5679-69

SALICYLANILIDES: A NEW GROUP OF AC-TIVE UNCOUPLERS OF OXIDATIVE PHOSPHORYLATION. R L Williamson R L Metealf

Science 158(3809):1694-1695 REF

29 Dec 1967 470 SCI2

Adenosine triphosphates, Chemical reactions, Inhibitors, Mitochondria, Musca Phosphorylation, Salicylanilides. domestica,

# 5680-69

LIFE HISTORY, HABITS, AND DAMAGE OF CHRYSOBOTHRIS ORONO (COLEOPTERA: BUPRESTIDAE) ON RED PINE IN MICHIGAN. L F Wilson

Can Entomol 101(3):291-298

Mar 1969 421 C16

Bionomics, Buprestidae, Forest insects, Insect behavior, Insect pests, Insect physiology, Pinus banksiana, Pinus resinosa, Plant injuries.

# 5681-69

# CUTICULAR WATER PUMP IN INSECTS. P W Winston

Nature 214(5086):383-384

22 Apr 1967 472 N21

Acrididae, Blattidae, Cutiele, Insect physiology, Locusta migratoria, Periplaneta americana, Water.

### 5682-69

NEW RECORDS AND SPECIES OF NEOTROPI-CAL BARK COLEOPTERA). BEETLES (SCOLYTIDAE:

S L Wood

Great Basin Natur 27(2):79-97 05 Sep 1967 410 G79

Insect taxonomy, Scolytidae, Zoogeography.

#### 5683-69

# MALE GENITAL DISC DEFECT IN DROSO-PHILA MELANOGASTER.

C M Woolf Genetics 60(1,PT.1):111-121 Scp 1968 442.8 G28

Abnormalities, Chromosomes, Culture media, Drosophila melanogaster, Genes, Reproduction, Research.

#### 5684-69

AN IMPROVED METHOD FOR THE COLLEC-NUMBERS OF IN-OF DROSOPHILA TION OF LARGE SEMINATED EGGS EGGS MELANOGASTER.

F E Wurgler H Ulrich H W Spring

Experientia 24(10):1082-1083 REF

15 Oct 1968 475 EX7

Drosophila melanogaster, Eggs, Insect rearing, Methodology.

#### 5685-69

**INITIATION OF POLYHEDROSIS PRODUC-**TION IN VITRO.

K Yamafuji 26-27

1967 SB932.15

Biochemistry, Deoxyribonucleic acid, Dna viruses, Hydroxylamine, Insec Polyhedroses, Virology. Insect diseases, Mutagens,

#### 5686-69

OBSERVATIONS ON THE USE OF PREPARATION OF BACILLUS THURINGIEN-SIS VAR. THURINGIENSIS BERLINER, FOR THE CONTROL OF THE OLIVE MOTH (PRAYS OLEAE BERN.).

**C** Yamvrias

284-285

1967 SB932.15

Bacillus thuringiensis, Biological control (insects), Climate, Insect pests, Methodology, Prays oleclus.

# 5687-69

DETERMINING SUITABLE WINTERING AND HATCHING REGIMES OF THE EGGS OF THE SILK WORM (BOMBYX MORI L.). (BUL ) A Yankov M Petkov

# **BIBLIOGRAPHY**

Zhivotnovudni Nauk 5(3):85-94 REF 1968 49 Z65

Bombyx mori, Hibernation, Insect biology, Insect breeding, Insect eggs, Larvae, Lepidoptera, Storage, Temperature. English and Russian summary

### 5688-69

SYSTEMICS, A NEW TOOL FOR THE HOME GARDENER.

W H Youngman Amer Hort Mag 48(1,WINTER):12-19 REF 1969 80 N216

Chemical control (insects), Demeton, Dimethoate, Disulfoton, Oxydemctonmethyl, Plant physiology, Systemic insecticides.

#### 5689-69

# LIPIDS IN THE MELANIC MUTANT OF THE LARGE MILKWEED BUG, ONCOPELTUS FASCIATUS.

W J Yurkiewiez K E Whelehel

Compar Biochem Physiol 29(2):879-883 REF May 1969 444.8 C73

Chromatography, Insect biochemistry, Insect mutation, Lipids, Oncopeltus fasciatus, Sex.

#### 5690-69

#### **METABOLISM OF ORGANOPHOSPHORUS IN-**SECTICIDES. IX. DISTRIBUTION, EXCRETION AND METABOLISM OF DIMETHOATE PRODENIA LITURIA. (ABSTRACT).

S M A D Zayed A Hassan I M I Fakhr Excerpta Med Pharm Toxicol 21(12):600 Dec 1968 241.64 EX23

Dimethoate, Insect physiology, Insecticides, Isotopes, Larvae, Metabolism, Metabolites, Noctuidae, Organophosphorus compounds, Prodenia litura. From Biochemical Pharmaeology, 1968, 17/7, (1339-1347).

5691-69

# ON THE PHOTOPOSITIVE RESPONSES OF SOME INSECTS TOWARDS MONOCHRO-MATIC LIGHTS.

J Zdarck J Pospisil

Acta Ent Bohemoslov 5(63):341-347 REF 1966 420 C33

Attractants, Color, Habitats, Insect behavior, Insect ecology, Light, Phytophagous insects.

Aphis fabae, Leptinotarsa decemlineata, Pegomyia hyoscyami, Adalia bipunctata, Muscina stabulans, Stomoxys calcitrans and Trichogramma evanescens were tested for their responses.

#### 5692-69

**USE OF SOME HOST INSECTS TO INCREASE** TRICHOGRAM EFFECTIVENESS. (LA) A Zilsparne

Latv P Sr Zinat Akad Vestis (7):91-95 1968 511 R442

Beneficial inscets, Biological control (inseets), In-scet eggs, Moths, Parasitism, Trichogramma. English summary.

#### 5693-69

# PARASITE PHYLOGENY PROBLEMS OF THE MALLOPHAGA OF PASSERIFORMES AND PICIFORMES. (GE )

J Zlotorzycka

Angew Parasitol 09(1):45-53

Feb 1968 436.8 AN4 Birds, Insect evolution, Mallophaga, Parasitic inscets, Pigeons, Poultry. German abstract

#### 5694-69

AGGRESSIVENESS OF DIFFERENT SPECIES OF SANDFLIES TOWARDS MAN AND THEIR INFECTION RATE WITH L. TROPICA MAJOR AT THE MOMENT OF BLOOD-SUCKING. (RUS

T V Zvyagintseva Med Parazitol Parazitarn Bolezni 37(5,SEP/OCT):570-574

1968 448.8 M469

Human diseases, Insect behavior, Insect diseases, Leishmaniasis, Medical entomology, Phlebotomus. English summary.

30

5695-69

HOW DO NATIVE INSECT PARASITES BEHAVE IN RELATION TO IMPORTED IN-SECT HOSTS, ALIEN TO THE NATIVE FAUNA . (GE)

H Zwolfer H Pschornwalcher Anz Schadlingskunde 41(4):51-55 REF

Apr 1968 421 AN9

Calophasia lunula, Cnephasia, Diprionidae, Fenusa pusilla, Hymenoptera, Insect behavior, Lepidop-tera, Parasitic insects, Poraswammerdamia caesiella, Thymelicus lincola.

# **GENETICS**

#### 5696-69

KARYOTYPES OF SOME ASIAN MOSQUITOES OF THE SUBFAMILY CU-LICINAE (DIPTERA: CULICIDAE). ASIAN R H Baker M Aslamkhan J Med Entomol 6(1):44-52 REF

30 Jan 1969 421 J828

Chromosomes, Culicidae, Insect genetics, Medical entomology. Fifteen species of mosquitoes are discussed.

#### 5697-69

5698-69

**B** N Chowdaiah

Insect genetics.

5699-69

 $(\mathbf{IT})$ 

5700-69

Cur Sci 36(4):105-106

20 Feb 1967 475 SCI23

M Coluzzi A Sabatini

Mar 1968 436.8 R52

MELANOGASTER.

J Delcour F A Lints

1967 442.8 G282

Wings (insects).

5701-69

TERA).

5702-69

Genetica 37(4):543-556 REF

R N Desai S B Deshpande

Experientia 25(4):386-387

Th Dobzhansky B Spassky J Sved

15 Apr 1969 475 EX7

Nepidae, Ranatra.

POLYMORPHISM IN PIERIS: SUPPOSED LETHALITY OF HOMOZYGOUS SUBTALBA (LEP., PIERIDAE). S R Bowden

Entomologist (london) 100(1255):307-314

Dec 1967 421 EN8

MALE OF THYROPYGUS SP..

Demography, Genes, Insect genetics, Pieridac, Polymorphism.

CHROMOSOME STUDIES IN DIPLOPODA

(MYRIAPODA). A NOTE ON THE ABNORMAL SEX-CHROMOSOME BEHAVIOUR IN THE

Chromosomes, Harpagophoridae, Insect cytology,

STERILITY BARRIERS IN THE AEDES MARIAE COMPLEX (DIPTERA, CULICIDAE).

Acdes, Chromosomes, Culicidae, Insect genetics,

ENVIRONMENTAL AND GENETIC VARIA-TIONS OF WING SIZE, CELL SIZE AND CELL DIVISION RATE, IN DROSOPHILA

Cell division, Cells, Drosophila melanogaster, En-vironment, Insect genetics, Sex, Temperature,

CENTROMERE NATURE OF THE CHROMOSOMES OF RANATRA (HETEROP-

Chromosomes, Insect genetics, Meiosis, Mitosis,

**EFFECTS OF SELECTION AND MIGRATION** 

ON GEOTACTIC AND PHOTOTACTIC BEHAVIOUR OF DROSOPHILA. II.

Roy Soc Proc Ser B, Biol Sci 173(1031):191-207

Insect morphology, Sterility. English summary.

AND

MORPHOLOGICAL DIVERGENCES

Riv Parassitol 29(1):49-70 MAP REF

## 5726-69

## 20 May 1969 501 L84B

Drosophila pscudoobscura, Gcotropism, Insect behavior, Insect genetics, Insect migration, Phototropism, Population.

## 5703-69

MEIOSIS. III: THE ELASTICA, AND MARKOV PROCESSES AS MODEL FOR NON-RANDOM SEGREGATION FROM ASSOCIATED NON-HOMOLOGUES IN DROSOPHILA.

L T Douglas Genetica 39(3-4):289-328 REF 1968 442.8 G282 Drosophila melanogaster, Insect genetics, Markov chains, Mathematical analysis, Meiosis.

GENETICS AND ACTIVITY IN DROSOPHILA MELANOGASTER.

A W Ewing

Experientia 23(5):330-332

15 May 1967 475 EX7

Drosophila melanogaster, Insect behavior, Insect genetics.

## 5705-69

NUCLEIC ACID CONTENT OF A DIPLOID AND OF A TRIPLOID STRAIN OF DROSO-PHILA MELANOGASTER.

**R** Fahrig F Anders Experientia 23(4):269-270

15 Apr 1967 475 EX7 Cytogenetics, Drosophila melanogaster, Insect genetics, Nucleic acids, Polyploidy.

#### 5706-69

MUTANTS AT THE BOBBED LOCUS IN DROSOPHILA MELANOGASTER: RELATION TO RIBOSOMAL RNA SYNTHESIS. E S Gersh

Science 162(3858):1139 06 Dec 1968 470 SC12

Chromosomes, Drosophila melanogaster, Insect genetics, Insect mutation, Ribonucleic acid, Ribosomes, Synthesis.

## 5707-69

THE VARIATION FROM YEAR TO YEAR OF THE CONCENTRATION AND ALLELISM OF LETHAL MUTATIONS IN NEIGHBOURING NATURAL POPULATIONS OF DROSOPHILA MELANOGASTER. (RUS) M D Golubovskii G V Viktorova

Genetika 4(8):48-57 REF

1968 OH431.A1G4

Alleles, Drosophila melanogaster, Insect genetics, Insect mutation, Lethal factor, Population. English summary.

## 5708-69

INSECTICIDE RESISTANCE IN THE HOME OF CULEX PIPIENS FATIGANS WIEDEMANN. (FR

J Hamon J Mouchet

World Health Organ Bull 37(2):277-286 REF 1967 449.9 W892B

Chemical control (insects), Culex pipiens quinquefasciatus, Dieldrin, DDT, Insect genetics, Insect physiology, Insecticide resistant insects, Lar-vac. Summary in English

#### 5709-69

# STUDIES IN EXPERIMENTAL BEHAVIOR GENETICS: V. NEGATIVE GEOTAXIS AND FURTHER CHROMOSOME ANALYSES IN DROSOPHILA MELANOGASTER.

J Hirsch G Ksander

J Compara Physiol Psychol 67(1):118-122 Jan 1969 410 J822

Chromosomes,

Drosophila melanogaster. Gcotropism, Insect behavior, Insect genetics.

## 5710-69

**POPULATION GENETICS IN THE AMERICAN** TROPICS. II. THE COMPARATIVE GENETICS OF DROSOPHILA IN EUROPEAN AND NEO-TROPICAL ENVIRONMENTS.

H F Hoenigsberg L E Castro L A Granobles J M ldrobo

Genetica 40(1):43-60 REF 1969 442.8 G282

Drosophila melanogaster, Insect ecology, Insect genetics.

#### 5711-69

THE EXPLOITATION OF GENETIC HETEROGENEITY AMONG THE FOUNDERS OF LABORATORY POPULATIONS OF DROSO-PHILA PRIOR TO DIRECTIONAL SELECTION. S M W Hosgood P A Parsons Experientia 23(12):1066-1067 15 Dec 1967 475 EX7

Drosophila mclanogaster, Insect genetics, Insect rcaring.

#### 5712-69

**CROSSING-OVER IN THE MALES OF DROSO-**PHILA ANANASSAE: EXCHANGES IN IR-RADIATED PUPAE. P G Kale

Int J Radiat Biol 13(1):1-12 REF

15 Dec 1967 444.8 IN8

Drosophila ananassac, Insect genetics, Irradiation,

Pupac. French and German abstracts.

## 5713-69

## STUDIES ON THE MECHANISM OF DDT-RE-SISTANCE IN CULEX PIPIENS FATIGANS.

R L Kalra A S Perry J W Miles World Health Organ Bull 37(4):651-656 REF 1967 449.9 W892B

Acdes acgypti, Culex pipiens quinquefasciatus, DDT, Insect biology, Insect genetics, Insecticide resistant insects. French summary

#### 5714-69

THE CHROMOSOMES OF THE CADDIS-FLY, GLYPHOTAELIUS PELLUCIDUS (RETZIUS, 1783) (TRICHOPTERA: LIMNEPHILIDAE, LIMNEPHILINAE). **B** Kiauta L Lankhorst

Genetica 40(1):1-6 REF

1969 442.8 G282

Chromosomes, Insect genetics, Limnephilidae, Meiosis, Sex determination.

#### 5715-69

## CHROMOSOMAL REARRANGEMENTS IN-DUCED IN DROSOPHILA SALIVARY GLAND CHROMOSOMES BY AN ACRIDINE HALF MUSTARD.

S Kumar R P Sharma Experientia 23(4):266-267 REF

15 Apr 1967 475 EX7

Chromosomes, Cytogenetics, Drosophila, Salivary glands (insects).

## 5716-69

CARBAMATE AND PHOSPHATE RESISTANCE IN ADULT GRANARY WEEVILS. V Kumar F O Morrison

J Econ Entomol 60(5):1430-1434 Oct 1967 421 J822

DDT, Fenthion, Insecticide resistant insects, Sitophilus, Zectran.

## 5717-69

THE MUTAGENIC EFFECT OF 600 MEV PROTONS DROSOPHILA IN MELANOGASTER.

M J Lamb T W McShechy C E Purdom J Baarli A H Sullivan

Int J Radiat Biol 12(1):27-34 REF 17 May 1967 444.8 IN8

Drosophila mclanogaster, Insect genetics, Insect mutation, Protons, X-rays.

### 5718-69

ANALYSIS OF CHRONATIN IN MALE AND FEMALE MEALY BUGS. (PLANOCOCCUS CITRI).

M W Loewus

Nature 218(5140):474-476 REF 04 May 1968 472 N21

Biological assay, Chromatin, Chromosomes, Insect genetics, Planococcus citri, Pseudococcidac.

31

5719-69

**GENETIC AND ENVIRONMENTAL CONTROL** OF MELANOTIC TUMORS IN DROSOPHILA. K Mampell Genetica 37(4):449-465 1967 442.8 G282 Drosophila melanogaster, Insect genetics, Insect

nutrition, Neoplasms, Temperature.

#### 5720-69

**SELECTION FOR HIGHER FITNESS IN POPU-**LATIONS OF DROSOPHILA PSEUDOOB-SCURA.

**D** Marinkovic

Science 160(3824)199-200

12 Apr 1968 470 SCI2

Chromosomes, Drosophila pseudoobscura, Fertility, Insect genetics, Insect mutation, Insect populations.

## 5721-69

5722-69

Scx.

5723-69

5724-69

V A Mglinetz

MECHANISM

ARENARIUS

LYGAEIDAE).

determination.

5725-69

5726-69

DROSOPHILA.

Insect genetics.

Nature 214(5086):424

22 Apr 1967 472 N21

M Mikolajski

Genetika 4(8):81-86 REF 1968 QH431.A1G4

Experientia 23(4):270-271

15 Apr 1967 475 EX7

D D Miller W G Sanger

Nov 1968 442.8 AM3

J Hered 59(6):323-327 REF

S Mittler J E Mittler S L Owens

genetics, Radiation. English summary.

FECUNDITY, EGG-SIZE AND HATCHABILITY IN DROSOPHILA MELANOGASTER WITH AN X-CHROMOSOME HELD UNCHANGED.

N K Mazumdar S S Prabhu

J Genet 60(1):24-39 REF

Dcc 1968 442.8 J823

TERA: CULICIDAE).

Jun 1968 443.8 C16

G A H McClelland T W Smithson

Can J Genet Cytol 10(2):374-384 REF

Chromosomes, Drosophila melanogaster, Fertility, Insect eggs, Insect genetics.

LINKAGE OF GOLD, ITS RECESSIVE LETHALITY AND SEX-RELATED VARIATION

IN CROSSING-OVER IN CULEX PIPIENS (DIP-

Breeding, Chromosomes, Culex pipiens, DDT,

Genes, Immunity, Insect genetics, Lethal factor,

ELIMINATION OF RADIATION-INDUCED CHROMOSOME ABERRATIONS IN EXPERI-

MENTAL POPULATIONS OF DROSOPHILA MELANOGASTER. (RUS)

Chromosomes, Drosophila melanogaster, Insect

ON THE MULTIPLE SEX-CHROMOSOME

Cytogenetics, Insect genetics, Lygacidae, Sex

SALIVARY GLAND CHROMOSOME VARIA-TION IN THE DROSOPHILA AFFINIS SUB-GROUP. II. COMPARISON OF C-CHROMOSOME PATTERNS IN D.

ATHABASCA AND FIVE RELATED SPECIES.

Chromosomes, Drosophila affinis, Drosophila

athabasca, Glands (insects), Insect genetics, Photomicrography, Salivary glands.

LOSS OF CHROMOSOMES AND NON-DISJUNCTION INDUCED BY CAFFEINE IN

Caffeine, Chromosomes, Drosophila melanogaster,

TRAPEZONOTUS

(HETEROPTERA,

IN

L.

## ENTOMOLOGY

## 5727-69

## 5727-69

POLYTENE CHROMOSOMES IN SILK GLAND CELLS OF THE SILKWORM, BOMBYX MORI. Y H Nakanishi H Kato S Utsumi Experientia 25(4):384-385 15 Apr 1969 475 EX7 Bombyx mori, Chromosomes, Cytology, Electron

microscopy.

## 5728-69

## RELATIVE FITNESS OF A THIRD CHROMOSOME INVERSION IN DROSOPHILA MELANOGASTER.

R F Nassar

Australian J Biol Sci 21(6):1179-1186 REF

Dec 1968 442.8 AU72

Chromosomes, Drosophila melanogaster, Insect genetics, Insect rearing.

## 5729-69

## CHROMOSOMES OF THE CEREAL LEAF BEE-TLE.

T Ninan D H Smith S G Wellso

J Hered 59(6):361-362 REF

Nov 1968 442.8 AM3 Chromosomes, Gelechiidae, Insect eggs, Insect genetics, Oulema melanopus.

#### 5730-69

ON THE REVERSIBLE CHARACTER OF DELAYED MUTATIONS INDUCED BY NITROSOCOMPOUNDS IN DROSOPHILA MELANOGASTER.

M Ondrej

Folia Biol (praha) 15(1):17-25 REF

1969 442.8 F712

Drosophila melanogaster, Insect genetics, Insect mutation, Nitroso compounds.

## 5731-69

GENETICS OF RESISTANCE TO TEDION IN TETRANYCHUS URTICAE C. L. KOCH. W P J Overmeer

Arch Neer Zool 17(3):295-349 REF

Nov 1967 410 AR27

Insect biology, Insect rearing, Insecticide resistant insects, Tetradifon, Tetranychus urticae.

## 5732-69

#### THYMIDINE TERATOGENESIS AND MU-TAGENESIS IN DROSOPHILA MELANOGASTER. O Parkash

Experientia 23(10):859-861 15 Oct 1967 475 EX7

Chromosomes, Drosophila melanogaster, Insect

genetics, Insect morphology, Insect mutation, Thymidine, H-3-,.

## 5733-69

## GENETICS OF OCTANOL DEHYDROGENASE IN DROSOPHILA METZII.

S B Pipkin Genetics 60(1,PT.1):81-92

Sep 1968 442.8 G28

Drosophila, Electrophoresis, Genetics, Research.

## 5734-69

## ANALYSIS OF A 6X6 DIALLEL CROSS FOR HATCHABILITY IN DROSOPHILA MELANOGASTER.

S S Prabho P Narain H P Singh S Rawat

J Genet 60(1):17-23 REF

Dcc 1968 442.8 J823

Allcles, Drosophila melanogaster, Insect eggs, Insect genetics, Insect physiology.

## 5735-69

## GENETIC VARIABILITY IN THE GERMAN COCKROACH. IV. LINKAGE STUDIES WITH MARKERS FOR GROUPS III AND VIII. M H Ross D G Cochran J Hered 59(5,SEP-OCT):318-320 REF

Oct 1968 442.8 AM3

Blattella germanica, Insect genetics.

Linkage data which show two genetic markers,

## **BIBLIOGRAPHY**

Prowing (Pw) and notched sternite (st) to be involved with linkage groups III and VII in Blattella germanica L. are presented.

#### 5736-69

GENETICS OF RESISTANCE TO INSECTI-CIDES OF THE SKA STRAIN OF MUSCA DOMESTICA. III. LOCATION AND ISOLATION OF THE FACTORS OF RESISTANCE TO DIEL-DRIN.

R M Sawicki A W Farnham

Entomol Exp Appl 11(2):133-142 REF 1968 421 EN895

Chlorinated hydrocarbons, Dieldrin, Insect

## genetics, Insecticide resistant insects, Insecticides, Musea domestica. German summary. 5737-69

# THE SALIVARY CHROMOSOMES OF ANOPHELES STEPHENSI STEPHENSI.

G P Sharma R Parshad S L Narang J B Kitzmiller J Med Entomol 6(1):68-71

30 Jan 1969 421 J828

Anopheles stephensi, Chromosomes, Insect genetics, Medical entomology, Salivary glands (insects).

#### 5738-69

SPERMIOGENESIS IN WILD TYPE AND IN A MALE STERILITY MUTANT OF DROSOPHILA MELANOGASTER. J R Shoup

J Cell Biol 32(3):663-675 REF

Mar 1967 442.8 J828

Cytology, Drosophila mclanogaster, Electron microscopy, Spermatogenesis, Sterility.

#### 5739-69

## ATTEMPTS TO INDUCE CROSSING-OVER IN DROSOPHILA MELANOGASTER MALES WITH OVARIAN EXTRACTS.

K M Singer A Chovnick D T Suzuki D Baillic D Hoar

Nature 214(5087):503-504 29 Apr 1967 472 N21

Chromosomes, Drosophila melanogaster, Extracts, Insect cultures, Insect genetics, Ovaries.

#### 5740-69

## TEMPERATURE-SENSITIVE MUTATIONS IN DROSOPHILA MELANOGASTER, III. DOMI-NANT LETHALS AND SEMILETHALS ON CHROMOSOME 2.

D T Suzuki D Procunicr

Nat Acad Sci Proc 62(2):369-376 REF Fcb 1969 500 N21P

Chromosomes, Drosophila melanogaster, Insect genetics, Insect mutation, Lethal factor, Temperature.

#### 5741-69

GENETICAL LINKAGE RELATIONSHIPS OF DDT-RESISTANCE AND DIELDRIN-RE-SISTANCE IN CULEX PIPIENS FATIGANS WIEDEMANN.

T Tadano A W A Brown

World Health Organ Bull 36(1):101-111 REF 1967 449.9 W892B

Benzene hexachloride, Chromosomes, Culex pipiens quinquefaseiatus, Dieldrin, DDT, Genes, Insect geneties, Insectieide resistant insects. French summary

Abstract: DDT - resistance due to a single principal gene. dieldrin - resistance is separated on to chromosome 3.

5742-69

## UNUSUAL FILAMENTOUS STRUCTURES IN THE PARAGONIA OF MALE DROSOPHILA. B Tandler D L Williamson L Ehrman J Cell Biol 38(2):329-336 REF Aug 1968 442.8 J828 Drosophila paulistorum, Electron microscopy, In-

Drosophila paulistorum, Electron microscopy, Inclusion bodies, Ribonucleic acid, Sterility.

32

5743-69

REGULAR SEGREGATION OF SEVEN ASYNAPTIC SEX CHROMOSOMES IN THE MALE OF ASPHAERA DANIELA BECHYNE (COLEOPTERA, ALTICIDAE). N Virkki

21(1):47-

Mar 1968

Chromosomes, Colcoptera, Insect genetics, Research.

5744-69

SELECTION AND TEMPERATURE EFFECTS ON EXTRA DORSOCENTRAL BRISTLES IN DROSOPHILA MELANOGASTER. W J Vrcczen J F Veldkamp

Genetica 40(1):19-39 REF

1969 442.8 G282

Drosophila melanogaster, Insect morphology, Insect mutation, Insect rearing, Temperature.

#### 5745-69

ON POLYMORPHISM WITHIN A CHROMOSOMES FROM POPULATIONS OF GROUND BEETLES CARABUS AURONITENS FABR. (GE )

F Wcber

5746-69

5747-69

5748-69

MICE.

5749-69

5750-69

1967.

1968 420 F663

Larvicides.

Anonymous

Apr 1969 449.8 EX8

discases (animals).

LAKE. (REF)

V N Anufricva

1968 448.8 M469

Experientia 23(4):257-258

GAMBUSIA FOR COLORADO.

Med Parazitol Parazitarn Bolezni

37(5,SEP/OCT):595-604 MAP REF

H J Baker A A Hubert C Manikumaran

tomology, Micc, Mitcs, Trombiculidae.

J Med Entomol 5(4):511-513

30 Oct 1968 421 J828

TERA FROM MAN.

H Banziger W Buttiker

30 Jan 1969 421 J828

B W Clements A J Rogers

J Med Entomol 6(1):53-58 REF

tomology, Moths. French summary.

Pest Contr 37(4):28,30,32,34,36,38

15 Apr 1967 475 EX7

Carabidae, Chromosomes, Cytogeneties, Insect genetics, Polymorphism. English abstract

**MEDICAL ENTOMOLOGY** 

Biological control (insects), Culicidac, En-

ccphalitis, Gambusia affinis, Insect vectors, Virus

A POSSIBLE ROLE OF BLOOD-SUCKING MOSQUITOES IN SPREAD OF ARBOVIRUS IN-FECTION IN THE AREA OF THE ZAISAN

Arboviruscs, Culicidac, Disease transmission, Insect biology, Medical entomology, Neurotropic viruscs. English summary.

A TECHNIQUE FOR FEEDING LARVAL TROMBICULID MITES ON LABORATORY

Fccding, Insect vcctors, Larvae, Medical en-

**RECORDS OF EYE-FREQUENTING LEPIDOP-**

Eycs, Insect vectors, Lepidoptera, Medical en-

TESTS OF LARVICIDES FOR CONTROL OF

SALT-MARSH SAND FLIES (CULICOIDES),

Ceratopogonidac, Crcosote, Culicoides, Larvac,

Fla Anti-mosquito Ass Rep 39:33-42 REF

5773-69

## 5751-69

FALCIPARUM MALARIA TRANSMISSIBLE FROM MONKEY TO MAN BY MOSQUITO BITE.

P G Contacos W E Collins

Science 161(3836):56

05 Jul 1968 470 SCI2

Anopheles freeborni, Culicidae, Disease transmission, Human diseases, Insect vectors, Malaria, Monkeys, Parasitism, Plasmodium falciparum.

#### 5752-69

FACTORS INFLUENCING THE PERSISTENCE OF THE GRANULOSIS VIRUS OF PIERIS BRASSICAE IN THE ENVIRONMENT. W A L David

174-178

1967 SB932.15

Biological control (insects), Environment, Granuloses, Insect diseases, Pieris brassicae.

## 5753-69

CULEX NIGRIPALPUS: SEASONAL SHIFT IN THE BIRD-MAMMAL FEEDING RATIO IN A MOSQUITO CEPHALITIS. VECTOR OF HUMAN EN-

J D Edman D J Taylor Science 161(3836):67-68

05 Jul 1968 470 SCI2

Culex nigripalpus, Encephalitis, Feeding, Human diseases, Insect behavior, Insect nutrition, Insect vectors, St. Louis encephalitis.

## 5754-69

SOME BIRDS OF URUGUAY PARASITIZED BY **ORNITHOCTONIA ERYTHROCEPHALA (DIP-**TERA, HIPPOBOSCIDAE). **R** Escalante

Brooklyn Entomol Soc Bull 55(3):62-63 Jun 1960 420 B79

Birds, Hippoboscidae, Insect vectors, Parasitic insects.

#### 5755-69

UNIQUE PROBLEMS IN INSECT AND PEST CONTROL OF NASA'S MISSISSIPPI TEST FACILITY.

B J Ethridge F W Harden

Fla Anti-mosquito Ass Rep 39:50-52 1968 420 F663

Chemical control (insects), Chlorinated hydrocarbons, Culicidae, Formulations, Insect pests, methylearbamate, lsopropoxyphenyl Malathion, Naled, Organophosphorus compounds, Pest control, Polistes, Rodents.

#### 5756-69

#### **REPORT OF THIRTY-NINTH ANNUAL MEET-**ING.

Fla Anti-mosquito Ass Rep 184P

1968 420 F663

Chemical control (insects), Conferences, Culicidac, Insect pests, Insecticides.

#### 5757-69

# ON THE LARVICIDAL ACTION OF CRUDE CASHEWNUT SHELL OIL.

A Joseph

Cur Sci 36(16):433

20 Aug 1967 475 SCI23

Anacardium occidentale, Chemical control (inscets), Culex quinquefasciatus, Insect control, In-secticidal plants, Larvicides, Oils, Petroleum.

Crude cashewnut oil was compared with crude petroleum oil for larvicidal quality. The mortality of Culex quinquefasciatus larvae after 1, 6, 12, and 24 hours was consistently higher for the cashewnut oil.

## 5758-69

TRANSMISSION OF THE TULAREMIA PATHOGEN TO HOMOTHERMAL ANIMALS BY IXODES TICKS. (JPRS 44,105). K I Kondrashkina A D Luk'yanova V P Chudesova G A Kondrashkin 13P REF

22 Jan 1968 TRANSL, 16970

Animal diseases, Disease transmission, Insect vectors, Ixodides, Microorganisms, Tularemia. Trans-lation from Parazitologiya 1(5):405-411, 1967. issucd by CFSTI.

#### 5759-69

**CONTROL OF ANOPHELINE SPECIES IN THE** CANAL ZONE WITH ULTRA-LOW VOLUME SPRAYS OF MALATHION AND FENTHION. C S Lofgren R M Altman B M Glancey Mosquito News 28(3):353-355 Scp 1968 421 M85 Anopheles, Chemical control (insects), Fenthion, Insecticidal aerosols, Malathion.

### 5760-69

FIVE NEW CASES OF CHAGAS' DISEASE IN ZACATECAS AND JALISCO IN REPUBLIC OF MEXICO. (SP) THE C M Cuartero C Ponec E R Recio

Rev Invest Salud Publica 27(1):29-36 MAP Jan 1967 449.9 M572

Blood, Culicidae, Human diseases, Insect vectors, Scrological tests, Trypanosomiasis. English summaгу

## 5761-69

SURVIVAL OF WESTERN EQUINE EN-CEPHALITIS VIRUS IN TRIATOMINAE.

J A Mangiafico L Whitman R C Wallis J Med Entomol 5(4):469-473 30 Oct 1968 421 J828 Equine encephalomyclitis, Insect vectors, Medical

cntomology, Rhodnius prolixus, Triatoma in-festans, Virology, Western equine encephalomyclitis virus.

## 5762-69

SPECIES OF BORRELIA FROM A COLUMBI-AN BAT. (NATALUS TUMIDIROSTRIS).

C J Marinkelle E S Grose

Nature 218(5140):487 REF 04 May 1968 472 N21

Animal diseases, Animal vectors, Bats, Borrelia, Human diseases, Medical entomology.

#### 5763-69

## MALARIA AND VICTORY IN VIETNAM.

W Modell Science 162(3860):1346-1352 REF

20 Dec 1968 470 SCI2

Anopheles quadrimaculatus, Chemical control (insects), Chlorinated hydrocarbons, DDT, Drug therapy, Human diseases, Insect vectors, Insecti-eides, Malaria, Pyrethrum. Many drugs were mentioned.

### 5764-69

## PUBLIC HEALTH PESTICIDES.

Pest Contr 37(3):15,16,19-22,24,26,28,30-32,34,36,38,40,42,44,48-49

## Mar 1969 449.8 EX8

Acrial spraying, Chemical control (insects), Fumigation, Human diseases, Insect vectors, Insecticide residues, Insecticide resistant insects, Pestieides, Public health, Rodent control, Rodenticides.

#### 5765-69

## **IDENTIFICATION OF THE HOST RANGE OF** CULEX TRITAENIORHYNCHUS MOSQUITOES ON OKINAWA, RYUKYU ISLANDS.

N E Pennington C A Phelps

J Med Entomol 5(4):483-487

30 Oct 1968 421 J828

Culex tritaeniorhynchus, Culicidae, Feeding habits (insects), Insect identification, Insect vectors, Japanese b encephalitis, Medical entomology, Virus discases.

## 5766-69

**IMMUNOLOGIC STRUCTURE OF THE POPU-**LATION IN A FOOTHILL TAIGA FOCUS OF TICK-BORNE ENCEPHALITIS IN THE ZONE OF CONSTRUCTION OF THE KRASNOYAR-SKAYA HYDROPOWER STATION AFTER REALIZATION OF TICK CONTROL MEA-SURES. (RUS) L A Prisyagina

33

Med Parazitol Parazitarn Bolezni 37(5,SEP/OCT):591-595 REF 1968 448.8 M469 Encephalitis, Eradication, Human diseases, Immu-

nity, Insect control, Insect vectors, Ixodides, Medical entomology. English summary.

## 5767-69

## WILD MAMMALS AND FLEAS OF RED BLUFF RANCH, NEW MEXICO.

C D Rail D L Forcum J R Wheeler B E Miller J Med Entomol 6(1):92-94

30 Jan 1969 421 J828

Ectoparasites, Insect vectors, Mammals, Medical entomology, Siphonaptera.

The fleas discussed are: Meringis rectus, Meringis nidi, Orchopcas sexdentatus, Anomiopsyllus novomexicanensis, Hoplopsyllus glacialis affinis, Polygenus gwyni, Thrassis Otus, Meringis dipodomys, and Mcgarthroglossus bisetis.

## 5768-69

# WATER MANAGEMENT UNITS AND SHORE LINE MODIFICATIONS USED IN MOSQUITO CONTROL INVESTIGATIONS. D M Rees R N Winget

Mosquito News 28(3):305-311 Scp 1968 421 M85

Acdes, Aquatic birds, Aquatic insects, Insect con-trol, Water treatment, Watershed management.

## 5769-69

## **MOSQUITO CONTROL AND/OR HONEY BEES.** F A Robinson

Fla Anti-mosquito Ass Rep 39:58-60 1968 420 F663

Apidae, Chemical control (insects), Culicidae, Fenthion, Insecticide application, Insecticides, Lar-vicides, Mortality, Pesticide residues, Plant contamination.

#### 5770-69

ATTRACTANTS AND ATTRACTANT TRAPS FOR EYE GNATS HIPPELATES PUSIO. J P Ruff

Fla Anti-mosquito Ass Rep 39:43-49

## 1968 420 F663

CHLOROPIDAE). E L Snoddy

Sep 1968 421 M85

Pentanedione, 2,3-.

I V Uspensky L N Barmina

JUN):283-288 REF

**OF CULEX PIPIENS L.** 

1968 449.9 W892B

T M A Zaghloul A W A Brown

1968 448.8 M469

5771-69

5772-69

5773-69

FOR

Attractants, Baits, Biological control (insects), Chloropidae, Conjunctivitis, Hippelates pusio, Inseet traps, Insect vectors.

2,3- PENTANEDIONE AS AN ATTRACTANT

Attractants, Carbonyl compounds, Hippelates,

The carbonyl compound, 2,3-pentanedione is eval-uated as an attractant for Hippelates.

EFFICACY OF USE OF SOME PHOSPHO-OR-GANIC COMPOUNDS AS ACARICIDES IN FOCI OF TICK-BORNE ENCEPHALITIS. (RUS )

Acaricides, Chemical control (insects), DDT,

Dosage, Encephalitis, Insect vectors, Insecticide application, Ixodes persulcatus, Ixodides, Virus dis-cases (animals). English summary

EFFECTS OF SUBLETHAL DOSES OF DDT ON THE REPRODUCTION AND SUSCEPTIBILITY

Culcx pipiens, DDT, Dosage, Human diseases, In-Reproduction. French summary.

World Health Organ Bull 38(3):459-467 REF

Med Parazitol Parazitarn Bolezni 37(3,MAY-

(DIPTERA:

HIPPELATES

Mosquito News 28(3):320-322 REF

## ENTOMOLOGY

5774-69

## 5774-69

SYNTHETIC ROUTES TO 1,1,1-TRICHLORO-2,2-BIS(P-CHLOROPHENYL) ETHANE-2-D, DEUTERO-DDT.

**B** Zimmerman Diss Abstr Sect B 28(10):4081B Apr 1968 Z5055.U49D53 Aedes aegypti, Biochemistry, Chemical control (insects), Chemicals, DDT, Hydrogen, Immunity, Insect vectors, Insecticides.

## **CROP PROTECTION**

## 5775-69

KOTA, A NEW SOUTH DAKOTA OAT. **R** S Albrechtsen S Dak Agr Exp Sta Bull (554):4P Feb 1969 100 SO82 (1) Crop varieties, Oats, Plant breeding, Plant genetics.

## 5776-69

SPECIALIST ADVICE ON GROUNDNUTS. E D Alvord

1967 MEETING:36-39 Jul 1967 S573.R45

Insect pests, Peanuts, Plant diseases, Plant protection, Tillage. In Rhodesia National Farmers' Union. Diversification guide from the RNFU Crops Conference.

## 5777-69

SOYA BEANS - SPECIALIST ADVICE. E D Alvord 1967 MEETING:48-49 Jul 1967 \$573.R45 Agricultural economics, Chemical control

(weeds), Crop yields, Harvesting, Insect pests, Plant diseases, Soybeans, Tillage. In Rhodesia Na-tional Farmers' Union. Diversification guide from RNFU Crops Conference.

## 5778-69

## FRUIT GROWING NOTE OF THE SEASON. Anonymous Agr Ferrarese 71(2):40-41

28 Feb 1967 16 AG87

Crop losses, Cultural control (plant diseases), Fertilization (plants), Fruit culture, Pesticide application, Plant protection, Pruning.

## 5779-69

PESTICIDE USE. Anonymous Agr Chem 23(12):21,24 Dec 1968 381 AG8

Chemical control (pests), Fungicides, Herbicides, Insecticides, Pesticides.

## 5780-69

CROP **PROTECTION:** COMPUTERS. SIMAZINE, CORN SEED BEETLE.

Anonymous

Crops Soils 21(5):25 Feb 1969 6 W55

Birdsfoot trefoil, Chemical control (insects), Chemical control (weeds), Diazinon, Herbicides, Insect pests, Insecticides, Organophosphorus com-pounds, Plant protection, Simazine, Weather.

## 5781-69

INTERACTION OF SOIL REACTION AND METHOD OF SEED INOCULATION ON AL-FALFA.

A S Baker W P Mortensen P Dermanis

Soil Sci Soc Amer Proc 32(6,NOV-DEC):823-827 REF

1968 56.9 SO3

Alfalfa, Limestone, Peat, Plant physiology, Seeds, Soil hydrogen-ion concentration.

## 5782-69

SOME OBSERVATIONS AND COMMENTS ON STEM-PITTING OF PEACH, ITS CONTROL AND A NURSERY IMPROVEMENT PROGRAM. J G Barrat

## BIBLIOGRAPHY

## Mountainer Grower (279):17,19,21,23

Feb 1969 80 M86

Disease transmission, Fruit culture, Nurseries, Peaches, Plant disease control, Plant physiology, Stem pitting, Stems, Symptomatology, Virus dis-eases (plants).

## 5783-69

COPPER AND MANGANESE CONTENT IN DIF-FERENT VARIETIES OF SPRING AND WINTER WHEAT. (RUS) N N Basargin L A Peregudova

Vup Pitan 27(3,MAY-JUN):78-81 1968 389.8 V89 Copper, Crop varieties, Manganese, Methodology, Persulfates, Sodium diethyldithiocarbamate,

Wheat.

## 5784-69

## 2.4-D METABOLISM. ENZYMATIC HYDROX-YLATION OF CHLORINATED PHENOLS.

J M Bollag C S Helling M Alexander J Agr Food Chem 16(5):826-828 REF

Sep 1968 381 J8223

Arthrobacter, Bacteria, Biochemistry, Catechol, Chemical reactions, Chlorinated phenols, En-zymes, Extracts, Herbicides, Hydroxyl, Infrared spectra, Metabolism, Microbiology, Phenols, Phenoxyacetic acid, 2,4-d.

### 5785-69

# 2,4-D METABOLISM; ENZYMATIC DEGRADA-TION OF CHLOROCATECHOLS.

J M Bollag G G Briggs J E Dawson M Alexander J Agr Food Chem 16(5):829-833 REF Sep 1968 381 J8223

Arthrobacter, Bacteria, Catechol, Chlorine, En-zymes, Herbicides, Iron, Metabolism, Microbiolo-gy, Oxygen, Phenoxyacetic acid, 2,4-d.

5786-69

## PRACTICAL SOIL BIOLOGY. (GE) A Brauns 470P STUTTGART, GUSTAV FISCHER

VERLAG

## 1968 S591.B72

Ecology, Plant protection, Soil analysis, Soil biology, Soil fertility, Soil microorganisms, Soil science, Soil structure, Tillage. English summary.

## 5787-69

## TIBA FRACTURES THE SOYBEAN YIELD BARRIER.

W L Colville Crops Soils 21(7, APR-MAY):8-11

1969 6 W55

Fertilizer application, Plant regulators, Soybeans, Triiodobenzoic acid, 2,3,5-.

5788-69

## UTILITY VALUE OF DIFFERENT CUL-TIVATED MENTHA PIPERITA VARIETIES. (POL)

W Czabajska W Szulc

Poznan Inst Przemyslu Zielarskiego Biul 13(4):200-210 REF

1967 451 P87

Crop varieties, Drug plants, Mentha piperita, Plant morphology, Polyploidy, Statistical analysis. En-glish and Russian summaries.

### 5789-69

## THE PRESENT AND FUTURE SITUATION OF PEACH CULTURE IN FERRARA. (IT ) I Da Tripoli Agr Ferrarese 71(3):45-55

31 Mar 1967 16 AG87

Crop varieties, Fruit culture, Fungus diseases (plants), Insect pests, Peaches, Plant breeding, Plant protection.

#### 5790-69

MODIFICATION OF GAMMA RAY MU-TAGENIC ACTION BY TEMPERATURE TAGENIC AC SHOCK. (RUS) V Dislers V Eizenbergs Latv P Sr Zinat Akad Vestis (1):78-80 1968 511 R442

34

Gamma rays, Mutagens, Peas, Plant genetics, Shock, Temperature.

#### 5791-69

THE SUGAR BEET. (GE)

H E Fischer W Feucht W Furste M Kraft P Winter

Neue Brehm-bucherei (387):96P REF

1968 409 N392

Fertilizers, Insect pests, Plant breeding, Plant diseases, Plant taxonomy, Planting, Sugar beets, Weed control.

## 5792-69

PESTICIDAL USE OF BENZOTHIOPHENES AND BENZOTHIENOTHIOPHENES. PATENT 3,433,874.

## E J Geering

Us Patent Office Offic Gaz 860(3):910

18 Mar 1969 156.65 OF2

Bacteria, Benzothienothiophenes, Benzothiophenes, Chemical control (pests), Fungi, Insect pests, Nematodes, Pesticides.

## 5793-69

SORGHUM - SPECIALIST ADVICE.

**R** N Graham

1967 MEETING:57-59

Jul 1967 S573.R45

ENCYCLOPEDIA

1967 SB608.G7G8

Crops Soils 21(5):16-17

12 Jul 1967 60.19 J66

**ARTIFICIAL MEDIUM.** 

Can J Bot 46(11):1419-1421

A W Henry D Stelfox

Nov 1968 470 C16C

Insect pests, Mechanization, Plant diseases, Plant protection, Rainfall, Seed planting, Sorghum. In Rhodesia National Farmers' Union. Diversification guide from The RNFU Crops Conference.

#### 5794-69

(FR)

28P

5796-69

5797-69

5798-69

perature.

5799-69

A A Hanson

A Hallauer

Fcb 1969 6 W55

P Guillaume

THE DEVELOPING ASCOSPORE WALL OF **HYPOXYLON FRAGIFORME.** 

G N Greenhalgh L V Evans

Roy Microscop Soc J 88(4):545-556 REF 1968 440.9 R81J

Fungi, Hypoxylon fragiforme, Mycology, Spore

OF

Assoc. Des Mait. Agr. (Marne), Epernay, France

Bacterial diseases (plants), Fungus diseases

(plants), Grape vineyards, Grapes, Insect pests, Pesticides, Plant pest control, Reference materials.

Corn, Crop varieties, Crop yields, Quality control.

**BREEDING AND MANAGEMENT OF FORAGE** CROPS IN THE EASTERN PLAINS.

Alfalfa, Botany, Forage plants, Fungus diseases (plants), Insect control, Plant breeding, Plant protection, Weed control.

COMPARATIVE BEHAVIOR OF THE OO-SPORES AND OOGONIA OF PHYTOPHTHORA CITRICOLA DURING GERMINATION ON AN

Culture media, Lighting, Phytophthora citricola, Reproduction, Research, Seed germination, Tem-

SPLASH DISPERSAL OF FUNGUS SPORES

AND FUNGICIDES IN THE LABORATORY AND GREENHOUSE.

CORN WITH BUILT-IN INSURANCE.

Amer Forage Grassland Council 3:7-14

TREATMENTS OF GRAPES IN CHAMPAGNE.

PHYTO-SANITARY

germination. 5795-69

5822-69

E C Hislop

Ann Appl Biol 63(1):71-80 REF

Feb 1969 442.8 AN72 Botrytis fabac, Conidia, Fungi dissemination, Fungicides, Rainfall.

#### 5800-69

THE CLEARING OF UNDERBRUSH AND THE TION IN THE FOREST. INVENTORY OF MATERIALS AND TECHNIQUES. (FR )

M Homberg

Centre Tech Bois Cah (SER 2)(78):75P REF May 1968 99.82 C33

Equipment, Forest cutting systems, Forest management, Forests, Methodology, Roots, Tools, Tree control.

## 5801-69

THE USE OF MICROBIOLOGICAL PREPARA-TIONS IN PLANT PROTECTION BASED ON ENTOMOPATHOLOGICAL BACTERIA BACIL-LUS THURINGIENSIS. (SE)

M Injac

Agrohemija (3/4):131-134

1968 385 AG87

Bacillus thuringiensis, Biological control (insects), Hyphantria cunca, Plant protection.

## 5802-69

### **1969 FRUIT SPRAYING RECOMMENDATIONS** FOR COMMERCIAL GROWERS.

B F Janson H Y Forsythe R L Miller B M Jones Ohio State Univ Ext Bull 506:52P

1969 275.29 OH32

Chemical control (insects), Chemical control (plant diseases), Fruit, Insect pests, Insecticides, Plant diseases, Plant protection, Spraying. Many insecticides were recommended.

#### 5803-69

NURSERY STOCK, PLANTS, AND SEEDS. FOREIGN NURSERIES CERTIFIED AS PRODUCING SPECIFIED DISEASE-FREE ERTIFIED AS DISEASE-FREE MATERIAL.

F A Johnston

Fed Regist 34(101):8194-8195

27 May 1969 L1.451

Fruit nurseries, Malus, Pcars, Plant protection, Plant quarantine, Prunus.

#### 5804-69

## 1969 FRUIT SPRAYING CALENDAR, FOR **COMMERCIAL FRUIT GROWERS.**

A L Jones A J Howitt A E Mitchell G R Hooper Mich State Univ Ext Ext Bull (154):46P 1969 275.29 M58B

Chemical control (insects), Chemical control (plant diseases), Fruit culture, Fungicides, Insecticides, Mice, Nematodes, Pesticide application, Rodent control, Soil fumigation, Spraying. Many insecticides and fungicides are listed. Also many different types of fruits are discussed.

#### 5805-69

#### SCIENCE AND SOIL AGRICULTURAL CHEMISTRY.

J S Kanwar D R Bhumbla

Rev Agr Res Punjab 1(PT 1):1-103 REF 1965 S280.P8K3

Agricultural chemistry, Fertilizers, Irrigation, Micronutrients, Plant diseases, Reviews, Soil science, Soil structure, Soil surveys.

## 5806-69

REPORT ON EXPERIMENTS WITH VARIE-TIES OF MEDIUM EARLY TO LATE POTATOES FOR HUMAN CONSUMPTION AND INDUSTRIAL USE 1964-1966 (SERIES 46). (FR)

E R Kcllcr

Agr Romande (SER A)7(6):75-79

Jun 1968 17 AG8

Crop varieties, Fungus diseases (plants), Human nutrition, Plant physiological diseases, Potatoes, Starches, Testing. Translation and condensation from Mitteilungen fur die Schweizerische Land-wirtschaft 15(11):185-202, 1967.

Translated by J. Munster.

#### 5807-69

COTTON AS A SUPPLEMENT TO TOBACCO. J W Kirkpatrick 1967 MEETING:21-22 Jul 1967 \$573.R45 Cotton, Equipment, Harvesting, Herbicides, Insect control, Tobacco, Weed control. In Rhodesia Na-

tional Farmers' Union. Diversification guide from the RNFU Crops Conference.

## 5808-69

# PEST CONTROL AS AN OCCUPATION, FOR-MERLY AND NOW. II. (GE )

H Kliewe W Hoos Prakt Schadlingsbekampfer 20(9):121-124 Scp 1968 421 P882

Hygiene, Pest control, Pesticides, Plant protection. 5809-69

CONVERSION OF DDT TO DDD IN SOIL AND THE EFFECT OF THESE COMPOUNDS ON SOIL MICROORGANISMS.

W H Ko J L Lockwood

Can J Microbiol 14(10):1069-1073 REF Oct 1968 448.8 C162

Agar, Alfalfa, Bacteria, Chemical reactions, DDT, Insecticide residues, Nutrient solutions (plants), Soil microorganisms, TDE.

#### 5810-69

## VIRUS ENHANCEMENT WITH A GROWTH PRODUCT OF STREPTOMYCES SCABIES. I. PRODUCTION AND PROPERTIES OF SCABEN. J Konowalchuk

Can J Microbiol 14(10):1079-1083 REF Oct 1968 448.8 C162

Cytology, Extracts, Fungi, Plant physiology, Rescarch, Streptomyces seables, Time, Tissue culture, Viruses.

#### 5811-69

# VIRUS ENHANCEMENT WITH A GROWTH PRODUCT OF STREPTOMYCES SCABIES. II. INCREASED RELEASE OF COXSACKIEVIRUS B5 FROM HEP-2 MONOLAYERS TREATED WITH SCABEN.

J Konowalchuk J I Spcirs Can J Microbiol 14(10):1111-1114 Oct 1968 448.8 C162 Agar, Coxsackie viruses, Extracts, Fungi, Plant

physiology, Research, Streptomyces scabics, Tissuc culture, Viruses.

## 5812-69

PLANT PROTECTORS.

W H Kosesan Oreg Agrirec (239):11-12

Sep 1968 2 OR3

Insect pests, Insect traps, Inspection (agricultural products), Plant discases, Plant protection, Plant quarantine, Surveys.

#### 5813-69

A CONTRIBUTION TO THE KNOWLEDGE OF **HETEROSIS IN POTATO. (RUS)** 

## L I Kostina

Genetika 4(8):182-184 1968 QH431.AIG4

Growth factors, Hctcrosis, Plant breeding, Plant ecology, Plant genetics, Plant physiology, Potatocs. English summary

## 5814-69

DISEASES AND PESTS OF COCONUT IN KERALA.

S B Lal Indian Farming 18(2):11-15

May 1968 22 IN283

Bud-rot, Coconuts, Curculionidae, Fungus discases (plants), Insect pests, Leaf spot, Nephantis scrinopa, Plant diseases, Plant protection, Scarabacidac, Stem bleeding, Wilt, Xyloryetes

## jamaicensis. 5815-69

EFFECTS OF INSECTICIDES ON INSECTS AND PATHOGÈNIC FUNGI ASSOCIATED WITH ALSIKE CLOVER ROOTS. C M Lcach E A Dickason A E Gross

35

J Econ Entomol 54(3):543-546, 12 REFS. Jun 1961 421 J822 Aldrin, Alsike clover, DDT, Fusarium, Heptachlor, Phoma, Vericillium.

#### 5816-69

PRELIMINARY INVESTIGATIONS ON THE PHENOMENON OF PHOTOLUMINESCENSE OF SEEDS OF SOYBEAN. (POL )

A Litynski T Drogoszewska Warsaw Inst Hodowli Aklimatyzacji Roslin Byul

81(6):53-56

1967 64.9 W26

Absorption, Crop varietics, Luminescence, Seeds, Soybcans, Ultraviolct rays. English summary.

#### 5817-69

MAN INSECTS AND PESTICIDES.

J V Locblin

Nations Agr 44(2):18-21

Fcb 1969 280.82 B89

Chemical control (pcsts), Crops, Fruit, Insect pcsts, Pcanuts, Pcsticides, Plant diseases, Vegetablcs

The proper pesticide to use and the correct method and the exact amount to get maximum results are discussed.

## 5818-69

THIRD CONTRIBUTION TO THE KNOWLEDGE OF KERATINOLYTIC AND KERATINOPHILIC SOIL FUNGI IN THE RE-GION OF SZCZECIN.

Bog soils, Kcratins, Microorganisms, Podzol soils,

Soil fungi. Polish summary. 62 species of soil fungi

SCIENCE AND SENSE. AS PRESENTED TO THE WEED SOCIETY OF AMERICA, FEBRUA-

Agricultural industrics, Agricultural legislation, Chemical control (pests), Chlorinated hydrocar-

bons, DDT, Environment, Pesticide residues, Pesti-

**PESTICIDE AFPLICATION FOR FRUIT TREES** 

AT THE OF WINTER AND IN THE SPRING. (IT

Apples, Chemical control (insects), Chemical control (plant discases), Fruit culture, Fungus discases

(plants), Insect pests, Peaches, Pears, Pesticide ap-

Article includes timetables showing which fungi-

cide or insecticide to use at the proper time for the

PRODUCTION OF MAIZE IN TOBACCO

Agricultural cconomics, Corn, Plant pest control, Seed planting, Tillage, Tobacco. In Rhodesia Na-tional Farmers' Union. Diversification guide from

**ULTRA LOW VOLUME SPRAYING OF COT-**

Acrial spraying, Chemical control (pests), Cotton, Insecticide application, Malathion, Oils, Phytotox-

Ekol Pol Ser A (SER A)16(4):121-145 REF

I Majchrowicz T Dominik

1968 512 W263

were isolated.

RY 8, 1966.

L A McLcan

Fcb 1966 SB959.M3

Agr Ferrarese 71(1):3-13

protection of apple- and peartrees.

31 Jan 1967 16 AG87

1967 MEETING:8-10

the RNFU Crops Conference.

Rhodesian Farmer 39(2):15-16

24 May 1968 24 R347

Jul 1967 S573.R45

5819-69

12P

cides.

5820-69

T Mclloni

plication.

5821-69

AREAS. E M Micklcm

5822-69

A W D Millar

TON.

icity.

## 5823-69

## 5823-69 NOTES ON PESTICIDES AND WEEDICIDES. T D Mukerjea

Tocklai Exp Sta Newslett 13(3):112-114 Scp 1966 68.18 T93 Acaricides, Chemical control (pests), Herbicides, Insecticides, Lumber preservatives, Regulations, Searabacidae. A continuation from 13(1), March,

1966 A list of pestieides which have been withdrawn and a revised list of approved pesticides is given.

## 5824-69

AVENA MAGNA: AN IMPORTANT NEW TETRAPLOID SPECIES OF OATS. H C Murphy K Sadanaga F J Zillinsky E E Terrell R T Smith

Science 159(3810):103-104

05 Jan 1969 470 SC12

varieties, Oats, Crop Plant morphology, Polyploidy.

## 5825-69

HORTICULTURE.

J P Nauriyal K L Chadha K S Nandpuri Rev Agr Res Punjab 2(PT 3):1-38 REF 1965 S280.P8K3

Fruit, Horticulture, Research, Reviews, Vegetables.

#### 5826-69

**RANGE RECOVERY AND PRODUCTION AS INFLUENCED BY NITROGEN AND 2,4-D** TREATMENTS.

J T Nichols W E McMurphy

J Range Manage 22(2):116-119 REF Mar 1969 60.18 J82

D, 2,4-, Fertilizers, Forage plants, Grasses, Nitrogen, Phenoxy acid compounds, Ranges.

## 5827-69

## THE PRESENT STATUS OF RICE PEST **RESEARCH AND CONTROL. A LITERATURE REVIEW**. (GE)

**B** Ohnesorge

Berlin Biol Bundesanst Land-forstwirtsch Mitt (129):71P REF

Aug 1968 410.9 G31M

Biological control (pests), Bird pests, Chemical control (pests), Crop losses, Cultural control (plant diseases), Insect ecology, Insect pests, Insect taxonomy, Plant nematodes, Plant pest eontrol, Reviews, Rice, Rodents, Snails.

## 5828-69

## **BREEDING POTATOES FOR RESISTANCE TO** WART AND GOLDEN NEMATODE.

O A Olsen

Canada Agr 14(1,WINTER):12-13

1969 7 R31

Fungus diseases (plants), Сгор varictics, Heterodera rostochiensis, Plant breeding, Plant nematodes, Plant pest resistance, Potatoes, Synehytrium endobioticum.

## 5829-69

**RESPONSE OF PINES IRRADIATED WITH** GAMMA-RADIATION. J P OKukewick S E Herrick

Nature 214(5087):514-515

29 Apr 1967 472 N21

Dosage, Gamma rays, Irradiation, Lethal factor, Mortality, Pinus strobus, Pinus thunbergi, Plant physiology.

#### 5830-69

SOYA BEANS - PRACTICAL ASPECTS. J Pickering D Blyth 1967 MEETING:51-53

Jul 1967 S573.R45

Agricultural economies, Harvesting, Pest control, Seed planting, Seed treatment, Soybeans, Weed control. In Rhodesia National Farmers' Union. Diversification guide from RNFU Crops Conference.

## **BIBLIOGRAPHY**

#### 5831-69 HERBICIDE ACTION ON FUSARIUM GRAMINEARUM SCHW. (RUM ) V Popescu Cluj Univ Babes Bolyai Stud Ser Biol 13(1):63-67

REF 1968 442.9 C62

Atrazine, Chemical control (pests), D, 2,4-, Gibberella zeae, Herbieides, Phenoxy acid compounds, Simazine, French and Russian summaries,

5832-69

#### GROWING VEGETABLES SOUTH IN DAKOTA.

P Prasher D M Martin

S Dak State Univ Ext Ext Circ (668):20P 1968 275.29 SO85

Chemical control (insects), Chemical control (weeds), Fungicides, Fungus diseases (plants), Herbieides, Insect pests, Insecticides, Mulches, Plant disease control, Plant physiology, Storage, Vegetables, Weeds.

#### 5833-69

## **GUIDELINES FOR PRODUCTION OF VEGETA-**BLES FOR PROCESSING IN ARKANSAS. C Price

Ark Agr Exp Sta Spec Rep (16):38P

Nov 1968 100 AR42SP

Insect pests, Plant diseases, Production economics, Productivity, Vegetables. Includes estimated crop losses from discases and inseets, and estimated pestieide costs.

#### 5834-69

## A BIOCHEMICAL MECHANISM OF NATURAL RESISTANCE OF APPLE TO VENTURIA IN-**AEQUALIS.**

J Raa A K Sijpesteijn Neth J Plant Pathol 74(6):229-231 1968 464.8 T44

Apples, Fungus diseases (plants), Genetics, Plant bioehemistry, Plant disease resistance, Seab, Venturia inaequalis. Dutch summary.

## 5835-69

## ECDYSONES AND ANALOGS: EFFECTS ON DEVELOPMENT AND REPRODUCTION OF IN-SECTS.

W E Robbins J N Kaplanis M J Thompson T J Shortino C F Cohen

Science 161(3846):1158-1160 13 Sep 1968 470 SC12

Biological control (inseets), Chemosterilants, Inscet diets, Insect physiology, Plant protective devices, Steroids.

5836-69

## EFFECTS OF A GE, BURIAL, AND REGION ON GERMINATION AND VIABILITY OF HALOGETON SEED.

W C Roboeker M C Williams R A Evans P J Torell

Weed Sci 17(1):63-65

Jan 1969 79.8 W41

Halogeton glomeratus, Longevity, Plant physiology, Planting, Seed germination.

5837-69

## THE WEED VEGETATION OF FLOWER BEDS AND IRRIGATED CULTIVATIONS IN CAIRO AND SOME ADJACENT PROVINCES.

A Saarisalo 5(3):166-168 REF

1968

Broadbeans, Flowers, Food plants, Gladiolus, Oxalis violacca, Pcas, Plant geography, Strawberries, Trigonella, Vegetation, Weeds.

5838-69

SOME PROBLEMS OF PLANT-PARASITE RELATIONSHIP.

A Savuleseu V Esanu Rev Roumaine Biol Ser Bot 11(5):381-392 REF

1966 OKL.R4

Biosynthesis, Host indexing (plants), Immunity, Microorganisms, Parasitism, Plant pest resistance, Plant physiology, Plant protective devices.

36

## **VEGETATIVE REPRODUCTION IN WESTERN IRONWEED.** C J Scifres M K MeCarty Weed Sci 17(1):104-108 REF Jan 1969 79.8 W41 Plant anatomy, Plant histology, Plant physiology, Plant reproduction, Plant translocation, Vernonia,

## Weeds 5840-69

5839-69

**GRANNY SMITH VERSUS JONATHAN.** W.J.Sell

Victorian Hort Dig 13(1,FEB/APR):22-25 1969 80 V662

Aphididae, Apples, Bitter pit, Controlled at-mosphere storage, Crop varieties, Eriosoma lanigerum, Plant diseases, Seald.

## 5841-69

PESTS AND DISEASES OF ARECANUT.

S N Seshadri T S S Rawther Indian Farming 18(4):24-26

Jul 1968 22 IN283

Areea eatheeu, Fungicides, Fungus discases (plants), Insect pests, Insectieides, Mites, Plant discases, Plant protection.

## 5842-69

PEST AND DISEASE CONTROL ASPECT OF CHANGING CROPPING PATTERNS. S Singh

Pesticides 1(5):28-32

Jan 1968 SB951.P43

Crop varicties, Harvesting date, Plant disease control, Plant pest control, Pl anting date.

NATURAL DURABILITY OF SOME WOODS

Environment, Plant disease resistance, Plant pest

resistance, Termites, Wood durability. Fourteen

PLANT PROTECTION, BULLETIN OF THE

PLANT PROTECTION STATION OF GENEVA.

Chemieal control (insects), Fruit culture, Fungi-

eides, Fungus diseases (plants), Hibernation, Hor-

**REPORT ON FOREST RESEARCH FOR THE** 

Chemical control (weeds), Environment, Forest in-

scets, Forest management, Forest nurscries, Forestry, Nutrition, Photography, Reports, Silviculture, Statistics, Tree diseases.

QUANTITATIVE GENETIC ESTIMATES FOR

Brown spot, Corn, Fungus discases (plants), Plant

breeding, Plant disease resistance, Plant genetics,

PROJECTS AND PROBLEMS OF PLANT PRO-

**TECTION IN DEVELOPING COUNTRIES. (GE)** 

Gesunde Pflanzen 20(8):164-173 (CONT.) REF

BROWN SPOT RESISTANCE IN CORN.

Crop Sci 9(2, MAR-APR):246-247

Developing areas, Plant protection.

Great Brit Forest Comm Rep Forest Res 193P

ticulture, Inseet pests, Ornamental plant s.

USED IN HAWAII; PRELIMINARY FINDINGS.

USDA Forest Serv Res Note PSW- (167):7P

## 5843-69

5844-69

5845-69

**J R Taom** 

MAP REF

5846-69

5847-69

W Tornow

D L Thompson

1969 64.8 C883

Population statistics.

Aug 1968 464.8 G33

1968 99.9 G795RE

R G Skolmen

1968 A99.9 F7652

JANUARY. (FR)

Jan 1968 80 R3212

species of wood are diseussed.

Rev Horticole Suisse 41(1):26-27

YEAR ENDED MARCH 1968.

## 5848-69

EFFECT OF THE LOW TEMPERATURE TREATMENT OF THE WET CULTURE ASPER-GILLUS ORYZAE 8F1 AND GERMINATED SEED ON THE INCREASE OF THE FERMEN-TATION ACTIVITY. (RUS)

A I Veselov E V Koltsova

Priklad Biokhim Mikrobiol Akad Nauk SSSR 3(4,JUL/AUG):422-426

1967 385 P93

Aspergillus oryzae, Fermentation, Growth factors, Plant biochemistry, Seed germination, Temperature. English summary.

## 5849-69

## PLANT PROTECTION IS ALSO HEALTH PRO-**TECTION. (GER )**

K Warmbrunn

Prakt Schadlingsbekampfer 20(9):124-125

Sep 1968 421 P882

Accident prevention, Chemieal control (pests), Dosage, Pestieides, Plant protection, Public health, Regulations.

## 5850-69

FIGS FOR COMMERCIAL AND HOME ORCHARDS IN LOUISIANA.

B W Wascom E N O'Rourke W A Young La State Univ Ext Ext Pub (1529):19P

Apr 1968 275.29 L93EP

Chemical eontrol (insects), Crop varieties, Fertilizers, Figs, Fruit, Inseet pests, Plant diseases, Plant propagation.

## 5851-69

**KENAF PROMISING AS PROFIT CROP.** G A White

Amer Tung News 19(11):6-8

Nov 1968 307.8 AM33

Agricultural research, Anthraenose, Col-letotrichum, Crop varieties, Fertilizers, Kenaf, Plant disease resistance, Planting, Profits. Article is continued next month.

## 5852-69

COMBINING ABILITIES AND RELATIVE DOMINANCE AMONG MAIZE INBREDS FOR **RESISTANCE TO EARWORM INJURY.** N W Widstrom J J Hamm

Crop Sci 9(2,MAR-APR):216-219 REF

1969 64.8 C883

Corn, Heliothis zea, Inseet pests, Plant breeding, Plant geneties, Plant injuries, Plant pest resistance.

#### 5853-69

MANURES AND FERTILIZERS.

K S Yawalker J P Agarwal S Bokde

Agrihorticultural Publishing House, Nagpur, India 288P

1967 \$633.5.14Y3

Dosage, Fertilizers, Manures, Micronutrients, Plant nutrition, Plant protection, Soil amendments.

## DISEASES

#### 5854-69

**CONTROL OF SMUT ON SUGARCANE. REGU-**LATION OF VARIETIES OF SUGARCANE WHICH CAN BE CULTIVATED IN THE STATE OF SAO PAULO. (POR ) Biologico 33(7):155

Jul 1967 442.8 B529

Crop varieties, Fungus diseases (plants), Plant breeding, Plant disease resistance, Smut, Sugarcane, Ustilago scitaminea.

## 5855-69

## **HELMINTHOSPORIUM SOLANI.**

Commonwealth Mycol Inst Cmi Desc Path Fungi Bact 17(161-170):166 1968 462.7 C73

Fungus diseases (plants), Helminthosporium, Plant geography, Potatoes, Seurf, Seed-borne plant discases.

Description of a fungal pathogen of potatoes, its geographical distribution and etiology.

## 5856-69

CHANGES IN GROWTH AND METABOLISM OF EXCISED PEA ROOTS ASSOCIATED WITH IRON DEFICIENCY. I. CHANGES IN NUMBER AND RESPIRATION RATE.

A J Abbott

New Phyto Logist 67(4):947-961 REF Oct 1968 450 N42

Culture media, Iron, Peas, Plant metabolism, Plant nutritional deficiencies, Plant physiology, Plant respiration, Roots.

## 5857-69

HOT-WATER TREATMENT OF SEED AS A METHOD FOR DECREASING THE INCIDENCE OF CERTAIN COTTON AND FLAX SEEDLING DISEASES.

M A Abd-el-Rehim S H Miehail H Elarosi E A Khairv

Ann Appl Biol 63(1):95-102 REF Feb 1969 442.8 AN72

Cotton, Flax, Fungus diseases (plants), Fusarium oxysporum lini, Fusarium oxysporum vasinfectum, Plant physiology, Rhizoetonia solani, Seed treatment, Thermotherapy.

## 5858-69

THE PRESENT STATUS OF VIRUS DISEASES OF RICE IN CEYLON.

D V W Abeygunawardena

Baltimore, John Hopkins Press. 53-57 1969 NB633.C2

Cicadellidae, Inseet vectors, Plant disease re-sistance, Rice, Stunt, Virus diseases (plants), Yellow dwarf.

## 5859-69

GROWING CAMELLIAS. USDA Home Gard Bull (86):12P

Mar 1969 1 AG84HG

Aleyrodidae, Camellia, Coleoptera, Diebaek, Insect pests, Mites, Pantomorus godmani, Plant diseases, Plant injurics, Planting, Pseudoeoccidae, Scales (insects).

#### 5860-69

THE GERMINATION OF CONIDIA AND THE APPRESSORIUN FORMATION OF ALTER-NARIA PORRI ON THE SURFACE OF ONION LEAVES. (JA)

S Akai N Ishida M Fukutomi

Kyoto Univ Forsch Geb Pflanzenkrankh 7(6):67-70 REF

1967 464.9 K98

Alternaria porri, Conidia, Fungus diseases (plants), Helminthosporium oryzae, Onions, Seed germination, Waxes. English summary.

### 5861-69

AN X-RAY DIFFRACTION STUDY OF A TOBACCO MOSIAC VIRUS MUTANT. (FR) G Albiser F Colonna-Cesari P Horn G Lebeurier L Hirth

Acad Sci Compt Rend Ser D Sci Nat 266(11, 1ST SEMESTER):1179-1181

11 Mar 1968 505 P21

Mosaie, Tobacco, Virus diseases (plants), Virus mutation, X-ray diffraction.

#### 5862-69

OCCURENCE AND HOST RANGE OF AS-COCHYTA PHASEOLORUM IN QUEENSLAND. J L Alcorn

Australian J Biol Sci 21(6):1143-1151

Dce 1968 442.8 AU72 Aseochyta, Epidemiology, Fungus diseases (plants), Host indexing (plants), Kidney beans,

Plant injuries. 5863-69

37

AN AERIAL VIEW OF TAKE-ALL.

Anonymous

Farmer Stockbreeder 83(4133):41,43 25 Feb 1969 10 F228

Acrial photography, Cultural control (plant discases), Drainage, Grain, Take-all.

### 5864-69

**ARSENAL FOR DISEASE CONTROL.** 

Anonymous

Amer Veg Grower 17(1):20,34 Jan 1969 80 C733

Chemical control (plant diseases), Early blight, Fungicides, Fungus diseases (plants), Late blight, Pesticide application, Potatoes, Rhizoetonia, Soil-borne plant diseases, Spraying, Wilt. Many fungieides were evaluated.

## 5865-69

BLACK SPOTS OF APPLES: A WARNING SER-VICE FOR FRUIT GROWERS.

Anonymous

J Agr 66(9):354

Sep 1968 23 V66J

Dec 1968 100 H313P

Anthraenose,

5867-69

Apples, Black spot, Fungus diseases (plants), Plant disease control, Spraying, Venturia inaequalis.

## 5866-69

ANTHRACNOSE RESISTANCE IN ANTHURI-UM.

Hawaii Agr Exp Sta Tech Progr Rep (169):10P

Anthurium,

(plants), Plant disease resistance, Tables (data).

PHYSIOLOGICAL STUDIES ON PHOMA BETAE FRANK AND RHIZOCTONIA SOLANI(PRILL AND DELACR.) BOURD AND GALZ WHICH CAUSE DAMPING-OFF AND ROOT DISEASES OF SUGAR BEET IN EGYPT.

Crop losses, Damping-off, Fungus diseases (plants), Phoma betae, Plant physiology, Rhizoc-

tonia solani, Roots, Sphaerioidaecae, Sugar beets.

A MODIFIED SOIL PERCOLATOR FOR ZOO-SPORE PRODUCTION AND INFECTION IN STUDIES ON ZOOSPORIC ROOT

Equipment, Fungi, Phytophthora, Soil percolation,

PHOMA DESTRUCTIVA, ITS VARIABILITY, HOST RANGE AND VARIETAL REACTION OF

Fungus diseases (plants), Phoma, Plant disease re-

IT TAKES MORE THAN TENDER, LOVING

Agricultural industries, Black spot, Insects, Plant

diseases, Plant injuries, Plant nutrition, Plant physiology, Plant water relations, Potatoes, Storage, Temperature, Weather.

ERYSIPHACEAE (MYCOPHYTA) IN THE NA-

**TURE PRESERVE OF CHEILE TURZII. (RUM )** 

Cluj Univ Babes Bolyai Stud Ser Biol 13(1):57-62

Erysiphaecae, Fungus diseases (plants), Parasitism,

Zoogcography. French and Russian summaries. 46 Erysiphaceae species are listed on 124 plant hosts.

Fungus

diseases

M Aragaki H Kamemoto K M Maeda

W A Ashour A R Sirry F A M Fadl

An Agr Sci 10(1):213-244 REF

Can J Plant Sci 47(3):332-334

K S Aulakh S Malhotra R K Grover

CARE TO PREVENT BLACKSPOT.

Spudman (WINTER):24-26,32

Plant Dis Rep 53(3):219-222

Jun 1965 24 AN72

Arabie summary.

PATHOGENS.

May 1967 450 C16

R G Atkinson

TOMATOES.

Mar 1969 1.9 P69P

sistance, Rot, Tomatoes.

5868-69

Spores.

5869-69

5870-69

D B Bakes

5871-69

M Beehet

1968 442 9 C62

RĔF

1969 75.8 SP93

## 5872-69

## 5872-69 INFLUENCE OF SOIL TEMPERATURE ON THE DEVELOPMENT OF PEA ROOT ROT. W G Benedict

Can J Bot 47(4):567-574 REF

Apr 1969 470 C16C

Fungus diseases (plants), Peas, Root rot, Soil temperature.

#### 5873-69

## SPREAD OF FOMES ANNOSUS ROOT ROT IN THINNED SHORTLEADF PINE PLANTATIONS. **F H** Berry

U S Forest Serv Res Note NE- (87):4P

1968 A99.9 F7622U

Fomes annosus, Fungus diseases (plants), Plant discase transmission, Root rot.

## 5874-69

#### SHIFTING OF VIRUS Y FROM STEMS TO TU-BERS IN DEPENDENCE ON THE PLANT AGE. (POL)

M Birecki W Bartoszuk

Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 26:57-70

1967 64.9 IN7

Plant disease resistance, Plant senescence, Plant tissues, Plant translocation, Potatoes, Virology, Virus diseases (plants), Virus Y. English and Russian summaries.

#### 5875-69

**RESULTS OF TESTS OF WHEAT VARIETIES** AS TO THEIR RESISTANCE AGAINST GRAIN DISEASES, CARRIED OUT IN THE RECLAIMED LAND OF THE NORTH EAST BETWEEN 1961 AND 1964. (GE )

## H Bockmann

Stichting Ned Graan-cent Tech Ber 17:5-15 Dec 1967 59.9 ST52TB

Crop varieties, Crop yields, Fungus diseases (plants), Fusarium culmorum, Plant breeding, Plant disease resistance, Septoria nodorum, Wheat.

## **RESULTS FROM THE INTERNATIONAL SEP-**TORIA ASSORTMENT IN 1966. (GE)

H Bockmann

Stichting Ned Graan-cent Tech Ber 17:29-33 Dec 1967 59.9 ST52TB

Crop varieties, Crop yields, Fungus diseases (plants), Septoria, Tables (data), Testing.

#### 5877-69

### METABOLIC ACTIVITY OF PEA ROOT **RIBOSOMES UNDER CONDITIONS OF BORON** DEFICIENCY.

G P Borshchenko E A Sherstnev

Soviet Plant Physiol 15(4, JUL/AUG):602-603 1968 450 F58AE

Boron, Carbon isotopes, Micronutrients, Peas, Plant nutritional deficiencies, Protein synthesis, Ribosomes, Roots, Tyrosine. Translated from Rastenii, 15(4,Jul/Aug): 720-721, Fiziologiya 1968. translated from the Russian.

APPLE SCAB, PECAN SCAB, AND THE DURA-TION OF LEAF WETNESS.

P M A Bourke Plant Dis Rep 53(3):240

Mar 1969 1.9 P69P

Apples, Fungus diseases (plants), Pecans, Seab, Temperature, Water.

#### 5879-69

**RESULTS OF INSECTICIDE AND FUNGICIDE** TESTS, CARRIED OUT IN 1966, BY THE VEGETABLE PROTECTION SERVICE. (FR ) **H** Bouron

Phytoma 19(191,SEP-OCT):49-51 1967 464.8 P563

Botrytis cinerca, Chemical control (plant diseases), Fruit, Fungicides, Fungus diseases (plants), Grape vineyards, Insecticides, Vegetables.

## **BIBLIOGRAPHY**

## 5880-69

PHOSPHORUS, POTASSIUM, CALCIUM AND MAGNESIUM REQUIREMENTS OF MARY-LAND TOBACCO GROWN ON MONMOUTH SOIL.

## J D Bowling

Md Agr Exp Sta Bull (151):48P REF

Jul 1967 100 M36S

Calcium, Fertilizers, Magnesium, Micronutrients, Phosphorus, Plant biochemistry, Plant nutrition, Potassium, Soil properties, Tables (data), Tobacco.

## 5881-69

## COLLECTED PAPERS ON CEREAL DISEASES. (SEPTORIA, FUSARIUM, YELLOW RUST). (DU

S Brockhuizen

Stichting Ned Graan-cent Tech Ber 17:91P Dec 1967 59.9 ST52TB Conferences, Fungus diseases (plants), Fusarium, Grain, Reports, Septoria, Stripe rust.

## 5882-69

**SNAPDRAGON RUST.** 

**H C Burnett** 

Fla Dep Agr Div Plant Indus Tri-ology Tech Rep 7(5):15-16

May 1968 423.9 F6622

Antirrhinum majus, Fungus diseases (plants), Puccinia antirrhini, Rust, Symptomatology.

#### 5883-69

## FUNGICIDES AND TURF DISEASE CONTROL -1964.

J D Butler M P Britton

Turfgrass Conf Proc 5:26-28

03 Dec 1964 SB433.I4

Agrostis, Brown patch, Chemical control (plant diseases), Dollar spot, Fungicides, Grasses, Hel-minthosporium, Leaf spot, Pythium ultimum, Rhizoetonia solani. The fungicides diseussed were: Memmi, Thiram, Difolitan, Dithane M-45, Dyrene, DAC-2787, and Ortho.

## A NEW NEEDLE DISEASE OF HARD PINES IN **OREGON AND CA LIFORNIA.**

H H Bynum D R Miller Plant Dis Rep 53(3):232-234 Mar 1969 1.9 P69P

Fungus diseases (plants), Hypodermella, Pinus attenuata, Pinus ponderosa.

## 5885-69

THE OCCURRENCE OF COUPEA MOSAIC VIRUS IN THE STATE OF SAO PAULO. (POR )

J Caner K Silberschmidt E Flores Biologico 35(1):13-16

Jan 1969 442.8 B529

Beans, Electron microscopy, Mosaie, Soybeans, Virus diseases (plants). English abstract.

#### 5886-69

## ANTHRACNOSE IN BEANS:DETERMINATION AND VARIATIONS IN THE MALONIC ACID CONTENT IN THE DIFFERENT PARTS OF HEALTHY AND PARASITIZED PLANTS. (FR) G Cavalie

Acad Sci Compt Rend Ser D Sci Nat 265(22, 2ND SEMESTER) :1706-1708

27 Nov 1967 505 P21

Anthraenose, Colletotrichum lindemuthianum, Fungus diseases (plants), Histochemistry, Kidney beans, Malonie acid, Plant physiology.

5887-69

# AN ANTIVIRAL PRINCIPLE FROM TO-MATOES SYSTEMICALLY INFECTED WITH TOBACCO MOSAIC VIRUS.

K C Chadha B H MaeNeill Can J Bot 47(4):513-518 REF Apr 1969 470 C16C

Mosaic, Plant extracts, Tomatocs, Virology, Virus diseases (plants).

38

5888-69

## **BIBLIOGRAPHY OF SOYBEAN DISEASES.**

D W Chamberlain B R Lipscomb

Department Of Agriculture, Washington, D. C. 98 PREF

Jul 1967 ASB205.S7C4

Bacterial diseases (plants), Bibliography, Fungus diseases (plants), Soybeans, Virus diseases (plants).

## 5889-69

# SAPROPHYTIC SURVIVAL OF OPHIOBOLUS GRAMINIS ON VARIOUS HOSTS.

S C Chambers N T Flentje Australian J Biol Sci 21(6):1153-1161 REF

Dec 1968 442.8 AU72

Barley, Fungus diseases (plants), Lolium rigidum, Ophiobolus graminis, Saprophytes, Straw, Wheat.

5890-69

5891-69

5892-69

5893-69

NORTHWEST.

1968 A99.9 F7625UNI

E Ciclens G Mucenicee

F W Cobb D R Miller

Dcc 1968 99.8 F768

Zoogcography.

UM SATIVUM.

Mar 1969 470 C16C

5896-69

1968 511 R442

derosa, Plant injurics.

T W Childs

5894-69

гy.

5895-69

MECHANISMS PATHOGENESIS OF SCLEROTIUM BATATICOLA ON SUN-FLOWERS. I. PRODUCTION AND TRANSLO-CATION OF A NECROSISINDUCING TOXIN. Y-h Chan W E Sackston

Fungus diseases (plants), Leaf spot, Necrosis,

Pathogenesis, Plant diseases, Selerotium bataticola,

CHANGES IN AMINO-ACID CONTENT OF AMARANTHUS TRICOLOR LEAVES IN-FECTED WITH ALTERNARIA SP..

D Chandramohan A Mahadevan G Rangaswami

Alternaria, Amaranthus, Amino acids, Fungus dis-

DWARFMISTLETOE EFFECTS ON PON-DEROSA PINE GROWTH AND TRUNK FORM.

Arecuthobium, Pinus ponderosa, Tree diseases.

US Forest Serv Res Pap PNW (69):45P

BLACK CURRANT LEAVES. (LA)

J Forest 66(12):930-933 MAP REF

E Cohen S B Helgason W C McDonald

Can J Bot 47(3):429-443 REF

sistance, Plant genetics, Root rot.

Latv P Sr Zinat Akad Vestis (7):73-79 REF

ELYTRODERMA DISEASE OF PONDEROSA

PINE (PINUS PONDEROSA) IN THE PACIFIC

Fungus diseases (plants), Needle blight, Pinus pon-

THE EFFECT OF VIRAL INFECTION ON THE

TOTAL CHOLINE CONTENT IN POTATO AND

Chol inc, Crop varieties, Currants, Plant nutrition, Potatoes, Virus diseases (plants). English summa-

HOSTS AND GEOGRAPHIC DISTRIBUTION

OF SCIRRHIA PINI--THE CAUSE OF RED BAND NEEDLE BLIGHT IN CALIFORNIA.

Fungus diseases (plants), Pinus, Red band (pinus),

A STUDY OF FACTORS INFLUENCING THE

GENETICS OF REACTION OF BARLEY TO ROOT ROT CAUSED BY HELMINTHOSPORI-

Barley, Crop varieties, Fungus diseases (plants),

Helminthosporium sativum, Plant disease re-

Sunflowers, Toxicology, Toxins, Translocation.

Can J Bot 47(7):1147-1151 REF

Jul 1969 470 C16C

Cur Sci 36(3):80-81

05 Feb 1967 475 SCI23

T W Childs J W Edgren

Forest Sci 13(2):167-174 Jun 1967 99.8 F7632

cases (plants), Plant biochemistry.

## 5920-69

## 5897-69

CONTROLLING INSECTS AND DISEASES ON TREES.

M E Coon

Amer Nurseryman J 129(8):40-43

15 Apr 1969 80 AM371

Chemical control (plant diseases), Fungicides, Fungus diseases (plants), Insect control, Insect pests, Spraying, Temperature, Trees.

## 5898-69

## ABSORPTION OF BORON BY BARTLETT PEARS.

P C Crandall C G Woodbridge

Pacific Northwest Fert Conf Proc 19:117-118 16 Jul 1968 57.9 P11

Absorption, Boron, Chemical control (plant discases), Pears, Plant nutritional deficiencies.

## 5899-69

FUNGISTATIC AND FUNGICIDAL EFFECTS **OF CERTAIN ORGANIC PRODUCTS ON SOME** FUNGI CAUSING DISEASES IN VEGETABLES. (RUM)

A Crisan E Singcorzan

Cluj Univ Babes Bolyai Stud Ser Biol 13(1):11-15 1968 442.9 C62

Alternaria capsici-annui, Botrytis allii, Captan, Chemical control (plant diseases), Chlorinated hydrocarbons, Ferbam, Folpet, Fungicides, Fungus diseases (plants), Helminthosporium, Legumes, Maneb, Thiocarbamates, Vegetables, Verticillium, Zinc propylenebis(dithiocarbamate), Zinch, French and russian summaries. the following fungicides were tested: anatracol, captan, falthan, polyram combi, carbadin, maneb and ferbam.

## 5900-69

CONTRIBUTION TO THE KNOWLEDGE OF THE MYCOFLORA OF THE APUS MOUNTAINS. (RUM )

A Crisan

Cluj Univ Babes Bolyai Stud Ser Biol 13(1):7-10 REF

1968 442.9 C62

Deuteromycetes, Fungus diseases (plants), Mycoflora, Phycomycetes. French and russian summarics. 34 species are listed of which 20 are new for Rumania.

## 5901-69

THE OCCURRENCE OF WILT IN WATER-MELON IN THE STATE OF SAO PAULO. (POR

B P B Cruz A P da Silveira J P da S Filho Biologico 33(1):5-8 REF

Jan 1967 442.8 B529

Fungus diseases (plants), Fusarium, Plant disease resistance, Watermelons, Wilt.

#### 5902-69

## NEW DEVELOPMENTS IN THE TREATMENT OF BANANAS BEFORE PACKING. (FR)

J Cuille L Bur-Ravault Fruits 23(7,JUL-AUG):351-356,397 1968 80 F9492

Bananas, Chemical control (plant diseases), Fun-gus diseases (plants), Glocosporium musarum, Thiazoly1)-benzimidizole, 2-(4-. English summary.

#### 5903-69

PECTIC AND CELLULOLYTIC ENZYMES PRODUCED BY MYCOSPHAERELLA CITRUL-LINA AND THEIR RELATION TO BLACK ROT OF SQUASH. T Curren

## Can J Bot 47(5):791-794 REF

May 1969 470 C16C

Black rot, Enzymes, Fungus cultures, Fungus dis-cases (plants), Mycosphaerella eitrullina, Squash.

## 5904-69

BOTRAN USED AS AN ORCHARD SPRAY VS. BOTRAN IN THE HYDROCOOLER AND CON-TROL OF POST-HARVEST DECAY OF PEACHES. **R** H Daines

N J State Hort Soc Hort News 48(4):3-5 Jul 1967 81 N46

Captan, Chemical control (plant diseases), Dichloro-4-nitroaniline, 2,6-, Fungus diseases (plants), Orchards, Peaches, Rhizopus, Rot, Spraying, Water.

## 5905-69

DISEASES OF THE SEED POTATO; HOW TO **RECOGNIZE THEM BEFORE PLANTING. H** Davies

Farmers Weekly 70(6):70

07 Feb 1969 10 F2226

Cultural control (plant diseases), Fungus diseases (plants), Plant protection, Potatoes, Seeds, Virus diseases (plants).

The diseases mentioned were dry rot, gangrene, black leg, tuber blight, pink rot, watery wound rot, skin spot, black scurf, seab, powdery scab, leaf roll and rougose mosaie.

## 5906-69

## POSSIBILITIES FOR INTER- AND INTRACEL-LULAR TRANSLOCATION OF ICOSAHEDRAL PLANT VIRUSES. SOME

G A De Zoeten G G aard J Cell Biol 40(3):814-823 REF

Mar 1969 442.8 J828

Beans, Mosaie, Plant physiology, Tomatoes, Virology, Virus diseases (plants).

## 5907-69

IDENTIFICATION OF SOYBEAN MOSAIC VIRUS IN VENEZUELA. (SP)

E A Debrot C C E Benitez de Rojas Agron Trop 17(2, APR-JUN):75-86 REF 1967 26 AG87

Crop varieties, Disease transmission, Mosaie, Myzus persicae, Soybeans, Virology, Virus diseases (plants). English summary.

#### 5908-69

**MOBILIZATION FACTORS IN UREDOSPORES** AND BEAN LEAVES INFECTED WITH BEAN RUST FUNGUS.

H M Dekhuijzen R C Staples

Boyce Thompson Inst Contrib 24(3, APR-JUN):39-51 REF

Jun 1968 451 B69

Beans, Biological assay, Fungus diseases (plants), Plant biochemistry, Rust (beans), Spores, Uromyces.

#### 5909-69

## **EFFECT OF 6-AZAURACIL AGAINST APPLE POWDERY MILDEW AND APPLE SCAB.** J Dekker G S Roosje

Neth J Plant Pathol 74(6):219-226

1968 464.8 T44

Apples, Chemical control (plant diseases), Fungicides, Fungus discases (plants), Podosphacra leu-cotricha, Powdery mildew, Scab, Triazine-3,5(2H,4H)-dione, 6-as-, Venturia inacqualis.

#### 5910-69

## THE OCCURRENCE OF SOME PREVIOUSLY UNREPORTED DISEASES OF POTATOES IN MEXICO.

S Delgado-Sanchez L Fucikovsky M Cadena-

Hinojosa Plant Dis Rep 53(3):189-190

Mar 1969 1.9 P69P

Chemical control (plant diseases), Chlorinated hydrocarbons, Fungicides, Fungus discases (plants), Pentachloronitrobenzene, Phytophthora infestans, Plant geography, Potatoes, Rhizoetonia solani.

5911-69

## POTATO EARLY BLIGHT AND STORAGE ROT.

West Aust J Agr (SER 4)10(1):20-21 Jan 1969 23 W52J

Alternaria solani, Chemical control (plant discases), Early blight, Fungus diseases (plants), Maneb, Maneb (zine ion), Potatoes, Rot, Spraying, Storage diseases, Symptomatology, Zineb.

### 5912-69

BACTERIAL BLIGHT DISEASE OF CYNODON DACTYLON PERS.

39

S G Desai M K Patel A B Gandhi W V Kotasthane Cur Sci 36(8):213-214 20 Apr 1967 475 SC123 Bacterial diseases (plants), Bacteriology, Cynodon dactylon, Xanthomonas.

## 5913.69

SEPARATION OF TOP AND BOTTOM COM-PONENTS OF ALFALFA MOSAIC VIRUS BY COMBINED DIFFERENTIAL AND DENSITY GRADIENT CENTRIFUGATION. P R Desjardins R L Steere Arch Gesamte Virusforsch 26(1-2):127-137 REF

Fcb 1969 448.3 AR23

Alfalfa, Centrifugation, Mosaie.

## 5914-69

EFFECT OF 6-AZAURACIL ON INFECTION WITH TOBACCO MOSAIC VIRUS.

J Dijkstra J J S van Rensen

Neth J Plant Pathol 74(6):193-201 1968 464.8 T44

Chemical control (plant diseases), Mosaie, Tobae-co, Triazine-3,5(2H,4H)-dione, 6-as-, Virology, Virus diseases (plants). Dutch summary.

## 5915-69

5916-69

5917-69

S F Du Plessis

CHEMICALS FOR CONTROL OF CABBAGE CLUBROOT - PLASMODIOPHORA BRAS-SICAE WOR. IV. EFFECT ON THE PATHOGEN. (BU) S Dimitrov

Horticult Viticult Sci 5(2):51-58 REF

**COPPER DEFICIENCY IN CITRUS.** 

Farming S Afr 44(8):67-68

Nov 1968 24 SO842

E Dunn W A Hughes

Dec 1967 75.8 EU7

microorganisms.

5918-69

5919-69

Virus X.

5920-69

R L Edmonds

Mar 1969 1.9 P69P

X

Europe Potato J 10(4):327-328

M M Dwurazna M Weintraub

Can J Bot 47(5):731-736 REF

M M Dwurazna M Weintraub

Can J Bot 47(5):723-730 REF

P lant Dis Rep 53(3):216-219 MAP

May 1969 470 C16C

May 1969 470 C16C

1968 87 G75

Alkalies, Cabbage, Calcium, Chemical control (plant diseases), Chemicals, Clubroot, Fungieides, Fungus diseases (plants), Microorganisms, Plasmodiophora brassicae, Potassium. English and Russian summaries.

Citrus, Copper, Deficiency diseases, Plant biochemistry, Plant nutrition, Plant physiology.

INTERACTIONS OF OOSPORA PUSTULANS, RHIZOCTONIA SOLANI AND HETERODERA ROSTOCHIENSIS ON THE POTATO.

Fungus discases (plants), Heterodera rostochiensis, Oospora pustulans, Plant nematodes, Plant physiology, Potatoes, Rhizoetonia solani, Soil

THE RESPIRATORY PATHWAYS OF TOBAC-

CO LEAVES INFECTED WITH POTATO VIRUS

Plant extracts, Plant respiration, Tobacco, Virus diseases (plants), Virus X.

RESPIRATION OF TOBACCO LEAVES IN-FECTED WITH DIFFERENT STRAINS OF POTATO VIRUS X.

Plant respiration, Tobacco, Virus diseases (plants),

BORAX AND CONTROL OF STUMP INFEC-TION BY FOMES ANNOSUS IN WESTERN HEMLOCK.

## 5921-69

Borax, Boron compounds, Fomes annosus, Fungus diseases (plants), Stumps, Tsuga heterophylla.

#### 5921-69

TRANSMISSION AND TRANSLOCATION OF RED CLOVER VEIN MOSAIC VIRUS IN CLOVER.

S M El-Kandelgy R D Wilcoxson Plant Dis Rep 53(3):200-203 REF

Mar 1969 1.9 P69P

Alsike elover, Clover, Gomphrena globosa, Mosaic, Plant disease transmission, Plant translocation, Red clover, Seedlings, Sweetelover, Virus diseases (plants).

#### 5922-69

EFFECT OF RED CLOVER VEIN MOSAIC VIRUS ON DRY WEIGHT OF TISSUES OF **GOMPHRENA GLOBOSA.** 

S M El-Kandelgy R D Wilcoxson Plant Dis Rep 53(3):198-199 Mar 1969 1.9 P69P

Clover, Gomphrena globosa, Mosaic, Plant physiology, Virus diseases (plants).

## 5923-69

RELATION OF BEET YELLOWS VIRUS TO THE PHLOEM AND TO MOVEMENT IN THE SIEVE TUBE.

K Esau J Cronshaw L L Hoefert

J Cell Biol 32(1):71-87 REF

lan 1967 442 8 1828

Beets, Phloem, Plant morphology, Plant physiology, Virus diseases (plants), Yellows.

#### 5924-69

FACTORS AFFECTING INFECTION OF BAL-SAM FIR (ABIES BALSAMEA) BY STEREUM SANGUINOLENTUM IN QUEBEC. D E Etheridge

Can J Bot 47(3):457-479 REF

Mar 1969 470 C16C

Abies balsamea, Fungus diseases (plants), Humidity, Stereum sanguinolentum, Tables (data), Temperature. French summary.

## 5925-69

# BREEDING FOR SEPTORIA AND FUSARIUM RESISTANCE IN WHEAT. (DU)

W Feekes T Wieten

Stichting Ned Graan-cent Tech Ber 17:43-67 Dec 1967 59.9 ST52TB

Crop varieties, Crop yields, Fungus diseases (plants), Fusarium, Plant breeding, Plant disease resistance, Septoria, Tables (data), Wheat.

#### 5926-69

**ITALIAN BEET CULTURE. THE DISEASES:** FUNGI AND VIRUSES. (IT)

F Ferri

Agricoltura 17(6):58-71

Jun 1968 16 AG8226

Beets, Fungus diseases (plants), Insect vectors, Micronutrients, Plant disease control, Plant nutritional deficiencies, Virus diseases (plants). English and French summaries.

## 5927-69

STUDIES ON THE APPLICATION OF THE CASTELLANI METHOD OF PRESERVING PLANT PATHOGENIC FUNGI. (POR) M B Figueiredo

Biologico 33(1):9-13

Jan 1967 442.8 B529

Culture media, Fungus diseases (plants). English abstract.

#### 5928-69

**RESISTANCE OF GENES ISOLATED FROM** AVENA STERILIS TO ISOLATES OF OAT CROWN RUST PREVALENT IN CANADA IN 1968.

G Fleischmann

Can J Bot 47(4):623

Apr 1969 470 C16C

Avena sterilis, Crown rust, Genes, Oats, Plant disease resistance, Plant genetics.

BIBLIOGRAPHY

5929-69 **BIOSYNTHESIS OF FURANOCOUMARINS IN DISEASED CELERY.** H G Floss H Guenther L A Hadwiger Phytochemistry 8(3):585-588

Mar 1969 450 P5622

Celery, Formates, Fungus diseases (plants), Methionine, Plant biochemistry, Selerotinia selerotiorum.

### 5930-69

PURIFICATION OF POTATO VIRUS X AND PREPARATION OF INFECTIOUS RIBONUCLE-IC ACID BY DEGRADATION WITH LITHIUM CHLORIDE. R 1 B Francki G D McLean

Australian J Biol Sci 21(6):1311-1318 REF Dec 1968 442.8 AU72

Degradation, Lithium chloride, Methodology, Potatoes, Purification procedures, Ribonucleic acid, Virus diseases (plants), Virus X.

VERTICILLIUM WILT OF GROUNDNUT IN ISRAEL: SCREENING FOR VARIETAL RE-SISTANCE.

Z R Frank J Krikun

Israel J Agr Res 18(2):83-85

Apr 1968 107 J552

Fungus diseases (plants), Peanuts, Plant breeding, Plant disease resistance, Verticillium dahliae, Wilt.

#### MYCOLOGICAL INVESTIGATIONS ON FIELD **RETTING OF FIBER FLAX, SPECIES AND DIS-**TRIBUTION.

P S Frederiksen

Fibra 13(2):9-22

Aug 1968 73.8 F44

Fiber plants, Flax, Fungus diseases (plants), Geography, Mycology, Research. French summary.

Abstract: 98 Percent of mycological flora is Cladosporium herbarum, Penicillium, Aspergillus, Pullularia pulluans, Rhodotorula, and Cryptococcus.

## 5933-69

#### NEW RACE OF SPHACELOTHECA **REILIANA IN SOUTH TEXAS.**

R A Frederiksen D T Rosenow L Reyes L K

Edmunds

Plant Dis Rep 53(3):171-172 Mar 1969 1.9 P69P

disease Plant

resistance, Soils, Sorghum, Sphacelotheea reiliana.

#### 5934-69

THE POSSIBILITY OF ESTIMATING LOOSE SMUT IN A SE ED LOT OF BARLEY WITH RE-GARD TO THE INC REASE FROM ONE **GENERATION TO THE NEXT. (SW )** T Fritz

Sweden Statens Cent Frokontrollanst M eddel (43):42-44

1968 61.9 SW3

Barley, Fungus diseases (plants), Laboratories, Loose smut, Methodology, Seeds, Statistical methods, Testing. English summary.

#### 5935-69

THE OCCURRENCE AND OBSERVATION OF PUCCINIA STRIIFORMIS IN THE STATE OF WASHINGTON. (GE) E Fuchs

Stichting Ned Graan-cent Tech Ber 17:85-91 Dec 1967 59.9 ST52TB

Biology, Epidemiology, Fungus diseases (plants), Plant breeding, Plant disease resistance, Puccinia striiformis, Stripe rust, Wheat.

#### 5936-69

POTEBNIAMYCES (PHACIDIELLA) DISEASE OF THE TRUE FIRS IN BRITISH COLUMBIA. A Funk

Can J Bot 47(5):751-753

May 1969 470 C16C

Abies amabilis, Abies grandis, Abies lasiocarpa, Fungus diseases (plants), Potebniamyees.

40

5937-69

POOR STANDS OF CORN AND REDUCTION OF ROOT GROWTH CAUSED BY FUSARIUM MONILIFORME. M C Futrell M Kilgore

Plant Dis Rep 53(3):21 3-215

Mar 1969 1.9 P69P

Corn, Fungus discases (plants), Fusarium moniliforme, Plant discases, Plant physiology, Roots, Seedlings.

#### 5938-69

**HOJA BLANCA DISEASE OF RICE.** G E Galvez E

Baltimore, John Hopkins Press. 35-49 REF 1969 NB633.C2

G E Galvez-E J C Lozano-T

Mar 1968 464.8 P56

Phytopathology 58(3):294-296 REF

taxonomy, Rice. Spanish summary.

Cicadellidae, Hoja blanca, Plant disease resistance, Rice, Virus diseases (plants).

Fungus diseases (plants), Piricularia oryzae, Plant

TRANSMISSION OF HOJA BLANCA VIRUS OF

Cicadellidae, Hoja blanca, Plant disease transmis-

THE ACTION OF CALCIUM CYANAMIDE ON

THE DEVELOPMENT OF SOME BASIDIO-MYCETES OF WOOD. (IT )

Armillaria mellea, Basidiomycetes, Calcium cyana-

mide, Chemical control (plant diseases), Fomes annosus, Fungicides, Fungus diseases (plants), Plant physiology, Wood. English summary.

STUDIES ON THE ATTACK BEHAVIOR OF THE SOUTHERN PINE BEETLE. I.THE SPREADING AND COLLAPSE OF OUT-

Demography, Dendroctonus frontalis, Insect behavior, Insect outbreaks, Phermones.

Antibiotics, Aspergillus flavus, Aspergillus oryzac, Beauveria, Grain, Human diseases, Micronutrients,

Muscardine, Mycosis, Plant diseases, Rhagoletis

Accident prevention, Anthraenose, Blight, Captan,

Chlorinated hydrocarbons, Cornus, Folpet, Fungi-

cides, Fungus diseases (plants), Leafspot, Mancb,

AFTER THE GRAPES ATTAIN A YELLOWISH GILD. (FR )

J Giannotti A Caudwell C Vago J L Duthoit

Acad Sci Compt Rend Ser D Sci Nat 268(5, IST SEMESTER):845-847 REF

AND

PURIFICATION

MICROORGANISMS

OF

Boyce Thompson Inst Contrib 23(10, APR-

ARE SICK PLANTS DANGEROUS. (FR)

Baltimore, John Hopkins Press. 155-163 REF

sion, Rice, Soils, Virus diseases (plants).

Agr Ital (N s)23(1, JAN-FEB):35-38

## 5939-69 IDENTIFICATION OF RACES OF PIRICU-LARIA ORYZAE IN COLOMBIA.

5940-69

5941-69

P Gambogi

5942-69

BREAKS.

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5944-69

5945-69

ISOLATION

**R** Geoffrion

JUN):349-354

Jun 1967 451 B69

Phytoma 20(195):35-40

**DOGWOOD DISEASES.** 

Mar 1969 275.29 G29L

Thiocarbamates.

MYCOPLASM-TYPE

03 Feb 1969 505 P21

Ga Univ Ext Leafl (36):3P

Feb 1968 464.8 P563

1968 16 AG8259

G E Galveze

1969 NB633.C2

RICE.

5969-69

Bacterial diseases (plants), Grapes, Microorganisms.

## 5946-69

## EPIDEMIOLOGY OF COTTON LEAFCURL VIRUS IN THE SUDAN.

O H Giha M A Nour Empire Cotton Growing Rev 46(2):105-118 REF

Apr 1969 72.8 EM7

Aleyrodidae, Cotton, Insect vectors, Leaf eurl, Plant disease transmission, Virus diseases (plants).

#### 5947-69

BUTT ROT IN YELLOW-POPLAR SEEDLING-SPROUT STANDS.

J H Ginns R P True

Forest Sci 13(4):440-447 REF

Dec 1967 99.8 F7632

Armillaria mellea, Butt rot, Fungus diseases (plants), Fusarium, Liriodendron tulipifera, Margarinomyces, Trichoderma.

## 5948-69

## STUDIES ON STEREUM SANGUINOLENTUM IN KENYA PINE PLANTATIONS. H D Griffin

Can J Bot 47(5):761-771 REF

May 1969 470 C16C Fungus diseases (plants), Microorganisms, Pinus

patula, Stercum sanguinolentum.

#### 5949-69

A D SEROTYPE OF SATELLITE VIRUS SPECIFICALLY ASSOCIATED WITH A D SEROTYPE OF TOBACCO NECROSIS VIRUS. R G Grogan J K Uyemoto Nature 213(5077):705-707 18 Feb 1967 472 N21

Methodology, Necrosis, Tobacco, Virology, Virus diseases (plants).

## 5950-69

PRELIMINARY CONSIDERATIONS ON THE STUDY OF RESISTANCE OF FRUIT TREES TO SILVER-LEAF DISEASE. (FR ) C Grosclaude

Rev Zool Agr Appl 67(7-9, 3RD TRIMESTER):73-81 REF 1968 410.9 SO12

Fruit trees, Fungus diseases (plants), Plant disease resistance, Silver leaf, Stereum purpureum. English abstract.

## 5951-69

## CHEMICAL CONTROL OF BEAN BACTERIAL **DISEASES IN WISCONSIN.** D J Hagedorn E K Wade G Weis

Plant Dis Rep 53(3):178-181 Mar 1969 1.9 P69P

Bacterial diseases (plants), Bacterieides, Beans, Brown spot, Chemical control (plant diseases), Copper, Halo blight, Plant diseases, Pseudomonas phaseolicola, Pseudomonas syringae, Spraying.

## 5952-69

**GROWTH OF THE RUST FUNGUS CRONARTI-**UM RIBICOLA IN TISSUE CULTURES OF **PINUS MONTICOLA.** 

A E Harvey J L Grasham.

Can J Bot 47(5):663-666 REF

May 1969 470 C16C

Cronartium ribicola, Fungus diseases (plants), Mycelium, Pinus monticola.

## 5953-69

## THE INHERITANCE OF RESISTANCE TO POWDERY MILDEW IN THE CANTALOUPE VARIETY SEMINOLE. R R Harwood D Markarian

J Hered 59(2,MAR-APR):126-130

Apr 1968 442.8 AM3

Cantaloupes, Сгор

Erysiphe varieties. cichoracearum, Fungus diseases (plants), Genes, Plant disease resistance, Plant genetics, Powdery mildew.

## 5954-69

STUDIES ON THE CONTROL OF THE ANTHRACNOSE OF ACACIA DEALBATA CAUSED BY GLOMEREL LA CINGULATA STONEM. (JA) H Hashimoto

Fukuoka-Ken Forest Exp Sta Bull (20):1-29 REF Mar 1968 99.9 F95

Acacia, Anthraenose, Bordeaux mixture, Chemical control (plant diseases), Dithane, Fungus diseases (plants), Glomerella cingulata, Seed treatment. English summary.

## 5955-69

PONDEROSA PINE DWARF MISTLETOE IN RELATION TO TOPOGRAPHY AND SOILS ON THE MANITOU EXPERIMENTAL FOREST, COLORADO. F G Hawksworth

Pacific Southwest Forest Range Exp Sta Res Note PSW- (107):4P

## 1968 A99.9 F7632US

Arccuthobium, Parasitism, Pinus ponderosa, Soil scries, Topography.

5956-69

## FACTORS INFLUENC ING DISEASE DEVELOP-MENT OF PUTTING GREEN TURF.

M J Healy Turfgrass Conf Proc 6:33-39

1965 SB433.I4

Fungus diseases (plants), Glutamine, Helminthosporium sorokinianum, Humidity, Leaf spot, Plant extracts, Turf.

#### 5957-69

SYSTEMIC FUNGICIDE EFFECTIVE AGAINST SOUR ORANGE SCAB DISEASE.

C J Hearn J F L Childs Plant Dis Rep 53(3):203-205

Mar 1969 1.9 P69P

Benomyl, Citrus, Ferbam, Fungicides, Fungus dis-

cases (plants), Mandarin oranges, Scab, Sphaceloma fawcetti.

## 5958-69

WHEAT AND STEM RUST - SPECIALIST AD-VICE.

## G W Herd

1967 MEETING:26-27

Jul 1967 \$573.R45

Fungus diseases (plants), Plant protection, Rust (wheat), Stem rust (wheat), Weather, Wheat. In Rhodesia National Farmers' Union. Diversification guide from the RNFU Crops Conference.

## 5959-69

HOME FRUIT SPRAY GUIDE. L B Hertz J A Lofgren H G Johnson Minn Univ Ext M- (184):8P

## 1969 275.29 M66P

Accident prevention, Chemical control (pests), Fire blight, Fruit, Fungicides, Grubs, Insecticides, Maggots, Spraying.

#### 5960-69

PROGRESS THROUGH RESEARCH- BLUE **MOULD OF TOBACCO.** A V Hill

Aust Tob Growers Bull (13):2-5 1968 69.8 AU72

Chemical control (plant diseases), Crop varieties, Downy mildew, Fungicides, Fungus diseases (plants), Leaves, Plant breeding, Plant disease resistance, Research, Seed-borne plant diseases, Spraying, Tobacco.

## 5961-69

RELATIONSHIPS OF THE CLOVER ROOT CURCULIO, FUSARIUM WILT, AND BACTERI-AL WILT IN ALFALFA.

R R Hill R C Newton K E Zeiders J H Elgin Crop Sci 9(3,MAY-JUN):327-329

May 1969 64.8 C883

Alfalfa, Bacterial diseases (plants), Bacterial wilt, Corynebacterium insidiosum, Fusarium, Root rot, Sitona hispidula.

41

## 5962-69

STUDIES WITH TWO SYSTEMIC FUNGI-CIDES, BENLATE AND THIABENDAZOLE. R B Hine D L Johnson C J Wenger M Simbwa-Bunnva

Arizona Agricultural Experiment Station, Tucson. SER.P-15:64-68

Feb 1969 S544.3.A6A7

Butylearbamoyl)-2-benzimidazole N-methylearbamate, 1-(, Carbamates, Cotton, Fungus diseases (plants), Penicillium expansum, Phymatotrichum omnivorum, Systemic fungicides, Thiazolyl)benzimidizole, 2-(4-, Verticillium albo-atrum, Wilt.

## 5963-69

MILK-VETCH DWARF VIRUS. (JA ) T Hino T Inouye N Inouye K Mitsuhata Nogaku Kenkyu 52(1):1-9 Mar 1968 22.5 N684

Astragalus, Dwarf disease, Virus diseases (plants).

## 5964-69

FUNGICIDES FOR ARABICA COFFEE. VIII--PRELIMINARY RELATIONSHIPS AMONG SOME NEW FUNGICIDES, LEAF RUST (HEMILEIA VASTATRIX) AND LEAF FALL. D Hocking

5965-69

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RICE.

T T Iida

5969-69

D S Ingram

J Gen Microbiol 49(1):99-108

Oct 1967 448.3 J823

1969 NB633.C2

Yellow dwarf.

BLUEGRASS.

Trop Sci 44(1):83-87 Jan 1967 26 T756

C Hodges M P Britton

07 Dec 1967 SB433.14

FOR CROWN-GALL. (FR)

J E Hunter I W Buddenhagen

Ann Appl Biol 63(1):53-60

Feb 1969 442.8 AN72

17 Mar 1969 505 P21

Turfgrass Conf Proc 8:1-3 REF

cases, Stripe smut, Symptomatology.

D Hoursiangou-Neubrun S Puiseux-Dao

Coffee, Fungicides, Fungus diseases (plants), Hemileia vastatrix, Leaf fall, Leaf rust.

THE STRIPE SMUT PROBLEM IN MERION

Cultural control (plant diseases), Fungus diseases (plants), Poa, Rhizomes, Seed-borne plant dis-

PRELIMINARY OBSERVATIONS PLACED IN

EVIDENCE THAT PHAGES OF AGROBAC-TERIUM TUMEFACIENS ARE RESPONSIBLE

Acad Sci Compt Rend Ser D Sci Nat 268(11, 1ST SEMESTER):1493-1494

Agrobacterium tumefaciens, Bacterial diseases

(plants), Bacteriophages, Crown galls, Datura stramonium, Plant cytology, Plant disease transmis-

FIELD BIOLOGY AND CONTROL OF PHYTOPHTHORA PARASITICA ON PAPAYA (CARICA PAPAYA) IN HAWAII.

Captan, Chemical control (plant diseases),

Chlorinated hydrocarbons, Copper sulfate, Droso-

phila, Fungus discases (plants), Inseet vectors, Maneb, Papayas, Phytophthora parasitica, Tetrachloroethylthio)-4-eyelohexene-1,2-dicar-

DWARF, YELLOW DWARF, STRIPE, AND BLACK-STREAKED DWARF DISEASES OF

Black-streaked dwarf, Cicadellidae, Dwarf disease,

Laodelphax striatellus, Nephotettix, Rice, Stripe,

THE EXPRESSION OF R-GENE RESISTANCE TO PHYTOPHTHORA INFESTANS IN TISSUE CULTURES OF SOLANUM TUBEROSUM.

Baltimore, John Hopkins Press. 3-11 REF

## 5970-69

Fungus diseases (plants), Phytophthora infestans, Plant disease resistance, Plant genetics, Potatoes, Tissue culture.

#### 5970-69

## SOME EXPERIMENTS ON THE TRANSMIS-SION OF CYMBIDIUM MOSAIC VIRUS AND **ODONTOGLOSSUM RINGSPOT VIRUS. (JA )** N Inouve

Nogaku Kenkyu 52(2):89-97 REF

Jun 1968 22.5 N684

Cymbidium, Infectious diseases, Mosaic, Odontoglossum, Research, Ring spot, Virus diseases (plants).

#### 5971-69

**STUDIES ON HOST RANGE OF PVY - GROUP** VIRUSES IN LEGUMINOUS PLANTS IN JAPAN, AND THE IDENTIFICATION OF THEM BY THE SELECTED DIFFERENTIAL TEST PLANTS. (JA)

T Inouve

Nogaku Kenkyu 52(1):11-29 REF Mar 1968 22.5 N684

Chenopodium amaranticolor, Host indexing (plants), Leguminosae, Research, Virus diseases (plants).

#### 5972-69

STUDIES ON THE VIRUSES OF PLANTS IN COMPOSITAE IN JAPAN. I. TOMATO ASPER-**MY VIRUS FROM CHRYSANTHEMUM. (JA )** T Inouye M Asatani K Mitsuhata

Nogaku Kenkyu 52(2):55-62 REF

Jun 1968 22.5 N684

Aspermy, Chrysanthemum, Compositae, To-matoes, Virus diseases (plants).

#### 5973-69

THE VIRUS DISEASES OF THE RICE PLANT. **PROCEEDINGS OF A SYMPOSIUM AT THE IN-**TERNATIONAL RICE RESEARCH INSTITUTE, APRIL, 1967. Baltimore, John Hopkins Press. 354P.

1969 NBS633.C2

Rice, Symposia, Virus diseases (plants).

## 5974-69

PEANUT POD INVASION BY FUNGI IN THE PRESENCE OF LESION NEMATODES IN GEORGIA.

C R Jackson N A Minton

Oliagineux 23(819,AUG-SEP):531-534 1968 77.8 OL2

Aspergillus flavus, Dibromo-3-chloropropane, 1,2-, Fungi, Fungus diseases (plants), Meloidogyne arenaria, Nematocides, Peanuts, Plant nematodes, Plant physiology, Pratylenchus brachyurus.

## 5975-69

TESTING SLASH PINE FOR RUST RE-SISTANCE.

F F Jewell S L Mallett Forest Sci 13(4):413-418 Dec 1967 99.8 F7632

Cronartium, Plant disease resistance, Rust.

#### 5976-69

STRAINS OF THE FUNGUS THIELAVIOPSIS BASICOLA (BERK. ET BR.) FERR. ISOLATED FROM THE ROOTS OF BLUE LUPIN (LUPINUS ANGUSTIFOLIUS L.). (POL ) Z Jeziorska Z Miczynska

Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 28:109-116

1967 64.9 IN7

Black root rot, Blue lupine, Fungus diseases (plants), Plant breeding, Plant disease resistance, Roots, Thiclaviopsis basicola, Tobacco. English and Russian summaries.

5977-69

ALFALFA DISEASES.

H Johnson Miss Agr Exp Sta Bull (767):12P Nov 1968 100 M69

Alfalfa, Bacterial diseases (plants), Fungus diseases (plants), Plant disease control, Plant disease resistance, Virus diseases (plants).

**BIBLIOGRAPHY** 

## 5978-69

TROPIC AL CROP LOSSES WITH SPECIAL REFERENCE TO RICE. A Johnston

Commonwealth Phytopathol News (PT 5):4P

Sep 1968 464.8 C73 Crop losses, Fungus diseases (plants), Plant disease

resistance, Rice, Virus diseases (plants).

## 5979-69

## THE BEHAVIOR OF POTATO MOP-TOP VIRUS IN SOIL, AND EVIDENCE FOR ITS TRANSMISSION BY SPONGOSPORA SUBTER-RANEA (WALLR.) LAGERH.

R A C Jones B D Harrison Ann Appl Biol 63(1):1-17 REF

Feb 1969 442.8 AN72

Mop top, Plant disease transmission, Potatoes, Soilborne plant diseases, Spongospora subterranea, Virology, Virus diseases (plants).

#### 5980-69

CONTROLLING DISEASES OF DWARF WHEATS.

1. M Joshi A S Prabhu S Singh Indian Farming 17(5):46-47

Aug 1967 22 IN 283

Chemical control (plant diseases), Crop varieties, Fungicides, Fungus diseases (plants), Plant disease resistance, Seed treatment, Wheat, Zineb.

Seed treatments with zineb and the planting of more resistant varieties are the most effective means of controlling wheat fungus diseases.

## 5981-69

A NOTE ON DRECHSLERA ROT OF TOMATO. I J Kapoor R N Tandon

Cur Sci 38(5):120-121 05 Mar 1969 475 SC123 Fungus diseases (plants), Helminthosporium, Plant

disease transmission, Rot, Tomatoes.

## 5982-69

## THE POWDERY MILDEWS ON THE ORNA-**MENTAL PLANTS. (ES )**

H Karis V Rumberg

191P MAP REF TALLINN, USSR, EESTI NSV TEADUSTE AKAD. 1966 SB733.K3

Crop varieties, Erysiphaceae, Fungus diseases (plants), Ornamental plants, Plant disease re-sistance, Powdery mildew, Spores. English and Russian summaries.

5983-69

INJURED CELLS REQUIRED FOR THE IN-ITIATION OF PLANT VIRUS INFECTIONS.

W C Kimmins M D Casselman Can J Bot 47(3):499-500 Mar 1969 470 C16C Kidney beans, Necrosis, Plant injuries, Plant protection, Plant tissues, Tobacco.

5984-69

STUDIES ON THE VARIETAL CHARACTERS OF ITALIAN RYEGRASS. III. VARIETAL DIF-FERENCE IN DEGREE OF INFECTION BY CROWN RUST. (JA) T Kinoshita T Nakashima Y Yokohata

Jap Soc Grassland Sci J 14(4):271-274 Dec 1968 60.9 J27 Crop varieties, Crown rust, Fungus diseases (plants), Lolium multiflorum, Plant disease re-sistance, Puceinia coronata.

#### 5985-69

AUXIN DESTRUCTION BY MARASMIUS PER-NICIOSUS. V Krupasagar L Sequeira Amer J Bot 56(4):390-397 REF Apr 1969 450 AM36

Cacao, Fungus diseases (plants), Marasmius perniciosus, Plant biochemistry, Plant hormones, Plant regulators.

42

## 5986-69

FIELD EVALUATION OF A DERIVATIVE OF 1,4-OXATHIIN FOR CONTROL OF CEREAL SMUTS. J Kuiper

Australian J Exp Agr Anim Husb 8(35):756-761 Dec 1968 23 AU792

Chemical control (plant discases), Fungicides, Fungus discases (plants), Grain, Loose smut, Ox-athiins, 1,4-, Ustilago nuda, Ustilago tritici.

#### 5987-69

EXPERIMENTS ON THE CONTROL OF CEREAL SMUTS WITH A DERIVATIVE OF 1,4-OXATHIIN.

## J Kuiper

Australian J Exp Agr Anim Husb 8(31):232-237 REF

Apr 1968 23 AU792

Barley, Chemical control (plant diseases), Covered smut. Flag smut, Fungicides, Fungus diseases (plants), Loose smut, Oats, Oxathiin, 1,4-, Smuts, Soil fungigation, Stinking smut, Ustilaginales, Wheat.

#### 5988-69

CROWN GALL: EFFECT OF TEMPERATURE ON TUMORIGENESIS IN PEA SEEDLINGS.

A Kurrdjian P Manigault R Beardsley Can J Bot 47(5):803-808 REF May 1969 470 C16C

Crown galls, Inhibitors, Peas, Seedlings, Temperature.

## 5989-69

A NEW LEAF SPOT DISEASE OF MUSSAENDA FRONDOSA LINN.. B Lal R N Tandon Cur Sci\_36(1):23 05 Jan 1967 475 SCI23 Fungus diseases (plants), Glomerella eingulata, Leaf spot, Rubiaceae.

#### 5990-69

## VARIETAL RESISTANCE TO HOJA BLANCA. H A Lamey

Baltimore, John Hopkins Press. 293-311 REF 1969 NB633.C2

Greenhouse culture, Hoja blanea, Plant disease re-sistance, Plant disease transmission, Rice, sistance, Plant disease transmission Sitophilus oryzae, Virus diseases (plants).

#### 5991-69

5992-69

S C Lee

5993-69

1969 NB633.C2

VITRO. (FR)

Tissue extracts.

5994-69

 $(\mathbf{FR})$ 

27 Nov 1967 505 P21

B Lejeune M F Jubier

B Lejeune

## PRELIMINARY STUDIES ON MYCORRHIZA IN ADONIS VERNALIS. (POL )

J Lanowska Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 24:325-334 1967 64.9 IN7

RICE STRIPE DISEASE IN KOREA.

Baltimore, John Hopkins Press. 67-73 REF

Adonis vernalis, Fungus diseases (plants), Mycorrhiza, Roots, Symbiosis. English and Russian summaries

Laodelphax striatellus, Plant disease transmission, Rice, Stripe, Virus diseases (plants).

STUDY OF THE SYNTHESIS OF LYSOPINE BY TISSUE EXTRACTS OF CROWN-GALL IN

Acad Sci Compt Rend Ser D Sci Nat 265(22, 2ND SEMESTER):1753-1755

Biosynthesis, Crown galls, Histopathology, Lysine,

A STUDY OF THE SYNTHESIS OF LYSOPINE FROM LYSINE BY CROWN-GALL TISSUES.

Acad Sci Compt Rend Ser D Sci Nat 266(11, 1ST SEMESTER):1189-1191

11 Mar 1968 505 P21

Crown gall tumors, Lysine, Plant biochemistry, Radioactive tracers, Synthesis, Tobacco, Vitacca.

NOTES ON THE APPEARANCE IN FRANCE OF **OPHIOBOLUS GRAMINIS, AVENAE VARIETY.** (FR)

## J M Lemaire

Paris Acad Agr France Compt Rend Hebd Seances 53(6):480-484

1967 14 P215BC

Fungus diseases (plants), Ophiobolus graminis, Take-all, Wheat.

## 5996-69

CHEMICAL CONTROL OF HARMFUL IN-SECTS. (FR)

## J Lhoste

Paris Acad Agr France Compt Rend Hebd Seances 53(7):514-515 1967 14 P215BC

Chemical control (insects), Insect pests, Insecticides, Plant pest control.

## 5997-69

TESTING RICE VARIETIES FOR RESISTANCE TO TUNGRO DISEASE.

K C Ling

Baltimore, John Hopkins Press. 277-291 REF 1969 NB633.C2

Nephotettix impicticeps, Plant disease resistance, Rice, Tungro, Virus diseases (plants).

## 5998-69

TRANSMISSION OF RICE VIRUSES IN SOUTHEAST ASIA.

## K C Ling

Baltimore, John Hopkins Press. 139-153 REF 1969 NB633.C2

Cicadellidae, Mosaie, Plant disease transmission, Rice, Stunt, Virus diseases (plants).

A NEW DISEASE OF BANANAS IN THE CAUCA VALLEY: A BACTERIOSIS. (SP ) C Llanos M

Agr Trop 23(12):806-812

Dec 1967 26 AG8

Aldrin, Bacterial diseases (plants), Bananas, Chemical control (pests), DDT, Formaldehyde, Insect vectors.

#### 6000-69

TRENDS IN DISEASE.

**RCF** Macer Agr Merchant 49(1):57,62-64 Jan 1969 10 AG89

Chemical control (plant diseases), Fungicides, Fungus diseases (plants), Grain, Plant diseases, Rainfall, Weather.

## 6001-69

THE INDUCTION OF DODINE TOLERANCE IN FUSARIUM OXYSPORUM F. MELONIS: A TECHNIQUE APPLICABLE TO THE STUDY OF THE BIONOMICS OF SOIL-BORNE FUNGAL PATHOGENS.

B H MacNeill J V Sabanayagam Can J Microbiol 14(11):1262-1263

Nov 1968 448.8 C162

Dodine, Fusarium oxysporum, Mutation, Soil fungi, Ultraviolet rays.

## 6002-69

FUNGICIDES FOR GLADIOLUS CORMS. **R** O Magic

Florist Rev 143(3718):24,46-48

27 Feb 1969 80 W41

Botrytis gladiolorum, Chemical control (plant discases), Fungicides, Fungus discases (plants), Fusarium, Fusarium oxysporum, Gladiolus, Methodology, Pesticide application, Plant diseases.

## 6003-69

STUDIES ON AN ITALIAN ISOLATE OF THE TOBACCO NECROSIS VIRUS. (IT ) G Majorana H L Paul

Bari Univ Fac Agr Ann 21(PT 2):455-477 REF

1967 105.4 B232

Chenopodium, Electron microscopy, Neerosis, Tobacco, Virology, Virus diseases (plants). English summary.

## 6004-69

**CROSS INTERACTION BETWEEN DIFFE RENT** COMPONENTS OF TW O STRAINS OF ALFAL-FA MOSAIC VIRUS. (IT ) G Majorana

Bari Univ Fac Agr Ann 21(PT 2):439-444 REF 1967 105.4 B232

Alfalfa, Fractionation, Magnesium chloride, Mosaic, Symptomatology, Virology, Virus diseases (plants). English summary.

## 6005-69

THE CRINKLY MOSAIC OF SWEETVETCH (HEDYSARUM CORONARIUM L.). (IT )

G Majorana

Bari Univ Fac Agr Ann 21(PT 2):433-437 1967 105.4 B232

Mosaic, Plant disease transmission, Sulla sweet-vetch, Virology, Virus diseases (plants). English summary.

## 6006-69

PEACH LEAF CURL.

O C Maloy

Wash State Univ Ext E M (3042):2P Oct 1968 275.29 W27MI

Chemical control (plant diseases), Dodine, Fungicides, Fungus diseases (plants), Leaf eurl, Peaches, Pesticide application, Spraying, Symptomatology, Taphrina deformans.

## 6007-69

PERENNIAL CANKER AND BULL'S EYE ROT OF APPLES.

O C Maloy R P Covey Wash State Univ Ext E M (3045):2P

Nov 1968 275.29 W27MI

Apples, Canker, Crop losses, Crop varieties, Fun-gus discases (plants), Plant disease resistance, Rot, Spraying, Symptomatology.

## 6008-69

FIELD AND GREENHOUSE STUDIES ON THE EFFECTS OF PLANT AMENDMENTS ON RHIZOCTONIA HYPOCOTYL ROT OF SNAP-BEAN.

W J Manning D F Crossan Plant Dis Rep 53(3):227-231 REF Mar 1969 1.9 P69P

Beans, Corn, Fungus discases (plants), Greenhouse eulture, Rhizoetonia, Rot.

#### 6009-69

DETERMINATION OF NUCLEOPOLYHEDRON COUNTS AND SIZE FREQUENCY DISTRIBU-TIONS BY MEANS OF A COULTER TRANS-DUCER.

M E Mart ignoni P J Iwai Northwest Pacific Forest Range Exp Sta Us Forest Serv Res No (85):14P MAP REF Aug 1968 A99.9 F7625U

Coulter counter, Dairy equipment, Insect diseases, Polyhedroses, Virus diseases (insects).

#### 6010-69

INVESTIGATION OF MEANS FOR THE CHEMICAL CONTROL OF BASAL (PHYTOPHTHORA CAPSICI LEON.) ROT OF PEPPER. (IT)

A Matta

Agr Ital (N s)23(1, JAN-FEB):7-16 1968 16 AG8259

Basal rot, Chemical control (plant diseases), Fungicides, Fungus diseases (plants), Irrigation, Pesti-cide application, Phytophthora capsici, Redpep-pers (vegetable), Spraying. English summary.

The following fungicides were tested: dexon, difolatan, omadine, copper sulphate, potassium permanganate, nabam, and terrazole.

#### 6011-69

MICROBIOLOGICAL CONTROL OF MELAMPSORA MEDUSAE. R P MeBride

43

Can J Bot 47(5):711-715 REF

May 1969 470 C16C Bacteria, Culture media, Fungus diseases (plants), medusae, Microbiology, Melampsora Micronutrients, Pseudotsuga menziesii, Seedlings

#### 6012-69

SUITABILITY OF SEVERAL FUNGICIDES FOR TREATING SOIL INFESTED WITH PHYTOPHTHORA CACTORUM TO PREVENT **CROWN ROT DISEASE OF APPLE TREES.** D L McIntosh

Plant Dis Rep 53(3):182-185

Mar 1969 1.9 P69P

Apples, Chemical control (plant diseases), Crown rot, Fungicides, Fungus discases (plants), Phytophthora caetorum, Soils.

#### 6013.69

Wheat.

6014-69

J McPhail

6015-69

1969 80 V662

53(1):103-108

Plastics.

6016-69

6017-69

DISEASES.

1967 14 P215BC

D Milicie Z Stefanae

Jul 1967 464.8 P562

Jan 1969 275.29 OH32

SYSTEMIC CHEMICALS.

Agr Chem 23(12):32-33

Dec 1968 381 AG8

were mentioned.

6018-69

Miller

discussed.

6019-69

Phytopathol Z 59(3):285-296 REF

R L Miller R E Partyka J P Sleesman

Ohio State Univ Ext Bull 459:12P

CHROMOSOME LOCATION AND LINKAGE STUDIES INVOLVING THE PM3 LOCUS FOR POWDERY MILDEW RESISTANCE IN WHEAT.

R A Melntosh E P Baker

WATCH FOR SILVER LEAF.

Victorian Hort Dig 13(1,FEB/APR):13

(plants), Silver leaf, Stereum purpureum.

Linnean Soc New South Wales Proc 93(2,NO 417):232-238 REF 10 Mar 1969 514 SY2

Chromosomes, Fungus diseases (plants), Plant dis-

ease resistance, Plant genetics, Powdery mildew,

Citrus, Disease transmission, Fungus diseases

METHODS FOR PROTECTING MELONS FROM CUCUMBER MOSAIC VIRUS. THE BENEFIT OF COVERING THE SOIL WITH PLASTIC REFLECTING FILMS. (FR )

Cultural control (plant diseases), Melons, Mosaie,

CHANGES OF PLASTIDS WHICH ARISE

UNDER THE INFLUENCE OF TURNIP YEL-LOW MOSAIC VIRUS. (GE)

Plastids, Turnips, Virus diseases (plants), Yellow mosaic virus. English summary

CONTROL OF VEGETABLE INSECTS AND

Acrial spraying, Chemical control (insects), Chemical control (plant diseases), Dairy equip-ment, Insect pests, Insecticides, Pesticide applica-tion, Plant diseases, Vegetables. Many insecticides

CONTROL OF ARMILLARIA MELLEA WITH

Armillaria mellea, Chemical control (plant discases), Culture media, Dollar spot, Fungus diseases

(plants), Onions, Sclerotium cepivorum, Systemic

fungicides, White rot. Many fungicides are

**RESULTS FROM A THREE-YEAR TEST WITH** 

THE ANAEROBIC METHOD IN BARLEY SEED

C M Messiaen J Marrou P Maison M Duteil Paris Acad Agr France Compt Rend Hebd Seances

## 6020-69

DISINFECTION FROM USTILAGO NUDA (PERS.) KELL. ET SW. (BU ) N Mitov D Dobrev

Rastenievud Nauk 5(3):103-110

1968 64.8 R18

Barley, Fungus diseases (plants), Plant disease control, Seed treatment, Ustilago nuda. English and Russian summaries.

#### 6020-69

STUDIES ON THE NATURAL ACCUMULA-TION OF LOOSE SMUT INFECTION ON WHEAT - USTILAGO TRITICI (PERS.) JEN-SEN.(BU)

N Mitov N Donchev M Markov L Yotov Rastenievud Nauk 5(2):111-124 REF

1968 64.8 R18

Crop varieties, Fungus diseases (plants), Loose smut, Plant disease resistance, Plant ecology, Plant genetics, Temperature, Ustilago tritici, Wheat. English and Russian summaries.

## 6021-69

## SEROLOGICAL DIFFERENTIATION OF PYTHIUM APHANIDERMATUM FROM PHYTOPHTHORA PARASITICA VAR. NICO-TIANAE AND PH. PARASITICA. D J Morton P D Dukes

Nature 213(5079):923 REF

04 Mar 1967 472 N21

Fungus diseases (plants), Immunochemistry, Phytophthora parasitica, Pythium aphanidermatum, Serological tests, Soil-borne plant diseases, Tobacco, Tomatoes.

## 6022-69

## EFFECTS OF KINETIN AND ACTINOMYCIN D ON THE SUSCEPTIBILITY OF NICOTIANA GLUTINOSA L. TO INFECTION BY TOBACCO MOSAIC VIRUS.

A K Mukherjee L C Soans M Chessin Nature 216(5122):1344-1345 REF

30 Dec 1967 472 N21

Actinomycin d, Kinetin, Mosaic, Nicotiana glutinosa, Plant physiology, Plant regulators, Tobacco, Virus diseases (plants).

#### 6023-69

## BIOLOGY OF ASCOCHYTA SPECIES PARASITIC ON PEA PLANTS. (RUS ) T Musaev

Uz Biol Zhur 11(3):14-16

1967 442.8 UZ1

Ascochyta, Ascochyta pinodes, Ascochyta pisi, Biology, Fungus diseases (plants), Parasitism, Peas, Pyenidia, Spore germination, Spores. English summary

## 6024-69

NOTE : OOSPORES OF SCLEROSPORA PHILIPPINENSIS WESTON FROM CORN LEAF TISSUE. G Napi-Acedo O R Exconde

Philippine Agr 51(4):279-282 Sep 1967 25 P542 Corn, Morphology, Spores.

6025-69

BETEL'S WILT DISEASE CAN BE KEPT UNDER CONTROL.

V Narasimhan M Ramalingam

Indian Farming 17(2):29-30

May 1967 22 IN 283

Bordeaux mixture, Chemical control (plant discases), Fungieides, Fungus diseases (plants), Phytophthora parasitica, Piper betle, Wilt.

Symptoms of wilt disease in Piper betle and recommended measures are given using Bordeaux mixture for control of the causal agent, Phytophthora parasitica.

#### 6026-69

STEM ROT OF OIL PALMS IN THE FEDERAL EXPERIMENT STATION, SERDANG. S J Navaratnam C K Leong Malaysian Agr J 45(2):175-181 Jul 1965 22.5 F312 African oilpalm, Cultural control (plant diseases), Fertilizers, Fomes, Fungus diseases (plants), Stem rot.

**BIBLIOGRAPHY** 

## 6027-69

A SYMPTOMLESS CARRIER OF SANDAL SPIKE DISEASE.

R Nayar R A Srimathi

Cur Sci 37(19):567-568

05 Oct 1968 475 SC123

Lantana camara, Plant disease transmission, Santalum, Spike disease, Virus diseases (plants).

#### 6028-69

KHAIRA DISEASE OF RICE AND ITS CONTROL.

Y L Nene

Int Rice Comm News Lett 17(1):1-7

Mar 1968 59.9 IN83N

Chemical control (plant diseases), Plant diseases, Plant nutritional deficiencies, Plant physiology, Rice, Soil analysis, Spraying, Symptomatology, Tables (data), Zine sulphate. Abstracted in Rice J 71(13):22-23 Dec 1968.8.

## 6029-69

## LEMON SCAB (SPHACELOMA FAWCETTII SCABIOSA).

Agr Gaz New S Wales 80(PT 1):65-66

Jan 1969 23 N472

Bordeaux mixture, Chemical control (plant discases), Fungus discases (plants), Lemons, Nurserics, Scab, Spraying, Thiocarbamates, Zineb.

## 6030-69

SORBIC ACID AS AN INHIBITOR OF THE FUSARINM VASINFECTUM FUNGUS, WHICH INDUCES WILT IN THE COTTON PLANT. N P Oshanina K E Oveharov

Fiziol Rast 14(2, MAR-APR):234-238

Apr 1967 450 F58 Chemical control (plant diseases), Cotton, Fungus diseases (plants), Fusarium, Plant growth inhibitors, Sorbie acid, Wilt. Russian journal- vol. 14(2):276-281, Mar.-Apr. 1967

## 6031-69

**REPORT OF THE COMMITTEE ON NOMECLATURE OF RICE VIRUS DISEASES.** 

S H Ou T T Iida K Maramorosch S P

Raychaudhuri N Suzuki Baltimore, John Hopkins Press. 339-346

1969 NB633.C2

Nomenelature, Reports, Rice, Virus diseases (plants).

## 6032-69

VIRUS DISEASES OF RICE IN SOUTHEAST ASIA. S H Ou C T Rivera

S II Ou C I Rivera

Baltimore, John Hopkins Press. 23-34 REF 1969 NB633.C2

Cicadellidae, Insect vectors, Rice, Virus diseases (plants).

## 6033-69

## SOME OBSERVATIONS ON TOBACCO YEL-LOW DWARF CONTROL.

R G Paddick F L French Aust Tob Growers Bull (13):9-10

1968 69.8 AU72

Chemical control (plant diseases), Cicadellidae, Dimethoate, Insect vectors, Methyl N-((methylearbamoyl)oxy)thioacetimidate, S-, Methyl-2-(methylthio)propionaldehyde O-(methylearbamoyl)oxi n, Organie compounds, Orosius argentatus, Phosphates, Plant disease control, Plant discase transmission, Tobaceo, Transplanting, Virus diseases (plants), Yellow dwarf.

#### 6034-69

THE PROBLEMS OF PLANT DISEASE CONTROL.

B P Pal

Indian Farming 18(5):4-5

Aug 1968 22 IN283

Alternaria, Crop rotation, Fungus diseases (plants), Helminthosporium oryzae, Hel-

44

minthosporium spiciferum, Mosaie, Piricularia, Plant breeding, Plant disease control, Plant protection, Virus diseases (plants), Wheat.

#### 6035-69

CONTROLLING STEM-END ROT OF RIPE MANGO.

V N Pathak D N Srivastava

Indian Farming 18(5):43,45

Aug 1968 22 IN283

Carbonates, Cellophane, Citrus, Copper, Diplodia natalensis, Fungus diseases (plants), Linseed oil, Mangoes, Oxides, Packing materials, Red lead, Stem end rot.

#### 6036-69

INVESTIGATIONS ON CHEMICAL CONTROL OF ZEBRA DISEASE IN AGAVE HYBRID NO. 11648.

W T H Peregrine

Ann Appl Biol 63(1):45-51

Feb 1969 442.8 AN72

Agave, Chemical control (plant diseases), Copper compounds, Fungus diseases (plants), Maneb (zine ion), Phytophthora, Thiocarbamates, Zebra discase.

#### 6037-69

6038-69

rics.

6039-69

G A Place

Soil properties.

6040-69

6041-69

Russian.

6042-69

FOR INDIA.

K M Ponnappa

P V Polyakov

1968 450 F58AE

CERCOSPORIDIUM

BOTRYTIS FLOWER SPOT CONTROL IN ORCHIDS.

J L Peterson S H Davis O W Davidson Amer Orchid Soc Bull 37(3):227-230

Mar 1968 80 AM329

SISTANCE TO SCAB. (GE)

Europe Potato J 10(4):286-295 REF

C Pfeffer M Effmert

Dec 1967 75.8 EU7

Feb 1969 100 AR42R

Z Polak S Neubauer

Oct 1967 450 B52

Verbaseum thapsiforme.

Biol Plant 9(5):360-367 REF

Aminobutane, 2-, Botrytis cinerea, Cattleya, Chemical control (plant diseases), Cymbidium, Fungicides, Fungus diseases (plants), Orehidaceae, Petal blight, Phalaenopsis, Plant diseases, Plant protection, Tetrachloroisophthalonitrile.

SELECTION OF PARENTS AND CROSSES SUITABLE FOR USE IN BREEDING FOR RE-

Bacterial diseases (plants), Plant breeding, Plant

disease resistance, Plant genetics, Potatoes, Seab,

Streptomyces seabies. English and French summa-

**RELATIONSHIP OF IRON, MANGANESE, AND** 

BICARBONATE TO CHLOROSIS OF RICE GROWN IN CALCAREOUS SOIL.

Carbonates, Chlorosis, Iron, Manganese, Plant dis-

case control, Plant nutritional deficiencies, Rice,

THE MOSAIC DISEASE OF MULLEIN, VER-

BASCUM THAPSIFORME SCHRADER, OC-CURING IN CZECHOSLOVAKIA.

SUN-

PHYSIOLOGICAL CHANGES IN

FLOWERS INFECTED BY STORAGE ROT.

Soviet Plant Physiol 15(4, JUL/AUG):597-598

Fungus diseases (plants), Photosynthesis, Plant

physiology, Plant respiration, Sclerotinia, Sunflowers. Translated from Fiziologiya Rastenii, 15(4,Jul/Aug): 716-717, 1968. translated from the

SPHENOCLEA ZEYLANICA--A NEW RECORD

HELLERI

Ark Agr Exp Sta Rep Ser (175 SER):21P REF

6065-69

Cur Sci 36(10):273 20 May 1967 475 SCI23 Dematiaccac, Fungus diseases (plants), Host records, Plant diseases.

## 6043-69

## **ON THE ELM-TREE DIEBACK. (RUM )**

N Popcscu Rev Padurilor 83(7):354-356 Jul 1968 99.8 R327 Ceratocystis ulmi, Dieback, Fungus discases (plants), Plant protection, Ulmus.

### 6044-69

MYCOLOGICAL TECHNIQUES IN PLANT PATHOLOGY. (FR)

**F** Rapilly Ann Epiphyt 19:102P REF

1968 464.9 F84AN

Chemical control (plant diseases), Culture media, Fungicides, Fungus discases (plants), Methodolo-gy, Microorganisms, Mycology, Plant discases, Plant physiology, Soil fungi.

## 6045-69

EVIDENCE FOR THE PRESENCE OF THE OHIO STRAIN III OF TOBACCO MOSAIC VIRUS IN TOMATO IN THE NETHERLANDS. A T B Rast

Neth J Plant Pathol 74(6):234-236

1968 464 8 T44

Mosaic, Plant breeding, Plant disease resistance, Tobacco, Tomatoes, Virology, Virus diseases Tobacco, Tomatoes, V (plants). Dutch summary.

#### 6046-69

CONTROLLING DISEASES OF OILSEED CROPS.

S P Raychaudhuri

Indian Farming 17(9):29,31-33 Dec 1967 22 IN283

Bacterial diseases (plants), Chemical control (plant diseases), Cultural control (plant diseases), Fungus diseases (plants), Oilseeds, Virus diseases (plants).

The viral, bacterial, and fungal diseases that attack peanuts, castor, sesame, mustard, and linseed are discussed and chemical and cultural control measures are recommended.

## 6047-69

# DISEASES OF PULSES POSE A CHALLENGE TO PLANT PATHOLOGISTS, BREEDERS.

S P Raychaudhuri Indian Farming 17(11):39,41,43 Feb 1968 22 1N283

Anthracnose, Blight, Fungus diseases (plants), Legumes, Mosaic, Powdery mildew, Rust, Virus diseases (plants), Wilt.

The etiology and pathology of many fungus diseases and several viral diseases of legumes in India are described. Included are wilt, blight, rust, powdery mildew, many mosaics, and anthracnosc.

## 6048-69

## VIRUS DISEASE THAT RESEMBLES TUNGRO

S P Raychaudhuri M D Mishra A Ghosh Indian Farming 17(3):29,33 Jun 1967 22 IN283

Insect vectors, Nephotettix bipunctatus, Plant dis-ease transmission, Rice, Virus diseases (plants).

#### 6049-69

**RESEARCH ON THE ASSOCIATED CULTURE** OF VIRUSES AND VEGETABLE TISSUES. (FR) S P Raychaudhuri M D Mishra H C Phatak J

Chandra

Acad Sci Compt Rend Ser D Sci Nat 266(8, 1ST SEMESTER):776-777 19 Fcb 1968 505 P21

Broadbeans, Cowpeas, Culture media, Plant extracts, Sunflowers, Tissue culture, Virus diseases (plants).

## 6050-69

DISEASES OF FRUITS AND VEGETABLES. S P Raychaudhuri D S Bhander

Indian Hort 12(4 JUL-SEP):19-23,34 1968 80 IN23

Air-borne plant diseases, Bacterial diseases (plants), Chemical control (plant diseases), Fruit, Fungicides, Fungus discases (plants), Plant discase control, Plant nematodes, Plant physiological discases, Virus diseases (plants).

6051-69

POTATO SPINDLE TUBER VIRUS: A PLANT VIRUS WITH PROPERTIES OF A FREE NUCLEIC ACID. I. ASSAY, EXTRACTION, AND CONCENTRATION. II. CHARACTERIZATION AND PARTIAL PURIFICATION.

W B Raymer T O Diener

Virology 37(3):343-366 REF Mar 1969 448.8 V81 Assay, Nucleic acids, Plant extracts, Potatoes, Pu-

rification, Spindle tuber, Tissue culture, Tomatocs, Virology, Virus diseases (plants).

6052-69

## PHOSPHATE DISTRIBUTION IN HEALTHY AND TMV INFECTED TOMATO PLANTS. (POL

Z Rebowska S Lyszcz

Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 33:143-147 REF 1968 64.9 IN7

Phosphates, Plant biochemistry, Plant metabolism, Tobacco mosaie virus, Tomatoes, Virus diseases (plants). English and Russian summaries.

## 6053-69

SPRAYING TRIALS AGAINST SCLEROTINIA DISEASES OF PLUMS ON FLOWERS AND FRUITS. (FR) R Renaud

Rev Zool Agr Appl 67(7-9, 3RD TRIMESTER):82-86

1968 410.9 SO12

Blossom blight, Chemical control (plant diseases), Fungicides, Fungus diseases (plants), Plums, Selerotinia laxa, Tetrachloroisophthalonitrile, Thiazolyl)-benzimidizole, 2-(4-. English abstract.

MONILIASIS OF PLUM-TREES. BIOLOGY AND METHODS OF CONTROL. (FR)

**R** Rcnaud Rev Zool Agr Appl 66(4-6, 2ND TRIMESTER):58-64 1967 410.9 SO12

Chemical control (plant diseases), Cultural control (plant discases), Fungus discases (plants), Life cycle, Moniliasis.

#### 6055-69

## TREE-WOUNDING INSECTS AS VECTORS OF THE OAK WILT FUNGUS.

C O Rexrode Forest Sci 14(2):181-189 MAP REF Jun 1968 99.8 F7632 Fungus discases (plants), Insect vectors, Plant disease transmission, Quercus.

#### 6056-69

## **DETECTION OF PLASMODIOPHORA BRAS-**SICAE RACES 2 AND 6 IN ONTARIO.

A A Reycs

Plant Dis Rep 53(3):223-225 Mar 1969 1.9 P69P

Cabbage, Cauliflower, Clubroot, Fungus diseases (plants), Plasmodiophora brassicac, Turnips.

#### 6057-69

THE NEMATODE OF STEMS AND TU-BERCLES (DITYLENCHUS DESTRUCTOR THORNE) AS A DANGEROUS POTATO PEST. (RUM)

E Romascu A Maccdon A Dcheleanu Probl Agr 20(11):79-84

1968 21 R862

Chemical control (nematodes), Ditylenchus destructor, Nematocides, Potatoes

The following nematocides are discussed: Karbation, D.D., vapam, dibrometan, basamid, trapex and nemagon.

45

6058-69

THE RESPONSE TO PHOSPHORUS OF SOME ECOLOGICALLY DISTINCT PLANT SPECIES. I. GROWTH RATES AND PHOSPHORUS AB-SORPTION. I H Rorison

New Phyto Logist 67(4):913-923 REF Oct 1968 450 N42

Absorption, Culturc mcdia, Phosphorus, Plant ccology, Plant nutrition, Plant physiology, Plant regulators.

## 6059-69

DECLINE OF CITRUS TREES IN THE RE-GIONS OF ARARAQUARA AND BEBEDOURO. (POR)

V Rossetti T Namekata

Biologico 33(12):295-300

Dcc 1967 442.8 B529

Citrus, Dcclinc, Oranges, Virus diseases (plants). English abstract.

#### 6060-69

THE EFFECT OF TMV ON THE HILL REAC-TION IN CHLOROPLASTS FROM VARIOUS TOBACCO SPECIES WITH DIFFERENT RE-SISTANCE. (RU)

B A Rubin T E Krendeleva E E Bystrykh Biokhimiya 34(2):345-351 REF

1969 385 B523

Chloroplasts, Hill reaction, Mosaic, Plant biochemistry, Plant disease resistance, Tobacco, Virus discases (plants). English abstract.

#### 6061-69

PLANT INSECT AND DISEASE CONTROL IN PERU.

R Russell

Institute Of inter-American Affairs 12P Nov 1952 SB951.R88

Chemical control (plant diseases), Fungicides, Fungus discases (plants), Insect pests, Insecticides, Rats, Rodenticides.

## 6062-69

6063-69

6064-69

DWARF.

Y Sakurai

1969 NB633.C2

Ycllow dwarf.

6065-69

**B** Saltenis

37 REF

1967 511 AK192D

COMPETITIVE SA PROPHYTIC ABILITY AND **INOCULUM POTENTIAL OF COTTON ROOT-INFECTING FUNGI IN FIVE SOILS.** K A Sabet I D Khan

Cotton, Fungus discases (plants), Physiology, Rhizosphere, Soil series, Tissue culture.

EFFECT AND COMPATIBILITY OF NUTRIENT SPRAYS WITH INSECTICIDES AND FUNGI-CIDES FOR GROUNDNUT (A. HYPOGEA).

Chemical control (pests), Chlorinated hydrocar-

bons, Endrin, Fungicides, Fungus discases (plants), Insect pests, Insecticides, Methyl demeton, Nutrient solutions (plants), Peanuts, Spraying.

VARIETAL RESISTANCE TO STRIPE, DWARF,

YELLOW DWARF, AND BLACK-STREAKED

Black-streaked dwarf, Cicadellidae, Plant disease

resistance, Rice, Stripe, Virus diseases (plants),

FUSARIOSIS OF THE LEGUME CROPS IN LITHUANIA. 3. MAIN FORMS OF LUPINE FUSARIOSIS AND ITS DISTRIBUTION. (RUS)

Lietwvas Tsr Mokslu Akad Darbai Ser C 3(44):25-

Foot rot, Legumes, Lupine, Plant geography, Root

rot, Wilt. English and Lithuanian summaries.

Baltimore, John Hopkins Press. 257-275 REF

M N Sadaphal V Ravindranath V V Thobbi

Indian J Agron 13(3):170-176

Empire Cotton Growing Rev 46(2):119-133 REF

Apr 1969 72.8 EM7

Scp 1968 22 IN235

## 6066-69

The fungus disease was cause by the following fungi: Fusarium avenaceum, F. avenaceum var. herbarum, F. oxysporum, F. gibbosum, F. solani, var. coeruleum, F. javanieum, and F. sambueinum.

#### 6066-69

CORN LODGING. I. RELATIONS BETWEEN SOLUBLE SOLIDS, INORGANIC PHOSPHATES AND BASAL STALK AND ROOT ROTS IN MA-TURE PLANTS, (SP)

A A Sarasola M A Rocca de Sarasola Rev Invest Agr Ser 5, Patol Veg 5(8):81-103 REF

1968 464.8 R322 Corn, Fungus diseases (plants), Fusarium, Inor-ganie compounds, Lodging, Macrophomina phaseoli, Phosphates, Plant physiology, Root rot, Stalk rot. English abstract.

#### 6067-69

INTERRELATIONSHIPS OF LEDUM SPECIES AND THEIR RUST PARASITES IN WESTERN CANADA AND ALASKA.

D B O Savile Can J Bot 47(7):1085-1100 REF Jul 1969 470 C16C

Chromosomes, Chrysomyxa, Fungus diseases (plants), Hybrids, Ledum glandulosum, Ledum groenlandicum, Ledum palustre decumbens, Plant genetics, Plant morphology, Uredinales.

## 6068-69

THE OCCURRENCE OF PHYLLOSTICTA LEAF SPOT OF CORN IN PENNSYLVANIA. G L Scheifele R R Nelson

Plant Dis Rep 53(3):186-189

Mar 1969 1.9 P69P

Corn, Fungus diseases (plants), Greenhouse culture, Leaf spot, Phyllosticta zeae, Plant disease resistance.

## 6069-69

# ETIOLOGY, SYMPTOMATOLOGY AND EPIDEMIOLOGY OF A VIRUS DISEASE OF CULTIVATED MUSHROOMS.

L C Schisler J W Sinden E M Sigel

MGA Bull (215):549-550,553-554,558-559,563-564,569-570,573-574,577 Nov 1967 80 M97

Dieback, Epidemiology, Etiology, Mushrooms, Plant disease transmission, Symptomatology, Virus diseases (plants), Virus X.

#### 6070-69

**RESEARCH ON SAP INFECTIONS. (GE)** F Schonbeck

Phytopathol Z 59(3):205-224 REF

Jul 1967 464.8 P562

Botrytis, Chromatography, Fungicides, Fungus dis-eases (plants), Plant disease resistance, Research, Sap. English summary

#### 6071-69

A CHEMOTHERAPEUTIC TREATMENT FOR SELECTIVELY ERADICATING CROWN GALL AND OLIVE KNOT NEOPLASMS. M N Schroth D C Hildebrand

Phytopathology 58(6):848-854 REF

Jun 1968 464.8 P56

Agrobacterium tumefaciens, Biochemistry, Biological assay, Crown galls, Drug therapy, Fruit, Hydrocarbons, Plant galls, Pscudomonas Hydrocarbons, savastanoi, Tomatoes.

## 6072-69

## CONTROL OF SURVIVAL OF OPHIOBOLUS GRAMINIS BETWEEN CONSECUTIVE CROPS OF WINTER WHEAT.

P R Scott

Ann Appl Biol 63(1):37-43

Fcb 1969 442.8 AN72

Crop rotation, Fungus diseases (plants), Ophiobolus graminis, Plant discase control, Red clover, Seed-borne plant diseases, Wheat.

#### 6073-69

**CELL-FREE SYNTHESIS OF TOBACCO MOSA-**IC VIRUS COAT PROTEIN AND ITS COM-BINATION WITH RIBONUCLEIC ACID TO YIELD TOBACCO MOSAIC VIRUS. I Sela P Kaesberg

J Virology 3(1):89-91 Jan 1969 QR360.J6

Extracellular substances, Mosaic, Protein synthesis, Ribonucleic acid, Tobacco mosaic virus, Virology, Virus diseases (plants).

**BIBLIOGRAPHY** 

#### 6074-69

#### ASSEMBLY PROTEIN OF AND NUCLEOPROTEIN PARTICLES FROM EX-TRACTED TOBACCO PROTEIN AND RNA. RATTLE VIRUS

J S Semancik D A Reynolds

Science 164(3879):559-560

02 May 1969 470 SC12

Extracts, Nucleoproteins, Proteins, Rattle disease, Ribonucleic acid, Tobacco, Virology, Virus discases (plants).

#### 6075-69

ZINC DEFICIENCY MAY LIMIT MAIZE YIELDS.

D Sharma K S Sandhu O P. Singh

Com Hort Floristry 5(3):10-11

Jan 1969 S19.P7

Chemical control (plant diseases), Corn, Crop yields, Deficiency diseases, Micronutrients, Plant nutrition, Fertilizers, Zine, Zine sulphate.

## 6076-69

## A NOTE ON THE NON-TRANSMISSION OF CENTROSEMA MOSAIC VIRUS THROUGH SEED.

D E Shaw

Papua New Guinea Agr J 19(4):151 Mar 1968 23 N453

Legumes, Mosaie, Plant disease transmission, Seeds, Virus diseases (plants).

No symptoms of centrosema mosaic virus disease were recorded on 1,252 plants of Centrosema pubeseens raised from seed derived from infected plants in three tests carried out in Papua.

## 6077-69

## ELECTRON MICROSCOPIC STUDIES OF RICE VIRUSES.

E Shikata

Baltimore, John Hopkins Press. 223-240 REF 1969 NB633.C2

Black-streaked dwarf, Electron microscopy, Insect vectors, Laodelphax striatellus, Nephotettix eineticeps, Rice, Virus diseases (plants).

## 6078-69

AUS-BARLEY DISEASES IN WESTERN TRALIA.

W A Shipton W R Tweedie West Aust J Agr 9(12):573-577

Dec 1968 23 W52J

Barley, Chemical control (plant diseases), Crop losses, Crop rotation, Cultural control (plant dis-cases), Fungus diseases (plants), Mercury compounds, Plant disease resistance, Seed-borne plant discases, Virus discases (plants). Eleven diseases of barley and their control measures are described.

## 6079-69

## TESTS ON THE BEHAVIOR OF X AND Y VIRUSES OF SOME RIETIES OF POTATOES, **IMPORTANT IN BRAZIL. (POR )** K Silberschmidt P Mallozzi

Biologico 33(7):144-150

Jul 1967 442.8 B529

Crop varieties, Potatoes, Virus diseases (plants), Virus X, Virus Y.

#### 6080-69

## CONSIDERATIONS ON THE RESISTANCE OF VARIETIES OF TOMATOES TO FUSARIUM WILT. (POR)

A P da Silveira N T de Mendonea B P B Cruz Biologico 33(2):35-37

Fcb 1967 442.8 B529

Crop varieties, Fungus diseases (plants), Fusarium, Plant breeding, Plant disease resistance, Tomatocs, Wilt.

46

6081-69

**REACTION OF NITROSOGUANIDINE (N-**METHYL-N'-NITRO-N-NITROSOGUANIDINE) WITH TOBACCO MOSAIC VIRUS AND ITS RNA.

B Singer H Fraenkel-Conrat J Greenberg A M Michelson

Science 160(3833):1235-1237

14 Jun 1968 470 SCI2

Chemical control (plant diseases), Drug therapy, Mosaic, Nitrosoguanidine, Plant biochemistry, Plant genetics, RNA viruses, Tobacco mosaic virus, Virus diseases (plants).

## 6082-69

STUDIES ON AECIAL DEVELOPMENT IN **RUST FUNGI: PUCCINIA POLLINIAE. B** V Singh

Can J Bot 47(5):741-744

May 1969 470 C16C

Fungus cultures, Fungus diseases (plants), Goldfussia dalhousiana, Puccinia polliniac.

#### 6083-69

Xylem.

6084-69

SUGARCANE.

Cur Sci 36(4):107

20 Feb 1967 475 SC123

G R Singh

6085-69

K G Singh

(plants).

6086-69

R P Singh

6087-69

G Sitta

ticides.

6088-69

1969 NB633.C2

NITROGENOUS COMPOUNDS IN THE XYLEM SAP OF AMERICAN ELMS WITH DUTCH ELM DISEASE.

Fungus diseases (plants), Immunization, Ninhydrin

reaction, Nitrogen compounds, Plant disease re-sistance, Plant diseases, Sap, Ulmus americana,

INHERITANCE OF MOSAIC RESISTANCE IN

Inheritance, Mosaic, Plant disease resistance, Plant

PENYAKIT MERAH DISEASE, A VIRUS IN-

Chemical control (insects), Chlorinated hydrocar-

bons, Nephotettix impicticeps, Penyakit merah,

Plant disease transmission, Rice, Virus diseases

NATURAL INFECTION OF FENUGREEK BY

Legumes, Trigonella foenum-graceum, Vegetables,

**PROTECTION OF VINEYARDS FROM PLANT** 

Acaricides, Crop varieties, Fungicides, Fungus dis-

cases (plants), Grape vineyards, Insect pests, Insec-

A calendar is included recommending the use of

**RETENTION AND TRANSFORMATION OF AN-**

HYDROUS AMMONIA IN SOIL AND EFFECTS

Ammonia, Foot rot, Fungus diseases (plants),

Fusarium roscum, Nitrites, Root rot, Soil fungi, Soil

Pacific Northwest Fert Conf Proc 19:100-107

genetics, Sugarcane, Virus diseases (plants).

FECTION OF RICE IN MALAYSIA.

Baltimore, John Hopkins Press. 75-78

TWO LEGUME VIRUSES.

Mar 1969 1.9 P69P

DISEASES. (IT)

Virus discases (plants).

Agr Ferrarese 71(2):25-30

**ON FOOT ROT FUSARIA.** 

16 Jul 1968 57.9 P11

various pesticides at various times.

R W Smiley R J Cook R I Papendick

hydrogen-ion concentration, Wheat.

28 Feb 1967 16 AG87

Plant Dis Rep 53(3):194-198 REF

D Singh E B Smalley Can J Bot 47(7):1061-1065 Jul 1969 470 C16C

## Amino acids, Ceratocystis ulmi, Dicback (ulmus),

## **CROP PROTECTION**

6112-69

## 6089-69

TOMATO LEAF MOULD: ITS ASSESSMENT AND EFFECTS ON YIELD.

P M Smith F T Last R J Kempton J H Gisborne Ann Appl Biol 63(1):19-26 REF

Feb 1969 442.8 AN72

Captan, Chemical control (plant diseases), Chlorinated hydrocarbons, Cladosporium fulvum, Crop yields, Dichlorofluoromethylthio)-N,Ndimethyl-N'-phenyl- f, Leaf mold discase, Thiocar-bamates, Tomatoes, Zincb.

#### 6090-69

HEAT SENSITIZATION FOR CONTROL OF GREY MOLD OF STRAWBERRY FRUITS BY GAMMA IRRADIATION.

N F Sommer P M Buckley R J Fortlage D A Coon E C Maxie

Radiat Bot 8(6):441-448 REF

Dec 1968 450 R11

Botrytis cinerea, Fungus diseases (plants), Gamma rays, Gray mold, Heat treatment, Irradiation, Strawberries. French and German summaries.

#### 6091-69

## SUSCEPTIBILITY OF WATERMELON CUL-TIVARS TO WATERMELON MOSAIC VIRUS-2. G Sowell J W Demski

Plant Dis Rep 53(3):208-209 Mar 1969 1.9 P69P

Melons, Mosaic, Plant disease resistance, Virus diseases (plants), Watermelons.

6092-69

RELATIONSHIP OF PEA MOSAIC VIRUS WITH ITS VECTOR APHIS CRACCIVORA косн..

T N Sreenivasan T K Nariani

37(6):476-482

Dec 1967

Aphis craccivora, Insect vectors, Mosaie, Peas, Plant disease transmission, Virus diseases (plants).

## 6093-69

SCREENING RICE VARIETIES FOR RE-SISTANCE TO BACTERIAL BLIGHT.

D N Srivastava Y P Rao J C Durgapal J K Jindal W Singh

Indian Farming 17(3):25,27-28

Jun 1967 22 IN283

Bacterial blight, Bacterial diseases (plants), Crop varieties, Plant disease resistance, Ricc, Xanthomonas oryzae.

One hundred twenty-eight rice varieties were infected with Xanthomonas oryzae, the bacterium causing wilt, and then rated as to their susceptibility on the basis of the condition of the plants after by on the existing of the control of the particular several weeks, twenty-four varieties were found to be resistant or moderately resistant to infection, 75 were highly susceptible, and others were intermediate in response.

#### 6094-69

PLANT PROTECTION. BULLETIN OF THE PLANT PROTECTION STATION OF GENEVA. (FR)

Rev Horticole Suisse 41(5):130-132

May 1968 80 R3212

Fruit culture, Fungicides, Horticulture, Insecti-cides, Ornamental plants, Plant diseases, Plant protection.

## 6095-69

## EFFECTS OF GROWTH REGULATORS ON EAR DENSITY MUTANTS IN BARLEY. V Stoy Hagberg

Hereditas 58(3):359-384 REF 30 Dec 1967 442.8 H42

Barley, Gibberellic acid, Plant genetics, Plant mutation, Plant physiology, Plant regulators. English abstract

## 6096-69

INVESTIGATIONS ON YELLOW RUST IN WHEAT AND BARLEY, 1962-1965. (DU ) **R W Stubbs** 

Stichting Ned Graan-cent Tech Ber 17:69-83 Dec 1967 59.9 ST52TB

Barley, Crop varieties, Crop yields, Fungus diseases (plants), Puccinia striiformis, Stripc rust, Tables (data), Testing, Wheat.

#### 6097-69

TRANSITORY YELLOWING OF RICE IN TAIWAN.

H J Su

Baltimore, John Hopkins Press. 13-21 REF 1969 NB633.C2

Carbamates, Carbaryl, Chemical control (insccts), Nephotettix apicalis, Nephotettix cincticers, Rice, Soils, Virus diseases (plants), Yellows.

## 6098-69

PYRICULARIA ORYZAE.

## C V Subramanian

Commonwealth Mycol Inst Cmi Desc Path Fungi Bact 17(161-170):169

1968 462.7 C73

Air-borne plant discases, Chemical control (plant diseases), Fungus diseases (plants), Grasses, Piricularia oryzae, Plant geography, Rice.

Description of a fungal pathogen of rice and other Graminac, its geographical distribution and ctiology.

## 6099-69

**RECENT TRENDS IN DISEASE CONTROL IN** COFFEE.

S Subramanian

Indian Coffee Monthly Bull 32(12):365-368 Dcc 1968 68.29 IN23M

Chemical control (plant diseases), Coffee, Foliar application, Immunization, Manganese, Microorganisms, Plant breeding, Plant nutritional deficiencies, Plant protection, Zinc.

## 6100-69

## **ERGOT DISEASE OF BAJRA--ITS SYMPTOMS** AND CONTROL.

N V Sundaram

Indian Farming 17(9):56-58 Dec 1967 22 IN283

Copper oxychloride, Fungicides, Fungus diseases (plants), Human discases, Pearlmillet, Poisoning, Toxins, Zincb, Ziram.

Ergot disease of pearlmillet is discussed and control with Ziram or copper oxychloride and Zineb is suggested. Diagnosis of ergot poisoning is described in man and cattle

#### 6101-69

SEPTORIA SPOT ON GRAPE FRUIT IN SOUTHERN CALIFORNIA.

Sunkist Pest Contr Circ (373):1

Dec 1968 423.9 C12E

Bordcaux mixture, Chemical control (plant dis-cases), Citrus, Fungicides, Fungus diseases (plants), Grapefruit, Plant injuries, Plant protection, Septoria.

#### 6102-69

## PURIFICATION, BIOA SSY, PROPERTIES, AND SEROLOGY OF RICE VIRUSES.

N Suzuki I Kimura Baltimore, John Hopkins Press. 207-221 REF

1969 NB633.C2

Biological assay, Cicadellidae, Ribonucleie acid, Rice, Scrological tests, Virus diseases (plants).

6103-69

STUDIES ON RESISTANCE TO YELLOW MOSAIC IN BARLEY. II. COMPARISON OF VARIETAL REACTIONS TO THE VIRUSES OF DIFFERENT SOURCES BETWEEN DISEASE AND REI SYMPTOM RELATION AND DAMAGE. (JA)

R Takahasi T Inouye G Hayasi I Moriya T Hirao **K** Mitsuhata

Nogaku Kenkyu 52(2):65-78

Jun 1968 22.5 N684

Barley, Plant disease resistance, Plant injuries, Symptomatology, Virus discases (plants), Yellow mosaic.

47

## 6104-69

INFLUENCE OF PRE- AND POST-HARVEST TREATMENTS ON BITTER PIT OF GRANNY SMITH APPLES IN THE GOULBURN VALLEY. B K Taylor B van den Ende

Australian J Exp Agr Anim Husb 8(31):244-251 REF

Apr 1968 23 AU792

Apples, Bitter pit, Boron, Calcium, Harvesting, Plant discases, Spraying.

#### 6105-69

INFECTION, RECOVERY FROM INFECTION AND RESISTANCE OF APRICOT TREES TO VERTICILLIUM ALBO-ATRUM. J B Taylor Nt Flentje

New Zeal J Bot 6(4):417-426 REF

Dcc 1968 450 N48

Apricots, Fungus diseases (plants), Plant disease resistance, Trees, Verticillium albo-atrum.

lium tricorpus.

6107-69

6108-69

AND CONTROL.

H H Thornberry

1966 241 W41

6109-69

**B** D Thyr

6110-69

T H Toan

6111-69

6112-69

**D** Trifonov

K Toriyama

1969 NB633.C2

1969 NB633.C2

Plant Dis Rep 53(3):234-237

Mar 1969 1.9 P69P

sistance, Tomatoes.

FLUCTUATIONS IN NATURAL SOIL POPULA-TIONS OF VERTICILLIUM TRICORPUS.

Fungus cultures, Microbiology, Soil fungi, Verticil-

SOME ASPECTS OF FUSARIUM INFECTION OF WHEAT SEEDS. (DU )

Fungus discases (plants), Fusarium, Fusarium nivale, Root rot, Seeds, Septoria nodorum, Statist i-cal analysis, Testing, Wheat. English summary.

THE RELATIONSHIP OF JOHNSON GRASS AND OTHER PERENNIAL HOSTS OF MAIZE DWARF MOSAIC VIRUS TO DISEASE SPREAD

Aphididac, Chemical control (plant discases), Dwarf mosaic, Insect vectors, Mosaic, Perennial

plants, Sorghum halepense, Tripsicum daetyloides, Virus diseases (plants).

ADDITIONAL SOURCES OF RESISTANCE TO

BACTERIAL CANKER OF TOMATO (CORYNEBACTERIUM MICHIGANENSE).

Bacterial canker, Bacterial diseases (plants), Corynebacterium michiganense, Plant discase rc-

SOME RICE DISEASES SUSPECTED TO BE OF VIRUS ORIGIN IN SOUTH VIET NAM.

Bushy stunt, Cicadellidac, Plant disease transmis-

GENETICS OF AND BREEDING FOR RE-SISTANCE TO RICE VIRUS DISEASES.

Hoja blanca, Plant breeding, Plant disease re-sistance, Plant genetics, Rice, Stripe, Tungro, Virus

INVESTIGATIONS ON CERTAIN VIRUS DIS-

EASES ON PEAR TREE IN BULGARIA. (BU)

Baltimore, John Hopkins Press. 313-334 REF

Baltimore, John Hopkins Press. 87-89

sion, Rice, Stunt, Virus diseases (plants).

diseases (plants), Yellow dwarf.

Horticult Viticult Sci 5(2):23-35 REF

Weed Soc Amer Abstr 1966 MEETING:7

Stichting Ned Graan-cent Tech Ber 17:35-42

J B Taylor

Can J Bot 47(5):737-740 REF May 1969 470 C16C

J de Tempe I T Limonard

Dec 1967 59.9 ST52TB

## 6113-69

## 1968 87 G75

Mottle, Pears, Research, Ring mosaie, Virus discases (plants), Yellows. English and Russian summaries.

#### 6113-69

STUDIES STUDIES ON THE RESISTANCE TO ANTHRACNOSE DISEASE, (GLOEOSPORIUM AMPELOPHAGUM) OF GRAPE VARIETIES IN NORTHERN INDIA.

S N Tripathi A M Bartaria Allahabad Farmer 42(5):275-278

Sep 1968 22 AL5

Anthracnose, Crop varieties, Fungus diseases (plants), Grapes, Plant disease resistance.

## 6114-69

FUSARIUM BLIGHT MERION AND BLUEGRASS. J Troll

Usga Green Sect Rec 7(1):7-9

Jan 1969 60.18 UN33 Blight, Fungus diseases (plants), Fusarium roseum, Poa, Turf.

#### 6115-69

## SAPROPHYTIC DEVELOPMENT OF THE FLAX RUST MELAMPSORA LINI, RACE NO. 3. F L M Turel

Can J Bot 47(5):821-823

May 1969 470 C16C

Fungus cultures, Melampsora lini, Plant biochemistry.

#### 6116-69

TRANSFER OF CORIANDRUM SATIVUM L. INFLORESCENCE BLIGHT THROUGH SEEDS AND THE INFLUENCE OF SEED TREATMENT **UPON THIS DISEASE. (POL )** 

B Tyborska K Zaleski A Stelmaszyk Poznan Inst Przemysłu Zielarskiego Biuł 13(4):228-239 REF

1967 451 P87

Bacterial diseases (plants), Blight, Coriandrum sativum, Epidemiology, Plant disease transmission, Seed treatment, Seeds. English and Russian summaries.

#### 6117-69

FOREST DISEASE CONTROL IN CALIFOR-NIA; JULY 1, 1966 TO JUNE 30, 1967. ASB761.A3. 13 P. MAP

Sep 1967

Arceuthobium, Blister rust (pinus), Forests, Fun-gus diseases (plants), Pest control, Plant protec-tion, Time, Tree diseases.

#### 6118-69

STUDIES ON BOTRYTIS CINEREA IN TO-MATOES. EFFECT OF SOIL NITROGEN LEVEL AND OF METHODS OF DELEAFING UPON THE OCCURRENCE OF B. CINEREA UNDER COMMERCIAL CONDITIONS. K Verhoeff

Neth J Plant Pathol 74(6):184-192

1968 464.8 T44

Fungus diseases (plants), Botrytis cincrea, Nitrogen, Plant nutrition, Plant regulators, Soils, Tomatoes. Dutch summary.

#### 6119-69

## A RAPID COLORIMETRIC METHOD FOR THE DETERMINATION OF TOBACCO MOSAIC VIRUS CONCENTRATION IN PLANT SAPS.

H N Verma G S Verma

Experientia 24(9):972-973

15 Sep 1968 475 EX7

Colorimetry, Methodology, Sap, Tobacco mosaic virus, Virus diseases (plants).

#### 6120-69

## **RESULTS OF TESTS OF FALL COLZA VARIE-**TIES 1963-1966. (FR)

F Vogel Switzerland Stat Essais Agr Lausanne Publ (788):7P May 1967 105.5 SW63

**BIBLIOGRAPHY** 

Colza, Oils, Plant diseases, Plant hardiness, Soil properties, Tables (data), Weather. Extract from Romand Agriculture, (ser a) 6(5):64-70, 1967.

**RUBBERY WOOD DISEASE BECOMES MORE** EXTENSIVE. (GE) **G** Vukovits Pflanzenarzt 20(6):62-63

01 Jun 1967 464.9 P482

Apples, Crop varieties, Plant disease transmission, Rubbery wood, Symptomatology, Virus diseases (plants).

#### 6122-69

CONCLUDING REMARKS ON THE VIRUS DIS-EASES OF THE RICE PLANT.

## J C Walker

Baltimore, John Hopkins Press. 337-338 1969 NB633.C2

Chemical control (plant diseases), Insect vectors, Plant disease resistance, Rice, Virus diseases (plants).

#### 6123-69

**IRON CHLOROSIS IN RELATION TO IRRIGA-**TION PRACTICES.

E F Wallihan G E Goodall T W Embleton Calif Avocado Soc Yearbook 52:120-124 1968 81 C128 Avocados, California, Chelation, Chlorosis, Cultural control (plant diseases), Iron, Irrigation, Plant

nutrition, Plant nutritional deficiencies. 6124-69

## **IDENTIFYING MANGANESE DEFICIENCY IN**

AVOCADO TREES.

E F Wallihan M P Miller Calif Avocado Soc Yearbook 52:135-136 1968 81 C128

Avocados, Chlorosis, Manganese, Manganese sulfate, Plant nutritional deficiencies, Zinc.

## VIRUS DISEASE S OF RICE IN THAILAND. L Wathanakul P Weerapat

Baltimore, John Hopkins Press. 79-85 REF

1969 NB633.C2

Leaf rust, Plant disease transmission, Rice, Virus diseases (plants), Yellow dwarf.

#### 6126-69

## LEAFSPOT OF GARDENIA.

C Wehlburg

Fla Dep Agr Div Plant Indus Tri-ology Tech Rep 7(6):13

Jun 1968 423.9 F6622

Bacterial diseases (plants), Chemical control (plant diseases), Gardenia, Leafspot, Strepto-mycin, Symptomatology, Weather.

#### 6127-69

FUSARIUM FOOT-AND-STEM DISEASE OF THE CARNATION. (GE)

J Weindlmayr

Pflanzenarzt 20(6):63-64 01 Jun 1967 464.9 P482

Captan, Copper sulfate, Dianthus caryophyllus, Fungicides, Fungus diseases (plants), Fusarium avenaceum, Fusarium eulmorum, Fusarium roseum, Plant injuries, Soil fumigation, Symptomatology.

## 6128-69

THE SUSCEPTIBILITY OF CEREALS AND WILD OATS TO AN ISOLATE OF THE ASTER YELLOWS PATHOGEN. P H Westdal H P Riehardson Can J Bot 47(5):755-760 REF May 1969 470 C16C Grain, Aster yellows, Microorganisms,

Mycoplasma, Oats.

48

## 6129-69

## NEW DISEASE IN EUROPEAN PLUMS.

A White

Victorian Hort Dig 13(1,FEB/APR):12 1969 80 V662

Chemieal control (plant diseases), Fungus diseases (plants), Lime, Plums, Selerotinia laxa, Spraying, Sulfur.

## 6130-69

SELECTING AND BREEDING COCONUT PALMS (COCOS NUCIFERA L.) RESISTANT TO LETHAL YELLOWING DISEASE. A REVIE W OF RECENT WORK IN JAMAICA. **R** A Whitehead

Euphytica 17(1):81-101 MAP REF

Apr 1968 450 EU6

Coeonuts, Lethal yellowing, Plant breeding, Plant disease resistance, Plant diseases, Plant geneties, Seedlings.

#### 6131-69

AN OBSERVATION ON THE INFLUENCE OF NITROG EN FERTILIZATION ON THE AT-TACK OF PEAS BY POWDERY MILDEW (ERYSIPHE POLYGONI DC).

T Wijngaarden J Ellen

Plant Soil 30(1):143-144

Feb 1969 450 P696

Aug 1968 23 N4892

**ROTS IN EUROPE. (GE )** 

May 1968 80 G1948

Deut Gartenbau 15(5):131-134 REF

transmission, Virus diseases (plants).

COMBATING BACTERIAL AND PLANT DISEASES WITH

ACHLOROPHENE(2,2'-METHYLENE

Us Patent Office Offic Gaz 858(1):278

Fungus

Methylenebis(3,4,6-trichlorophenol),

(3,4,6-TRICHLOROPHENOL).

07 Jan 1969 156.65 OF2

Patents, Plant diseases.

CATION AND CONTROL.

May 1968 275.29 N272EX

D S Wysong J L Weihing

May 1968 275.29 N272EX

Nebr Univ Ext Ec (69-1849):2P

Nebr Univ Ext Ec (69-1848):2P

D S Wysong J L Weihing

Erysiphe polygoni, Fertilizers, Fungus diseases (plants), Nitrogen compounds, Peas, Plant protection, Powdery mildew.

#### 6132-69

STUDIES ON THE TRANSMISSION OF PEA LEAF ROLL VIRUS BY MYZUS PERSICAE (SULZ.).

Aphididae, Inseet vectors, Leaf roll, Myzus per-

sieae, Peas, Virus diseases (plants). English ab-

VIRUS DISEASES OF CELERIAC AND CAR-

Aster yellows, Carrots, Celeriae, Crop yields, In-

sect vectors, Mosaie, Motley dwarf, Plant disease

CUCURBIT DISEASES, AN AID TO IDENTIFI-

Bacterial diseases (plants), Chemieal eontrol (plant diseases), Cueurbits, Fungus diseases (plants), Plant diseases. Ten different diseases are

VEGETABLE DISEASES, II. AN AID TO IDENTIFICATION AND CONTROL.

Baeterial diseases (plants), Chemieal eontrol

(plant diseases), Cultural control (plant diseases),

Fungus diseases (plants), Vegetables, Virus dis-

The following vegetable diseases are diseussed:

Stem anthraenose, mosaie, baeterial spot, downy

mildew, lettuce drop, fusarium wilt, white leaf spot,

diseases

FUNGAL

PATENT

(plants),

2,2'-,

HEX-

BIS-

J Wilson New Zeal J Agr Res 11(3):607-614

stract

6133-69

P Wolf

6134-69

3,420,936.

Wright

Bacteria.

6135-69

described.

cases (plants).

rust, and seab.

6136-69

6160-69

#### 6137-69

EFFECT OF VIRUS ON THE RICE PLANT. S Yasuo

Baltimore, John Hopkins Press. 167-177 REF 1969 NB633.C2

Fertilizers, Leaf roll, Necrosis, Rice, Virus diseases (plants).

## 6138-69

DISEASE CONTROL. H C Young R V Sturgcon J M Vargas R E

McCoy

Oklahoma State University, Turfgrass Research. (PT 2):1-20

Dec 1965 60.19 OK4

Agrostis, Algac, Brown patch, Chemical control (plant diseases), Cynodon dactylon, Dollar spot, Fungicides, Fungus diseases (plants), Grasses, Spring dead spot.

## 6139-69

## RARE SYMPTOMS ON CHRYSANTHEMUM MORIFOLIUM INFECTED WITH PUCCINIA HORIANA.

J C Zadoks A Kodde Neth J Plant Pathol 74(6):232-233

1968 464.8 T44

Chrysanthemum morifolium, Fungus diseases (plants), Parasitism, Puccinia horiana. Dutch summary.

6140-69

RHYTIDIELLA MORIFORMIS N. GEN., SP. CAUSING ROUGH-BARK OF POPULUS BAL-SAMIFERA. H Zalasky

Can J Bot 46(11):1383-1387 Nov 1968 470 C16C

Culture media, Fungus diseases (plants), Populus balsamifera, Research, Rhytidiella moriformis, Rough bark.

## 6141-69

SARCOTROCHILA ALPINA AND LOPHODERMIUM LARICINUM CAUSING LARCH NEEDLE BLIGHT IN NORTH AMER-ICA. W G Ziller

Plant Dis Rep 53(3):237-239 REF

Mar 1969 1.9 P69P

Fungus diseases (plants), Larix, Lophodermium, Needle blight, Sarcotrochila alpina.

## ARTHROPODS

## 6142-69

EXPERIMENTS TO CONTROL ACORN WEEVILS WITH SYSTEMIC INSECTICIDES. DORSEY, C K. Forest Sci 13(4):390-396 Dec 1967 99.8 F7632

Acorns, Bidrin, Chemical control (insects), Phorate, Quercus, Systemic insecticides.

#### 6143-69

FIELD STUDIES ON THE CHEMICAL CON-TROL OF THE STEM BORER CHILO PARTEL-LUS ON HYBRID SORGHUM IN INDIA. S M Ahmed W R Young

J Econ Entomol 62(2):478-482 REF 15 Apr 1969 421 J822

Benzene hexachloride, Carbaryl, Chemical control (insects), Chilo zonellus, Chlorinated hydrocarbons, Crop yields, Endrin, Insect pests, Insecticide application, Lindane, Plant injuries, Pyralidae, Sorghum, Spraying.

### 6144-69

ESTIMATED FRASER FIR MORTALITY AND BALSAM WOOLLY APHID INFESTATION TREND USING AERIAL COLOR PHOTOG-RAPHY.

R C Aldrich A T Drooz Forest Sci 13(3):300-313 MAP REF Scp 1967 99.8 F7632 Abies fraseri, Adelges piecae, Aerial photography, Forest surveys, Mortality.

## 6145-69

DAMAGE CAUSED BY ADULTS OF LEPIDOP-TERA NOCTUIDAE IN MANGO FRUITS IN 1964. (SP) N Angeles J R Requena R Rodriguez Agron Trop 17(2,APR-JUN):133-137 1967 26 AG87

Agricultural economics, Insect pests, Mangoes, Noctuidae, Plant injuries. English summary.

## 6146-69

THE WATER WEEVIL PROBLEM.

Anonymous Rice J 72(2):24

Fcb 1969 59.8 R36

CU 1707 37.6 K.

Aldrin, Chemical control (insects), Chlorinated hydrocarbons, Curculionidac, Insect pests, Insecticide resistant insects, Insecticides, Lissorhoptrus oryzophilus, Propanil, Rice. Researchers continue search for effective control of ricefield pest that will not interact with Propanil.

## 6147-69

# SCIENTISTS FIND THE CAUSE OF THE BEAN WILT DISEASE.

Anonymous J Agr 67(2):49 Feb 1969 23 V66J Beans, Cicadellidae, Insect vectors, Plant disease resistance, Plant disease transmission, Virus diseases (plants), Wilt.

## 6148-69

## DDT AND THE FARMER.

Anonymous J Agr 67(2):53 Feb 1969 23 V66J Chemical control (pests), Chlorinated hydrocarbons, DDT, Pesticides. Many crops are discussed in relation to DDT application.

## 6149-69

## RESISTANT CORN ROOTWORMS... PROBLEM ALMOST EVERYWHERE. Anonymous

Doanes Agr Rep 32(5):22F,22H

08 Feb 1969 281.8 D652 Chemical control (insects), Chrysomelidae, Corn, Cultural control (insects), Diabrotica, Insecticide application, Insecticide resistant insects, Insecticides. Many insecticides for the control of corn rootworm are listed.

#### 6150-69

CONTROL OF THE CASTOR SHOOT AND CAPSULE BORER, DICHOCROCIS PUNC-TIFERALIS GUEN. B S Bai N V Radha B V David Madras Agr J 55(11):470-473 Nov 1968 22 M262 Benzene hexachloride, Carbamates, Carbaryl, Castorbeans, Chemical control (insects), Chlorinated hydrocarbons, Dichoerocis punctiferalis, DDT, Fenthion, Imidan, Insect control, Intiferalis, DDT, Fenthion, Imidan, Insect control, In-

secticides, Malathion, Organophosphorus compounds, Parathion, Plant protection, Pyraustidae, Trichlorfon.

## 6151-69

ALFALFA HOPPER DAMAGES SMALL SOYBEAN PLANTS. J C Bailey L B Davis M L Laster Miss Farm Res 33(5):1,5 May 1969 100 M69MI Crop losses, Lodging, Plant injuries, Soybeans, Spissistilus festinus.

## 6152-69

THE BIOLOGY, ECOLOGY AND CONTROL OF VANAPA OBERTHURI POUILL. COLEOP-TERA; CURCULIONIDAE IN HOOP PINE ARAUCARIA PLANTATIONS IN NEW GUINEA. J H Barrett

49

Papua New Guinea Agr J 19(2):47-60 Scp 1967 23 N453 Araucaria cunninghami, Chemical control (insects), Curculionidae, Insect biology, Insect ecology.

## 6153-69

## DISULFOTON AS A SYSTEMIC INSECTICIDE FOR CONTROL OF ADULT WHITE-FRINGED BEETLES ON PEANUTS.

F J Bartlett J A Mitchell Z A Shaw J Econ Entomol 61(4):1126

15 Aug 1968 421 J822

Biochemistry, Chemical control (insects), Disulfoton, Dosage, Humidity, Insecticide application, Insecticides, Mortality, Peanuts, Soils.

## 6154-69

ON THE SIGNIFICANCE OF THE LYGUS SPECIES AS A PLANT PEST. (GE )  $% \left( \left( {{{\bf{F}}} \right)^2} \right)$ 

R Bech

Biol Zentralbl 86(2,MAR-APR):205-232 Apr 1967 442.8 B523

Channethamore Ca

Chrysanthemum, Crop losses, Fungi, Insect pests, Insect vectors, Lygus, Miridae, Mosaie, Plant histology, Plant injuries, Virus diseases (plants). English abstract.

#### 6155-69

THE BIOLOGICAL CONTROL OF RED SCALE AONIDIELLA AURANTII (MASK), ON CITRUS IN SOUTH AFRICA. E C G Bedford

Plant Protect Abs 4:202

Scp 1968 241.75 P69

AonidicIla aurantii, Biological control (pests), Citrus, Plant protection. Citrus Journal, no. 413, May 1968, p.17-28.

### 6156-69

INFESTATION RATE AND DAMAGE BY THE NANTUCKET PINE TIP MOTH IN SIX LOBLOLLY PINE STAND CATEGORIES. C W Berisford H M Kulman

Forest Sci 13(4):428-438 REF

Dec 1967 99.8 F7632

Habitats, Insect pests, Pinus taeda, Plant geography, Tree injuries.

## 6157-69

Α

## **INSECT PESTS OF PULSE CROPS.**

O S Bindra

Indian Farming 17(11):12-14,56

Fcb 1968 22 IN283 Benzene hexaehloride, Chemical control (insects), Chlorinated hydrocarbons, Crop losses, DDT, In-

scet pests, Insecticides, Legumes.

#### 0158-09

ALFALFA INSECTS IN OHIO.

T V Bourke L Campbell-Smith

dosulfan, Flaxsced, Heliothis.

Agr Gaz New S Wales 78(PT 9):543-546

B D Blair H D Nicmczyk

Ohio State Univ Ext Leafl (130):8P MAP Jan 1969 275.29 OH32EL

Alfalfa, Chemical control (insects), Curculionidae, Empoasea fabae, Hypera postica, Insect pests, Insecticides, Larvieides, Plant injuries, Weather. Several pesticides are recommended.

INSECTICIDE CONTROL OF HELIOTHIS

Carbaryl, Chemical control (insects), DDT, En-

FACTORS AFFECTING THE APPEARANCE OF

Armillaria mellea, Chemical control (insects),

Dicback, DDT, Insect vectors, Oxydemetonmethyl,

Plant discases, Quereus ilex, Spraying.

HOLLY OAKS IN SOUTHERN CALIFORNIA.

WALLENGR. II. LINSEED

#### 6159-69

6160-69

**PUNCTIGERA** 

Scp 1967 23 N472

L R Brown C O Eads J Econ Entomol 62(1):114-117 17 Fcb 1969 421 J822

CROP, 1961.

6161-69

## 6161-69 STUDIES ON THE STRAWBERRY MITE (TETRANYCHUS TELARIUS (L). (POR ) R Calza N S Filho Biologico 33(7):137-143 Jul 1967 442 8 B529 Carbophenothion, Chemical control (insects),

Dichlorvos, Dimethoate, Ethion, Insecticide residues, Insecticides, Mevinphos, Mites, Organophosphorus Tetranychus telarius. compounds, Strawberries,

## 6162-69

## CONTROL OF SOME PESTS OF EVER-GREENS.

**R L Campbell** 

31:27-31

Sep 1968

Adelges cooleyi, Aphididae, Carbamates, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, Cinara strobi, Diaspididac, Dimethoate, Eriophycs thujae, Ethion, Formulations, Fuel oil, Insect pests, Insecticides, Malathion, Mites, Or-Phenaeaspis ganophosphorus compounds, ganophosphorus compounds, Phenacaspis pinifoliae, Phylloxeridae, Picea abies, Pinus sylvestris, Plant protection, Pseudococcidae, Pseudotsuga menziesii, Taxus, Thuja.

## 6163-69

## ESTABLISHMENT OF APHELINUS MALI (HALDEMAN) AT SHILLONG, ASSAM.

M J Chacko

Cur Sci 36(11):298-299

05 Jun 1967 475 SCI23

Aphelinus mali, Biological control (insects), Eriosoma lanigerum.

Biological control of the woolly aphid, a serious pest of apples in India, was successful with the introduction of Aphelinus mali, a hymenopterous parasite.

## 6164-69

## IMPROVEMENT OF THE AGRICULTURAL WARNING (DEVICE) AGAINST THE CEREAL GALL MOTH (CNEPHASIA PUMICANA ZELL., LEP. TORTRICIDAE). (FR )

J P Chambon Rev Zool Agr Appl 67(7-9, 3RD TRIMESTER):95-102

1968 410.9 SO12

Insect behavior, Insect control, Insect outbreak forecasting, Insect traps, Insecticide application, Tortricidae.

## 6165-69

### **INSECT-PESTS ATTACKING SUGAR CANE AT** AGRA.

**B S Chandel R L Yadava** Balwant Vidyapeeth J Agr Sci Res 6(1/2, JUN-

DEC):92-94 1964 22 B212

Insect pests, Sugarcane. Twenty insect pests of sugarcane are listed.

## 6166-69

## BAITS FOR THE CONTROL OF LEAF-**CUTTING ANTS. I. FORMULATION.** J M Cherrett

Trop Agr &st Augustine& 46(2):81-90 REF Apr 1969 26 T754

Atta texana, Attractants, Baits, Chemical control (insects), Oils.

The advantages of baits for the control of leafcutting ants, over previous methods of nest destruction are stressed, particulaly in the context of largescale cradication campaigns. Two important formulation problems centre around the possible use of an oil in which the intoxicant is dissolved, and the selection of a suitably attractive base. Thirty vegetable oils were screened for attractiveness to Atta ecphalotes and Aeromyrmex octospinosus. Both field and laboratory studies on the attractiveness of oils and on their subsequent ingestion suggest that A. cephalotes, and A. octospinosus, differ in their preferences from Atta texana.

## BIBLIOGRAPHY

## 6167-69

## LEAFHOPPER TRANSMISSION OF TRANSI-TORY YELLOWING OF RICE. R J Chiu J H Jean

Baltimore, John Hopkins Press. 131-137 REF 1969 NB633.C2

Insect vectors, Nephotettix, Plant disease transmis-sion, Rice, Yellows.

6168-69

## STUDIES ON A BIOLOGICAL AND A CHEMI-CAL METHOD OF CONTROLLING THE DARK RICE FIELD MOSQUITO IN LOUISIANA. (AB-STRACTS). B R Craven C D Steelman Rice J 71(13):25

Dec 1968 59.8 R36

Abate, Biological control (insects), Carbamates, Chemical control (insects), Culicidae, Fenthion, Gambusia affinis, Insecticides, Larvae, Propanil, Psorophora confinnis, Rice, Urea compounds. Ab-stract furnished by David F. Houston, 223 Behrens St., El Cerrito, Calif.

## 6169-69

## GUIDE LINES FOR THE TESTING OF MATERIALS ON CARROT FLIES ON CAR-ROTS. (GE)

G Cruger C Bauers H-F Lichte E Mosebach J Schmidt

Berlin Biol Bundesanst Land-forstwirtsch Mitt (3):1-7

1968 410.9 G31M

Carrots, Chemical control (insects), Diptera, Insecticides, Methodology, Psila rosae, Psilidae.

6170-69

## ALTERNATE HOSTS OF THE GREENBUG.

N E Daniels

J Econ Entomol 62(2):521 15 Apr 1969 421 J822

Insect pests, Insect populations, Schizaphis graminum, Sorghum, Wheat.

#### 6171-69

## CHEMICAL CONTROL OF THE TEA TORTRIX (HOMONA COFFEARIA NIETNER). W Danthanarayana D J W Ranaweera

Ceylon Tea Res Inst Tea Quart 39(3):50-60 Sep 1968 68.18 C33

Braconidae, Chemical control (insects), Chlorinated hydrocarbons, DDT, Insect control, Insecticides, Tortricidae, Trichlorfon

Of nineteen insecticides evaluated, the best control of the Tea Tortrix Caterpillar (Homona coffearia Nietner) was provided by DDT which at the rate of four to six pints (18-15 per cent EC) per acre gave satisfactory tortrix control for a period of more than two months. There was no difference in the degree of control obtained with either low-volume or high-volume applications of DDT. No adverse effects on the population of the tortrix parasite Macrocentrus homonae were evident.

## 6172-69

## TWIG AND BRANCH MORTALITY OF AMER-ICAN BEECH INFESTED OYSTERSHELL SCALE. WITH

R C DeGroot Forest Sci 13(4):448-455 MAP REF Dec 1967 99.8 F7632

Fagus grandifolia, Insect pests, Lepidosaphes ulmi,

Zoogeography.

6173-69

## EFFECTS OF THE WINTER MOTH ON GROWTH AND MORTALITY OF RED OAK IN NOVA SCOTIA. D G Embree

Forest Sci 13(3):295-299

Scp 1967 99.8 F7632

# Defoliation, Mortality, Operophtera brumata, Plant injuries, Quereus rubra.

6174-69

HYLEMYIA CILICRURA ROND. ON THE DI-ANTHUS CULTURES OF PESCIA AND VER-SILIA. (IT)

50

G A Fenili

Redia (SER 2)50:151-162 1967 421 R241

Aldrin, Anthomyiidac, Chemical control (insects), Dianthus, Dicldrin, DDT, Insect biology, Insect eggs, Larvac, Muscidac, Parathion, Pupac, Soil treatment, Spraying. English summary.

#### 6175-69

STUDY OF THE CONTROL OF ANTONINA GRAMINIS (MASKELL)--CURSE OF HAY (DIGITARIA PENTZII) WITH GRANULAR SYSTEMIC INSECTICIDES. (POR ) N S Filho P Nutti R Calza

Biologico 35(1):22-24

Jan 1969 442.8 B529

Antonina graminis, Digitaria, Disulfoton, Formula-tions, Hay, Organophosphorus compounds, Phorate.

## 6176-69

**ISOLATION OF THE ORGANISM CAUSING** YEAST-SPOT DISEASE FROM THE SALIVARY SYSTEM OF THE GREEN STINK BUG.

J E Foster D M Daugherty

J Econ Entomol 62(2):424-427

15 Apr 1969 421 J822

Acrosternum hilare, Fungus diseases (plants), Insect physiology, Insect vectors, Nematospora coryli, Plant disease transmission, Salivary glands (insects), Soybeans, Yeast spot.

6177-69

STUDIES ON THE ATTACK BEHAVIOR OF THE SOUTHERN PINE BEETLE. III. SEQUENCE OF TREE INFESTATION WITHIN STANDS.

R 1 Gara J E Coster

Boyce Thompson Inst Contrib 24(4, JUL-SEP):77-85 REF

Scp 1968 451 B69

Dendroctonus frontalis, Insect behavior, Insect outbreaks, Ips, Pinus taeda.

6178-69

NOTES ON GALL-MIDGES FROM ISRAEL AND THEIR PARASITES.

U Gerson I Harpaz

6179-69

J Giannotti

Plant diseases.

Mar 1968 24 SU3

english abstract

H Gunderson

1969 6 W55

Insecticides.

W M Hantsbarger

6182-69

6181-69

6180-69

Mar 1969 I.9 P69P

Entomol Ber 28(8):144-148 REF

EUSCELIDIUS VARIEGATUS.

Plant Dis Rep 53(3):173 REF

01 Aug 1968 420 N38B

Cecidomyiidae, Gall-making insects, behavior, Insect pests, Plant galls. Insect

TRANSMISSION OF CLOVER PHYLLODY BY A NEW LEAFHOPPER VECTOR,

Acucephalus nervosus, Cicadellidae, Clover, Euseelidius variegatus, Inseet vectors, Phyllody,

NORTHERN SPY, MERTON AND MALLING-

MERTON ROOTSTOCKS SUSCEPTIBLE TO WOOLLY APHID, ERIOSOMA LANIGERUM, IN THE WESTERN CAPE.

Aphididae, Apples, Eriosoma lanigerum, Plant dis-eases, Plant pest resistance. Afrikaans, french and

Chemical control (insects), Insecticide applicat ion,

FOR

FIELD

1969 INSECT CONTROL GUIDE F COLORADO. I. CEREAL CROPS, FIE CROPS, FORAGE CROPS, STORED GRAIN.

TESTING INSECTICIDES ON THE FARM.

J H Giliomee D K Strydom H J Van Zyl

S Afr J Agr Sci 11(1):183-186

Crops Soils 21(7, APR-MAY):18

6204-69

Colo Agr Exp Sta Gen Ser (883):26P Feb 1969 100 C71G

Accident prevention, Chemical control (insects), Forage plants, Grain, Insect pests, Insecticides, Stored products.

## 6183-69

## **1969 TREE FRUIT SPRAY GUIDE.**

W M Hantsbarger

Colo Agr Exp Sta Gen Ser (886):14P Feb 1969 100 C71G

Accident prevention, Fruit culture, Fungus diseases (plants), Insect pests, Insecticide application, Insecticides, Regulation (pesticides), Spraying.

#### 6184-69

**1969 INSECT CONTROL GUIDE FOR COLORADO. II. VEGETABLE CROPS.** W M Hantsbarger

Colo Agr Exp Sta Gen Ser (884):26P

Feb 1969 100 C71G

Chemical control (insects), Insect pests, Insecticides, Vegetables.

#### 6185-69

## CONTROL OF INSECTS ON ALFALFA AND RED CLOVER.

W. Harding J W Neal D Shriver W E Bickley Md Univ Ext Fact Sheet (149):4P

Dec 1968 275.29 M36FA

Acaricides, Alfalfa, Aphididae, Cercopidae, Chemical control (insects), Cicadellidae, Curculionidae, Empoasca fabae, Hypera postica, Hypera punctata, Insect pests, Insecticide application, Insecticides, Mites, Noetuidae, Philaenus spumarius, Red clover, Tetranychus atlanticus. Many insecticides are listed.

#### 6186-69

## **INSECT CONTROL IN COTTON.**

H M Hassan

Tabak-Zeitung (11):17-25

Dec 1968 286.9 SU2

Chemical control (insects), Cotton, Insect pests, Insecticides, Spraying. Many insecticides were recomended for the insect pests of cotton.

## 6187-69

# PORINA AND GRASSGRUBS PUT CURBS ON PRODUCTION.

G A H Helson New Zeal J Agr 115(6):25,27

Dec 1967 23 N48J

Caterpillars, DDT, Insect ecology, Lindane, Pasture management.

Crop losses due to Porina caterpillars and grass grubs is discussed. Control with DDT on pasture lands has been banned because of residue problems and the use of diazinon and lindane is suggested in its place.

#### 6188-69

## DESCRIPTION, DAMAGE AND CONTROL OF THE SOUTHWESTERN CORN BORER.

C A Henderson F M Davis Miss Farm Res 33(5):1,4-5,8 MAP

May 1969 100 M69M1

Biological control (insects), Carbamates, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, Corn, Crop losses, Cultural control (insects), Diatraea grandiosella, Diazinon, Endrin, Insect pests, Insect physiology, Insecticides, Or-ganophosphorus compounds, Tillage, Zoogcography.

## 6189-69

## THOSE HUNGRY GYPSIES (PHOTO STORY). L Hess

Amer Forests 75(3):28-31

Mar 1969 99.8 F762

Chemical control (insects), Chlorinated hydrocar-bons, DDT, Insect control, Legislation, Porthetria dispar.

A photostory illustrating the destructive nature of the gypsy moth, Porthetria dispar, and several control measures are presented.

## 6190-69

FIGS (FICUS SPP.) AND FIG-WASPS (CHALCI-DOIDEA). D S Hill

Ann Mag Natur Hist 1(3, JUL-SEP):413-434 REF Scp 1967 410 AN77

Chalcidoidea, Figs, Host relationships, Insect ecology, Pollination, Symbiosis.

6191-69

**MYCOPLASMA-LIKE BODIES IN THE SALI-**VARY GLANDS OF INSECT VECTORS CAR-RYING THE ASTER YELLOWS AGENT. H Hirumi K Maramorosch

J Virology 3(1):82-84 REF

Jan 1969 QR360.J6

Aster yellows, Glands (insects), Insect vectors, Mycoplasma, Salivary glands, Virology, Virus discases (plants).

## 6192-69

INDICATIONS ON PLANT CARE FOR OLIVE **CROP CULTIVATION. (GE)** 

O Horning

Gesunde Pflanzen 19(5):94-97

May 1967 464.8 G33

Chemical control (insects), DDT, Field crops, Insecticides, Lindane, Olives, Rape, Siphonaptera, Tillage.

## 6193-69

INSECTICIDAL FIELD TREATMENTS FOR THE CONTROL OF THE EUROPEAN CORN BORER. OSTRINIA NUBILALIS (HUBNER) IN SOUTHWESTERN QUEBEC, 1967. M Hudon

Pesticide Progr 6(2):43-45 Mar 1968 79.8 P434

Biochemistry, Carbaryl, Chemical control (insects), Corn, DDT, Field crops, Insecticides, Ostrinia nubilalis, Plant injuries, Spraying.

## 6194-69

TIMING INSECTICIDE APPLICATIONS FOR EUROPEAN CORN BORER CONTROL IN SOUTHWESTERN QUEBEC, 1967. M Hudon

Pesticide Progr 6(2):44-45

Mar 1968 79.8 P434

Chemical control (insects), Corn, DDT, Injections, Insecticide application, Insecticides, Metamorpho-sis, Ostrinia nubilalis, Population, Time.

## 6195-69

CHEMICAL CONTROL OF CODLING MOTH WITH DDT AND SEVIN, THE RESISTANCE PROBLEM OF CODLING MOTH TO DDT AND ADDITIONAL OBSERVATIONS ON THE EF-FECT OF FRUIT THINNING OF SEVIN. (TU) Z Iren

Bitki Koruma Bulteni 6(2):49-66 REF 1966 464.8 B542

Acaricides, Biochemistry, Carbaryl, Carpocapsa pomonella, Chemical control (insects), DDT, Fruit, Immunity, Insecticide application, Popula-tion, Research, Spraying. English summary

#### 6196-69

CONCERNING A MASS POPULATION IN-CREASE OF THE FALSE PINE WEBWORM, ACANTHOLYDA ERYTHROCEPHALA CHR. IN STEINFELD, LOWER AUSTRIA, IN THE YEARS 1964-1967. PRELIMINARY COMMUNI-CATION. (GE)

E Jahn

Anz Schadlingskunde 40(10):145-152 REF Oct 1967 421 AN9

Acantholyda crythrocephala, Chemical control (insects), Fumigants, Pinus nigra, Polyhedroses, Tree injuries. English, french and Russian summarics.

## 6197-69

RESISTANCE то BOLL WEEVIL (ANTHONOMUS GRANDIS BOH.) OVIPOSI-TION IN COTTON.

51

J N Jenkins F G Maxwell W L Parrot W T Buford

Crop Sci 9(3, MAY-JUN):369-372 May 1969 64.8 C883

Anthonomus grandis, Cotton, Oviposition, Plant nematode resistance.

## 6198-69

FIELD EXPERIMENTS WITH TRICHOGRAM-MA BRASILIENSIS FLAND. FOR THE POSSI-BLE CONTROL OF THE PINK BOLLWORM OF COTTON, PECTINOPHORA GOSSYPIELLA SAUND., IN MEXICO. (SP ) E J Jimenez

Fitofilo (58, APR-MAY-JUN): 5-9

Jun 1968 421 F55

Biological control (insects), Insect control, Pec-tinophora gossypiella, Predaceous insects, Trichogramma.

## 6199-69

SAN JOSE SCALE (QUADRASPIDIOTUS PER-NICIOSUS).

E L Jones

Agr Gaz New S Wales 78(PT 11):668-670 Nov 1967 23 N472

Aspidiotus perniciosus, Carbaryl, Chemical control (insects), Fruit, Malathion, Trees.

## 6200-69

**BLOODWORMS- PESTS OF RICE.** E L Jones

Agr Gaz New S Wales 79(8):477-478 Aug 1968 23 N472

Biochemistry, Chemical control (insects), DDT,

Indian Farming 18(7):33

ticidal plants, Instruction Tenebrionidae, Tobacco.

GROUNDNUT IN NIMAR.

Indian Farming 17(7):17

Oct 1967 22 IN283

P K Kaushal R R Deshpande

arc recommended for control.

TOBACCO FIELDS, 1969.

1969 275.29 K415M

Ky Univ Ext Misc (270-F):3P

S S Khanna K M Gupta K M Rai

Indian Sugar 18(3):247-250

Jun 1968 65.8 IN26

Insecticides, Isobenzar Scarabacidae, Sugarcane.

Oct 1968 22 IN283

Field crops, Insect pests, Insecticides, Plant injuries, Rice, Roots, Seed germination, Seedlings.

## 6201-69

6202-69

6203-69

6204-69

DAMAGING

PRADESH.

PONGAMIA CAKE CAN CONTROL TOBACCO BEETLE. B G Joshi R S N Rao

Chemical control (insects), Insect control, Insec-

Cakes made of Pongamia, an insecticidal plant,

were found to be effective in controlling tobacco

beetles and had the added advantage over dieldrin

and aldrin of leaving no harmful residues in the soil.

TERMITES NEED NO LONGER THREATEN

Aldrin, Benzene hexachloride, Chemical control

(insects), Chlordane, Chlorinated hydrocarbons, Heptachlor, Insect detection, Isoptera, Lindane, Peanuts, Plant injuries.

The nature of the injuries to peanut plants by termites is described. Chlordane and heptachlor

Chemical control (insects), Insect pests, Insecti-

cides, Soil insects, Tobacco. Many insecticides

COMPARATIVE EFFICACY AND ECONOMICS

OF VARIOUS MEASURES ADOPTED FOR ERADICATION OF WHITE GRUB BEETLE (HOLOTRICHIA SERRATA FABRICIUS)

SUGARCANE

Chemical control (insects), Chlorinated hydrocar-bons, Economics, Heptachlor, Holotrichia serrata, Insecticides, Isobenzan, Plant protection,

IN

INSECTICIDE RECOMMENDTIONS

were recommended against various insects.

Insecticides,

Pongamia,

FOR

UTTAR

6205-69

6205-69 ECOLOGY OF INSECT VECTORS, FORECAST-ING, AND CHEMICAL CONTROL. R Kisimoto

Baltimore, John Hopkins Press. 243-255 1969 NB633.C2

Black-streaked dwarf, Carbaryl, Chemical control (insects), Chlorinated hydrocarbons, Diazinon, Fenthion, Insect ecology, Insect outbreak forecasting, Insect vectors, Laodelphax striatellus, Nephotetix cincticeps, Rice, Stripe.

#### 6206-69

ALFALFA WEEVIL CONTROL, 1969.

G Knowlton D W Davis Utah State Univ Ext Ext Leafl (54):6P 1969 275.29 UTIL

Alfalfa, Biological control (insects), Carbamates, Chemical control (insects), Chlorinated hydrocarbons, Cultural control (insects), Hypera postica, Insect physiology, Insecticide application, Insecticides, Organophosphorus compounds.

The insecticides discussed are parathion, malathion, methyl parathion, methoxychlor, earbaryl, alfatox, diazinon, and guthion.

## 6207-69

## **GRASSHOPPER CONTROL 1969.**

G F Knowlton Utah State Univ Ext Ext Leafl (75):11P

1969 275.29 UTIL

Alfalfa, Carbamates, Chemical control (insects), Chlorinated hydrocarbons, Cultural control (insects), Grain, Grasshoppers, Insecticide application, Insecticides, Organophosphorus compounds, Pastures. Many insecticides for grasshopper control are discussed.

#### 6208-69

## **DRYFARM WHEAT INSECTS.**

G F Knowlton

Utah State Univ Ext Entomol Mimeo Ser (139):2 Mar 1969 275.29 UTIEN

Chemical control (insects), Insect pests, Insecticides, Wheat.

The insect pests harmful to wheat are aphids, brown wheat mite, cutworms, armyworms, grass bugs, grasshoppers, pale western cutworm, stink bug, thrips, and wireworms. Ten insecticides are also listed.

#### 6209-69

#### GYPSY MOTH (OCNERIA DISPAR) CONTROL IN THE ROADSIDE PLANTATIONS. TRANSL. 17032.

F Kokhmanyuk

4P

22 Jan 1969

Attractants, Fruit, Insect biology, Insect pests, Insect traps, Plant protection, Plantations, Porthetria dispar. Translation from Protection of Plants against Pests and Discases 10(4):30-31, 1965. translated by C. E. Nikiforoff.

## 6210-69

## IXODES RICINUS BORNE PARASITES OF CATTLE IN THE NETHERLANDS. (DU ) H Kuil

Entomol Ber 27(4):65-68

01 Apr 1967 420 N38B

Babcsia, Cattle, Eperythrozoon, Epizootie discases, Insect vectors, Ixodes rieinus, Livestoek diseases, Rickettsia. English abstract

## 6211-69

## APHYTIS MYTILASPIDIS (LE BARON), A PARASITE OF PARLATORIA BLANCHARDI (TARG) IN THE PALM PLANTATIONS OF THE ADRAR REGION OF MAURITANIA. (FR )

Y Laudeho

Fruits 23(5):271-275

May 1968 80 F9492

Aphytis, Dates, Hyperparasitism, Larvae, Palmac, Parasitism, Parlatoria blanchardii, Zoogcography.

## **BIBLIOGRAPHY**

### 6212-69

A CONTRIBUTION TO THE STUDY OF THE ZOOCECIDIA OF SNOWDONIA NATIONAL PARK AND ADJACENT PARTS OF NORTH WALES. D Leatherdale *Marcellia 343*):203-211 MAP REF Dec 1967 421 M33

Ceeidomyiidac, Rescarch, Zoogcography.

## 6213-69

## THE USE OF INSECTICIDES IN THE SWEDISH FORESTRY.

B Lekander

Opusc Entomol 33(1-2):50-51

1968 421 OP7

Chemical control (insects), Forest insects, Hylobius, Insecticides.

#### 6214-69

#### DEVELOPMENT OF RESISTANCE TO DDT BY THE APPLE MAGGOT, RHAGOLETIS POMONELLA.

D F Lconard

J Econ Entomol 54(5):880-882, 9 REFS.

Aug 1961 421 J822 Apples, DDT, Insecticide resistant insects, Maggots, Rhacoletis.

## 6215-69

## OLD PESTS WITH NEW APPETITES. A Linn

Farm Quart 24(1,SPRING):50,122,124 1969 6 F22995

Chemical control (insects), Hymenoptera, Inseet pests, Insecticides, Parasitism, Sorghum, Zoogeography. The following insecticides were used: ethyl parathion, systox, diazinon, malathion, di-syston and eygon.

#### 6216-69

# EFFECT OF RICE-PATHOGENIC VIRUSES ON THEIR INSECT VECTORS.

K Maramorosch

Baltimore, John Hopkins Press. 179-203 REF 1969 NB633.C2

Cicadellidae, Insect vectors, Rice, Stripe, Virus discases (plants).

#### 6217-69

#### THE USE OF ENTOMOPATHOGENIC MICROORGANISMS IN AGRICULTURE: AC-TUAL AND PROSPECTIVE POTENTIALITIES OFFERED BY BACILLUS THURINGIENSIS BERLINER. (FR) D. Martourct

Paris Acad Agr France Compt Rend Hebd Seances 53(2.):154-159

1967 14 P215BC

Bacillus thuringicnsis, Biological control (insects), Insect diseases, Insect pests.

## 6218-69

## A MITE TO COMBAT COCONUT CATERPIL-LAR.

K Mathen B Sathiamma C Kurian

Indian Farming 18(5):32-33

Aug 1968 22 IN283

Biological control (insects), Caterpillars, Coconuts, Mites, Nephantis scrinopa, Plant protection, Predaceous insects, Pyemotes ventricosus.

## 6219-69

## COTTON PRODUCTION: INSECTS - COM-PARATIVE ECONOMIC INSECT REPORT. J May

Arizona Agricultural Experiment Station, Tucson. SER.P-15:39-42

Feb 1969 S544.3.A6A7

Cotton, Crop yields, Insect pests, Reports. Twentythree pest of cotton are mentioned indicating geographical location and seasonal variations.

#### 6220-69

THE SOUTH AFRICAN CARNATION ROLLER MOTH EPICHORISTODES ACERBELLA (WALK.) DIAKONOFF. (GE ) K Mayer

52

Nachrichtenbl Deut Pflanzenschutzdienstes 19(1):8-9 REF Jan 1967 442.9 B832 Carbaryl, Chemical control (insects), Dianthus

carbaryl, Chemical control (insects), Dianthus caryophyllus, DDT, Insect pests.

## 6221-69

# MARYLAND ARBORISTS DISCUSS INSECT CONTROL.

C W McComb Amer Nurseryman J 129(6):12,44,46,48,50

15 Mar 1969 80 AM371

Agrilus anxius, Aphididae, Buprestidae, Cerambycidae, Chemical control (insects), Chlorinated hydrocarbons, Dieldrin, DDT, Fertilizer application, Fertilizers, Insect pests, Insecticides, Lindane, Saperda calearata, Trees.

## 6222-69

YIELD REDUCTION OF OATS CAUSED BY THE CEREAL LEAF BEETLE.

D L Mcrritt J W Apple

J Econ Entomol 62(2):298-301

15 Apr 1969 421 J822

Carbofuran, Chemical control (insects), Crop yields, Malathion, Oats, Oulema melanopus, Spraying.

#### 6223-69

## THE ORIENTAL FRUIT MOTH AND ITS CONTROL.

R L Miller H Y Forsythe

Ohio State Univ Ext Leafl (L-159):2P

Ohio State Univ Ext Leafl (L-158):2P

Chemical

Mar 1969 275.29 OH32EL

R L Miller H Y Forsythe

Mar 1969 275.29 OH32EL

**CAPSID BUGS ON FRUIT.** 

Jul 1968 10 G79LA

Azinphosmethyl, Carbaryl, Chemical control (insects), Chlorinated hydroearbons, DDT, Fruit, Grapholitha molesta, Insecticides, Organophosphorus compounds, Parathion, Peaches.

Apples, Azinphosmethyl, Carbaryl, Carpocapsa

Chlorinated hydrocarbons, DDT, Insecticides, Lar-

Great Brit M in Agr Fish Food Adv Leafl (154):5P

Azinphosmethyl, Chemical control (insects), DDT,

Fruit, Insect biology, Insect identification, Insect

pests, Lygocoris pabulinus, Plant injuries, Plesiocoris rugicollis, Spraying.

ABNORMAL RAY TISSUE IN THREE TRUE

FIRS INFESTED BY THE BALSAM WOOLLY

Abics, Adclgcs piecae, Compreg, Phytopathology,

THE PINK BOLLWORMS OF COTTON, PEC-

TINOPHORA GOSSYPIELLA SAUND., IN A PROTECTED NORTHWEST ZONE AND DIAG-

Cotton, Insect identification, Pectinophora gos-

NOSTIC CHARACTERISTICS. (SP)

VECTORS OF RICE VIRUSES IN ASIA.

Baltimore, John Hopkins Press. 93-109 REF

Insect vectors, Nephotettix, Plant disease transmis-

Fitofilo (58, APR-MAY, JUN):11-16

sion, Rice, Virus discases (plants).

control

(insccts),

## 6224-69 THE CODLING MOTH AND ITS CONTROL.

pomonclla,

vac.

6225-69

6226-69

APHID.

R G Mitchell

Trcc injurics.

E E Miyazauna

Jun 1968 421 F55

1969 NB633.C2

6227-69

sypiclla.

6228-69

S Nasu

Forest Sci 13(3):327-332

Scp 1967 99.8 F7632

## 6250-69

## 6229-69

SOME OBSERVATIONS ON THE INTERRELA-TIONS OF PLANTS AND INSECTS IN THE FOOTHILLS OF SOUTHERN TAJIKISTAN. (RU

G N Ncpli

Bot Zhur (moscow) 52(12):1791-1794 Dcc 1967 451 R923 Ecology, Insects, Plants.

#### 6230-69

## INSECT PESTS OF PALM TREES. (FR) G Nonveiller

Cameroun Agr Past Forest (110):14-39 REF Jun 1967 24 C353

Chemical control (insects), Crop losses, Cultural control (insects), Insect pests, Palmae, Plant nematodes, Rodents. Many insect pests of palm trees are described and the means for their control are discussed.

#### 6231-69

## INSECT PESTS OF BARLEY AND THEIR CONTROL.

R G Oahms

U S D A Agr Handb (338):43-44

Mar 1968 1 AG84AH

Acrididac, Aphididac, Barley, Biological control (insects), Carbamates, Cecidomyiidac, Chemical control (insects), Chlorinated hydrocarbons, Chrysomelidac, Insect pests, Insecticide application, Insecticides, Lygacidac, Noetuidac, Organophosphorus compounds.

The insect pests discussed are: greenbug, English grain aphid, chinch bug, Hessian fly, armyworm, grasshoppers and cercal leaf beetle. The insecticides discussed are: parathion malathion, demeton, methyl parathion, carbaryl and toxaphene.

## 6232-69

# CONTROLLING PEACH YELLOWS IN A PEACH BREEDING PROGRAM.

G D Oberle S A Wingard Hortscience 2(2,SUMMER):55-56 1967 SB1.H6

Chemical control (pests), Chlorinated hydrocarbons, Cicadellidae, Dieldrin, DDT, Insect vectors, Macropsis trimaculata, Peaches, Plant breeding, Plant protection, Virus diseases (plants), Yellows.

## 6233-69

# ITALIAN BEET CULTURE. THE PROTECTION AGAINST INSECT PESTS. (IT )

**R** Olimpicri

Agricoltura 17(6):72-78

Jun 1968 16 AG8226

Beets, Chemical control (insects), Coleoptera, Diptera, Hemiptera, Insect pests, Lepidoptera, Nematoeides, Plant nematodes. English and French summarics. discussion of many insect pests and nematodes.

#### 6234-69

THE PRINCIPLE INSECT PESTS OF BEETS AND THE MEANS OF THEIR CONTROL IN TURKEY. (FR)

M Ozcr

Ankara Univ Ziraat Fak Yayinlari (296):54P REF 1967 107 AN42

Bects, Benzene hexachloride, Chemical control (insects), Chlorinated hydrocarbons, Crop losses, DDT, Insect biology, Insect morphology, Insect pests, Organophosphorus compounds, Zoogcography.

Many pests belonging to the following orders are discussed: Colcoptera, Lepidoptera, Diptera, Orthoptera, Thysanoptera and Homoptera.

#### 6235-69

INSECT PESTS OF GRAIN IN THE FIELD OF TURKEY.

## M. Ozcr

Ankara Univ Fac Agr Yearbook 7:151-160 REF 1967 25 AN42

Crop losses, Cultural control (insects), Grain, Insect behavior, Insect pests, Plant protection. Many pests of grain are described.

## 6236-69

COUNTERING THE CASTOR SEMI-LOOPER. Y D Pande

Indian Farming 17(6):23,25 Scp 1967 22 1N283

Achaca janata, Benzene hexachloride, Castorbeans, Chemical control (insects), Chlorinated hydrocarbons, Cultural control (insects), DDT, Endrin, Lead arsenate.

The life cycle and control of the eastor semi-looper (Achaea janata) is discussed. Plowing of effected fields after harvest, and destruction of wild (volunteer) plants together with the application of DDT, HCH, endrin, or lead arsenate are the recommended control measures.

#### 6237-69

ESSAY ON INSECTICIDAL TREATMENTS ON THE APPLE FRUIT FLY, RHAGOLETIS POMONELLA (WALSH) IN SOUTHWEST QUEBEC. (FR) R O Paradis

Entomol Soc Quebec Ann 13(1):54-64 REF Jan 1968 420 EN822

Apples, Carbamates, Chemical control (insects), Chlorinated hydrocarbons, Dimethoate, DDT, Insecticide application, Organophosphorus compounds, Plant pest control, Rhagoletis pomonella. English abstract

## 6238-69

NAVY BEAN PESTS.

T Passlow

Queensland Agr J 94(12):762-763

Dcc 1968 23 Q33

Caterpillars, Chemical control (insects), Chlorinated hydrocarbons, DDT, Insect pests, Insecticides, Kidney beans.

#### 6239-69

DELHI FARMERS NEED NOT BE AFRAID OF MUSTARD APHID.

K M Pcswani K Kumar R Lal Indian Farming 18(7):17-19 Oct 1968 22 IN283

Benzene hexachloride, Chemical control (insects), Insect control, Insecticides, Lindane, Lipaphis erysimi, Mustard.

Three spray treatments per season with 0.1 per cent lindane were found to successfully control the mustard aphid, Lipaphis crysimi. Treated plants produced quanitatively and qualitatively increased seed yields in comparison with the controls.

#### 6240-69

A GUIDE TO THE USE OF PESTICIDES FOR THE CONTROL OF AGRICULTURAL PESTS. B K Petty J Bot N Hollings

Government Printer, Pretoria, Republic Of South Africa 66P

## Jun 1966 SB961.P4

Accident prevention, Chemical control (pests), Pesticide application, Pesticides, Plant protection. The article is a guide to the use of many pesticides.

## 6241-69

GUIDE LINES FOR THE TESTING OF MATERIALS SAN-JOSE SCALE INSECT (SJS). (GE)

## W Plilipp K Hanuss

Berlin Biol Bundesanst Land-forstwirtsch Mitt (3):1-7

## 1968 410.9 G31M

Apples, Aspidiotus perniciosus, Chemical control (insects), Diaspididae, Homoptera, Insecticides, Methodology.

#### 6242-69

INSECTS AND DISEASES OF VEGETABLES IN THE HOME GARDEN.

L B Rccd R E Wcbb U S D A Home Gard Bull (46):48P

Oct 1968 1 AG84HG

Bacterial diseases (plants), Beneficial insects, Chemical control (insects), Chemical control (plant diseases), Dusting equipment, Fungieides, Fungus diseases (plants), Insect pests, Insecticides,

53

Spraying equipment, Vegetables, Virus diseases (plants). Many insect pests and diseases of specific vegetables are discussed. Also many pesticides are listed.

## 6243-69

DIAPAUSE GETS 95 PER CENT KILL.

S Ross

Cotton 5(5):17,27

May 1969 72.8 C8225 Anthonomus grandis, Chemical control (insects), Cotton, Defoliants, Diapause, Insecticides, Organophosphorus compounds.

### 6244-69

THE BANANA BEETLE CAN BE CHECKED.

A K Sarma P N Saikia

Indian Farming 17(2):18-19 May 1967 22 IN283

wiay 1907 22 114265

Bananas, Benzene hexachloride, Chemical control (insects), Chlorinated hydrocarbons, Dieldrin, Insect control, Insecticides, Nodostoma subcostatum, Parathion.

Dicldrin was more efficient and less expensive for the control of the banana beetle than HCH and parathion at comparable application rates.

## 6245-69

PESTS OF LEGUME SEED CROPS IN NORTH QUEENSLAND.

G W Saunders Queensland Agr J 94(12):725-730

Dcc 1968 23 Q33

Agromyza phascoli, Aphididac, Caterpillars, Chemical control (insects), DDT, Hyacinth dolichos, Insect pests, Insecticides, Legumes, Mites, Nematodes, Pseudococcidac, Seeds.

## 6246-69

BIONOMICS OF DROSICHA MANGIFERAE (GREEN) ON CITRUS INCLUDING NEW RECORD OF ITS THREE NATURAL ENEMIES. D K Saxcna R R Rawat

Madras Agr J 55(7):309-313

**R A Scheibner A S Williams** 

Ky Univ Ext Misc (71-H):2P

RAPE AND BEETS. (GE)

Pflanzenarzt 20(6):65

01 Jun 1967 464.9 P482

1969 275.29 K415M

Jul 1968 22 M262

Aspergillus parasiticus, Biological control (insect s), Bochartia, Citrus, Coccinellidae, Drosicha mangiferae, Insect biology, Insect pests, Insect taxonomy, Margarodidae, Mites, Parasitic insects, Rodolia fumida.

#### 6247-69

6248-69

O Schreier

6249-69

C Sidor

6250-69

168-173 REF

1967 SB932.15

PRELIMINARY

1969, STRAWBERRY INSECT AND DISEASE CONTROL.

Chemical control (insects), Chemical control

(plant discascs), Fungus diseascs (plants), Inscct

pests, Insecticides, Pesticide application, Strawber-

ries. Many insect pests, pesticides, and diseases of strawberries are listed.

NEW INSECTICIDES AGAINST PESTS OF

Aphis fabac, Beets, Ccutorhynchus assimilis, Chemical control (insects), Dasincura brassicac, Endosulfan, Insect pests, Insecticides, Pegomya

VIRUS DISEASES AS LIMITING FACTORS OF

SOME LEPIDOPTEROUS DEFOLIATORS ON

Defoliation, Granuloses, Insect diseases, Lepidop-

**HETERONYCHUS ROBUSTUS ARROWA BEE-**

**OBSERVATIONS** 

ON

POPLAR TREES IN VOJVODINA.

tcra, Polyhcdroscs, Populus.

bctae, Psylliodcs chrysoccphala, Rape, Spraying.

## 6251-69

TLE PEST OF SUGARCANE IN UTTAR PRADESH.

H Singh S M A Rizfi

Indian Sugar 18(3):251-252

Jun 1968 65.8 IN26

Cultural control (insects), Insect control, Insect pests, Plant protection, Scarabaeidae, Sugarcane.

#### 6251-69

# EFFECT OF CLIMATIC FACTORS ON THE SUSCEPTIBILITY OF INSECTS TO INSECTICDES.

Harcharan Singh

Plant Protect Bull 18(2):18-26 REF

1966 421 P69

Anthonomus grandis, Climate, Dew, DDT, Humidity, Insecticide resistant insects, Insecticides, Light, Plant protection, Rainfall, Temperature, Wind.

## 6252-69

THE PROBLEM OF LEAF HOPPERS ON PAD-DY.

S R Singh

Indian Farming 17(3):24

Jun 1967 22 IN283

Chemical control (insects), Cicadellidae, Insect pests, Organophosphorus compounds, Phosphamidon, Plant breeding, Plant pest resistance, Rice.

#### 6253-69

## FEEDING OF AULACOPHORA FOVEICOLLIS ON CUCURBITACIN.

A K Sinha S S Krishna

J Econ Entomol 62(2):512-513

15 Apr 1969 421 J822

Attractants, Chrysomelidae, Cucurbitacin E, Feeding, Insect nutrition, Pumpkins.

#### 6254-69

### A VITICULTURAL CRISIS OF MORE THAN A QUARTER OF A CENTURY: IT HAS BEEN A CENTURY SINCE FRANCE DISCOVERED PHYLLOXERA. (FR) H Siriez

Phytoma 20(195):13-23

Feb 1968 464.8 P563

Grape vineyards, Insect identification, Insect pests, Insect physiology, Phylloxera vitifoliae, Plant galls, Plant injuries.

## 6255-69

BRINJAL LEAF ROLLER.

B P Srivastava

Indian Farming 16(2):17,35

May 1966 22 IN283

Benzene hexachloride, Chemical control (insects), DDT, Tortricidae.

The life cycle and the control of the Brinjal leaf roller of India with DDT and BCH is discussed.

### 6256-69

## CONTROL OF THE CORN EARWORM ON SWEET CORN IN EASTERN NEBRASKA. R Staples S D Kindler B H Kantack

J Econ Entomol 61(3):774-776

Jun 1968 421 J822

Bacillus thuringiensis, Biochemistry, Carbaryl, Corn, DDT, Heliothis zea. Chemicals used were: zectran, matacil, bayer 37344, isolan, dimetilan, UC-8305, dioxathion.

#### 6257-69

## FRUIT SPRAY PROGRAM FOR THE HOME ORCHARDIST.

A Stark M S Burningham G F Knowlton R S Roberts

Utah State Univ Ext Ext Leafl (137):7P 1969 275.29 UTIL

Chemical control (pests), Chlorinated hydrocarbons, Fruit, Organophosphorus compounds, Pesticide application, Pesticides, Plant protection.

Many pests of fruit and their control measures are described. The fruits discussed are apples, peaches, cherries, apricots, strawberries, rasberries, pears, and plums. The pesticides listed are karathane, malathion, diazinon, kelthane, chlordane and DDT.

BIBLIOGRAPHY

## 6258-69

## CONTRIBUTION TO THE KNOWLEDGE OF MICROLEPIDOPTERA ON OAKS IN ISRAEL. M Sternlicht

Israel J Zool 17(4):161-174 REF 1968 410 IS7

Insect biology, Lepidoptera, Quercus, Surveys.

#### 6259-69

STUDIES ON THE ANTIFEEDANT AGAINST THE CATTERPILLARS OF PERICALLIA RICINI F. (ARCTIIDAE) AND SPODOPTERA LITTORALIS BOESD. (NOCTUIDAE: LEPIDOP-TERA) ON CASTOR (RICINUS COMMUNIS L.). V T Sundaramurthi A A Kareem

Madras Agr J 55(7):296-300

Jul 1968 22 M262

Arctiidae, Castorbeans, Chemical control (insects), Insect pests, Insecticides, Leaves, Noctuidae, Pericallia ricini, Plant injuries, Triphenyltin hydroxide.

#### 6260-69

## ANNUAL PEST CONTROL PROGRAMS FOR CENTRAL CALIFORNIA.

Sunkist Pest Contr Circ (375):1-2 Feb 1969 423.9 C12E Chemical control (insects), Citrus, Coccidae,

Diaspididae, Insect pests, Insecticide application, Insecticides, Mites, Noctuidae, Tettigoniidae, Thripidae, Tortricidae.

Insecticides were recommended for the following insect pests: citrus thrips, citrus red mite. Pacific and two-spotted mites, citrus flat mite, red scale, yellow scale, citricola scale, leaf rollers, citrus cutworms and katydids.

## 6261-69

## EARLY SPRING TREATMENT IN DESERT AREAS OF CALIFORNIA AND ARIZONA.

Sunkist Pest Contr Circ (375):2 Fcb 1969 423.9 C12E

Chemical control (insects), Citrus, Insect pests, Insecticide application.

#### 6262-69

CITRUS PEST CONTROL PROGRAMS FOR CALIFORNIA AND ARIZONA DESERT AREAS. Sunkist Pest Contr Circ (376):1-2

Mar 1969 423.9 C12E

Chemi cal control (insects), Chlorinated hydrocarbons, Citrus, Mites, Plant protection, Scirtothrips citri.

The chemicals Sabadilla, Phosphamidon, Delnav, DDT, DDT-TOXAPHENE, and Dimethoate are listed for control of citrus thrips.

#### 6263-69

CONCERNING THE PROBLEM OF CON-TROLLING THE OCCURENCE, AS WELL AS ESTIMATING THE DEGREE OF INFESTATION OF TREE STANDS BY IPS TYPOGRAPHUS L. (CZ)

P Svihra

Les 24(3):104-107

1968 99.8 L5632

Chemical control (insects), Forest insects, Infestation, Ips typographus, Methodology, Picca. German summary.

6264-69

## EFFECTS OF SPITTLEBUG INJURY ON ROOT PRODUCTION AND SOD RESERVES OF COASTAL BERMUDAGRASS.

C M Taliaferro R A Byers G W Burton Agron J 59(6,NOV-DEC):530-532

Dec 1967 4 AM34P

Cynodon dactylon, Plant injuries, Plant physiology, Prosapia bicincta, Roots.

#### 6265-69

SYSTEMIC ACTIVITY OF UC-21149 AGAINST THE CITRUS RED MITE, CITRUS THRIPS,

54

CALIFORNIA RED SCALE, AND SPIREA APHIDS ON NONBEARING ORANGE TREES. H Tashiro D L Chambers J G Shaw J B Beavers J C Maitlen

J Econ Entomol 62(2):443-447 REF

15 Apr 1969 421 J822

Aonidiella aurantii, Aphis spiraccola, Biological assay, Chemical control (insects), Dosage, Insect pests, Insect populations, Insecticide residues, Methyl-2-(methylthio)propionaldehyde O-(methylcarbamoyl) o, Panonychus citri, Plant physiology, Scirtothrips citri.

#### 6266-69

**CONTROL PEANUT INSECTS AND DISEASES.** S S Thompson J C French

Ga Univ Coll Agr Ext Serv Circ (543):3P

Mar 1969 275.29 G29C

Chemical control (insects), Chemical control (plant diseases), Insect pest s, Legumes, Peanuts, Pesticides, Plant diseases, Seed treatment.

## 6267-69

given.

6268-69

W Vagt

6269-69

J Ward

Spraying.

6270-69

G W Ware

6271-69

J G Watts

6272-69

R A Werner

Mar 1969 421 C16

Apr 1968 85 J76

Oct 1968 69.8 R34

HOW TO CONTROL JUTE PESTS ECONOMI-CALLY.

R L Tripathi

Indian Farming 18(7):23-24,56

Oct 1968 22 IN283

Chemical control (insects), Crop losses, Curculionidae, Endosulfan, Endrin, Insect control, Insecti cides, Jute, Plant injuries.

The nature of the damage to jute plants caused by semiloopers, stem-weevils, yellow mites, and Bihar

hairycaterpillars is described and recommended

control measures using endrin and endosulfan are

THE RED CURRANT GALL MITE CAN BE

Obstbauversuchsring Alten Landes Mitt 23(4):120

Cecidophyopsis ribis, Chemical control (insects),

Chemical control (insects), Cotton, Crop yields, Insect pests, Insecticide application, Insecticides,

Alfalfa, Biochemistry, Carbon isotopes, DDT, Injections, Insecticides, Plant translocation, Roots, Seedlings, Soil series, Wheat.

ALL WE KNOW ABOUT PINK BOLLWORMS.

Antibiosis, Azinphosmethyl, Biological control (insects), Carbaryl, Chemical control (insects), Cotton, Crop varieties, Cultural control (insects),

Defoliants, Economics, Farm management, Hydroxy-N-methyl-cis-crotonamide dimethyl

phosphate, 3-, Insect pests, Irradiation, Irrigation,

Pectinophora gossypiella, Plant breeding, Plant pest resistance, Seed germination, Sterility.

THE AMOUNT OF FOLIAGE CONSUMED OR

DESTROYED BY LABORATORY-REARED LARVAE OF THE BLACK-HEADED BUD-

**DDT-C14 TRANSLOCATION IN ALFALFA.** 

**CONTROLLED BY SPRAYING. (GE)** 

Currants, Eriophyidae, Spraying, Tetrasul.

COTTON INSECT PEST C ONTROL.

Rhodesian Tobacco J 20(10):35,37

J Econ Entomol 61(5):1451-1452

Agrichem West 12(4):6-7,10

WORM, ACLERIS VARIANA.

Can Entomol 101(3):286-290

Apr 1969 381 AG85

15 Oct 1968 421 J822

6296-69

Acleris variana, Defoliation, Forest insects, Host indexing (plants), Insect pests, Plant injuries.

## 6273-69

## BARK BEETLES.

E Wertheim Calif Horticult Soc J 28(1):130-132 Jan 1967 81 C1293 Chemical control (insects), Chlorinated hydrocar-bons, DDT, Fungus diseases (plants), Insect pests, Lindane, Plant protection, Scolytidae, Trees.

#### 6274-69

HOST RANGE STUDIES OF OAT BLUE DWARF VIRUS. P H Westdal

Can J Bot 46(11):1431-1435 Nov 1968 470 C16C

Blue dwarf, Crops, Host range, Leaves, Oats, Research, Virus diseases (plants).

#### 6275-69

SPRUCE BUDWORM DAMAGE SYMPTOMS RELATED TO RADIAL GROWTH OF GRAND FIR, DOUGLAS-FIR, AND ENGELMANN SPRUCE. C B Williams

Forest Sci 13(3):274-285 REF

Scp 1967 99.8 F7632

Abies grandis, Choristoneura fumiferana, Pieca engelmanni, Plant injuries, Pseudotsuga menziesii.

## 6276-69

INSECTS ON TRIAL IN FIGHT AGAINST LAN-TANA.

**B** W Willson

Queensland Agr J 94(12):748-751

Dec 1968 23 Q33

Biological control (insects), Economic plants, Inseet pests, Lantana, Ornamental plants, Plant injuries.

## 6277-69

## **GROW ALFALFA IN SPITE OF THE WEEVIL.** C Wilson

Crops Soils 21(6):7-9 Mar 1969 6 W55

Alfalfa, Bathypleetes eurculionis, Biological control (insects), Chemical control (insects), Hypera postica, Insecticidal acrosols, Integrated control (insects).

## 6278-69

**CONTROL COTTON INSECTS**.

H Womack C R Jordan J C French

Ga Univ Coll Agr Ext Serv Circ (501):16P Mar 1969 275.29 G29C

Accident prevention, Anthonomus grandis, Aphididae, Cotton, Heliothis zea, Insect pests, Insecticide application, Insecticide resistant insects, Insecticides, Mites, Systemie insecticides, Thysanoptera. Many insecticides are listed.

#### 6279-69

# DIFFERENCES AMONG SCOTCH PINE VARIE-TIES IN SUSCEPTIBILITY TO EUROPEAN PINE SAWFLY.

J W Wright L F Wilson W K Randall Forest Sci 13(2):175-181 REF Jun 1967 99.8 F7632

Insect resistant plants, Neodiprion sertifer, Pinus sylvestris, Plant breeding.

### 6280-69

## PHENOLOGY OF THE POTATO TUBER MOTH, GNORIMOSCHEMA OPERCULELLA ZELL., IN ISRAEL IN THE SPRING. S Yathom

Israel J Agr Res 18(2):89-90

Apr 1968 107 J552

Bionomies, Gnorimoschema opereulella, Inseet pests, Plant injuries, Potatoes.

## 6281-69

REVIEW OF WORK ON MAJOR INSECT PESTS OF RICE IN MALAYSIA. PART I. MALAYAN REGION. A Yunus

Malaysian Agr J 45(1):28-56 REF Jan 1965 22.5 F312 Heteroptera, Homoptera, Insect pests, Lepidoptera, Reviews, Rice. 6282-69 GENERALITIES ON THE WHITE POTATO GRUB PREMNOTRYPES VORAX (HUSTACHE). (SP) 1 Zenner L Posada O Agr Trop 24(1):33-40 Jan 1968 26 AG8 Food habits, Insect biology, Potatoes, Premnotrypes vorax.

The life cycle, food habits and economic importance of the white potato grub (Premnotrypes vorax) is discussed.

## **NEMATODES**

#### 6283-69

## THE GOLDEN NEMATODE OF POTATOES AND TOMATOES. USDA PA- (816):4P

Feb 1969 1 AG84PRO

Chemical control (nematodes), Crop varieties, Heterodera rostochiensis, Plant disease resistance, Plant injuries, Plant nematodes, Plant pest control, Potatoes, Quarantine, Soil fumigation, Surveys, Tomatoes.

## 6284-69

## **REGULATION IN CONNECTION WITH FIELD** AND GREENHOUSE CULTURE OF NURSERY PLANTS. (DU) Anonymous

Neth Plantenziektenkundige Dienst Ber 1718,3P 17 Jul 1968 464.9 N38

Agricultural regulation, Greenhouse culture, Heterodera rostochiensis, Nursery stock (horticul-ture), Pest control, Plant nematodes, Potatoes. In relation to potato nematode control.

## 6285-69

CELLULYTIC AND PECTOLYTIC ENZYMES IN THE AVENAE. NEMATODE, APHELENCHUS

## K R Barker

Helminthol Soc Wash Proc 33(2):134-138 REF Jul 1966 436.9 H36

Aphelenchus avenae, Biochemistry, Cellulolytie enzymes, Pectolytic enzymes, Plant nematodes.

## 6286-69

LOSSES CAUSED BY POTATO CYST EEL-WORM IN THE ISLE OF ELY. E B Brown L J Coppock

Great Brit NAAS (nat Agr Adv Serv) Quart Rev (80,SUMMER):146-149 1968 241 G796

Crop losses, Heterodera rostochiensis, Plant nematodes, Potatoes.

## 6287-69

## **USE OF NICKEL MORPHOLINE DITHIOCAR-**BAMATE AS A NEMATOCIDE. PATENT 3,450,817.

J J Draney J C Draney Us Patent Office Offic Gaz 863(3):902 17 Jun 1969 156.65 OF2 Chemical control (nematodes), Dithiocarbamates,

Nematoeides, Nematode infestation, Niekel compounds, Patents.

## 6288-69

SIGNIFICANCE OF MALES IN REPRODUC-TION OF THE SOYBEAN CYST NEMATODE (HETERODERA GLYCINES). J M Epps A M Golden

Helminthol Soc Wash Proc 33(1):34 Jan 1966 436.9 H36

Heterodera glycines, Plant nematodes, Reproduction

55

6289-69

MORPHOLOGICAL VARIANT OF TETYLENCHUS JOCTUS THORNE (NEMATA: TYLENCHIDA) ASSOCIATED WITH CUL-TIVATED BLUEBERRIES IN INDIANA. V R Ferris J M Ferris Helminthol Soc Wash Proc 34(1):30-32 Jan 1967 436.9 H36 Blucberries, Morphology, Nematodes, Plant ne-matodes, Polymorphism, Tetylenchus joetus.

### 6290-69

BURROWING NEMATODES MAY SURVIVE **ON VARIANTS OF MILAM LEMON.** H W Ford P C Hutchins Hortsci 2(2.SUMMER):56

1967 SB1.H6

Citrus, Lemons, Nematodes, Oranges, Plant nematode resistance, Plant nematodes, Radopholus similis.

## 6291-69

CONTROL OF EELWORM DISEASES OF BANANAS IN WESTERN AUSTRALIA. O M Goss M G Hawson

West Aust J Agr (SER 4)10(1):27 Jan 1969 23 W52J

Bananas, Chemical control (nematodes), Crop yields, Dibromo-3-chloropropane, 1,3-, Gall-making insects, Irrigation, Meloidogyne javanica, Plant nematodes, Soil fumigation.

## 6292-69

CUTICLE ULTRASTRUCTURE OF THE ME-LOIDOGYNE HAPLA LARVA.

1 K A Ibrahim J P Hollis

Helminthol Soc Wash Proc 34(2):137-139 Jul 1967 436.9 H36

Cuticle, Larvac, Meloidogyne hapla, Morphology, Nematodes, Plant nematodes, Ultrastructure.

## 6293-69

CAN WE CONQUER THE 'MIGHTY' MITES .

L R Jeppson

Farm Chem 130(9):38-40, 118

Sep 1967 57.8 AM3

Acaricides, Agricultural outlook, Chemical control (insects), DDT, Mites, Predaceous insects, Research.

## 6294-69

6295-69

(RUS)

6296-69

ON THEM.

J Kozlowska

1967 512 W263

A NEMATOLOGICAL STUDY OF SOME CUL-TIVATIONS ON THE SOUTH COAST OF SPAIN. (SP)

F Jimenez-Millan A G Bareina M A Delgado

Soc Espan Hist Natur Bol Secc Biol 65(1-2):83-106 MAP REF

30 Sep 1967 442.9 SO18

Fruit, Plant nematodes, Vegetables. English summary.

53 genera of free nematodes and 32 pytoparasitie nematodes were found. From these, they found new references in each cultivation independently a total of 41 genera, and new references for Spain a total of 81 genera.

SURVIVAL OF ASCARID EGGS IN SOIL

UNDER CONDITIONS OF MOSCOW REGION.

Ascaridia, Soil microorganisms, Temperature, Via-

SOIL NEMATODE FAUNA OCCURING IN THE JADWISIN FIELDS NEAR WARSAW AND THE

EFFECT OF ENVIRONMENTAL CONDITIONS

Ekol Pol Ser A (SER A)15(21):443-485 REF

1 S Kizevalter V V Derevitskaya

Med P arazitol Parazitarn Bolezni

37(5,SEP/OCT):527-529

bility. English summary.

1968 448.8 M469

## 6297-69

Animal ecology, Animal taxonomy, Barley, Nematodes, Soil microorganisms, Sugar beets. Polish summary.

## 6297-69

## NEMATODES AND ROSES.

D H MacDonald K P Patel L H Fuchigami Minn Sci 25(1,FALL):18-19 1968 100 M668 Helicotylenchus pseudorobustus, Plant nematodes,

Plant protection, Rosa.

#### 6298-69

COTTON AND PLANT PARASITIC NE-MATODES.

J C Martin

Rhodesian Farmer 39(12):18-19

02 Aug 1968 24 R347

Chemical control (nematodes), Chlorinated hydrocarbons, Cotton, Dibromo-3-chloropropane, 1,2-, Ethylene dibromide, Fumigants, Fumigation, Meloidogyne incognita, Meloidogyne javaniea, Nematocides, Nematode infestation, Parasitism, Plant nematodes.

## 6299-69

## INJURY TO HETERODERA TABACUM BY HIGH SOIL TEMPERATURES.

P M Miller

Plant Dis Rep 53(3):191-193 Mar 1969 1 9 P69P

Mai 1909 1.91091

Heterodera tabacum, Larvae, Parasitism, Pest control, Plant nematodes, Pratylenchus penetrans, Soils, Temperature.

### 6300-69

RACES OF PRATYLENCHUS PENETRANS, AND THEIR EFFECT ON BLACK ROOT ROT RESISTANCE OF TOBACCO. Th H A Olthof

Nematologica 14(4):482-488 REF

1968 436.8 N342

Black root rot (tobacco), Nematodes, Plant disease resistance, Pratylenchus, Tobacco.

#### 6301-69

## 'MIRACLE' TREE IS IN TROUBLE.

E S Padre

Philippine Lumberman 14(6):14

Jun 1968 99.81 L9793

Anthocephalus cadamba, Forest conservation, Forest nurseries, Growth factors, Meloidogyne, Nematode infestation, Pest control, Plant nematodes, Plant physiology, Symptomatology.

#### 6302-69

## THE CONDITIONS FOR OCCURRENCE OF POTATO ROOT EELWORM (HETERODERA ROSTOCHIENSIS WOLL.) IN POLAND. H Sander

Ekol Pol Ser A 15(29):7P MAP 1967 512 W 263

Climate, Cysts, Ecology, Heterodera rostochiensis, Plant nematodes, Potatoes, Soil analysis, Temperature, Zoogeography. Polish summary.

### 6303-69

A NEMATODE SURVEY OF TOBACCO SOILS IN RHODESIA AND ZAMBIA, AND THE EF-FECTS OF GRASS-TOBACCO ROTATIONS ON NEMATODE POPULATIONS.

J A Shepherd Rhodesia, Zambia, Malawi J Agr Res 6(1):19-26 REF

1968 24 R3472

Crop rotation, Cultural control (plant diseases), Grasses, Meloidogyne, Nematode infestation, Parasitism, Plant nematodes, Pratylenehus, Rotylenchulus, Scutellonema, Tobaceo.

#### 6304-69

## CATENARIA VERMICOLA ON NEMATODES IN INDIA. K Singh

*Cur Sci 36(17):468-469* 05 Sep 1967 475 SC123 Catenaria, Fungi, Nematode controlling fungi, Nematodes.

BIBLIOGRAPHY

Soil nematodes in India were found to be parasitized by Catenaria vermicola. The life cycle of the fungus on its host is described.

## 6305-69

## TROPICAL NEMATOLOGY.

G C Smart V G Perry University of Florida Press, Gainesville 153P, REF

1968 QL391.N 4T7

African oilpalm, Bananas, Cacao, Cassava, Chemical control (nematodes), Citrus, Coconuts, Coffee, Cotton, Decline, Fiber plants, Human diseases, Nematocides, Nematodiasis, Pineapples, Plant nematodes, Radopholus similis, Red ring, Rhadinaphelenchus cocophilus, Riee, Soil management, Sugarcane, Symposia, Tobacco, Vegetables, Yams.

Contents: Radopholus similis and other nematode species on banana, by E. J. Wehunt and D. I. Edwards; Burrowing nematode decline of citrus, a review, by E. P. DuCharme; Red-ring disease of the coconut palm, by D. W. Fenwick; Nematode problems of pineapple in Puerto Rieo, by A. Ayala; Nematode problems of sugarcane in Puerto Rieo, by J. Roman; Nematode problems of rice, by A. L. Taylor; Nematode problems of coffee, by E. Schieber; Nematological problems in the former French African tropical territories and Madagascar, by M. Luc; Relation of plant parasitie nematodes to soil management praetiees, by J. M. Good; Nematode problems of humans in the Tropics, by D. L. Price.

## 6306-69

## ORANGEWORMS IN INTERIOR DISTRICTS OF SOUTHERN CALIFORNIA.

Sunkist Pest Contr Circ (376):2 Mar 1969 423.9 C12E

Archips argyrospilus, Argyrotaenia citrana, Chemieal control (insects), Chlorinated hydroearbons, Citrus, Insect pests, Organophosphorus compounds.

The chemicals Parathion, TDE(DDD), Phosdrin, Dibrom, Sevin, DDT, and Guthion are listed for control of orangeworms.

## 6307-69

## CHEMICAL SOIL TREATMENT FOR NE-MATODE CONTROL IN TOBACCO. F A Todd

N C Univ Ext Leafl (236):13P

Mar 1969 275.29 N811L

Chemical control (nematodes), Dairy equipment, Methodology, Nematoeides, Plant discase control, Pratylenchus, Root-knot nematode, Soil fumigation, Tobaceo.

6308-69 DEVELOPMENTAL TENDENCIES PHYTONEMATOLOGY. (GE )

B Weischer

Berlin Biol Bundesanst Land-forstwirtsch Mitt (121):12-20 REF

Feb 1967 410.9 G31M

Crop rotation, Crop varieties, Nematode vectors, Plant nematodes, Virus diseases (plants). English abstract.

#### 6309-69

GNOTOBIOTIC CULTURE AND ITS SIG-NIFICANCE TO PLANT NEMATOLOGY. B M Zuckerman

Helminthol Abs 38(1):1-15 REF Mar 1969 436.8 J82A Bibliography, Germ-free life, Plant nematodes, Reviews, Tissue culture.

## WEEDS

## 6310-69

## LAWN WEED CONTROL WITH HERBICIDES. U S D A Home Gard Bull (123):24P Dec 1968 1 AG84HG

56

Chemical control (weeds), Herbicides, Lawns, Spraying. Many herbicides were mentioned.

6311-69

## ARE HERBICIDES DOING THEIR JOB . Anonymous

Amer Veg Grower 17(1):22,38-40

## Jan 1969 80 C733

Chemical control (weeds), Herbicides, Potatoes, Surveys, Weed control, Weeds. The following herbicides were evaluatd:d eptam, dinitros, premerge or sinox PE, lorox, dowpon, daethal and avadex.

#### 6312-69

PROCLAIMED NOXIOUS WEEDS IN VIC-TORIA.

#### Anonymous

Fruit World Market Grower 69(11):46

11 Nov 1968 80 F948

Chemical control (weeds), Cultural control (weeds), Poisonous plants, Proboseidea jussieui, Spraying, Weeds.

#### 6313-69

PROCLAIMED NOXIOUS WEEDS.

## Anonymous

J Agr 66(9):331-334

Sep 1968 23 V66J

Chemical control (weeds), Cultural control (weeds), D, 2,4-, Marrubium, Plant protection, Proboseidea jussieui, Safflower, Weeds, Xanthium orientale.

#### 6314-69

WEED CONTROL TECHNIQUES AID TRIALS WITH HEDGE ROW PLANTING OF BLACKCURRANTS.

## Anonymous

Commericla Grower (3826):699

Tobacco (New York) 167(25):18

20 Dec 1968 286.89 T552

HERBICIDE SELECTIVITY.

Beef Sheep Farming 6(2):19,21

AS PEST FAILS TO SPREAD.

Agrichem West 11(11):5

Nov 1968 381 AG85

02 May 1969 80 F941 Brassica, Chemical control (weeds), Currants, Her-

bieides, Planting, Strawberries.

## 6315-69

WEEDS THAT MAKE A COMEBACK. Anonymous

Farm Quart 24(1,SPRING):104,105,112 1969 6 F22995

Atrazine, Chemical control (weeds), Corn, D, 2,4-, Herbicides, Spraying.

Chemical control (weeds), Diphenamid, Herbi-

(weeds), Herbicides, Phenoxy acid compounds, Plant metabolism, Plant physiology, Plant translocation. The herbicides discussed are 2,4-D, herbicidal oils, diuron, 2,4,5-T, simazine, and 2,4-DB.

WEED CONTROL AND THE ECONOMICS OF DIRECT RESEEDING.

Agricultural economics, Chemical control (weeds), Chlorinated hydroearbons, Dalapon, Equipment, Herbieides, Seed planting, Weed con-

**PROGRESS IN WITCH WEED CON TROL SEEN** 

(biological), Chemical control

## 6316-69 Tests prove diphenamid effective as

6317-69

Anonymous

Absorption

6318-69

trol.

6319-69

Anonymous

Croplife 49-51

Feb 1969 381 C882

Anonymous

Feb 1969 43.8 B392

IN

HERBICIDE.

eides, Tobaceo.

Anonymous

6344-69

Agricultural research, Chemical control (weeds), D, 2,4a, Herbicides, Parasitism, Plant physiology, Regulation (pesticides), Seed germination, Seedlings, Striga asiatica, Weed control.

## 6320-69

AND BRUSH CONTROL WEED FOR DRAINAGE DITCHES.

Anonymous

Public Works 100(2):122-123

Feb 1969 290.8 M922

Ammonium sulfamate, Brush control, Chemical control (weeds), D, 2,4-, Drainage ditches, Spraying, T, 2,4,5-, Weed control.

## 6321-69

WEED CONTROL IN FIELD BRASSICA CROPS.

## Anonymous

Weeds Tech Bull (257):4P

1968 79.9 W323

Brassica, Chemical control (weeds), Crop rotation, Crop yields, Dosage, Herbieide application, Herbicides, Plant physiology, Spraying equipment, Weather.

#### 6322-69

## WETTING AGENTS, OILS: ARE THEY A PLUS FOR ATRAZINE.

J Bandeen

Crops Soils 21(7, APR-MAY):14-15 1969 6 W55

Atrazine, Chemical control (weeds), Herbicide application, Herbieides, Mineral oil.

## 6323-69

## PHOSPHORIC TRIAMIDE DERIVATIVES AS HERBICIDES. PATENT 3,433,623. H O Bayer V H Unger

Us Patent Office Offic Gaz 860(3):865 18 Mar 1969 156.65 OF2 Chemical control (weeds), Herbicides, Phosphorie triamide derivatives.

## 6324-69

## **USE OF HERBICIDES IN COFFEE NURSERIES** WITH FULL EXPOSURE TO SUN. (SP) O Bellavita G A Morales

Agron Trop 17(2, APR-JUN):95-99 1967 26 AG87

Chemical control (weeds), Coffee, Dinocap, Gramoxone, Herbicides, Nurseries, Sodium N-methyldithiocarbamate, Thiocarbamates. English summary.

## 6325-69

WEEDS AND MAN.

R F Betz

## Morton Arboretum Quart 4(2,SUMMER):26-32 1968 451 M84

Habitats, History, Nomenelature, Plant ecology, Plant geography, Weeds.

#### 6326-69

RESULTS OF HERBICIDE TESTS CARRIED OUT IN 1966 BY THE VEGETABLE PROTEC-TION SERVICE. (FR) H Bouron

Phytoma 19(190, JUL-AUG): 15-19 1967 464.8 P563

Chemical control (weeds), Climbing plants, Fruit culture, Grain, Grapes, Herbieides, Ornamental plants, Trees, Vegetables.

#### 6327-69

# PROBLEMS OF HERBICIDE TREATMENTS IN THE POTATO CROP. (GE )

R Burghausen

Europe Potato J 11(1):3-13

Mar 1968 75.8 EU7

Chemical control (weeds), Crop yields, Herbieides, Potatoes, Soil structure, Tillage, Weeds. English and French summaries.

## 6328-69

**COMPETITION BETWEEN BURROWEED AND** ANNUAL AND PERENNIAL GRASSES FOR SOIL MOISTURE.

D R Cable Amer Forage Grassland Council 1966 MEETING:11-27 01 Feb 1966 60.19 J66 Annual plants, Forage plants, Grasses, Growth facrelations, Prosopis juliflora, Rainfall, Soil moisture.

#### 6329-69

## **MICROSPOROGENESIS OF THE BIRD'S-FOOT** TREFOIL (LOTUS C ORNICULATUS L.). (RUS ) M M Chubirko

Moskov Obshch Ispytalelei Prirody Byul Otd Biol 72(6):93-100 REF 1967 511 M85

Birdsfoot trefoil, Plant physiology, Pollen, Spores, . Weeds. English summary.

#### 6330-69

**1968 CRANBERRY WEED CONTROL CHART.** IP

1968 275.29 M381 Accident prevention, Chemical control (weeds), Cranberries, Herbieides.

## 6331-69

## THE ROLE OF LIGHT, CONCENTRATION, AND SPECIES IN FOLIAR UPTAKE OF HERBI-CIDES IN WOODY PLANTS.

F S Davis R W Bovey M G Merkle Forest Sci 14(2):164-169 REF Jun 1968 99.8 F7632 Absorption (biological), Clímbing plants, Herbi-

cides, Leaves, Light, Picloram. 6332-69

**PROPERTIES AND EFFECTS OF WL-9385-D ON RICE AND SOME WEED SPECIES.** 

D A Del Rosario M R Veba Philippine Agr 51(5):412-437 REF Oct 1967 25 P542

Chemical control (weeds), Photochemistry, Plant metabolism, Rice, Soil properties.

## 6333-69

WEED CONTROL IN CORN.

L A Derscheid R Parker

S Dak State Univ Ext Ext Mimeogr Circ (442):5P Apr 1969 275.29 SO85FS

Atrazine, Chemical control (weeds), Chloro-Nisopropylacetanilide, 2-, Corn, Cultural control (weeds), Herbieide application, Herbieides, Linuron, Spraying, Tillage equipment.

#### 6334-69

HALO-SUBSTITUTED PHENOXYETHYL CAR-BAMATES AND DERIVATIVES THEREOF. PATENT 3,439,021.

L W Fancher

Us Patent Office Offic Gaz 861(3):923 15 Apr 1969 156.65 OF2 Carbamates, Emergence, Halogens, Herbicides,

Patents, Phenoxides.

## 6335-69

6336-69

CONTROL OF THE GUANXUMAS ROXA E **BRANCA IN PASTURE WITH HORMONE-LIKE HERBICIDES. (POR )** P Figueiredo L Leiderman Biologico 33(2):27-30 Feb 1967 442.8 B529 Chemical control (weeds), Digitaria, Herbicides, Picloram, Silvex. English abstract.

RESULTS FROM EXPERIMENTS WITH HER-BICIDES FOR WEED CONTROL IN PEA GRAIN CROPS GROWN IN DOBROUDJA. (RUS

D Fudulov P Petkova Rastenievud Nauk 5(9):69-77 REF 1968 64.8 R18 Chemical control (weeds), D, 2,4-, Grain, Herbicides, Prometryne, Simazine, Weeds. Russian and english abstracts

57

6337-69 THE EFFECT OF THREE FUMIGANTS ON NATURAL WEED INFESTATION IN A TOBAC-CO SEED BED. S K Gayed Lighter 38(3,SUMMER):15-20 1968 286.89 C16 Chemical control (weeds), Fumigants, Plant

physiology, Seedlings, Tobacco, Weeds.

Abstract: Fumigants used were carbon bisulphide, vorlex, vorlex 201, telone-PBC.

## 6338-69

#### REPEATED SPRAYING TO CONTROL SOUTHWEST OREGON BRUSH SPECIES. H Gratkowski

US Forest Serv Res Pap PNW 59:6P 1968 A99.9 F7625UNI

Amitrole, Brush control, Chemical control (weeds), D, 2,4-, Dichlorprop, Spraying, T, 2,4,5-.

## 6339-69

APPLICATION OF HERBICIDES IN PULSE CROPS. (POL)

J Grzybczak Z Rynkal

Ochrona Roslin 11(4):12-16

1967 464.8 OC32

Atrazine, Chemical control (weeds), Dinoscb, Field crops, Herbicides, Legumes, Nitrated phenols, Pesticide application, Simazine.

## 6340-69

PREPLANTING APPLICATIONS PROMETRYNE IN COTTON. OF

K C Hamilton H F Arle R D Spilsbury Arizona Agricultural Experiment Station, Tucson.

SER.P-15:72-76 Feb 1969 \$544.3.A6A7

Chemical control (weeds), Chlorinated hydrocarbons, Cotton, Crop yields, Diuron, Irrigation, Prometryne, Seedlings, Trifluralín.

## 6341-69

6342-69

6343-69

**R E Higgins** 

Mar 1969 6 W55

PREPARATION.

Dec 1967 4 AM34P

atrazine plus cultivation.

6344-69

WEEDS.

D C Hogner

T D Hinesly E L Knake R D Seif

Agron J 59(6,NOV-DEC):509-512 MAP

eides, Seedbeds, Tillage, Weed control.

1969 100 L939

HERBICIDES FOR WEED CONTROL IN SWEET POTATOES.

Amiben, Chemical control (weeds), Crop yields,

Dimethyl 2,3,5,6-tetrachloroterephthalate, Diphenamid, Ethyl N,N-dipropylthiolearbamate,

TEN KEYS TO HERBICIDE EFFECTIVENESS.

Chemical control (weeds), D, 2,4-, Herbieide ap-plication, Herbieides, Methyl-4-chlorophenox-yaectic acid, 2-, Soil moisture, Weather.

HERBICIDE VERSUS CULTIVATION FOR CORN WITH TWO METHODS OF SEEDBED

Atrazine, Corn, Cultural control (weeds), Herbi-

A split-plot experiment consisting of two methods

of seedbed preparation for corn with three methods

of weed control was conducted on the same areas of seven different soil types during 1962, 1963 and

1964. Conventional tillage (three diskings after

plowing) was compared to reduced tillage (one disking after plowing) as a seedbed preparation variable. Weed control methods on subplots con-

sisted of cultivation alone, atrazine alone, and

Thomas Y. Crowell Co., New York, N. Y. 118P

T P Hernandez R J Constantin J R Barry B W Wascom

La Agr 12(3,SPRING):10-11

Herbicides, Sweetpotatoes.

Crops Soils 21(6):10-11

## 6345-69

1968 SB611.H6

Aquatic weeds, Plant nutrition, Pollination, Seed germination, Weed control, Weeds.

## 6345-69

WEED CONTROL IN TURF - 1967. H J Hopen J D Butler Turfgrass Conf Proc 8:4-7 07 Dec 1967 SB433.14 Annual plants, Broad-leaved weeds, Chemical control (weeds), Herbieides, Perennial plants, Turf. Many herbicides were tested.

## 6346-69

AFTER COTON IS UP, HERE ARE WAYS TO **KEEP IT CLEAN.** D W Houston

Miss Farmer 17(5):12

May 1969 6 M6992

Chemical control (weeds), Cotton, Disodium methanearsonate, Herbieide application, Herbicides, Monosodium acid methanearsonate. Many herbicides with their application procedures are listed.

### 6347-69

**GESATOP - ITS USES IN HORTICULTURAL** CROPS. Weeds Tech Bull (250):3P 1966 79.9 W323

Chemical control (weeds), Herbieide application, Herbicides, Simazine.

## 6348-69

SPRAYING PASTURES. Weeds Tech Bull 239:4P 1966 79.9 W323

Aerial spraying, Chemical control (weeds), Grasses, Herbieides, Spraying equipment. Ten herbicides are discussed.

## 6349-69

## CHEMICAL GROWTH INHIBITION IN TURF. **J A Jagschitz**

N Y Turfgrass Assoc Bull (78):304 1967 60.19 N42

Chemical control (weeds), D, 2,4-, Dosage, Equip-ment, Herbicide application, Herbicides, Malcic hydrazide, Nozzles, Phenoxy acid compounds, Plant growth inhibitors, Spraying, Turf. Other her-bicides used were Azak, Dacthal, Trifluralin, Tu-persan, Bandane, Betasan and Zytron.

## 6350-69

## RECENT ADVANCES IN PERENNIAL GRASS CONTROL IN AVOCADO ORCHARDS. L S Jordan B E Dav R C Russell

Calif Avocado Soc Yearbook 52:117-119 1968 81 C128

Avocados, Chemical control (weeds), Disodium methanearsonate, Grasses, Herbicides, Monosodium acid methanearsonate, Monuron, Paraquat, Simazine.

## 6351-69

WEED PROBLEMS NOW AND IN THE PAST. (GE)

W Kabiersch

Prakt Schadlingsbekampfer 20(10):137 Oct 1968 421 P882 Chemical control (weeds), Crops, Cultural control

(weeds), Herbicides, History, Plant regulators, Weeds.

## 6352-69

CHEMICAL WEED CONTROL IN TROPICAL ROOT CROPS.

L Kasasian

Trop Sci 44(2):143-150 Apr 1967 26 T756

Atrazine, Chemical control (weeds), Diuron, Herbicides, Paraquat, Prometryne, Root crops, TCA, Weed control.

## 6353-69

TEST WEED KILLERS YOURSELF. E L Knake Crops Soils 21(5):9-10 Feb 1969 6 W55

## BIBLIOGRAPHY

Chemical control (weeds), Herbicides, Weed control.

### 6354-69

## THE ECONOMIC IMPORTANCE OF EARLY WEED CONTROL IN CEREALS. (GE) R Kunz

Grune 96(9):290-296 01 Mar 1968 17 SCH9

Chemical control (weeds), Crop yields, Fertilizers, Grain, Herbicides, Plant physiology.

#### 6355-69

## SELECTIVE CONTROL OF HOARY ALYSSUM IN ALFALFA. C A Kust

Weed Sci 17(1):99-101

Jan 1969 79.8 W41

Alfalfa, Atrazine, Berteroa incana, Butyl-5-bromo-6-methyluraeil, 3-tert-, Carbohydrates, Chemical control (weeds), Crop yields, Herbicide applica-tion, Herbicides, Perennial plants, Photosynthesis, Simazine, Terbacil.

## 6356-69

HERBICIDAL N,N-DIALKENYL-3-CHLOROBENZAMIDES METHOD. AND PATENT 3,436,208. A J Lemin Us Patent Office Offic Gaz 861(1):201 01 Apr 1969 156.65 OF2 Chemical control Dialkenyl-3-(weeds). chlorobenzamide, N,N-, Herbicides, Methodology, Plant physiology, Seed germination, Seed treatment. 6357-69

## CHEMICAL WEED CONTROL INFORMATION FOR NORTH CAROLINA, 1969.

W M Lewis A B Rogerson A D Worsham T W Waldrep W A Skroch

Nc Univ Ext Leaft 152:41P

Jan 1969 275.29 N811L

Chemical control (weeds), Herbicide application, Herbicides, Weeds. Many specific weeds and herbicides are discussed.

## 6358-69

WEED CONTROL IN CALIFORNIA VINEYARDS.

L A Lider O A Leonard

Agrichem West 11(12):10,12,14 Dcc 1968 381 AG85

Chemical control (weeds), Cultural control (weeds), Diuron, Grape vineyards, Herbicides, Simazine, Soil sterilization, Tillage. Other less effective chemicals are discussed.

6359-69

## PRECISION PLACEMENT OF HERBICIDES FOR WEED CONTROL IN SEEDLING ALFAL-FA. D L Linscott R D Hagin

Weed Sci 17(1):46-47 Jan 1969 79.8 W41 Alfalfa, Chemical control (weeds), Ethyl N,N-dipropylthiolearbamate, G-36393, Herbieides, Seedlings, Simazine, Triazine.

## 6360-69

**ARSENIC AND LOW PHOSPHATE SOILS.** 

C W Lobenstein Turfgrass Conf Proc 6:47-51 1965 SB433.14 Arsenic, Chemical control (weeds), Herbicides, Phosphates, Poa annua.

## 6361-69

NAGAL THAKARAN NO LONGER WORRIES ABOUT WEEDS. V S Mani S L Choudhry N Singh Indian Farming 16(12):17-18,21 Mar 1967 22 IN283 Chemical control (weeds), Crop yields, D, 2,4-, Weed control, Wheat.

Control of weeds in wheat crops with 2,4-D in India is discussed.

58

6362-69

## STUBBLE BURNING HELPS CONTROL WIM-MERA RYE GRASS. Mg Mason W J Toms J W Gartrell

West Aust J Agr 9(12):582-583 Dec 1968 23 W52J Crop rotation, Cultural control (weeds), Lolium subulatum, Nitrogen, Stubble.

## 6363-69

HERBICIDAL CONTROL OF WESTERN IRON-WEED.

M K McCarty C J Scifres

Weed Sci 17(1):77-79

Jan 1969 79.8 W41

Chemical control (weeds), D, 2,4-, Dicamba, Dosage, Herbicides, Picloram, Plant physiology, Vernonia.

#### 6364-69

**EFFECTS OF METHODS OF PLACEMENT ON** PERFORMANCE OF TRIFLURALIN, CDEC, AND DCPA APPLIED TO SOIL.

R M Menges J L Hubbard

Rio Grande Val Hort Soc J 22:64-70 REF 1968 81 L95

Amaranthus retroflexus, Chemical control (wccds), Chloroallyl diethyldithiocarbamate, 2-, Dimethyl 2,3,5,6-tetrachloroterephthalate, Echinochloa crusgalli, Herbicides, Irrigation, Pesticide application, Soil sanitation, Trifluralin.

#### 6365-69

CULTURAL AND CHEMICAL WEED CON-TROL IN FIELD CROPS, 1969.

G R Miller R Behrens

Minn Univ Agr Ext Serv Ext Folder (212):27P 1969 275.29 M66EX

Chemical control (weeds), Cultural control (weeds), Field crops, Herbicides, Pesticide application, Spraying.

## 6366-69

WEED CONTROL IN FIELD CROPS, 1969. J F Miller

Ga Univ Coll Agr Ext Serv Circ (408):7P Mar 1969 275.29 G29C

Accident prevention, Chemical control (weeds), Field crops, Herbicides, Spraying. Many herbicides were mentioned.

## 6367-69

6368-69

6369-69

summary.

6370-69

**EXPERIMENTS ON THE USE OF NEW CHEMI-**CALS IN WEED CONTROL IN MAIZE. (SE) L Mladenovie Agrohemija (3/4):145-150

1968 385 AG87

J Mukula W A Gentner

Weed Sci 17(1):124-125

Jan 1969 79.8 W41

TREE SURVIVAL.

J E Munoz L W Hill

May 1967 A99.9 F7637N

Chemical control (weeds), Corn, Herbicides, Testing, Weeds

11 new herbicides and combinations of herbicides were tested.

MATRICARIA AND LAMBSQUARTER CON-TROL IN BRASSICAS WITH ANALOGS OF PROPACHLOR.

Chemical control (weeds), Chenopodium album, Chloro-N-isopropylacetanilide, 2-, Herbicides, Kale, Matricaria inodora, Nutrient solutions (plants), Rape, Rutabagas, Sugar beets, Turnips.

PREPARATION AND THEIR EFFECTS ON

Chemical control (weeds), Dosage, Foliar applica-

tion, Herbieides, Pieloram, Swietenia. Spanish

**BROADLEAF WEED CONTROL IN RICE.** 

SITE

THE USE OF HERBICIDES FOR

Us Forest Serv Res Note ITF (12):6P

6394-69

**R** P Nester Rice J 72(3):8,10,12-14,31-32

Mar 1969 59.8 R36

Chemical control (weeds), Crop yields, D, 2,4-, Dicotyledons, Herbicides, Nitrogen, Pesticide ap-plication, Phenoxy acid compounds, Propanil, Rice, Silvex, Spraying, T, 2,4,5-, Weed control.

## 6371-69

## WEED CONTROL IN NURSERY SOD. R Newman

Turfgrass Conf Proc 8:13-15

07 Dec 1967 SB433.14

Chemical control (weeds), Cultural control (weeds), D, 2,4-, Dicamba, Fertility, Grasses, Her-bicides, Nurseries, Phenoxy acid compounds, Seed germination, Tillage.

### 6372-69

INFLUENCE OF CERTAIN INSECTICIDES AP-PLIED FOR THE CONTROL OF OSTRINIA NU-**BILALIS HBN. ON THE WEEDS OF TREATED** SURFACES. (SE)

G Pivar Zastita Bilja 18(93/95):213-219

1967 464.8 Z1

Aerial spraying, Chemical control (insects), Chemical control (weeds), DDT, Herbieides, Insecticides, Ostrinia nubilalis, Weeds. French summary.

## 6373-69

## THE EFFECT OF SOME HERBICIDES ON THE NITRIFICATION IN SOILS. (BU)

V Rankov

Pochvozn Agrokhim 3(1):81-90 REF 1968 S590.P6

Chemical control (weeds), Herbieides, Nitrifica-tion, Soil series. English and Russian summaries.

## 6374-69

## CHEMICAL WEED CONTROL IN GROUND-NUTS.

**PVM** Richards 1967 MEETING:40-41

Jul 1967 S573.R45

Chemical control (weeds), Herbicides, Peanuts, Weed control. In Rhodesia National Farmers' Union. Diversification guide from the RNFU Crops Conference.

## 6375-69

## METHOD FOR DESTROYING UNDESIRABLE PLANT LIFE. PATENT 3,450,520.

S B Richter Us Patent Office Offic Gaz 863(3):854

17 Jun 1969 156.65 OF2

Herbieides, Organophosphorus compounds, Patents.

## 6376-69

#### EDITORIAL: THE PROBLEM OF HERBICIDES. (FR)

M Rochaix

Agr Romande (SER A)7(6):69 Jun 1968 17 AG8

Accident prevention, Chemical control (weeds), Climate, Herbicides.

#### 6377-69

#### MORPHOLOGICAL TRANSFORMATIONS AND LYSIS OF HALOBACTERIUM SALINARI-UM BY 4-(2,4-DICHLOROPHENOXY)BUTYRIC ACID AND RELATED COMPOUNDS.

M Rodriguez-Rebollo C G Vazquez Can J Microbiol 15(3):309-312 REF Mar 1969 448.8 C162

Bactericides, Biochemistry, Butyrie acid, Catechol, Culture media, Degradation, Dichlorophenoxy) butyrie aeid, 4-(2,4-, Halobaeterium salinarium, Herbieides, Hydroquinone, Lysis, Microorganisms, Phenol compounds.

### 6378-69

## POSTEMERGENCE WEED CONTROL IN SOYBEANS.

R L Rogers L W Sloane L L McCormick La Agr 12(3,SPRING):4-5 1969 100 L939

Chemical control (weeds), Chloroxuron, Dinoseb, Herbicides, Linuron, Oils, Soybeans, Surface-aetive agents.

## 6379-69

WATER HYACINTH: NOXIOUS WEED THAT MUST BE CHECKED. A Rostron

New Zeal J Agr 117(6):51 Dec 1968 23 N48J

Eichhornia, Plant morphology, Poisonous plants, Weed control.

The ecology and need for control of the water hyacinth, Eichhornia, is discussed in relation to the irrigational and navigational problems it presents. Eichornia is also described for easy identification.

## 6380-69

## PRECISION METHODS FOR BETTER WEED CONTROL.

J H Scott

Doanes Agr Rep 32(5):26B-26C,26F 08 Feb 1969 281.8 D652

Chemical control (weeds), Cultural control (weeds), Dairy equipment, Herbicide application, Herbicides. Many herbicides are discussed.

## WEEDS IN BARLEY AND THEIR CONTROL. W C Shaw

U S D A Agr Handb (338):39-42

Mar 1968 1 AG84AH

Avena fatua, Barley, Chemical control (weeds), Cultural control (weeds), Herbieides, Legumes, Nitrated phenols, Phenoxy acid compounds, Thioearbamates

Many weeds of barley are listed, and the herbicides: 284-D, MCPA, silvex, 284-DB, dicamba, DNBP, diallate and barban are discussed.

## 6382-69

WEED CONTROL IN TURF.

F W Slife J D Butler Turfgrass Conf Proc 6:10-12 1965 SB433.14 Chemical control (weeds), Grasses, Herbicides,

Turf, Weed control. Many herbicides were tested.

## 6383-69

PRE-EMERGENCE WEED CONTROL IN THE NURSERY.

## E M Smith

Ohio Agr Res Develop Center Res Sum 31:25-26 Sep 1968 100 OH3RS

Chemical control (weeds), Dichlobenil, Diphenamid, Herbicides, Norea, Nurseries, Preemergence, Simazine, Trifluralin, Weed con-Nurseries, trol

## 6384-69

## ALLIGATORWEED FOUND IN ARKANSAS. **R J Smith C H Clement**

Rice J 72(2):25-26 Feb 1969 59.8 R36

Alternanthera philoxeroides, Aquatie weeds, Chemical control (weeds), Cultural control control (weeds), D, 2,4-, Herbicides, Irrigation ditches, Phenoxy acid compounds, Rice, Silvex, T, 2,4,5-, Weed control.

#### 6385-69

1967 GUIDE TO CHEMICAL WEED CON-TROL.

C M Snitzer et. al. Ontario Dep Agr Publ (75):79P

Jan 1967 7 ON8P

Accident prevention, Aquatie plants, Chemical control (weeds), Dairy equipment, Field erops, Fruit culture, Herbieides, Horticulture, Vegetables.

#### 6386-69

CONTROL OF UNDESIRABLE VEGETATION. PATENT 3,436,207.

59

E J Soboezenski Us Patent Office Offic Gaz 861(1):201 01 Apr 1969 156.65 OF2

Butyl-5,6-dihydro-7-methyl-5-cyclopenta(D)pyrimidine- e, Cyclohexyl-5,6-dihydro-7-methyl-5-cyclopenta(D)pyrimidine- h, Weeds.

## 6387-69

## **CONTROLLING WEEDS IN TURF.**

E W Stroube

Ohio Agr Res Develop Center Res Sum 31:3-9 MAP

## Sep 1968 100 OH3RS

Chemical control (weeds), D, 2,4-, Dicamba, Endothal, Formulations, Grasses, Herbicides, Pestieide application, Phenoxy acid compounds, Silvex, Turf.

## 6388-69

HERBICIDES IN COTTON AND THEIR COM-PATIBILITY WITH SOIL-APPLIED INSECTI-CIDES.

D J Swain J G Campion

Empire Cotton Growing Rev 46(2):83-92 REF Apr 1969 72.8 EM7

Chemical control (insects), Chemical control (weeds), Cotton, Disulfoton, Herbieides, Insecti-eides, Phorate, Prometryne, Soil sanitation, Trifluralin.

## 6389-69

INFLUENCE OF AGROTECHNICAL AND CHEMICAL TREATMENTS ON THE CHANGE-ABLENESS OF FIELD PLANT ASSOCIATIONS. (POL)

## **B** Swictochowski

Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 28:3-17

**BRUSH RESEARCH IN TEXAS, 1968.** 

Amer Nurseryman J 129(8):56-58

Horticult Viticult Sci 5(3):77-85 REF

**YIELDING RICE VARIETIES.** 

Agr Romande (SER A)7(6):69-74

Indian Farming 17(3):30-31

J K Verma V S Mani

Jun 1967 22 IN283

15 Apr 1969 80 AM371

Tex Agr Exp Sta Consolidated Progr Rep 2583-2609:79P MAP REF

Agricultural research, Brush control, Chemical

control (weeds), Cultural control (weeds), Herbi-

eide application, Herbicides. Many herbicides were

METHODS OF CHEMICAL WEED CONTROL.

Chemical control (weeds), Herbicide application,

Herbicides, Nurseries. Many herbicides were

STUDY OF CERTAIN HERBICIDES AGAINST WEEDS IN GARDEN PEAS. (BU )

Chemical control (weeds), Dinoseb, Herbicides,

Nitrated phenols, Peas, Plant protection, Prometryne, Weed control. English and Russian

CHEMICAL WEED CONTROL IN HIGH

Chemical control (weeds), Crop varieties, Fertil-izer application, Methyl-4-chlorophenoxyacetic acid, 2-, Propanil, Rice.

REDUCTION IN OR ELIMINATION OF CUL-TURAL PRACTICES IN POTATO CULTURES FOLLOWING THE APPLICATION OF HERBI-

1967 64.9 IN7

Oct 1968 100 T31P

6390-69

used.

6391-69

tested.

6392-69

**B** Velev

1968 87 G75

summaries.

6393-69

6394-69

A Vcz

CIDES. (FR)

H B Thornbill

Chemicals, Corn, Crop rotation, Echinochloa erusgalli, Field crops, Galinsoga parviflora, Herbieides, Tillage, Weed control. English and Russian summarics.

## 6395-69

## Jun 1968 17 AG8

Crop varieties, Crop yields, Cultural control (weeds), Harvesting date, Herbicide application, Potatoes, Testing, Tillage.

## 6395-69

BURNING WEEDS IN DRAINAGE DITCHES TO SUPPRESS POPULATIONS OF GREEN PEACH APHIDS AND INCIDENCE OF BEET WESTERN YELLOWS DISEASE IN SUGARBEETS.

R L Wallis J E Turner

J Econ Entomol 62(2):307-309 15 Apr 1969 421 J822

Cultural control (weeds), Drainage ditches, Economies, Insect population control, Insect vec-tors, Myzus persicae, Plant disease control, Sugar beets, Virus diseases (plants), Western yellows.

## 6396-69

## CHEMICAL WEED CONTROL IN SWEET POTATOES.

B W Wascom T P Hernandez J Montelaro La State Univ Ext Ext Pub (1556):8P-FOLDER Fcb 1969 275.29 L93EP

Amiben, Chemical control (weeds), Chlorinated hydrocarbons, D, 2,4-, Dacthal, Diphenamid, Ethyl N,N-dipropylthiocarbamate, Herbicides, Phenoxy acid compounds, Spraying equipment, Sweetpotatoes.

## 6397-69

## HERBICIDAL TREATMENT EFFECT ON CAR-BOHYDRATE LEVELS OF ALLIGATORWEED.

L W Weldon R D Blackburn Weed Sci 17(1):66-69 REF Jun 1969 79.8 W41

Alternanthera philoxeroides, Aquatic weeds, Car-

bohydrates, Chemical control (weeds), D, 2,4-, Dosage, Herbicides, Pesticide application, Silvex. 6398-69

COMMON AQUATIC WEEDS. L W Weldon R D Blackburn D S Harrison USDA Agr Handb 352:43P REF

Jan 1969 1 AG84AH

Aquatic weeds, Plant taxonomy, Water, Weed control.

Plants classified in 5 groups: Free-floating plants, aquatic grasses, emersed plants, submersed plants, and algae.

#### 6399-69

EXPERIMENTAL HUSBANDRY FARM EX-PERIENCE WITH HERBICIDES AND TILLAGE SYSTEMS FOR CEREAL GROWING.

JE Whybrew

Great Brit NAAS (nat Agr Adv Serv) Quart Rev (80,SUMMER):154-160

1968 241 G796

Chemical control (weeds), Cultural control (weeds), Economies, Grain, Herbieides, Paraquat, Tillage, Weed control.

## 6400-69

CHEMICAL WEED CONTROL IN PEANUT CROPS AT KATHERINE, NORTHERN TERRI-TORY.

1 M W Wood

Australian J Exp Agr Anim Husb 8(35):762-766 Dec 1968 23 AU792

Chemical control (weeds), Herbieides, Peanuts, Pigweed. Many herbicides were tested.

## 6401-69

STUDIES ON THE WEED CONTROL IN THE PADDY FIELD. I. ON THE WEED CONTROL IN THE PADDY FIELD. I. ON THE HERBICIDAL WEED CONTROL IN WET AND DRY NURSERIES. II. ON THE HERBICIDAL WEED CONTROL AT THE EARLY STAGE OF RICE PLANTS IN THE PADDY FIELD. TRANSL. 16734.

S Yamasaki S Takahashi S Takeda

43P

Chemical control (weeds), Crop varieties, Herbi-cides, Nurseries, Rice, Seedlings. Translation from Technical Bulletin, Miyagi Agricultural Experi-ment Station. (32), March, 1963. translated by Saburo Katayama.

Many herbicides were tested.

## BIBLIOGRAPHY

## **OTHER PESTS**

## 6402-69

**RODENT PESTS AND THEIR CONTROL. (GE)** F Christlieb

Prakt Schadlingsbekampfer 20(2):17-21 Feb 1968 421 P882

Biological control (pcsts), History, Rodent control, Rodenticides, Rodents.

## 6403-69

## PRACTICAL ORGANIZATION OF FIELD MICE CONTROL. (FR)

J Dixmeras Phytoma 19(191,SEP-OCT):38-42 1967 464.8 P563

Agricultural economics, Baits, Field mice, Or-ganizations, Rodent control, Rodenticides, Rodents.

## 6404-69

## **DESIGN AND ANALYSIS OF FOREST-MAM-**MAL REPELLENT TESTS.

W E Dodge C M Loveless N B Kvcrno

Forest Sci 13(3):333-336

Scp 1967 99.8 F7632

Mammals, Pseudotsuga menziesii, Repellency tests, Statistical analysis.

## 6405-69

## THE BIOLOGY AND CONTROL OF THE RICE FIELD MOLE RAT OF CEYLON, GONOMYS CRACILIS (NEHRING).

H E Fernando N Kawamoto N Perera Int Rice Comm News Lett 16(2):35-38 Jun 1967 59.9 IN83N

Biology, Fumigation, Pest control, Plant proteetion, Rice, Rodents.

## 6406-69

# DO SMALL MAMMALS AND BIRDS AFFECT REPRODUCTION OF SPRUCE AND FIR .

A C Hart H G Abbott E R Ladd Us Forest Serv Res Pap Ne 110:8P

1968 A99.9 F7622UN

Abics, Birds, Food, Mammals, Picca, Plant reproduction, Seeds.

#### 6407-69

## A LABORATORY METHOD FOR ASSESSING THE TOXICITY OF STOMACH POISONS TO SLUGS.

I F Henderson

Ann Appl Biol 63(1):167-171

Fcb 1969 442.8 AN72

Copper sulfate, Dosage, Metaldehyde, Mollusca-cides, Poisoning, Slugs, Sodium pentachlorophenate, Stomach.

#### 6408-69

**EFFECT OF RANGE TREATMENT WITH 2,4-D ON RODENT POPULATION.** 

D R Johnson R M Hanscn

J Wildlife Manage 33(1):125-132 Jan 1969 410 J827

D, 2,4-, Field micc, Hcrbicides, Methodology, Phenoxy acid compounds, Population, Range management, Rodents.

## 6409-69

ALL MUST PULL THEIR WEIGHT IN PEST CONTROL.

## C R M Jones

New Zeal J Agr 114(6):61

Jun 1967 23 N48J

Dogs, Pest control, Rabbits.

Pest control in New Zealand is the primary concern of the Rabbit Destruction Council. Farmers are asked to help by using such methods as shooting, trapping, snaring, gassing and dog packs.

## 6410-69

## THE MUSKRAT IN LOIRE-ATLANTIQUE. (FR) N Mahieu

60

Phytoma 19(190, JUL-AUG): 34-36 1967 464.8 P563

Crop losses, Muskrats, Plant injuries, Rodent control, Traps, Zoogeography.

#### 6411-69

NEW CONTRIBUTIONS TO THE SUBJECT 'BIRDS AND AGRICULTURE'. (FR )

H Sirlcz

Phytoma 19(193):20-25

Dcc 1967 464.8 P563

Birds, DDT, Fruit, Herbicides, Pesticides, Pigcons, Plant injuries, Plant protection, Population, Sparrows. The book, The protection of crops against birds, published by ACTA is reviewed in the first section of this article.

#### 6412-69

## A NEW METHOD OF RAT CONTROL IN COCONUTS.

Arsenic compounds, Azinphosmethyl, Baits, Chemical control (pests), Citrus, Infestation, Metaldehyde, Pesticides, Plant injuries, Slugs,

LIVESTOCK PROTECTION

ON THE PERMANENT BEDDING OF CHICKEN. SOME TECHNICAL AND HY-GIENIC-SANITARY QUESTIONS. (IT )

Absorption, Ammonia, Animal nutrition, Bedding (livestock), Chicken types (meat), Chickens, Hu-midity, Hygiene, Microorganisms, Nitrogen, Sanitation.

EFFECTS OF DIMETRIDAZOLE AND AN-TIBIOTICS ON GROWTH AND REPRODUC-

S L Balloun D L Miller L G Arends G M Speers

Animal physiology, Dimetridazole, Drug therapy,

Fced additives, Penicillin, Reproduction, Strepto-mycin, Turkcys, Zinc bacitracin.

THE BACTERIAL POPULATION OF AN IN-DOOR POULTRY LAGOON.

SANITARY LEGISLATION IN FRANCE CON-

Agricultural legislation, Food inspection, Legislation, Livestock diseases, Poultry diseases, Public health, Salmonellosis.

THE EFFECTS OF DDT ON A BREEDING POPULATION OF THE RUFOUSSIDED TOWHEE (PIPILO E. ERYTHROPHTHALMUS

**CERNING ANIMAL SALMONELLOSIS. (FR )** 

L J Cabes A R Colmer H T Barr B A Tower

Bacteria, Microbiology, Poultry manure.

Lyon Ecole Nat Vet These (14):128P

Diss Abstr Sect B 29(1):410B Jul 1968 Z5055.U49D53

Zooprofilassi 23(6/7,JUN-JUL):295-314

**R W Smith** Trop Sci 44(4):315-324 REF

Sunkist Pest Contr Circ (373):1-2

Oct 1967 26 T756

Dec 1968 423.9 C12E

Baits, Coconuts, Pest control, Rats, Surveys.

6413-69 SNAILS AND SLUGS IN CENTRAL CALIFOR-NIA.

Snails.

6414-69

M Alcandri

6415-69

6416-69

6417-69

6418-69

LINNAEUS). F W Davis

**H** Chapoutier

1967 41.2 L99

1968 41.8 Z72

TION IN TURKEYS.

Poultry Sci 48(1):171-176

Poultry Sci 48(1):54-63 REF

Jan 1969 47.8 AM33P

Jan 1969 47.8 AM33P

6443-69

Bioehemistry, Birds, Breeding, DDT, Feeding, Insecticide residues, Lipids, Population.

## 6419-69

THE STORY BEHIND THE LABEL. D Diek

Western Livestock 47(10):20-21,58,61-62,64-66, Jan 1969 6 F2278

Agricultural research, Animal husbandry, Animal nutrition, Drugs, Labeling.

#### 6420-69

GROWTH, FEED EFFICIENCY AND GROSS CHEMICAL COMPOSITION IN MARKET-WEIGHT PIGS AS INFLUENCED BY A COM-BINATION OF SYNTHETIC SEX HORMONES AND TYLOSIN.

H Doornenbal R Frankham Can J Anim Sci 49(1):77-83 REF Apr 1969 41.8 C163 Animal nutrition, Animal physiology, Feed additives, Sex hormones, Swine, Tylosin.

#### 6421-69

ACHIEVEMENTS OF SOVIET VETERINARY **HELMINTHOLOGY. (BU )** 

V S Ershov Vet Med Nauk 5(5):3-10 1968 41.8 V6468 Helminthology, Veterinary medicine.

#### 6422-69

## **ZOOTECHNICAL INITIATIVES CARRIED OUT DURING 1966. (IT )**

**R** Fabbri Agr Ferrarese 71(1):18-22 31 Jan 1967 16 AG87

Animal geneties, Cattle records, Costs, Dairy eattle, Livestoek, Poultry industry, Swine.

## 6423-69

## SHELL PRODUCTS FOR ANIMAL HEALTH. 1 D Farquharson

Spain; Shell Pub Health Agr News 11(1):18-22 REF

1968 464.8 SP2

Anthelminties, Arthropoda, Cattle, Chloro-1-(2,4dichlorophenyl)vinyl diethyl phosphate, 2-, Diehlorvos, Dieldrin, Dogs, Horses, Inseetieides, Livestoek diseases, Methylbenzyl 3-hydroxy-eis-erotonate dimethyl phosphate, alp n, Poultry, 2-, Sheep, Swine.

#### 6424-69

## EFFECT OF SOME PESTICIDES ON THE ADRENAL GLANDS IN THE RAT. T S Foster

Can J Biochem 46(9):1115-1120 REF

Sep 1968 470 C16E

Adrenal glands, Bioehemistry, Dieldrin, DDT, Dosage, Enzymes, Malathion, Pestieides, Rats, Steroids, TDE.

#### 6425-69

ON THE BACTERIAL EFFECT OF IONIZING IRRADIATION ON CERTAIN MICROORGAN-**ISMS. SECOND COMMUNICATION. A STUDY** OF THE BACTERICIDAL EFFECT OF GAMMA RAYS ON CERTAIN BACTERIA AND THE SPORES OF BAC. ANTHRACIS. (BU) 1 Genov V Fyodorov D Dimitrov N Antonov

Vet Med Nauk 5(7):41-48 REF 1968 41.8 V6468

anthraeis, Baeillus Bacteriology, Dosage, Erysipelothrix insidiosa, Gamma rays, Immunity, Irradiation, Myeobacterium tubere Proteinases. English and Russian summaries. tubereulosis,

## 6426-69

## **EXPERIMENTS WITH FATTENING PIGS ON** PASTURE. (FR)

J Gilibert P Capitaine H Serres

- Rev Elevage Med Vet Pays Trop (N s)21(2):219-225
- 1968 41.8 R3262

Animal nutrition, Diet, Fattening, Grazing, Pastures, Rainfall, Swine. English and Spanish summaries.

6427-69

A STUDY OF NATURAL PASTURES IN MADAGASCAR. PRODUCTIVITY AND PRATI-CAL APPLICATIONS. (0FR) P Granier J Lahore P Dubois

Rev Elevage Med Vet Pays Trop (N s)21(2):203-218 MAP REF 1968 41.8 R3262

Agriculture, Cattle, Climate, Ecology, Hay, Malagasy Republic, Pastures. English and Spanish summaries.

6428-69

6428-69 VETERINARY TREATMENT OF FARM ANIMALS IN THE CASE OF EXTERNAL RADIOACTIVE CONTAMINATION. FIRST COMMUNICATION. VETERINARY TREAT-COMMUNICATION. VETERINARY TREAT-MENT OF SHEEP AND PIGS EXTERNALLY CONTAMINATED WITH PHOSPHORUS32 AND STRONTIUM89. (BU) N Gromkov

Vet Med Nauk 5(7):35-40 1968 41.8 V6468

Phosphorus isotopes, Radioaetive contamination, Sheep, Strontium isotopes, Swine, Veterinary medicine. English and Russian summaries.

## 6429-69

## MAINTAINING HIGH-OUALITY VETERINARY **BIOLOGICS.** J M Heil

Western Livestock 47(10):22,24

Jan 1969 6 F2278

Labeling, Laboratory animals, Serum, Vaccines, Veterinary medieine.

#### 6430-69

SEX-LINKED DWARFISM AND EGG PRODUC-TION OF BROILER DAMS.

R G Jaap M Mohammadian Poultry Sci 48(1):344-346 Jan 1969 47.8 AM33P

Animal geneties, Chiekens, Egg production.

## 6431-69

# RELATION BETWEEN DDT IN DIETS OF LAY-ING BIRDS AND VIABILITY OF THEIR EGGS.

F J S Jones D D B Summers Nature 217(5134):1162 23 Mar 1968 472 N21 Biochemistry, Birds, Diet, DDT, Eggs, Feed, Inscetieides, Metabolites, Poisoning, Toxins.

#### 6432-69

ABSORPTION AND DISTRIBUTI ETHYLENEDIAMINETETRAACETIC (EDTA) INGESTED BY THE CHICK. DISTRIBUTION OF ACID

R D Kealy D E Greene P W Waldroup E L Stephenson Poultry Sci 48(1):94-99 REF

Jan 1969 47.8 AM33P

Absorption. Animal physiology. Chieks, Ethylenediaminetetraaeetie aeid, Exerction.

**IMPROVING EGG QUALITY IN POULTRY BY** ORALLY ADMIN PATENT 3,438,783. ADMINISTERING ANDROGENS.

L J Maehlin

Us Patent Office Offic Gaz 861(3):881 15 Apr 1969 156.65 OF2

Androgens, Animal nutrition, Diet, Eggs, Hormones, Patents, Poultry products, Steroids.

## 6434-69

# ARTIFICIAL INSEMINATION OF LIVESTOCK IN THE SOUTH PACIFIC.

I C A Martin S P acific Comm Tech Pap (155):8P MAP Jul 1967 280.9 SO823T

Animal breeding, A L ivestock, Methodology. Artifieial insemination,

#### 6435-69

## ON THE AGRICULTURAL IMPORTANCE OF THE ROOK (CORVUS FRUGILEGUS L.). (RUS ) V 1 Osmolovskaya

Moskov Obshch Ispytalelei Prirody Byul Otd Biol 72(6):37-41 MAP REF

61

1967 511 M85

Beneficial birds, Natural control (insects), Sugar beets, Zoogeography. English summary.

LONG DISTANCE DISPERSAL OF SEEDS BY **RETENTION IN DIGESTIVE TRACT OF BIRDS.** V W Proetor

Science 160(3825):321-322 REF

19 Apr 1968 470 SCI2

Birds, Digestion, Research, Seed dissemination, Tables (data), Time, Zoogeography.

## 6437-69

PARASITES OF MAN AND DOMESTIC ANIMALS IN VIETNAM, THAILAND, LAOS, AND CAMBODIA. HOST LIST AND BIBLIOG-RAPHY. D B Segal J M Humphrey S J Edwards M D Kirby Exp Parasitol 23(3):412-464 REF Dee 1968 436.8 EX7 Bibliography, Livestoek, Parasites, Surveys, Zoogeography. 6438-69 VETERINARY SCIENCE. S R M Sharma

Rev Agr Res Punjab 3(PT 5):1-55 REF

1965 S280.P8K3

Animal physiology, Etiology, Hematology, Livestock diseases, Parasitism, Pharmaeology, Reviews, Veterinary medicine.

## 6439-69

ON THE EFFECT OF SEVIN ON SEXUAL FUNCTIONS OF WARM-BLOODED ANIMALS. (RUS)

S A Shilova A A Smirnov V A Ognev L D Voronova Med Parazitol Parazitarn Bolezni

37(5,SEP/OCT):604-609

1968 448.8 M469

Carbamates, Carbaryl, Chemical control (insects), Field mice, Insectieides, Ixodides, Reproduction, Rodents, Wildlife diseases. English summary.

#### 6440-69

**ISOTOPES IN AGRICULTURE.** Sojuzchimexport, Moscow, USSR 28P

TURKEY MANAGEMENT GUIDE.

Nebr Univ Ext Ec (1423):40P

Aug 1968 275.29 N272EX

D Sundaresan U D Sharma

ANIMAL SCIENCE.

Animal husbandry,

Research, Sheep, Wool.

New Zeal J Agr 118(4):22-23

1965 S280.P8K3

T W Sullivan E W Gleaves T E Hartung

Rev Agr Res Punjab 3(PT 6):1-34 REF

1968 S589.5.S6

Animal husbandry, Crops, Ionization, Isotopes, Mechanization, Poultry, Radiation, Radioisotopes.

The author lists radioactive and stable isotopes and isotope-labelled compounds used in agricultural investigations.

Animal husbandry, Dairy equipment, Farm buildings, Farm management, Poultry diseases, Turkeys, Ventilation.

CONTROL OF SPARROWS ON POULTRY

Animal vectors, Bird pests, Economies, Pest con-

Sparrows have become significant pests on poultry

farms as parasite and disease vectors, sanitation spoilers and food wasters. Their ceonomic im-portanee is diseussed. Detailed instructions for

eonstruction and use of a sparrow-trapping ap-

trol, Poultry farm management, Sparrows.

Dairy industry, Goats,

## 6441-69

6442-69

6443-69

FARMS.

M E Sutton

Apr 1969 23 N48J

paratus are given.

## LIVESTOCK PROTECTION

## 6444-69

## 6444-69

## **EXCRETION OF RADIOACTIVE MESTRANOL** IN THE MILK OF ANIMALS.

M Talaat Abdel-Aziz G Bialy W B Keith K I H Williams

Int J Fertility 14(1, JAN-MAR): 39-47 REF 1969 442.8 1N83

Excretion, Lactation, Milk analysis, Radioactive substances, Rats, Sheep, Swine.

## 6445-69

PRODUCTION OF CELLULASE, ANTIBIOTIC AND ANTI-TUMOR SUBSTANCES BY GROW-EUMYCES ATCC 16425 PATENT ING 3,438,864.

M D Tendler

Us Patent Office Offic Gaz 861(3):897

15 Apr 1969 156.65 OF2

Antibiotics, Carbon, Cellulase, Drugs, Enzymes, Molds, Nitrogen, Patents.

## 6446-69

## S.N.F. CONTENT OF MILK.

J P Walsh

Irish Agr Creamery Rev 21(415):9-14 Jul 1968 44.8 C866

Aging, Biochemistry, Cattle, Dairy cattle, Environment, Genetics, Lactose, Livestock diseases, Mastitis, Milk, Milk analysis, Milk fat, Physiology, Proteins, Quantitative analysis, Tables (data), Ud-ders. S.N.F. refers to milk solids that are not fats.

#### 6447-69

CURVULARIN-CONTAINING ANIMAL FEED FOR PROMOTING GROWTH AND INCREAS-ING FEED EFFICIENCY. PATENT 3,436,223. H L Wehrmeister

Us Patent Office Offic Gaz 861(1):204

01 Apr 1969 156.65 OF2

Animal physiology, Animals, Curvularin, Feed, Food additives, Meat.

## 6448-69

**REVIEW OF THE MOST IMPORTANT CAUSES** OF DEATH AND DISEASE OF DOGS OVER A PERIOD OF 15 YEARS. (GE ) 1 Weisse

Giessen Justus Liebig Univ Veterinarmed Fak (inaug-diss) (47):91P REF

1967 41.2 G3642

Animal diseases, Autopsies, Death, Dogs, Veterinary medicine.

Reviews autopsy reports on 5116 dogs between 1951 and 1965.

## 6449-69

**BIOLOGY OF INVERTEBRATA.** 

J H Wilmoth

Prentich-Hall, Inc., Englewood Cliffs, New Jersey **465P REF** 

1967 QL362.W5

Animal evolution, Animal morphology, Animal taxonomy, Biology, Invertebrates.

#### 6450-69

**OBSERVATIONS AND ETHOLOGICAL CON-**SIDERATIONS ON LESIONS CAUSED BY FAULTS IN THE CONSTRUCTION OF STALLS IN SOME CATTLE HERDS. (GE) K Zeeb

Deut Tierarztl Wochensch 75(24):630-632

15 Dec 1968 41 8 D482

Cattle, Extremities, Injuries, Lesions. English sumтагу.

#### DISEASES

## 6451-69

THE EFFECT OF MASTITIS ON THE FREEZ-ING-POINT OF COWS' MILK. KING, J O L. Brit Vet J 125(1):25-30

Jan 1969 41.8 V643

Cattle, Dairy bacteriology, Food contamination, Livestoek diseases, Mastitis, Melting points, Milk analysis, Temperature. French, German and Spanish summaries.

## **BIBLIOGRAPHY**

## 6452-69

NOTES ON THE SPONTANEOUS PATHOLOGY OF THE DOG IN THE LABORATORY. 3RD NOTE: CONCERNING A SPONTANEOUS **HEPATECTOMY**.(FR)

G van Hauerbeke J Michoulier H Verine Acad Vet France Bull 41(1):41-44 Jan 1968 41.9 R24

Animal histology, Diagnosis, Dogs, Drug therapy, Hypertrophy, Liver.

#### 6453-69

THE USE OF MEASLES VACCINES IN THE IM-MUNIZATION OF THE DOG. (GE )

O Ackermann H Siebel Kleintier-praxis 13(2):48-51

Mar 1968 41.8 K67

Canine distemper, Dogs, Immunization, Measles vaccine, Viral vaccines.

## 6454-69

SPRAYABLE OR SUBCUTANEOUSLY ADMIN-STRABLE VACCINE FOR THE IMMUNIZA-TION OF MUSTELINES AGAINST DISTEMPER AND PROCESS FOR ITS PREPARATION. PATENT 3,420,934.

O Ackermann

Us Patent Office Offic Gaz 858(1):277-278 07 Jan 1969 156.65 OF2

Canine distemper, Immunization, Patents, Spray-ing, Vaccines, Virus diseases (animals).

#### 6455-69

**NEWCASTLE DISEASE IN POULTRY.** 

U S D A Leafl (451):6P

Dec 1968 1 AG84L

Disease transmission, Immunization, Newcastle disease, Poultry, Poultry diseases, Virus diseases (animals).

6456-69

COMBINED ACTION OF ROUS SARCOMA VIRUS AND CHEMICAL CARCINOGEN IN RATS. C G Ahlstrom J Heaton

Experientia 24(4):411-413

15 Apr 1968 475 EX7

Animal physiology, Biochemistry, Carcinogens, Rats, Rous sarcoma virus.

### 6457-69

BORDETELLA BRONCHISEPTICA AND IN-FECTIONS OF THE NASAL CAVITY IN SWINE. (DU)

J P W Akkermans H Ouwerkerk J I Terpstra Tijdschr Diergeneesk 15(93):964-972

01 Aug 1968 41.8 T431

Bordetella bronchiseptica, Infectious diseases, Livestock diseases, Respiratory diseases, Swine. English, French, German, and Spanish summaries

## 6458-69

THE PRECISION OF VIRUS END-POINT DETERMINATIONS. W H Allan C N Herbert

Arch Gesamte Virusforsch 25(3-4):330-336 Dcc 1968 448.3 AR23

Chick embryos, Newcastle disease virus, Paramyx-

oviruses, Poultry diseases, Volumetric analysis.

## STUDIES ON AN OCULAR INFECTIOUS LARYNGOTRACHEITIS VACCINE.

A A Alls J R lpson W D Vaughan Avian Dis 13(1):36-45 REF

Feb 1969 41.8 AV5

Aging, Animal physiology, Chick embryos, Dosage, Eyes, Immunization, Infectious diseases, Infectious laryngotracheitis, Poultry diseases, Tissue culture, Vaccines, Virus diseases (animals).

#### 6460-69

## ON THE GRANULAR DERMATITIS IN HOR-SES WHICH CONTAINS A KIND OF TRUE FUNGUS IN THE FOCI II. (JA ) J Amemiya S Nishiyama

62

Kagoshima Univ Fac Agr Bull 18:185-191 Feb 1968 107.6 K114B

Dermatitis, Fungus diseases (animals), Habronema, Horses, Mortierellaceae, Mycosis, Nematodes, Summer sores. English summary.

#### 6461-69

6462-69

6463-69

rics.

OF

REF

6465-69

6466-69

LAST.

6467-69

6468-69

Anonymous

AL.

Anonymous

Anonymous

Anonymous

1967 41.9 P67

and French summaries.

Jan 1969 SF191.D3

Jul 1968 60.18 AU7

discases, Mastitis, Milk.

A NEW FOWL POX VACCINE.

Farmers Weekly 70(17):32

Australian Vet J 44(11):522

Nov 1968 41.8 AU72

25 Apr 1969 10 F2226

Mastitis, Staphylococci.

6464-69

INTERSTATE

R J Anderson

1967 41.9 P67

16 May 1969 L1.451

discases, Regulations.

Fed Regist 34(94):7798-7800

E Andreani G Della Croce

SUITABLE BLOOD SOURCES PERMITTING **REACQUISITION OF INFECTIVITY BY CUL-**TURE-FORM **TRYPANOSOMA** (TRYPANOZOON) BRUCEI.

Y U Amrein R B Hanneman

Acta Trop 26(1):70-75

1969 475 AC8

Blood culture, Culture media, Immunity, Mammals, Protozoa, Tissue culture, Trypanosoma brucci.

The specific immunity of the individual, rather than the species, sex, or age of the mammalian blood donor, was found to be responsible for the inability to culture Trypanosoma brucei on some blood media.

ANIMALS AND POULTRY. BRUCELLOSIS. MISCELLANEOUS AMENDMENTS.

Brucellosis, Cattle, Interstate commerce, Livestock

THE NATURAL OCCURRENCE OF CANINE L.

ICTEROHAEMORRHAGE INFECTION. A SUR-VEY DURING TEN YEARS (OCTOBER 1957-SEPTEMBER 1967). (IT )

Bacterial diseases (animals), Canine distemper, Dogs, Leptospirosis. English and French summa-

SEROLOGICAL SURVEY ON THE INCIDENCE

Antibodics, Bacterial diseases (animals), Blood

scrum, Cattle, Leptospira hardjo, Leptospira

pomona, Leptospirosis, Livestock diseases. English

Dairy cattle, Drug therapy, Livestock diseases,

EFFECTIVE ATTACK ON MASTITIS...AT

Dairy cattle, Diagnosis, Drug therapy, Livestock

Avian poxviruses, Fowlpox, Immunization, Poultry diseases, Viral vaccines, Virus diseases (animals).

NATIONAL APPROACH TO CONTROL OF ANIMAL DISEASE IN AUSTRALIA. EDITORI-

Animal diseases, Legislation, Veterinary medicine.

Australian Country Mag 24(6):28-29,56

THE ROUTE TO CONTROL OF MASTITIS.

BOVINE LEPTOSPIROSIS IN

Pisa Univ Stud Fac Med Vet Ann 20:258-263

**PROVINCE OF BELLUNO. (IT )** 

E Andreani E Tasselli N Berton

Dairy Herd Manage 6(1):28-29

Pisa Univ Stud Fac Med Vet Ann 20:248-257

TRANSPORTATION

OF

THE

6493-69

## 6469-69

HOT DEBATE BOILS OVER VACCINES. Anonymous Big Farmer 41(3):26,28

15 Mar 1969 58.8 B46

Cattle, Disease transmission, Hog cholera, Vaccines, Virus diseases (animals).

## 6470-69

## VICTORIA'S FOOTROT CONTROL AREA.

Anonymous J Agr 67(2):54-55 Feb 1969 23 V66J Antibiotics, Foot rot (animals), Legislation, Livestock diseases, Sheep.

## 6471-69

SOME OBSERVATIONS ON THE INCIDENCE **OF BRUCELLOSIS IN ANIMALS IN WEST** PAKISTAN.

S A S M Anwar Shah S Ahmad Khan Pakistan J Sci 19(4):189-192 Jul 1967 475 P172

Brucella abortus, Brucellosis, Buffaloes, Cattle, Goats, Livestock diseases, Milk, Pregnancy, Sheep.

## 6472-69

## DUCK COCCIDIA IN THE LITHUANIAN SSR. $(\mathbf{RU})$

T Arnastauskiene V Povilaitis Acta Parasitol Lithuanica 7:15-20 REF

1968 436.9 AC8

Coccidiosis, Ducks, Protozoa. English and Lithuanian abstracts.

## 6473-69

ON THE DOMESTIC GEESE COCCIDIA IN THE LITHUANIAN SSR. (RU) T Arnastauskiene Acta Parasitol Lithuanica 7:5-13 REF

1968 436.9 AC8 Coccidiosis, Eimeria, Geese, Protozoa, Taxonomy. English and Lithuanian abstracts.

## 6474-69

MESOSOMES IN M-TYROSINE-INHIBITED BAC ILLUS THURINGIENSIS. J N Aronson P A Bowe J Swafford J Bacteriol 93(3):1174-1176 Mar 1967 448.3 J82 Bacillus thuringiensis, Cytology, Microscopy, Physiology, Tyrosinc.

#### 6475-69

**AD RENERGIC MECHANISM IN BORDETELLA** PERTUSIS TREATED ANIMALS. S Arora R K Sanyal Cur Sci 36(12):322-323 20 Jun 1967 475 SCI23

Biochemistry, Bordetella pertussis, Epinephrine, Guinea pigs, Histamine, Mice, Rabbits, Vaccines.

## 6476-69

ASPERGILLUS FLAVUS **MENINGO-EN-CEPHALITIS IN CHICKENS AND GEESE. (IT )** G Asdrubali M Ribaldi L Gialletti L Mughetti Nuova Vet 44(4,JUL-AUG):224-241 REF Jul 1968 41.8 N922

Aspergillus flavus, Brain, Chickens, Fungus diseases (animals), Geese, Meningo-encephalitis, Poultry diseases. French, English and Spanish summaries.

## 6477-69

## ELECTRONMICROSCÓPIC, CYTOCHEMICAL AND IMMUNOCHEMICAL STUDY OF B. ANTHRACIS AND B. CEREUS.

A A Avakyan I B Pavlova L N Katz K N Levina J Hyg Epidemiol Microbiol Immunol 11(2):151-159 REF

1967 448.8 J826

Baeillus anthracis, Baeillus cereus, Biochemistry, Cytology, Electron microscopy, Immunochemistry, Tissue culture.

## 6478-69

IMMUNO-FLUORESCENT STUDY OF AN-TIBODY FORMATION IN IMMUNIZATION OF GUINEA PIGS WITH A LIVE BRUCELLA CUL-TURE. (RUS)

M M Averbakh N 1 Tatishvili N V Gogebashvili Zhur Mikrobiol Epidemiol Immunobiol 4:52-56 1968 448 3 7.4

Antibodies, Brucella abortus antigens, Cells, Fluorescent antibody technic, Fluorescent sub-stances, Guinca pigs, Immunization, Plasmolysis, Serological tests. English summary

### 6479-69

STUDIES ON SALMONELLA INFECTION AMONG RABBITS IN THE U. A. R.

F I Awad M A El-Agroudy A A Bassiouni I M Sadek F Masoud

J Vet Sci U A R 4(1):11-17 REF 1967 SF604.J6

Food additives, Furazolidone, Neomycin, Pathology, Rabbits, Salmonellosis.

## 6480-69

ISOLATION OF EQUINE RHINOPNEU-MONITIS VIRUS FROM ACUTE RESPIRATO-RY DISEASE IN A HORSE IN QUEENSLAND. T J Bagust R R Pascoe

Australian Vet J 44(6):296 Jun 1968 41.8 AU72 Equine rhinopneumonitis, Horses, Respiratory discases, Serological tests, Tissue culture, Virus discases (animals).

## 6481-69

A PROGRESSIVE SPASTIC SYNDROME IN CATTLE. A A Baker Australian Vet J 44(8):393

Aug 1968 41.8 AU72 Cattle, Hereditary diseases, Livestock diseases, Muscles, Pregnancy, Spasms.

## 6482-69

MANAGEMENT OF ALLERGIC DISEASE BY HYPOSENSITIZATION. E Baker Amer Vet Med Ass J 154(5):491-494 01 Mar 1969 41.8 AM3 Allergies, Animal diseases, Antigens, Diagnosis, Dosage, Drug therapy, Injections. 6483-69

THE MORPHOLOGIC RESPONSE OF THE TURKEY OVIDUCT PATHOGENIC AGENTS. CERTAIN TO R A Ball V B Singh B S Pomeroy Avian Dis 13(1):119-133 REF Feb 1969 41.8 AV5 Animal morphology, Microorganisms, Microscopy,

Mycoplasma meleagridis, Oviducts, Poultry discases, Turkeys, Virus diseases (animals).

## 6484-69

SUSCEPTIBILITY OF EUROPEAN ZEBU CROSSBRED CATTLE TO LAPINSED RIN-DERPEST VACCINE. R P Bansal G L Sharma

Indian J Vet Sci Anim Husb 38(3):379-383 Scp 1968 41.8 IN22

Calves, Cattle breeds, Livestock diseases, Rinderpest virus, Veterinary medicine, Viral vaccines, Zebu cattle.

6485-69

## **BIOLOGICAL ASSAY OF VIRUS CONTENTS** OF TISSUES OF RABBITS INFECTED WITH LAPINISED RINDERPEST VIRUS.

R P Bansal S K Chawla G L Sharma

Indian J Vet Sci Anim Husb 38(3):374-378 REF Sep 1968 41.8 IN22

Biological assay, Rabbits, Rinderpest virus, Tissue culture, Veterinary medicine, Viral vaceines, Virology.

**ROLE OF COMPLEMENT IN IMMUNE INAC-**TIVATION OF MYCOPLASMA GALLISEP-TICUM. L F Barker J K Patt

J Bacteriol 94(2):403-408 REF

Aug 1967 448.3 J82

Complement, Immunity, Mycoplasma gallisepticum, Scrological tests.

#### 6487-69

6486-69

CLINICAL AND PATHOLOGICAL STUDIES OF BORDER LEICESTER RAMS NATURALLY IN-FECTED WITH ACTINOBACILLUS SEMINIS. I D Baynes G C Simmons

Australian Vet J 44(8):339-343 REF Aug 1968 41.8 AU72

Actinobacillus seminis, Animal histology, Epididymitis, Livestock diseases, Rams, Reproductive organs.

## 6488-69

ENZOOTIC ABORTION AND STERILITY FROM BOVINE LEPTOSPIROSIS IN THE PO VALLEY. (IT) L Bellani L Ruggeri Clinica Vet 91(8):237-243 REF Aug 1968 41.8 C61 Agglutination test, Bacterial diseases (animals), Cattle, Enzootic abortion, Epidemiology, Lep-tospires, Leptospirosis, Livestock diseases, Lysis, Sterility, Symptomatology, Volumetric analysis. English summary.

#### 6489-69

PIG DISEASES. H G Belschner 257P REF LONDON, ANGUS aND

ROBERTSON LIMITED 1967 SF971.B42

Animal physiology, Deficiency diseases, Disease control, Infectious diseases, Livestock diseases, Metabolism diseases, Neoplasms, Parasitism, Poisoning, Swinc, Symptomatology.

## 6490-69

IMMUNOFLUORESCENT AND IMMU-NOPHORETIC DATA ON ANTIGENIC PRO-PERTIES OF CANDIDA ALBICANS. IMMUNOFLUORESCENT AND IMMU-**R** Berchev I Izmirov Experientia 23(2):103-104 REF 15 Feb 1967 475 EX7

Candida albicans, Electrophoresis, Fluorescent antibody technic, Fungus diseases (animals), Rabbits.

## 6491-69

DUODENAL LEIOMYOSARCOMA: A CASE **REPORT.** 

D N Biery P Berg

Amer Vet Radiol Soc J 7:34-38 REF 1966 41.9 AM37

Animal diseases, Dogs, Duodenum, Neoplasms, Radiography, Sarcoma, Surgery. German and French summaries.

#### 6492-69

THE SIGNIFICANCE OF THE MANGANESE CONTENT IN THE HAIR OF CATTLE. (FR) H Binot F Lomba G Chauvaux V Bienfet Ann Med Vet 112(8):666-688 Dec 1968 41.8 AN78 Cattle, Deficiency discases, Dosage, Feed supple-ments, Hair, Livestock diseases, Manganese. English, German and Flemish summaries.

## 6493-69

STUDIES OF TUBERCULOSIS IN HENS AS A PROBLEM OF FOOD HYGIENE. (POL ) J Bojarski

Lublin Univ Mariae Curie Ann Sect Dd 22:75-94 REF

1967 512 L96AD

Chickens, Epidemiology, Food sanitation, Mycobacterium avium, Mycobacterium bovis, Food sanitation, Mycobacterium tuberculosis, Tuberculin test, Tuberculosis. English and Russian summaries.

## LIVESTOCK PROTECTION

## 6494-69

## 6494-69

## ACTINOMYCOSIS OF MANDIBLE GINGIVAE. (**IT**)

S Botticelli

Nuova Vet 43(6,NOV-DEC):635-639

1967 41.8 N922

Actinomycosis, Animal histology, Calves, Fungus diseases (animals), Jaws, Livestock diseases, Mandibular glands, Symptomatology.

## 6495-69

## METHODS OF CONTROLLING PROTOZOA INFECTIONS WITH N-SUBSTITUTED 1,4-DIAMINO 2,3-ANTHRAQUINONEDICARBOXI-MIDES. PATENT 3,436,460.

D C Boughton

Us Patent Office Offic Gaz 861(1):250 01 Apr 1969 156.65 OF2

Animal diseases, Diamino-N-(2-aminopropyl)-2,3anthraquinonedicarboxi- d, Disease control, Methodology, Protozoa.

#### 6496-69

## **DURATION OF RINDERPEST VIRUS EXCRE** TION IN CATTLE IMMUNIZED WITH AN IN-ACTIVATED VACCINE. (FR.)

P Bourdin

Rev Elevage Med Vet Pays Trop (N s)21(2):141-144

1968 41.8 R3262

Cattle, Excretion, Livestock diseases, Rinderpest virus, Vaccines, Virus diseases (animals). English and Spanish summaries.

## 6497-69

#### CONTROL OF HYDATID DISEASE AT ABAT-TOIRS AND COUNTRY SLAUGHTERHOUSES. A I Bramble

Tasmanian J Agr 38(4):309-311

Nov 1967 23 T182T

Dogs, Echinococcosis, Legislation, Sanitation, Slaughterhouses.

#### 6498-69

STUDIES ON ACUTE MAREK'S DISEASE. VIII. THE ROLE OF MOSQUITOES IN TRANSMIS-SION UNDER EXPERIMENTAL CONDITIONS. R N Brewer W M Reid J Johnson S C Schmittle Avian Dis 13(1):83-88

Feb 1969 41.8 AV5

Avian lymphomatosis, Chickens, Chicks, Culex pipiens pipiens, Culex pipiens quinquefasciatus, Experimental insects, Insect vectors, Poultry diseases.

#### 6499-69

## ANIMAL HEALTH BUSINESS THRIVES. J Buck

U.S. Defense Serv Admin Quart Indus Rep 16(1):15-16

Mar 1969 157.32 C42

Agricultural research, Animal husbandry, Drugs, Feed additives, Livestock diseases, Manufacturing costs, Veterinary medicine.

#### 6500-69

INVESTIGATIONS ON THE VIRUSES OF THE ORPHAN TYPE OCCURRING IN PIGS IN PO-LAND, IV. HAEMATOLOGICAL FINDINGS IN PIGLETS ARTIFICIALLY INFECTED WITH VIRUS LI. (POL)

J Buczek T Jastrzebski

Lublin Univ Mariae Curie Ann Sect Dd 22:47-53 REF

1967 512 L96AD

Baby pigs, Colostrum, Hematology, Livestock diseases, Picornaviruses, Swine, Virus (animals). English and Russian summaries. Virus diseases

## 6501-69

INVESTIGATIONS ON THE VIRUSES OF THE ORPHAN TYPE OCCURRING IN PIGS IN PO-LAND. VII. INFLUENCE OF THE ORPHAN VIRUS LI ON THE VIRUS OF HOG CHOLERA IN SWINE KIDNEY CELL CULTURES. (POL) J Buczek

Lublin Univ Mariae Curie Ann Sect Dd 22:69-73 REF

## BIBLIOGRAPHY

1967 512 L96AD

Hog cholera virus, Kidneys, Livestock diseases, Myxoviruses, Swine, Tissue culture, Virology, Virus diseases (animals). English and Russian summaries.

#### 6502-69

MEDIUM-CHAIN TRIGLYCERIDES AS A STRESS FACTOR IN VITAMIN E DEFICIENCY OF CHICKS.

P Budowski H Fisher P Griminger

Poultry Sci 48(1):350-352 Jan 1969 47.8 AM33P

Antitoxins, Chicks. Glycerides, Vitamin e. Chicks, Deficiency diseases,

#### 6503-69

#### SEQUENCE OF RNA SYNTHESIS IN CHICK FIBROBLASTS INFECTED WITH SENDAI VIRUS.

A G Bukrinskaya R D Berry

Biokhimiya 33(2,PT I,MAR-APR):209-214 REF Apr 1968 385 B523

Chickens, Neoplasms, Parainfluenza-1 virus, Ribonucleic acid, Synthesis. Russian journal- vol. 33(2):256-262, Mar-Apr, 1968

## 6504-69

## **LEPTOSPIRA ICTEROHAEMORRHAGIE** NATURAL INFECTION IN THE DOG. I. DETERMINATION OF ACTIVITIES OF SERUM ENZYMES. (IT)

A Buonaccorsi

Pisa Univ Stud Fac Med Vet Ann 20:239-247 REF

## 1967 41.9 P67

Bacterial diseases (animals), Blood serum, Dogs, Enzymes, Leptospirosis. English and French summaries.

#### 6505-69

## EVOLUTION OF BOTULISM. V. EVOLUTION OF PATHOGENIC PROPERTIS OF CL. BOTU-LINUM. (RUS)

P N Burgasov S N Rumyantsev Zhur Mikrobiol Epidemiol Immunobiol 4:3-7 1968 448.3 7.4

Animals, Biology, Clostridium botulinum, Ecology, Evolution, Food poisoning, Morphology, Research. English summary

#### 6506-69

## STUDIES ON AVIAN ENCEPHALOMYELITIS. IV. EARLY INCIDENCE AND LONGEVITY OF HISTOPATHOLOGIC LESIONS IN CHICKENS. W K Butterfield C F Helmboldt R E Luginbuhl

Avian Dis 13(1):53-57

Feb 1969 41.8 AV5

Animal histology, Avian encephalomyelitis, Virus diseases Chickens, Poultry diseases, (animals).

#### 6507-69

## CANINE LEPTOSPIROSIS IN ARGENTINA. (SP

R A Cacchione V C F Cedro M J D Bulgini E S Cascelli

Argent Repub Inst Nac Zoonosis Ser Tec (N s)(19):125-132

1962 41.9 AR36

Agglutination test, Dogs, Epidemiology, Leptospira, Leptospirosis, Serological tests. English summary

Reprint from Revista de Investigaciones Ganaderas , no. 14.

## 6508-69

EXPERIMENTAL LEPTOSPIROSIS. III. LEP-TOSPIROSIS IN DOGS. EXPERIMENTAL REPRODUCTION OF THE SICKNESS. (SP ) R A Cacchione V C F Cedro M J D Bulgini E S

Cascelli

Argent Repub Inst Nac Zoonosis Ser Tec (N s)(22):169-175

1963 41.9 AR36

Bacterial diseases (animals), Blood plasma, Dogs, Leptospirosis, Microscopy, Temperature. English summary, reprint from: Revista de Investigaciones Ganaderas, (17).

64

6509-69 A NOTE ON HOMOLOGOUS STRAIN IMMUNI-TY IN BABESIA ARGENTINA INFECTIONS. L L Callow Australian Vet J 44(6):268-269 Jun 1968 41.8 AU72

Babesia argentina, Cattle, Immunity, Immunization, Livestock diseases, Vaccines,

## 6510-69

SOME **OUTBREAKS** OF TURKEY ERYSIPELAS. (IT)

F Carlotto E Dovadola

Nuova Vet 44(4,JUL-AUG):250-255 REF

Jul 1968 41.8 N922

Epidemiology, Erysipelas, Poultry diseases, Skin diseases, Turkeys. French, English and German summaries.

#### 6511-69

MASTOCYTOSIS WITH GASTROINTESTINAL **ULCERATION IN A DOG.** 

C B Carrig A A Seawright Australian Vet J 44(11):503-507 REF

Nov 1968 41.8 AU72

Animal diseases, Dogs, Gastrointestinal system, Histamine, Skin diseases, Ulcers, Urticaria.

## 6512-69

6513-69

J G Castro

Animal

6514-69

Z Cech

6515-69

Sep 1968 436.8 R32

diseases,

THERAPY OF TRAUMATIC LOPERITONITIS IN CATTLE. (CZ )

Methodology, Serodiagnosis.

Veterinarstvi 18(8):366-369

1968 41.8 V6439

Therapeutics.

s)(27):11-18

6516-69

STUDY. (SP)

De Benedetti

s)(13):69-77 1962 41.9 AR36

(13).

1964 41.9 AR36

HEPATIC LESIONS IN THE RABBIT CAUSED BY VIBRIO SP. (POR)

Histology, Liver, Rabbits, Vibrio. English abstract.

RECENT TECHNIQUES FOR SERODIAGNOSIS

OF HUMAN AND ANIMAL HYDATIDOSIS. IV. TEST WITH SENSITIZED PARTICALS OF LATEX. (SP)

Rev Iberica Parasitol 28(3, JUL-SEP):349-365

MAGNETIC PROBES IN PROPHYLAXIS AND

Cattle, Injuries, Magnets, Peritonitis, Reticulum,

A BRUCELLA OVIS ANTIGEN FOR THE SKIN

**TEST OF OVINE GENITAL BRUCELLOSIS. (SP** 

Antigens, Bacterial diseases (animals), Brucella

ovis, Brucellosis, Epididymitis, Reproductive or-

Reprint from: Revista de Investigaciones

METHODS OF SEROLOGICAL DIAGNOSIS IN

CAPRINE BRUCELLOSIS. A COMPARATIVE

V C F Cedro H O Cisale R A Maubecin L M E

Antigens, Bacterial diseases (animals), Blood plasma, Brucellosis, Chickens, Diagnosis, Poultry diseases. English, French and German summaries.

reprint from: Revista de Investigaciones ganaderas,

Argent Repub Inst Nac Zoonosis Ser Tec (N

V C F Cedro H O Cisale L M E De Benedetti

Argent Repub Inst Nac Zoonosis Ser Tec (N

gans, Sheep, Skin tests. English summary.

Agropecuarias, (ser 4)1(2).

Echinococcosis,

Latex.

**RETICU-**

A F P de Castro W Giorgi O C Filho Biologico 33(8):184-186 Aug 1967 442.8 B529

## LIVESTOCK PROTECTION

## 6541-69

## 6517-69

IMMUNE RESPONSE OF CHICKENS TO SIX STRAINS OF NEWCASTLE DISEASE VIRUS AS MEASURED BY HEMAGGLUTINATION-IN-HIBITION TEST.

P W Chang V J Yates J A Pendleton T D Flanagan

Avian Dis 13(1):46-52

Feb 1969 41.8 AV5

Antibodies, Chickens, Hemagglutination-inhibition test, Hydracrylie acid beta-lactone, Immunization, Newcastle disease, Poultry diseases, Vaccines, Variance analysis, Virology, Virus diseases (animals).

## 6518-69

INFLUENCES OF AN ANTI-OVULATORY COMPOUND ON THE EXPRESSION OF VITAMIN D DEFICIENCY SIGNS IN LAYING HENS.

S I Chang J McGinnis M H Pubols

Poultry Sci 48(1):154-159 REF

Jan 1969 47.8 AM33P

Animal nutrition, Chickens, Deficiency diseases, Eggs, Estrogens, Ovulation, Vitamin d.

## 6519-69

RABIES, DISEASE OF TODAY. ITS NEW ETIOLOGICAL AND EPIDEMIOLOGICAL ASPECTS. (FR)

G E Chappuis

Alfort Ecole Nat Vet These (86):59P REF 1967 41.2 AL23

Discase transmission, Epidemiology, Rabies, Virology, Virus diseases (animals), Wildlife discases.

#### 6520-69

THE ORGANIZATION OF THE COLLECTIVE **PROPHYLAXIS OF INFECTIOUS ANIMAL DIS-**EASES IN FRANCE. (FR) A Chossonery

Alfort Ecole Nat Vet These (83):101P REF 1968 41.2 AL23

Animal diseases, Epizootic diseases, Infectious diseases, Legislation, Organizations, Preventive medicine, Veterinary medicine.

#### 6521-69

## **VACCINATION OF BULLS AGAINST BOVINE VIBRIOSIS.**

B L Clark J H Dufty M J Monsbourgh

Australian Vet J 44(11):530

Nov 1968 41.8 AU72

Bulls, Cattle, Immunization, Livestock diseases, Vibrio fetus, Vibriosis.

## 6522-69

THE CELLULAR SITE OF VIRUS REPLICA-TION IN THE INTESTINE OF CHICKS IN-FECTED WITH AN AVIAN ADENOVIRUS.

D I Clemmer H Ichinose

Arch Gesamte Virusforsch 25(3-4):277-287 REF Dec 1968 448.3 AR23

Adenoviruses, Chicks, Fluorescence microscopy, Intestines.

#### 6523-69

## THE IMMUNITY INDUCED IN CATTLE AND SHEEP BY INOCULATION OF NEUROTROPIC OR PANTROPIC RIFT VALLEY FEVER VIRUSES.

W Coackley A Pini D Gosden

Res Vet Sci 8(4):406-414

Oct 1967 41.8 R312

Antibodies, Cattle, Immunization, Livestock dis-cases, Rift valley fever, Sheep, Virus diseases (animals).

## 6524-69

**EXPERIMENTAL INFECTION OF CATTLE WITH PANTROPIC RIFT VALLEY FEVER** VIRUS.

W Coackley A Pini D Gosden

Res Vet Sci 8(4):399-405

Oct 1967 41.8 R312

Cattle, Livestock diseases, Rift valley fever, Serum neutralization test, Virus diseases (animals).

## 6525-69

PROMAZINE HYDROCHLORIDE IN EN-DOTOXIN SHOCK IN A HORSE (A CASE RE-PORT). J R Coffman W J Bracken

Vet Med/small Anim Clin 63(10):963-966 Oct 1968 41.8 M69

Abdomen, Drug therapy, Horses, Livestock dis-eases, Promazine hydrochloride, Shoek.

GLUCOSE-DEPENDENT SECRETION AND DESTRUCTION OF HYDROGEN PEROXIDE BY MYCOPLASMA PNEUMONIAE. G Cohen N L Somerson J Bacteriol 98(2):547-551 REF May 1969 448.3 J82 Biochemistry, Culture media, Glucose, Hydrogen peroxide, Metabolism, Mycoplasma gallisepticum, Mycoplasma pneumoniae.

#### 6527-69

STRAIN VARIATION IN THE RESPONSE OF HAEMONCHUS CONTORTUS IN SHEEP AND GOATS GIVEN PHENOTHIAZINE: EFFICACY OF N. F. AND PURIFIED PRODUCTS ON PURE PARASITIC INFECTIONS.

M L Colglazier F D Enzie R P Lehman Amer J Vet Res 28(127):1711-1722 REF Nov 1967 41.8 AM3A

Goats, Hacmonchus contortus, Phenothiazine, Sheep.

## 6528-69

# CROSS-PROTECTION AGAINST SALMONEL-LA ENTERITIDIS INFECTION IN MICE.

F M Collins J Bacteriol (4):1343-1349 REF

Apr 1968 448.3 J82

Animal diseases, Immunization, Mice, Proteus, Pseudomonas aeruginosa, Salmonella enteritidis, Serratia marcescens.

#### 6529-69

# RINGWORM DUE TO TRICHOPHYTON MEN-TAGROPHYTES IN A DOG.

M D Connole Australian Vet J 44(11):528 Nov 1968 41.8 AU72

Dogs, Ringworm, Trichophyton mentagrophytes.

## 6530-69

EXPERIMENTAL EXPOSURE OF DEER TO CALIFORNIA ENCEPHALITIS VIRUS. R S Cook D O Trainer

Wildlife Dis Ass Bull 5(1):3-7 Jan 1969 41.9 W64B

Anamnestie reaction, Antibodies, California en-cephalitis virus, Decr, Virology, Virus diseases (animals).

### 6531-69

LEPTOSPIROSIS ICTERCHAEMORRHAGIAE IN DOGS IN TASMANIA.

A Corbould

Australian Vet J 44(11):529 Nov 1968 41.8 AU72

Animal diseases, Dogs, Leptospira ieterohaemorr-hagiae, Leptospirosis, Serologieal tests.

#### 6532-69

LISTERIOSIS IN SHEEP - OBSERVATIONS ON AN OUTBREAK IN ROMAGNA. (IT ) A Corrado R Graziani

Nuova Vet 44(4,JUL-AUG):264-273 REF Jul 1968 41.8 N922

Drug therapy, Epidemiology, Furazolidone, Listeriosis, Livestock diseases, Sheep. French, English and German summaries.

#### 6533-69

MORE ABSTRACTS OF PAPERS PRESENTED AT THE 1967 ANNUAL WILDLIFE DISEASE CONFERENCE URBANA, ILLINOIS JUNE 15-16, 1967.

G E Cosgrove P B Dunaway T P O'Farrell J A Payne H E Childs

65

Wildlife Dis Ass Bull 3(3):117

## Jul 1967 41.9 W64B

Abstracting, Histology, Mammals, Radioactivity, Research, Wildlife diseases.

#### 6534-69

VACCINATION OF THE HORSE FOR EQUINE INFLUENZA WITH AN UNCOMPLEMENTED POLYVALENT VACCINE. (FR)

P Cottereau H G Petermann

Rev Med Vet (toulouse) (N s 32)120(1):17-29 REF

Jan 1969 41.8 R32

Equine influenza, Horses, Immunization, Serum neutralization test, Vaccines, Virus discases (animals). English, German, and Spanish summaries.

#### 6535-69

URINE PH CHANGES IN CATTLE INFECTED WITH FOOT-AND-MOUTHDISEASE VIRUS. G E Cottral P Gailiunas Cornell Vet 59(2):249-258 REF Apr 1969 41.8 C81 Cattle, Foot-and-mouth disease virus, Hydrogen-ion concentration, Livestock diseases, Metabolism,

Urine.

## 6536-69

6537-69

(RUM)

6538-69

abstract

6539-69

COW.

F J Daly

6540-69

6541-69

ICO/1/66. (SP)

DEC):197-204 REF

Dec 1968 448.8 R32

Australian Vet J 44(8):394

Aug 1968 41.8 AU72

I Cozariue

TUMOR LOCALIZING AGENTS VI. RADIOIODINATED ANALOGS OF DICHLORODIPHENYLDICHLOROETHANE (DDD).

R E Counsell V V Ranade P Pocha R E Willette W DiGuilio

J Pharmaceutical Sci 57(10):1657-1661

Oct 1968 396 8 1825

Rev Zootech 18(9):69-71 Scp 1968 49 P943

Chlorinated hydrocarbons, Chlorination, lodides, Laboratory animals, Ncoplasms, Radioactivity, Rats, Synthesis, Tissue culture, TDE.

OBSERVATIONS ON THE CAUSES OF CHRONIC BLOATING IN YOUNG CATTLE.

Bloat, Cattle, Diagnosis, Feed, Festuca, Livestock

EQUINE INFLUENZA IN MEXICO. ISOLATION AND STUDY OF THE STRAIN E/EQUI 2/ MEX-

R G Cunha G Gonzalez Lopez L Guzman Mijares

Epidemiology, Equine influenza, Immunity, Serological tests, Virus discases (animals). English

POLIOENCEPHALOMALACIA: RESPONSE TO THIAMINE TREATMENT IN SHEEP AND A

Cattle, Livestock diseases, Polioencephalomalacia, Sheep, Thiamine.

**RESULTS OF HEMOGLOBIN DETERMINA-**TION IN PIGLETS IN THE FRAMEWORK OF HERD DIAGNOSIS OF PIGLET ANEMIA. (GE )

Anemia, Baby pigs, Blood composition, Deficiency

discases, Hemoglobin, Iron, Livestock diseases. En-glish and Russian summaries.

EVIDENCE OF LACTATE DEHYDROGENASE

D L Darre W R Wallace G T Dimopoullos

H D Dannenberg W D Wesch R Nicbuhr

Monatsh Vet 23(19):737-743 REF

IN ANAPLASMA MARGINALE.

J Bacteriol 93(3);806-810 REF

Mar 1967 448.3 J82

01 Oct 1968 41.8 M742

Rev Latinoamer Microbiol Parasitol 10(4,OCT-

diseases, Sctaria viridis, Symptomat ology.

## 6542-69

Anaplasma marginalc, Biochemistry, Biological as-Electrophoresis, Enzymcs, Lactate dchydrogenase.

## 6542-69

STUDY OF THE VIRULENCE OF CONTA-GIOUS BOVINE PLEUROPNEUMONIA OR-GANISM (ASSAM STRAIN) ON SUBCUTANE-**OUS PATHOGENICITY TEST.** C Das

Indian Vet J 45(10):816-818

Oct 1968 41.8 IN2

Cattle, Livestock diseases, Microorganisms, Pleuropncumonia, Vaccincs.

#### 6543-69

THE EFFECT OF FURAN SERIES' CARBOXYL-IC ACID N, N-BIS-(2-CHLOROETHYL) HYDRA-ZIDES AND N, N-BIS-(2-CHLORDETHYL) AMIDES ON THE GROWTH OF TRANS-PLANTABLE TUMOURS AND HAEMATOPOIE-SIS OF RATS AND MICE. (RUS )

A Dauvarte A Zidermane Latv P Sr Zinat Akad Vestis 7(240):144-149 1967 511 R442

Amines, Carboxylic acids, Furan, Hematopoicsis, Laboratory animals, Ncoplasms, Nitrofurans. English summary.

## 6544-69

**DISEASE PREVENTION IN THE PIGGERY.** P G Davenport

Lincoln Coll Farmers Conf Proc 18:125-127 1968 27 L63

Animal husbandry, Discasc control, Farm management, Livestock diseases, Regulations, Swine, Vaccincs.

#### 6545-69

## IMMUNOFLUORESCENCE IDENTIDICATION OF MYCOPLASMA ON AGAR BY USE OF IN-CIDENT ILLUMINATION.

R A Del Giudice N F Robillard T R Carski J Bacteriol 93(4):1205-1209 REF

Apr 1967 448.3 J82

Agar, Fluorescent antibody technic, Mycoplasma. 6546-69

## VIRAL LUNG DISEASES OF THE CAT. (FR) H. Dclsov

Lyon Ecole Nat Vet These (68):97P REF

1967 41.2 L99

Cats, Coryza, Lungs, Respiratory diseases, Virus discases (animals).

## 6547-69

6548-69

AEROBIC AGENTS OF ANIMAL ACTINO-**MYCOSIS. (RUS)** T A Derevleva T G Sutceva Veterinariya (12):60-63

Dec 1968 41.8 V6426

Actinomycosis, Acrobic bacteria, Microbiology.

## AVIAN REOVIRUSES. IV. RELATIONSHIP TO HUMAN REOVIRUSES.

D R Dcshmukh H 1 Saycd B S Pomcroy Avian Dis 13(1):16-22

Fcb 1969 41.8 AV5

Agar, Chicks, Complement fixation, Gels, Hemag-glutination, Hemagglutination-inhibition test, Human diseases, Mice, Reoviruses, Serum neutralization test, Virology, Virus diseases (animals).

## 6549-69

## JOHNE'S DISEASE. II. THE PATHOGENIC AGENT, SUSCEPTIBLE SPECIES AND METHOD OF INFECTION. (FR ) M Desmccht

Ann Med Vet 112(8):689-698 REF

Dec 1968 41.8 AN78

Discase transmission, Fced toxicity, Johne's disease, Mycobacterium johnci. English and Flcmish summaries.

**TRYPANOTOLERANT CATTLE, BREEDING IN CENTRAL AFRICAN REPUBLIC. (FR)** 

J Desrotour P Finelle P Martin E Sinodinos Rev Elevage Med Vet Pays Trop 20(4):589-594 1967 41.8 R3262

BIBLIOGRAPHY

Animal breeding, Cattle, Immunity, Livestock discascs, Trypanosomiasis, Zcbu cattle. Spanish and English summaries.

## 6551-69

## CONTRIBUTION TO THE STUDY OF PROPHYLAXIS OF BOVINE PNEUMONIA IN THE REPUBLIC OF HAUTE-VOLTA. (FR ) S Diallo

Lyon Ecole Nat Vet These 8:96 P. MAP REF 18 Jan 1967 41.2 L99

Animal diseases, Cattle, Epidemiology, Pncumonia, Rescarch.

#### 6552-69

## USE OF POTASSIUM IODIDE IN THE TREAT-MENT OF OVARIAN CYSTS IN COWS. (BU)

G Djambazov K Burzinski Vet Med Nauk 5(7):89-94 REF 1968 41.8 V6468

Cattle, Dosage, Drug therapy, Livestock diseases, Metritis, Ovarian cysts, Potassium iodide, Mctritis, Ovarian cysts, Potassium Procainc. English and Russian summaries.

## 6553-69

## CHARACTERIZATION OF A CYTOPLASMIC FRACTION FROM SINDBIS VIRUS-INFECTED CULTURES.

P Dobos P Faulkner Can J Microbiol 15(2):215-222 REF

Fcb 1969 448.8 C162

Cells, Cytoplasm, Properties, Ribonucleic acid, Sindbis virus, Virus diseases (animals).

## 6554-69

#### PANCREATIC ENZYMES INITIATING EXCYS-EIMERIA TATION OF ACERVULINA SPOROZOITES. D J Doran

Helminthol Soc Wash Proc 33(1):42-43 Jan 1966 436.9 H36

Biochemistry, Carboxypeptidases, Chymotrypsin, Coccidiosis, Cysts, Eimcria accrvulina, Enzymcs, Lipascs, Trypsin.

Trypsin and chymotrypsin in the presence of chicken bile induced excystation of Eimeria accrvulina sporozoites from liberated sporocysts.

#### 6555-69

## LOCATION AND TIME OF PENETRATION OF **DUODENAL EPITHELIAL CELLS BY EIMERIA ACERVULINA SPOROZOITES.**

D J Doran

Helminthol Soc Wash Proc 33(1):43-46 Jan 1966 436.9 H36

Chickens, Duodenum, Eimeria acervulina, Penetration, Poultry diseases.

Eimeria acervulina sporozoites penetrated the villar epithclium as early as 10 min. after the chickens had been fed oocysts. The time of greatest penetration was at one hour. Most sporozoites penetrated a length of the duodenum extending from a point just before the curvature of t he loop begins to about 2.5 cm. from where the panercatic duct enters.

## SITES OF AVIAN LEUKOSIS VIRUS MUL-TIPLICATION IN CONGENITALLY INFECTED CHICKENS.

R M Dougherty H S Di Stefano Cancer Res 27(2,PT 1):322-332 REF Fcb 1967 448.8 C16

Avian lcukosis complex viruses, Chickens, Electron microscopy, Histology, Physiology.

## 6557-69

TYPE C BOTULISM IN A DOVE (STREPTOPELI A ROSEOGRISEA BORNUEN-SIS) FROM FERLO (SENEGAL). (FR ) BOTULISM **M P Doutre** 

Rev Elevage Med Vet Pays Trop 20(4):601-604 REF

66

1967 41.8 R3262 •

Botulism, Clostridium botulinum, Diptera, Feeding, Larvac, Pigcons, Pupae. English and Spanish summaries

Fccding on fl y larvac and pupae a possible source of infection

#### 6558-69

CONTRIBUTION TO THE IMPORTANCE OF INOCULATION AGAINST HOG CHOLERA AS A MEASURE FOR ERADICATION OF THIS IN-FECTION IN YUGOSLAVIA. (SE ) R Draskovic

Vet Glas 22(10):871-875 REF 1968 41.8 J93

Eradication, Hog cholera, Immunization, Livestock discases, Virus discases (animals).

#### 6559-69

TREATMENT OF ANAL TUMORS WITH HON-VAN-ASTA. (GE)

**R** Dufait Kleintier-praxis 13(3):74-75

Apr 1968 41.8 K67

Adcnoma, Anus, Carcinoma, Diethylstilbestrol 4,4'-diphosphoric ester, Dogs, Drug therapy, Injections. English and French summary.

### 6560-69

FINANCING OF MEASURES FOR PREVEN-TION AND CONTROL OF ANIMAL INFEC-TIONS IN THE REPUBLIC OF MACEDONIA. (SE)

A Dzekov Vet Glas 22(10):833-839

1968 41.8 J93

Agricultural finance, Animal diseases, Costs, Disease control.

## 6561-69

PARENTERAL CHEMOTHERAPY OF OVINE FOOT-ROT.

J R Egerton I M Parsonson N P H Graham Australian Vet J 44(6):275-283 REF Jun 1968 41.8 AU72

Antibiotics, Dihydrostrcptomycin, Dosage, Drug therapy, Environment, Foot rot (animals), Fusifor-mis nodosus, Livestock diseases, Penicillin, Sheep.

#### 6562-69

(animals).

J B Emcry

6564-69

S Enchev

6565-69

Viscera.

**H K Englert** 

1969 41.8 AL5

6563-69

BEHAVIOR OF EQUINE INFECTIOUS ANEMIA VIRUS IN CELL CULTURE AND DEVELOP-MENT OF A DIAGNOSTIC TEST FOR THE DIS-EASE. A ElZein W L Mycrs D Segre

Biological assay, Culture mcdia, Equine infectious ancmia, Livestock discases, Serum, Symptomatolo-gy, Tissuc culture, Virology, Virus diseases

INFECTIOUS DISEASE REVIEW: NEWER

Bats, Central nervous system, Disease transmission,

Epidemiology, Human discases, Infectious dis-cases, Rabies, Virology, Virus discases (animals).

INDUCTION OF LUNG ADENOMATOSIS (JAAGZIEKTE) IN SHEEP. II. (BU )

Livestock diseases, Pulmonary adenomatosis, Sheep, Virus diseases (animals). English and Rus-

CHRONIC PANLEUKOPENIA IN CATS. (GE )

Cats, Fcline infectious enteritis, Neoplasms,

J Infect Dis 118(5) 473-480 REF

Dec 1968 448.8 J 821

**CONCEPTS OF RABIES.** 

Pract Vet 41(1):13-16 REF

Vet Med Nauk 5(3):13-24

Kleintier-praxis 13(3):61-62

Apr 1968 41.8 K67

1968 41.8 V6468

sian summaries.

6591-69

6566-69 A CONTRIBUTION TO THE KNOWLEDGE OF TROPHISM IN RABIES VIRUS. (FR ) D Erccgovac M Costoglou Rec Med Vet 144(10):951-961 REF Oct 1968 41.8 R24 Myxoviruses, Neoplastic diseases, Rabics virus,

Rats.

### 6567-69

APPLICATION OF THE AGAR GEL TECHNIQUE IN THE DIAGNOSIS OF INFEC-TIOUS BOVINE RHINOTRACHEITIS. L A Estcla

Amer J Vet Res 28(12):1903-1904

Nov 1967 41.8 AM3A Agar, Bovinc rhinotracheitis virus, Cattle, Diagnosis, Gels, Mcthodology.

#### 6568-69

FAMILIAL NONSPHEROCYTIC HEMOLYTIC ANEMIA OF BASENJI DOGS.

G O Ewing Amer Vet Med Ass J 154(5):503-507

01 Mar 1969 41.8 AM3 Diagnosis, Dogs, Hematologic discases, Hemolytic ancmia.

#### 6569-69

**PROPERTIES OF PASTEURELLA ORGANISMS** ISOLATED FROM BIRDS FED ANTIBIOTICS FOR A LONG PERIOD. (RUS ) V 1 Ezhov

Veterinariya (12):65-66 Dcc 1968 41.8 V6426

Animal nutrition, Antibiotics, Birds, Pasteurella, Propertics.

#### 6570-69

# A NEW ANTIBIOTIC: GENTAMICIN SULPHATE IN PSEUDOMONIASIS BY PSEU-DOMONAS AERUGINOSA IN CHINCHILLA LANIGER. (IT)

V Favati M Marranghini Zooprofilassi 23(6/7,JUN-JUL):277-286 REF

1968 41.8 Z72

Antibiotics, Chinchillas, Drug therapy, Fungus dis-cases (animals), Gentamicin sulfate, Pseudomonas aeruginosa. English and French summaries.

**ROECKL GRANULOMA WITH AN EXCES-**SIVELY TESTICULAR LOCALIZATION. (IT) M Fcdrigo

Pisa Univ Stud Fac Med Vet Ann 20:169-176 REF

1967 41.9 P67

Bulls, Fungi, Granuloma, Livestock discases, Testes. English and French summaries.

#### 6572-69

CHARACTERIZATION OF BOVINE VIRAL DIARRHEA VIRUSES. II. ULTRAFILTRATION PROPERTIES OF DIFFERENT STRAINS AFTER VARIOUS TREATMENTS.

A L Fernelius

Arch Gesamte Virusforsch 25(2):219-226 Dec 1968 448.3 AR23

Biophysics, Bovine virus diarrhea virus, Filters.

#### 6573-69

CHARACTERIZATION OF BOVINE VIRAL DIARRHEA VIRUSES. III. PARTIAL PURIFI-CATION BY AGAR GEL FILTRATION. A L Fernelius L F Velicer

Arch Gesamte Virusforsch 25(2):227-234 REF Dec 1968 448.3 AR23

Agar, Bovinc virus diarrhea virus, Filters.

#### 6574-69

### CHARACTERIZATION OF BOVINE VIRAL **DIARRHEA VIRUSES. I. DETERMINATION OF BUOYANT DENSITY.**

**A L Fernelius** 

Arch Gesamte Virusforsch 25(2):211-218 REF Dec 1968 448.3 AR23

Bovinc virus diarrhca virus, Centrifugation, Density, Electron microscopy.

SUSCEPTIBILITY OF SCRAPIE AGENT TO IONIZING RADIATION. E J Field F Farmer E A Caspary G Joyce Nature 222(5188):90-91 05 Apr 1969 472 N21 Livestock diseases, Nucleic acids, Radiation, Scrapie, Shccp, Virology, Virus discases (animals). 6576-69 INFLUENCE OF SYNTHETIC INSECT T. C. MEDIUM ON THE SURVIVAL OF MALARIA SPOROZOITS IN VITRO (PLASMODIUM BERGHEI YOELI AND P. CATHEMERIUM). E Fink E Schicha

Z Parasitenk 32(1):93-94 14 Apr 1969 442.8 Z33F Culture media, Insects, Physiology, Plasmodium, Tissuc culture.

#### 6577-69

6575-69

FOUR CASES OF SYSTEMIC MYCOSIS IN CERVIDS.

A L Fletch R C Anderson Wildlife Dis Ass Bull 5(1):12-15

Jan 1969 41.9 W64B Animal histology, Aspergillus fumigatus, Fungus diseases (animals), Mycosis, Ruminants, Wildlife

diseases.

### 6578-69

**CONTROLLING BLOAT IN CATTLE GRAZING** CLOVER.

L E Foote J E Johnston J Rainey R E Girouard W H Willis

La Agr Exp Sta Bull (629):28P REF Aug 1968 100 L 93 (1)

Antibiotics, Bloat, Cattle, Clover, Drug therapy, Grazing, Penicillin, Surface-active agents.

#### 6579-69

A PROPOSED METHOD OF PREMUNIZING CATTLE WITH MINIMUM INOCULA OF ANAPLASMA MARGINALE.

T E Franklin J W Huff Res Vet Sci 8(4):415-418 REF

Oct 1967 41.8 R312

Anaplasma marginale, Anaplasmosis, Cattle, Immunization, Livestock diseases.

#### 6580-69

DISTRIBUTION OF EXPERIMENTALLY IN-DUCED SCRAPIE LESIONS IN THE BRAIN.

H Frascr A G Dickinson Nature 216(5122):1310-1311 30 Dec 1967 472 N21

Animal histology, Brain, Central nervous system, Laboratory animals, Livestock discases, Micc, Scrapie, Virus discases (animals).

### 6581-69

LOCOWEED POISONING. **B** Freeman

Ariz Cattlelog 28(7):17-18

Mar 1969 43.8 AR42 Animal nutrition, Astragalus, Cattle, Chemical control (weeds), D, 2,4-, Herbicides, Phenoxy acid compounds, Plant geography, Poisonous plants, Toxicology.

#### 6582-69

TOXOPLASMA GONDII: FECAL FORMS SEPARATED FROM EGGS OF THE NE-MATODE TOXOCARA CATI. J K Frenkel J P Dubey N L Miller Science 164(3878):432-433 REF 25 Apr 1969 470 SCI2 Animal vectors, Bacterial diseases (animals), Cats, Disease transmission, Excretion, Feces, Toxocara cati, Toxoplasma gondii, Toxoplasmosis. 6583-69

A COMPLEMENT FIXATION TEST FOR THE STUDY OF AVIAN MYCOPLASMA. M L Frey R P Hanson Avian Dis 13(1):185-197 REF Feb 1969 41.8 AV5

67

Antigens, Complement fixation, Microscopy, Mycoplasma, Poultry diseases, Tissue culture.

### 6584-69

**OUTBREAK OF ORNITHOSIS IN A FLOCK OF CARRIER PIGEONS IN COPENHAGEN. (DA )** N F Friis

Nord Veterinaermed 20(10):521-526 REF Oct 1968 41.8 N813

Epidemiology, Miyagawanella group viruses, Ornithosis, Pigcons, Respiratory system, Serological tests, Symptomatology, Virus diseases (ani mals). English and German summaries.

#### 6585-69

**EFFECTS OF PENICILLIN AND GLYCINE ON CELL WALL GLYCOPEPTIDES OF THE TWO** VARIETIES OF VIBRIO FETUS. P H Fung A J Winter

J Bacteriol 96(6):1889-1894 REF

Dec 1968 448.3 J82 Biochcmistry, Cell wall, Glycine, Glycopeptides, Penicillin, Vibrio fetus.

#### 6586-69

### HEPATOCELLULAR CARCINOMA IN THE DOG. (GE)

P Gabraschanski A Dschurov C Georgiev Kleintier-praxis 13(3):62-65

Apr 1968 41.8 K67

Carcinoma, Cells, Dogs, Duodenum, Gallbladder, Liver, Microscopy.

#### 6587-69

### MICROSCOPIC SKIN LESIONS IN CATTLE WITH FOOT-AND-MOUTH DISEASE. P Gailiunas

Arch Gesamte Virusforsch 25(2):188-200 REF Dec 1968 448.3 AR23

Animal histology, Cattle, Foot-and-mouth discase, Skin.

#### 6588-69

NEWCASTLE DISEASE IN FRANCOLINUS FRANCOLINUS, FRANCOLINUS PONDICERI-ANUS AND IN BAMBUSCIOLA THORACICA. (IT)

G Galli D Cessi

Clin Vet 91(9):269-273

Scp 1968 41.8 C61

Game birds, Hemagglutination-inhibition test, Newcastle disease, Poultry diseases, Serum neutralization test, Virus diseases (animals). English summary.

#### 6589-69

6590-69

6591-69

RY TRACT.

TO AETIOLOGY.

Nov 1968 41.8 AU72

D N Garg M S Sethi

Jan 1969 47.8 AM33P

Poultry Sci 48(1):339-341

M R Gardiner

# ARBOVIRUS-ERYTHROCYTE INTERACTION. ADSORPTION, ELUTION AND NEUTRALIZA-TION OF VIRUS.

G A Garabedian A M Matossian T P Zacharia Arch Gesamte Virusforsch 25(3-4):247-254 REF Dec 1968 448.3 AR23

Adsorption, Arboviruses, Erythrocytes, Geese, Immunology, Scrum, Virus discascs (animals).

FURTHER STUDIES ON AVIAN BILIARY

**CIRRHOSIS WITH PARTICULAR REFERENCE** 

Bile ducts, Bone meal, Cirrhosis, Feed, Poultry dis-

FUNGAL FLORA OF THE AVIAN RESPIRATO-

Fungus diseases (animals), Mycosis, Poultry,

Respiratory diseases. Many fungi harmful to poultry are discussed.

cases, Sodium pentachlorophenate, Vitamin a.

Australian Vet J 44(11):512-515 REF

### 6592-69

#### 6592-69

THE EFFECT OF ANTIBIOTICS ON THE IM-MUNITY DEVELOPMENT TO PASTEURELLO-SIS IN SWINE. (RUS) V F Gerzin V F Kovalev Veterinariya (12):63-64 Dec 1968 41.8 V6426 Antibiotics, Drug therapy, Immunity, Livestock diseases, Swine plague.

#### 6593-69

**BOVINE RESPIRATORY DISEASE, DIAGNOSIS** AND CONTROL.

W J Gibbons

Mod Vet Pract 50(3):38-39,42-43 Mar 1969 41.8 N812

Cattle, Diagnosis, Disease control, Etiology, Immunization, Infectious bovine rhinotracheitis virus, Livestock diseases, Malignant eatarrh, Pneumonia, Respiratory diseases, Scours, Shipping fever, Virus diseases (animals).

#### 6594-69

# FELINE INFECTIOUS ANEMIA (HAEMOBAR-TENELLA FELIS) DIAGNOSIS AND TREAT-MENT.

A P Gilbride Norden News 44(1,WINTER):14-17 1969 41.8 N75

Anemia, Antibiotics, Cats, Diagnosis, Discase transmission, Drug therapy, Insect vectors, Microorganisms, Siphonaptera.

### 6595-69

SOME OBSERVATIONS ON MAREK'S DIS-EASE (FOWL PARALYSIS). W M Goodchild Vet Rec 84(4):87-89 25 Jan 1969 41.8 V641

Autopsies, Avian lymphomatosis, Chickens, Microscopy, Nerves, Poultry diseases.

#### 6596-69

### ERGOT POISONING OF CATTLE GRAZING DALLISGRASS.

D E Goodwin

Amer Vet Med Ass J 151(2):204-205

15 Jul 1967 41.8 AM3

Cattle, Claviceps paspali, Fungus diseases (plants), Paspalum dilatatum, Pathology, Poisonous plants.

#### 6597-69

CHARACTERIZATION OF MYCOPLASMA SUIPNEUMONUAII A MYCOPLASMA CAUS-ING ENZOOTIC PNEUMONIA OF PIGS. R F W Goodwin A P Pomeroy P Whittlestone

J Hyg 65(1):85-96 REF

Mar 1967 449.8 J82

Myeoplasma suipneumoniae, Serological tests, Swine.

#### 6598-69

THE APPLICATION OF ULTRASOUND IN THE TREATMENT OF MASTITIS IN COWS. (BU) H Goranov A Tsvetkov

Vet Med Nauk 5(5):75-81 REF

1968 41.8 V6468

Antibiotics, Cattle, Livestock diseases, Mastitis,

Milk production, Ultrasonic waves. English and Russian summaries.

#### 6599-69

#### **RELATIONSHIPS OF X-IRRADIATION TO THE** ENHANCEMENT OF CANDIDA ALBICANS IN-FECTIONS.

R S Gordee P J Simpson

J Bacteriol 94(1):6-12 REF

Jul 1967 448.3 J82

Animal diseases, Blood cells, Candida albicans, Mice, Mycosis, X-rays.

#### 6600-69

CLINICAL OBSERVATION OF EXPERIMEN-TAL PSEUDORABIES IN MINK AND FERRETS. H Goto J R Gorham K W Hagen Jap J Vet Sci 30(5):257-263 REF Oct 1968 41.8 J27

Dosage, Ferrets, Minks, Pseudorabies, Pseudorabies virus, Rabbits, Virus diseases (animals). Japanese summary.

BIBLIOGRAPHY

### 6601-69

SUSPECTED PRIMARY HYPERPARATHY-ROIDISM IN THE DOG.

B E Goulden C P MacKenzie New Zeal Vet J 16(8/9,AUG-SEP):131-140 REF 1968 41.8 N483

Adenoma, Animal discases, Animal physiology, Dogs, Hyperparathyroidism, Renal osteodystrophy, Serological tests, Veterinary medicine.

#### 6602-69

### SOURCES OF TOLERANCE TO SOIL-BORNE OAT MOSAIC VIRUS FROM THE WORLD OAT COLLECTION.

D Graham W P Byrd G C Kingsland Crop Sci 9(3, MAY-JUN):321-322

May 1969 64.8 C883

Mosaic, Oats, Plant disease resistance, Soil-borne plant diseases, Virus diseases (plants).

6603-69

THE TREATMENT OF COCCIDIOSIS IN DOMESTIC RUMINANTS WITH AMPROLIUM (FR) S Gretillat G Vassiliades

Rev Elevage Med Vet Pays Trop (N s)21(2):191-201

1968 41.8 R3262

Amprolium, Coccidiosis, Drug therapy, Infectious diseases, Livestock diseases, Ruminants. English and Spanish summaries.

#### 6604-69

THE OLFACTORY BULB LESION IN THE HIBENATING SQUIRREL (CITELLUS HIBENATING SQUIRREL (CITELLUS LATERALIS) INFECTED WITH COX-SACKIEVIRUS B-3. I. VIRUS ASSAY, LIGHT MICROSCOPIC AND IMMUNOFLUORESCENT STUDY E I Grodums R Siboo

Can J Microbiol 15(2):193-196 REF

Feb 1969 448.8 C162

Antigens, Biological assay, Coxsackie viruses, Hibernation, Immunofluorescence, Microscopy, Smell, Squirrels, Virus diseases (animals).

#### 6605-69

# USE OF AMPICILLIN INSTEAD OF STREPTO-MYCIN IN SALMONELLA-INFECTED MOUSE PERITONEAL MACROPHAGE CULTURES.

D Groschel R Jakobowitch

J Bacteriol 93(3):1199-1200

Mar 1967 448.3 J82

Ampicillin, Animal diseases, Antibiotics, Bac-teriology, Salmonella typhimurium, Streptomycin, Tissue culture.

6606-69

SOME OBSERVATIONS OF HYPOMAG-NESEMIC TETANY IN CATTLE. (FI ) S Haaranen

Suomen Elainlaakarilehti 74(6):212-223 REF Jun 1968 41.8 F49

Biochemistry, Blood sugar, Bone ash, Cattle, Glycosuria, Grass tetany, Hyperphosphatemia, Hypocaleemia, Hypomagnesemia, Livestock diseases, Pastures, Temperature, Urine. English summary.

#### 6607-69

MAGNESIUM REQUIREMENT OF THE LAY-ING HEN FOR REPRODUCTION. R N Hajj J L Sell

J Nutr 97(4,PT 1):441-448 REF

Apr 1969 389.8 J82

Animal nutrition, Animal physiology, Chickens, Deficiency diseases, Dict, Egg production, Eggs, Liver, Magnesium, Poultry diseases.

#### 6608-69

YEASTS AND YEAST-LIKE FUNGI IN THE GENITAL ORGANS OF COWS AND HEIFERS. V. GENITAL CANDIDIASIS AND ABORTIONS CAUSED BY YEASTS BELONGING TO THE GENERA CANDIDA, TRICHOSPORON AND SACCHAROMYCES. (SL)

68

M Hajs.g S Topolko Vet Arh 37(7-8):193-196 REF 1967 41.8 V6416 Abortion, Candida, Cattle, Diagnosis, Fungi, Saecharomyces, Trichosporon, Yeasts. English and french abstracts

#### 6609-69

NUTRITIONAL REQUIREMENTS OF PASTEURELLA TULARENSIS FOR GROWTH FROM SMALL INOCULA.

M Halmann M Benedict J Mager J Gen Microbiol 49(3):451-460

Dec 1967 448.3 J823

Blood, Culture media, Nutrition, Pasteurella tularensis.

#### 6610-69

AN ENDOGENOUSLY PRODUCED SUB-STANCE ESSENTIAL FOR GROWTH INITIA-TION OF PASTEURELLA TULARENSIS.

M Halmann J Mager J Gen Microbiol 49(3):461-468 REF

Dec 1967 448.3 J823

Biochemistry, Culture media, Nutrition, Pasteurella tularensis.

#### 6611-69

HEMAGGLUTININ OF RABIES AND SOME **OTHER BULLET-SHAPED VIRUSES.** 

P E Halonen F A Murphy B N Fields D R Reese Soc Exp Biol Med Proc 127(4):1037-1042 REF Apr 1968 442.9 SO1

Antigens, Hemagglutination, Myxoviruses, Rabies virus, Serodiagnosis. English abstract

#### 6612-69

GENETIC RESISTANCE TO LEUKOSIS CAUSED BY THE JM VIRUS IN THE FOWL. F S Han J R Smyth M Sevoian F N Dickinson

Poultry Sci 48(1):76-87 REF

Jan 1969 47.8 AM33P

Australian Vet J 44(6):284-286

Res Vet Sci 8(4):479-489 REF

Res Vet Sci 8(4):490-499 REF

Oct 1967 41.8 R312

Nov 1968 41.8 SCH9

cases, Penicillin, Sheep, Streptomycin.

Jun 1968 41.8 AU72

Oct 1967 41.8 R312

Animal breeding, Animal geneties, Avian leukosis complex viruses, A vian lymphomatosis, Chickens, Immunity, Poultry diseases.

FIELD OBSERVATIONS ON PARENTERAL AN-

TIBIOTIC TREATMENT OF OVINE FOOT-

Antibiotics, Drug therapy, Foot rot, Livestock dis-

THE CHARACTERISTICS OF STAPHYLOCOC-CUS AUREUS ISOLATED FROM CASES OF STAPHYLOCOCCOSIS IN POULTRY.

Antibodies, Chickens, Drug therapy, Ducks, Infec-

tious diseases, Poultry diseases, Staphylococcus au-

CHARACTERISTICS

STAPHYLOCOCCUS AUREUS ISOLATED FROM THE SKIN AND UPPER RESPIRATORY TRACT OF DOMESTICATED AND WILD (FERAL) BIRDS.

Anti biotics, Birds, Chickens, Hemolysins, Penicil-

lin, Poultry diseases, Respiratory system, Skin, Staphylococcus aureus, Tetracycline, Turkeys.

ON THE MINERAL CONTENT OF THE SWISS

MEADOW FODDER AND ITS RELATIONSHIP TO HERD STERILITY. (GE )

Schweizer Arch Tierbeilk 110(11):543-569 REF

OF

#### 6613-69

ROT.

**D** J Harris

6614-69

E G Harry

reus, Turkeys.

6615-69

E G Harry

6616-69

A Hasler

SOME

### LIVESTOCK PROTECTION

6640-69

Animal nutrition, Cattle, Deficiency diseases, Feed, Livestock discases, Minerals, Sterility. English, French and Italian summarics.

### 6617-69

STUDIES ON THE METHOD OF EXPERIMEN-TAL INFECTION OF VIBRIO PARAHAEMOLYTICUS. I. INFECTION OF **VIBRIO PARAHAEMOLYTICUS INTO IN-**TESTINAL SEGMENTS OF RABBITS. II. IN-FLUENCE OF CHEMOTHERAPEUTIC AGENTS ON INTESTINAL SEGMENTS OF RABBIT INFECTED WITH VIBRIO PARAHAEMOLYTICUS. (JA)

Z Hattoi S Okuma

Tokyo Soc Vet Zootech Sci J (16):81-101 REF Mar 1967 41.9 T574

Animal discases, Bacteria, Drugs, Intestines, Rabbits, Therapeutics, Vibrio parahaemolyticus.

#### 6618-69

**BRUCELLA OVIS INFECTION. 2. THE INFEC-**TION STATUS IN BREEDING FLOCKS AS MEASURED BY EXAMINATION OF RAMS AND THE PERINATAL LAMB MORTALITY. K G Haughcy K L Hughes W J Hartley Australian Vet J 44(12):531-535 REF Dcc 1968 41.8 AU72

Bacterial diseases (animals), Brucella ovis, Brucellosis, Epidemiology, Lambs, Livestock diseases, Mortality, Rams.

### 6619-69

BONE MARROW CHANGES IN THE COURSE OF FELINE INFECTIOUS ENTERITIS (AGRANULOCYTOSIS). (GE) P Hauser

Kleintier-praxis 13(2):52-53

Mar 1968 41.8 K67

Bone marrow, Cats, Feline infectious enteritis.

### 6620-69

#### ADENDEIDES EIMERIA AND **MELEAGRIMITIS: PATHOGENIC EFFECT IN** TURKEY POULTS. H Hcin

Exp Parasitol 24(2):163-170

Apr 1969 436.8 EX7

Eineria adenocides, Eineria melcagridis, In-testines, Mortality, Poults, Protozoa.

#### 6621-69

**OBSERVING THE SENSITIVITY OF FRAN-**CISELLA TULARENSIS TO ANTIBIOTICS IN VITRO. (CZ) M Hcjzlar

Cesk Epidemiol Mikrobiol Imunol 16(6):337-344 Nov 1967 448.8 C332

Antibiotics, Kanamycin, Novobiocin, Pastcurella tularcnsis, Streptomycin, Tetracycline, Tissue cul-ture. Russian and English abstracts.

### 6622-69

#### **CLOSTRIDIUM SEPTICUM INFECTION IN A BROILER FLOCK.**

D H Helfer E M Dickinson D H Smith

Avian Dis 13(1):231-233 Fcb 1969 41.8 AV5

Antibodics, Chickens, Chlortctracycline, Clostridium septicum, Culture media, Fluorescence, Mortality, Poultry discases, Poultry houses. Fatal to Cornish-cross, but not to White Leghorns.

#### 6623-69

#### PRELIMINARY RESULTS IN A STUDY OF NATURAL FOCI OF TULAREMIA IN THE SISAK-GUSCE-POPAVACA REGION OF CROATIA. (JPRS 44,159).

D Heneberg M Morelj N Heneberg M Mikes V Djokovic B Borcic A Hrabar M Isgum Z Djordjevie

IIP MAP

26 Jan 1968 TRANSL. 17064

Animal vectors, Bacteria, Epidemiology, Human diseases, Infectious diseases, Tularemia. Translation from Lijecnicki Vjcsnik (8):591-600, 1967. is-sued by CFSTI.

TREATMENT OF ANOESTRUS IN DAIRY CAT-TLE. **R** W Hewetson Australian Soc Anim Prod Proc 7:183-187 Fcb 1968 49.9 AU72

Ancstrus, Dairy cattle, Dosage, Livestock diseases, Progesterone, Reproduction, Therapeutics. Proceedings of Australian Society of Animal Production.

#### 6625-69

6624-69

### STUDIES ON BLOOD-CULTURE FORMS OF LEWISI--I. OXYGEN COMPARATIVE STREAM AND TRYPANOSOMA LEWISI--I. TION AND GLUCOSE UPTAKE.

J S Hibbard D G Dusanic Compar Biochem Physiol 29(2):621-630 REF May 1969 444.8 C73

Blood parasites, Carbon dioxide, Glucose, Mctabolism, Oxygen, Tissue culture, Trypanosoma Icwisi

6626-69

SPONTANEOUS AND EXPE AFLATOXICOSIS OF DUCKS. (GE ) **EXPERIMENTAL** G Hille K E Lindner Monatsh Vet 23(18):685-688 REF 15 Scp 1968 41.8 M742

Aflatoxicosis, Cirrhosis, Ducks, Feed toxicity, Liver diseases, Poultry diseases. English and Russian summarics.

### 6627-69

**EXPERIMENT AL STUDIES ON BOVINE** MYCOTIC PLACENTITIS.

R B Hillman K McEntee Cornell Vet 59(2):289-302 REF Apr 1969 41.8 C81

Abortion, Aspergillus fumigatus, Cattle, Livestock diseascs, Mycosis.

#### 6628-69

ANTIGENS OF BRUCELLA ABORTUS. I. CHEMICAL AND **IMMUNDELEC-**TROPHORETIC CHARACTERIZATION.

R D Hinsdill D T Berman J Bacteriol 93(2):544-549 REF Fcb 1967 448.3 J82

Antigens, Brucella abortus, Electrophoresis, Immunochemistry, Scrological tests.

#### 6629-69

### THE INCIDENCE OF DRUG RESISTANT STRAINS OF EIMERIA IN CHICKENS IN GREAT BRITAIN, 1966. J N Hodgson S J Ball K C Ryan E W Warren Brit Vet J 125(1):31-35 Jan 1969 41.8 V643 Bacteriostats, Chickens, Coccidiosis, Eimeria, Immunity, Poultry discases. French, German and Spanish summarics.

### 6630-69

NATURAL SCRAPIE IN A GOAT. J L Hourrigan A L Klingsporn H A McDaniel Amer Vet Med Ass J 154(5):538-539 01 Mar 1969 41.8 AM3 Brain, Diagnosis, Goats, Scrapie, Virus diseascs

(animals).

#### 6631-69

### **OBSERVATIONS OF INFECTIOUS DIARRHEA** AS PART OF THE SHIPPING FEVER SYN-DROME IN FEEDLOT CATTLE. J R Howard

Amer Vet Med Ass J 154(10):1201-1202 15 May 1969 41.8 AM3

Cattle, Diarrhea, Epizootic diseases, Livestock discases, Serum neutralization test, Shipping fever.

6632-69 THE EXPERIENCE WITH THE INDIRECT IM-MUNOFLUORESCENCE APPLICATION T THE RABIES VIRUS IDENTIFICATION. (CZ ) то V Hronovsky R Benda

69

Cesk Epidemiol Mikrobiol Imunol 16(3):136-142 REF

May 1967 448.8 C332

Antigens, Immunofluorescence, Rabies virus, Tissue culture. Russian and English abstracts.

#### 6633-69

SEROLOGICAL EXAMINATION FOR EVIDENCE OF BRUCELLOSIS AND LEP-TOSPIROSIS IN BEEF HERDS IN NEW SOUTH WALES.

K L Hughes J S Young G G Moyle

Australian Vet J 44(12):557-561 REF

### Dec 1968 41.8 AU72

Agglutination test, Antibodies, Bacterial diseases (animals), Becf cattle, Brucella abortus, Brucellosis, Epidemiology, Leptospira pomona, Leptospirosis, Livestock diseases, Serological tests.

#### 6634-69

BRUCELLA OVIS INFECTION 1.AN EVALUA-TION OF MICROBIOLOGICAL, SERIOLOGI-CAL A ND CLINICAL METHODS OF DIAGNO-SIS IN THE RAM. K L Hughes P D Claxton

Australian Vet J 44(2):41-47 REF

Fcb 1968 41.8 AU72

Biological assay, Brucella, Diagnosis, Scrological tests, Sheep.

### 6635-69

**RESISTANCE OF VACCINATED MICE TO** TYPICAL AND ATYPICAL STRAINS OF COC-CIDIOIDES IMMITIS. M Huppert H B Levine S H Sun E T Peterson J Bacteriol 94(4):924-927 Oct 1967 448.3 J82 Coccidioides immitis, Fungus diseases (animals), Immunity, Mice, Parasitism, Vaccincs.

### 6636-69

LOCALIZATION OF P32 LABELED MYCOBACTERIUM TUBERCULOSIS IN FOWL ORGANISMS. (BU) I lordanov D Savov

Vet Med Nauk 5(8):75-80

1968 41.8 V6468

Bacterial diseases (animals), Culture media, Isotopes, Liver, Mycobacterium tuberculosis, Poultry diseases, Spleen. English and Russian summaries.

#### 6637-69

IMMUNOGENIC PROPERTIES OF POLYVALENT AND ASSOCIATED EMULSION VACCINE AGAINST PARATYPHOID FEVER AND BRUCELLOSIS OF SHEEP. (RUS) M M Ivanov T M Gionti Veterinariya (12):72-74

Dec 1968 41.8 V6426

Bruccllosis, Emulsions, Immunity, Livestock diseases, Properties, Salmonellosis, Sheep, Vaccines.

### 6638-69

6639-69

O F Jackson

Dec 1968 41.8 SO8

Ostcodystrophy.

W B Jackson

6640-69

RANIKHET DISEASE CAN BE CONTROLLED.

### S G Iyer

Indian Farming 18(7):34-35,37

MENT AND PREVENTION.

Pest Contr 37(4):40-43 REF

S Afr Vet Med Ass J 39(4):27-29 REF

Oct 1968 22 IN283

Animal discasc transmission, Diagnosis, Disease control, Newcastle disease, Poultry, Vaccincs, Virus diseascs (animals).

The diagnosis, transmission, control, and preven-tion of Ranikhet (Newcastle) disease in poultry are discussed.

FELINE OSTEODYSTROPHY, ITS TREAT-

Animal abnormalitics, Bone diseases, Calcium,

Cats, Deficiency diseases, Dict, Drug therapy,

ANTICOAGULANT RESISTANCE. (PART 2).

### 6641-69

Apr 1969 449.8 EX8

Animal genetics, Anticoagulants, Chemical control (pests), Coumarin, Feed additives, Immunology, Rodenticides, Toxicology, Warfarin.

#### 6641-69

CULTURAL CHARACTERS AND SEROLOGI-CAL RELATIONSHIPS OF SOME MYCOPLASMAS ISOLATED FROM BOVINE SOURCES.

N C Jain D E Jasper J D Dellinger J Gen Microbiol 49(3):401-410 REF

Dec 1967 448.3 J823

Bacteriology, Cattle, Li Myeoplasma, Serological tests. Livestock diseases,

#### 6642-69

#### EARLY CHANGES IN BURSA OF FABRICIUS FROM MAREK'S DISEASE.

R M Jakowski T N Fredrickson R E Luginbuhl C F Helmboldt

Avian Dis 13(1):215-222

Feb 1969 41.8 AV5

Animal histology, Avian lymphomatosis, Chickens, Germ-free life, Microscopy, Poultry diseases, Virus discases (animals).

#### 6643-69

IMMUNIZATION AGAINST EAST COAST FEVER USING TICK INFECTIONS AND CHLORTETRACYCLINE.

W F H Jarrett H M Pirie N C C Sharp

Exp Parasitol 24(2):147-151

Apr 1969 436.8 EX7

Cattle, Chlortetracycline, Immunization, Theileria parva, Theileriasis.

#### 6644-69

### **OVARIAN CYCLE IN COWS WITH IRREGU-**LAR ESTRUS CYCLES. (POL )

L Jaskowski J Romaniuk L Walkowski Pol Arch Weter 10(4):558-569 REF

1967 41.8 P76

Animal physiology, Corpus luteum, Dairy cattle, Estrus, Ovaries, Reproduction, Time. English and Russian summaries.

#### 6645-69

# INVESTIGATION ON THE VIRUSES OF THE ORPHAN TYPE OCCURING IN PIGS IN PO-LAND. III. PATHOGENIC PROPERTIES OF VIRUS L1. (POL)

T Jastrzebski J Buczek

Lublin Univ Mariae Curie Ann Sect Dd 22:39-45 1967 512 L96AD

Baby pigs, Colostrum, Livestock diseases, Swine, Virology, Virus diseases (animals). English and Russian summaries.

#### 6646-69

### HISTOPATHOLOGICAL EXAMINATION OF THE KIDNEYS OF A RAM WHO DIED OF A URETHRAL OBSTRUCTION DUE TO SEDI-MENTOSIS. (FR)

M Jean-Blain G Van Haverbeke

Lyon soc Sci Vet Bull 69(5):407-408 1967 41.9 L99

Glomerulonephritis, Histology, Kidneys, Livestoek diseases, Magnesium, Microscopy, Minerals, Nitrogen, Phosphorus, Rams, Sediments, Urethra.

#### 6647-69

#### **CORRELATION OF FOUR MASTITIS DETEC-**TION TESTS WITH RESPECT TO THE LEUCO-CYTE COUNT.

C Jensen L D Beek

J Milk Food Technol 32(1):18-19 REF Jan 1969 44.8 J824

Correlation, Dairy cattle, Diagnosis, Leukocytes, Livestock diseases, Mastitis, Milk.

#### 6648-69

# REQUIREMENT OF TURKEY POULTS FOR BIOTIN AND EFFECT OF DEFICIENCY OF IN-CIDENCE OF LEG WEAKNESS IN DEVELOP-ING TURKEYS.

L S Jensen R Martinson Poultry Sci 48(1):222-230 Jan 1969 47.8 AM33P

### **BIBLIOGRAPHY**

Animal nutrition, Avitaminosis, Biotin, Deficiency diseases, Turkeys.

#### 6649-69

#### **REMARKS ON THE RECEPTIVITY OF NEW** BORN LAMBS TOWARDS THE FOOT-AND-**MOUTH DISEASE VIRUS. (GE)**

P Jivoin C Surdan

Arch Vet 2(2):21-29

1967 41.8 AR27

Autopsies, Colostrum, Foot-and-mouth disease virus, Histopathology, Lambs, Livestock diseases, Symptomatology, Viral vaceines, Virulence, Virus diseases (animals). English, French and Russian summaries.

#### 6650-69

# SCHIFF BASES OF 2-FORMYLQUINOXALINE-1,4-DIOXIDES AS GROWTH PROMOTERS AND SYSTEMIC AND NON-SYSTEMIC INFEC-TION CONTROL AGENTS IN ANIMALS. PATENT 3,433,871.

J.D.Johnston

Us Patent Office Offic Gaz 860(3):909 18 Mar 1969 156.65 OF2

Animal physiology, Disease control, Drug therapy, Formylquinoxaline-1,4-dioxide, 2-, Poultry dis-eases, Respiratory diseases, Sinusitis.

#### 6651-69

### THE INCIDENCE OF CLINICAL BABESIOSIS IN CATTLE IN QUEENSLAND.

L A Y Johnston

Australian Vet J 44(6):265-267 Jun 1968 41.8 AU72

Animal ceology, Babesia, Babesia argentina, Cat-tle, Climate, Ixodides, Livestoek diseases, Piroplasmosis.

#### 6652-69

# THE COMPARATIVE METABOLISM OF ETHYLENE DIMETHANESULPHONATE AND ETHYLENE DIBROMIDE. A R Jones K Edwards

Experientia 24(11):1100-1101 REF 15 Nov 1968 475 EX7

Animal physiology, Ethylene dibromide, Ethylene dimethanesulfonate, Metabolism, Neoplasms, Spermatogenesis. German abstract

#### 6653-69

### IN VIVO GROWTH AND DISTRIBUTION OF ANTHRAX BACILLI IN RESISTANT, RESISTANT, SUSCEPTIBLE, AND IMMUNIZED HOSTS. W J Jones F Klein J S Walker B G Mahlandt J P

Dobbs Et Al

J Bacteriol 94(3):600-608 REF

Sep 1967 448.3 J82

Animal diseases, Anthrax, Bacillus anthracis, Guinea pigs, Immunity, Physiology, Rats.

#### 6654-69

CENTRAL-NERVOU'S-SYSTEM LESIONS OF SPONTANEOUS PASTEURELLA ANATIPESTIFER INFECTION IN DUCKLINGS. B S Jortner R Porro L Leibovitz

Avian Dis 13(1):27-35 REF

Feb 1969 41.8 AV5

Central nervous system, Ducklings, Exudates, Infectious diseases, Leukoeytes, Meningitis, Pasteurella anatipestifer, Poultry diseases, Tissue Meningitis, culture.

#### 6655-69

# PROPAGATION OF SWINE-FEVER VIRUS IN CELL CULTURE.

D V Joshi I P Singh

Indian J Vet Sci Anim Husb 38(3):399-404 REF Sep 1968 41.8 IN22

Hog cholera, Kidneys, Swine, Testes, Tissue cul-ture, Vaceines, Veterinary medicine, Virology, Virus diseases (animals).

#### 6656-69

### AN ENZOOTY OF STRANGLES CAUSED BY VIRUS A2 EQUI MIAMI 63 IN THE REGION OF LYON. (FR)

70

L Joubert G Garrigue R Maitre J Oudar Lyon soc Sci Vet Bull 69(5):381-390 REF

### 1967 41.9 L99

Aerobacter aerogenes, Diagnosis, Epizootie discases, Horses, Humans, Pseudomonas aeruginosa, Staphylococcus, Strangles (horses), Therapeuties, Virus diseases (animals).

# EXPERIMENTAL PASTEURELLA INFECTION IN NORMAL AND CHLOROPROMAZINE-PREMEDICATED COCKERELS, SUBJECTED TO HEAT STRESS.

T Juszkiewicz A Cakalowa B Stefaniakowa Z Madejski

Pol Arch Weter 10(4):601-614 REF

1967 41.8 P76

Chlorpromazine, Drug therapy, Heat, Livestock diseases, Pasteurella multocida, Poultry. Russian and Polish summaries.

#### 6658-69

6659-69

6660-69

VIRUS.

6661-69

314

6662-69

H Keller

6663-69

6664-69

**OF PIGS.** 

K K Kellogg

Mar 1969 41.8 M69

BULGARIA

ANTHRAX.

G Kebedzhiev

1967 448.8 J826

1969 442.8 F712

### INFLUENCE OF VARIOUS STRAINS OF THE AUJESZKY VIRUS ON THE METABOLISM OF CELLS CULTURED IN VITRO. (POL )

Amino acids, Chicks, Culture media, Deox-yribonueleie acid, Embryos, Metabolism, Nitrogen, Pseudorabies, Virus diseases (animals). English

REPRODUCTION OF TYPE 12 ADENOVIRUS IN HELA CULTURE CELLS. (RUS )

Latv P Sr Zinat Akad Vestis 7(240):114-120 REF

Adenoviruses, El ectron microscopy, Tissue cul-

ATTEMPTS TO INDUCE RECOMBINANT SO-

MATIC CELLS IN CHICKEN ERVTHROCYTE CHIMAERAS BY REPEATED INJECTION OF WESTERN EQUINE ENCEPHALOMYELITIS

Antibodics, Chickens, Chimeras, Cytology, Erythrocytes, Hemagglutination-inhibition test,

Scrological tests, Tissue culture, Western equine encephalomyclitis virus.

THE EFFECT OF SOCIAL AND ECONOMIC

CHANGES IN THE PEOPLE'S REPUBLIC OF

J Hyg Epidemiol Microbiol Immunol 11(3):309-

Anthrax, Cattle, Economic policy, Government

THE PROPHYLAXIS OF SO-CALLED MILK FEVER OF SOWS. (GE )

Deut Tierarztl Wochensch 75(20):501-505 REF

Drug therapy, Livestock diseases, Milk fever, Swine. English summary

AN UNUSUAL CASE OF PSEUOOMONAS CON-JUNCTIVITIS IN A SIAMESE CAT.

Animal diseases, Cats, Conjunctivitis, Eyes, Infec-

PATHOLOGY OF EXTRANASAL LESIONS IN

**EXPERIMENTAL INCLUSION-BODY RHINITIS** 

Vet Med/small Anim Clin 64(3):216-217

tious diseases, Pseudomonas aeruginosa.

MORBIDITY

FROM

1 Karakoz M Gresikova K Hala M Hasek

Folia Biol (praha) 15(2):81-86 REF

ON

aid, Human diseases, Vaccines.

15 Oct 1968 41.8 D482

Deox-

A Kadziolka T Kostarz J Wawrzkiewicz Lublin Univ Mariae Curie Ann Sect Dd 22:199-209 REF

#### 1967 512 L96AD

and Russian summaries.

B Kalnina V Kuvichkin

ture, Virology. English summary.

1967 511 R442

### LIVESTOCK PROTECTION

6688-69

D F Kelly Res Vet Sci 8(4):472-478 REF Oct 1967 41.8 R312 Inclusion-body rhinitis virus, Injections, Livestock discases, Swine, Virus diseases (animals).

#### 6665-69

# EARLY ANTIBODY RESPONSE IN MICE TO EITHER INFECTION OR IMMUNIZATION WITH SALMONELLA TYPHIMURIUM. K Kenny M Herzberg

J Bacteriol 93(3):773-778 REF Mar 1967 448.3 J82 Antibodics, Biochemistry, Immunization, Mice,

Salmonella typhimurium, Scrological tests.

6666-69

TRANSMISSION OF CLASSICAL MAREK'S DISEASE BY AFFECTED AND CARRIER BIRDS. S G Kenzy B R Cho

Avian Dis 13(1):211-214

Feb 1969 41.8 AV5

Animal vectors, Avian lymphomatosis, Birds, Chicks, Game fowl, Quail, Sparrows, Virus diseases (animals). Gamefowl chicks were used.

### 6667-69

### ZOONOSES IN INDIA.

S S Khera Indian Vet J 45(10):811-815 REF Oct 1968 41.8 1N2 Brucellosis, Escherichia coli, Leptospirosis, Livestock diseases, Rabies, Salmonellosis, Veteri-nary medicine, Zoonoses.

6668-69

DIAGNOSIS OF COW MASTITIS BASED ON LEUKOCYTE COUNT IN MILK. (RUS) N M Khilkevich

Veterinariya (12):91-92 Dcc 1968 41.8 V6426

Cattle, Diagnosis, Leukocytes, Livestock diseases, Mastitis, Milk.

#### 6669-69

#### **EPERYTHROZOONOSIS** IN SWINE: A REVIEW.

K Kingsley C M Hibbs

Vet Med/small Anim Clin 63(10):971-972 REF Oct 1968 41.8 M69

Antibiotics, Drug therapy, Eperythrozoon suis, Eperythrozoonosis, Livestoek diseases, Reviews, Swine.

### 6670-69

# THE EFFECT OF QUATERNARY AMMONIUM COMPOUNDS ON NEWCASTLE DISEASE VIRUS AND PARAINFLUENZA VIRUS. (GE ) H Kirchhoff

Deut Tierarztl Wochensch 75(7):160,163-165 REF

01 Apr 1968 41.8 D482

Myxoviruscs, Newcastle disease virus, Parainfluenza-1 virus, Quaternary ammonium compounds, Virology, Virus diseases (animals). English summaгy.

The ammonium compounds tested were Absonal, Bradosol, Cetyltrimethylammoniumbre Phemerol, Quartamon Mefarol, and Zephirol. Cetyltrimcthylammoniumbromid,

### 6671-69

### ANIMAL LEPTOSPIROSIS IN PRIMORYE. (RUS)

E A Kiryanov Veterinariya (12):70-72 Dcc 1968 41.8 V6426 Animal discases, Cattle, Leptospirosis.

#### 6672-69

EXPERIMENTAL PARATUBERCULOSIS IN SHEEP AFTER ORAL, INTRATRACHEAL, OR INTRAVENOUS INOCULATION: LESIONS AND DEMONSTRATION OF ETIOLOGIC AGENT.

J P Klugc R S Merkal W S Monlux A B Larsen K E Kopecky F K Ramscy R P Lchmann Amer J Vet Res 29(5):953-962 REF

May 1968 41.8 AM3A Histology, Injections, Johne's disease, Myeobac-terium paratubereulosis, Sheep.

### 6673-69

SIMULTANEOUS PROPHYLACTIC VACCINA-TIONS OF SWINE AGAINST HOG CHOLERA AND PASTEURELLOSIS. (RUS ) V F Klyancnko

Veterinariya (12):74-75 Dec 1968 41.8 V6426 Hog cholera, Immunization, Livestock diseases, Pastcurcllosis, Swinc.

#### 6674-69

# **EXPERIMENTAL INFECTION OF THE BAT** MYOTIS MYOTIS BORKHAUSEN WITH THE TAHYNA VIRUS.

J M Kolman Z Marhoul D Malkova J Hyg Epidemiol Microbiol Immunol 11(1):125-126

1967 448.8 J826

Animal vcctors, Bats, Scrological tests, Tahyna virus.

#### 6675-69

GANGRENOUS MASTITIS IN EWES. II. CHARACTERISTICS OF THE STAPHYLOCOC-CI, ISOLATED FROM HEALTHY EWES AND FROM EWES AFFECTI GRENOUS MASTITIS. (BU ) AFFECTED WITH GAN-**G** Korukov

Vet Med Nauk 5(8):51-58 REF 1968 41.8 V6468

Bacterial diseases (animals), Bacteriology. Epizootic diseases, Gangrene, Isolates, Mastitis, Sheep, Staphylococci. English and Russian summarics.

#### 6676-69

### **DIAGNOSIS AND SPREAD OF THE SUBCLINI-**CAL FORMS OF MASTITIS IN COWS. (BU)

L Kostov T Dzhurov Vet Med Nauk 5(3):51-58 REF 1968 41.8 V6468

Cattle, Diagnosis, Disease transmission, Livestock discases, Mastitis. English and Russian summaries.

#### 6677-69

# CONTROL OF MAREK'S DISEASE BY THE USE OF INOCULATED CHICKEN EMBRYO FIBROBLASTS.

S D Kottaridis R E Luginbuhl Nature 221(5187):1258-1259 REF 29 Mar 1969 472 N21

Avian lymphomatosis, Chickens, Embryos, Immu-nity, Interference phenomenon, Poultry diseases, Tissue culture, Virus diseases (animals).

### 6678-69

### MAREK'S DISEASE: A REVIEW. **S D Kottaridis**

Worlds Poultry Sci J 25(18JAN-MAR):35-45 REF 1969 47.8 W89

Avian lymphomatosis, Poultry diseases, Reviews, Virus discases (animals).

#### 6679-69

### ABORTION IN CATTLE ASSOCIATED WITH THE FEEDING OF POULTRY LITTER.

D C Kradel L C Griel E W Wickersham Cornell Vet 59(2):226-235

Apr 1969 41.8 C81

Abortion, Cattle, Fccd supplements, Fertilizers, Hormones, Livestock diseases, Manures, Poultry.

### 6680-69

ARTHRITIS IN CHICK ENS DUE TO STAPHYLOCOCCUS AUREUS.

S Krishnaswamy A S Upadhye R D Nanjiah R F Patil

Mysore J Agr Sci 2(3):219-225 REF 1968 S19.M9

Antibiotics, Arthritis, Chickens, Drug therapy, Joint diseases, Poultry diseases, Staphylococcus aureus.

71

#### 6681-69

THE DETECTION OF THE ECPO VIRUS AN-TIGEN IN TISSUE CULTURE WITH THE AID OF FLUORESCENT ANTIBODIES. (BU ) S Kristov V Serbezov

Vet Med Nauk 5(5):29-32

1968 41.8 V6468

Antigens, Baby

pigs, Embryos, Entcric cytopathogenic porcine orphan virus, Fluorescent antibody technic, Tissue culturc, Virus diseases (animals). English and Russian summaries.

#### 6682-69

**ON THE EMPLOYMENT OF EGG YOLK IN IM-**MUNOFLUORESCENT DIAGNOSIS OF ANTHRAX. (CZ)

V Kubin J Franek

Cesk Epidemiol Mikrobiol Imunol 16(3):152-155 May 1967 448.8 C332

Anthrax, Bacillus anthracis, Diagnosis, Egg yolks, Immunofluorescence. Russian and English abstracts.

#### 6683-69

A FORMALINIZED AND ADJUVANTED RA-**BIES VACCINE OF TISSUE CULTURE ORIGIN.** C J Kuccra D C Sandvig A F Johnson

Vet Med/small Anim Clin 63(10):983 Oct 1968 41.8 M69

Dogs, Immunization, Rabies virus, Tissuc culturc, Vaccines, Virology, Virus discascs (animals).

#### 6684-69

HISTOLOGIC FEATURES OF ATHEROGENE-SIS AND AORTIC RUPTURE IN TURKEYS. H J Kurtz

Amer J Vet Res 30(2):243-249

Fcb 1969 41.8 AM3A

Animal histology, Aorta, Athcrogenesis, Chickens, Hernia, Poultry diseases, Turkeys, Ulcers.

#### 6685-69

AN INVESTIGATION INTO BOVINE ANAPLAS-MOSIS WITH COMPLEMENT FIXATION TEST (CFT). (BU) N Kyurtov Y Denev P Penev

Vet Med Nauk 5(7):23-27 REF

1968 41.8 V6468

Anaplasma marginalc, Anaplasmosis, Antibodies, Antigens, Cattle, Complement fixation, Diagnosis, Livestock diseases. English and Russian summaries.

#### 6686-69

**ON PYROPLASMODIAS IN SHEEP AND** GOATS. II. RESEARCH INTO ANAPLASMOSIS. (**BU**)

Anaplasmosis, Bacterial diseascs (animals), Biolog-

ical assay, Blood tests, Complement fixation,

Goats, Microscopy, Piroplasmosis, Sheep, Splecn.

STATISTIC AL ANALYSIS OF BLOOD SERUM

COMPOSITION, URINE EXCRETION LEVELS AND THE OCCURRENCE OF UROLITHIASIS

Animal diseases, Blood serum, Excrction, Sheep,

CYTOLYTIC PLASMA FACTOR IN EXPERI-

Coccidioidomycosis, Cytology, Guinca pigs, Leu-

W O Lamprecht J G Darroch H R Crookshank

Statistical analysis, Urinary calculi, Urolithiasis.

MENTAL COCCIDIOIDOMYCOSIS.

J W Landau V D Newcomer

Oct 1967 448.3 J82

kocytes, Lysis.

J Bacteriol 94(4):919-923 REF

N Kyurtov Vet Med Nauk 5(8):81-86 REF

6687-69

IN SHEEP.

May 1969 49 J82

1968 41.8 V6468

English and Russian summaries.

J Anim Sci 28(5):714-716 REF

### 6689-69

### 6689-69

OVINE ANTI-BRUCELLOSIS SEROLOGY. VACCINE AND INFECTIOUS ANTIBODIES. SERUMS NEGATIVE TO THE SERO-AGGLU-TINATION OF WRIGHT AND POSITIVE TO COMPLEMENT DEVIATION. (FR ) J Le Pennee

Soc Vet Prat France Bull Mens 51(2):94-114 REF Feb 1967 41.9 SO12

Agglutination test, Antibodies, Brucellosis, Complement fixation, Coombs' test, Immunochemistry, Infectious diseases, Livestock diseases, Serological tests, Serum agglutination, Sheep, Tables (data), Vaccines.

#### 6690-69

#### EFFECT OF A SOLUBLE FRACTION OF OIL SEED MEALS ON UPTAKE OF 65ZN FROM CA.MG.65ZN.PHYTATE COMPLEXES BY THE CHICK'.

J G Lease

J Nutr 96(1):126-138 REF

Sep 1968 389.8 J82

Blood composition, Calcium, Casein, Chemurgy, Chicks, Dialysis, Digestion, Ions, Magnesium, Phytates, Sesame, Soybean meal, Zinc.

#### 6691-69

URINE-RETENTION CAUSED BY A PERI-URETHAL LEIOMYOMA, IN A FEMALE DOG. (FR )

A Lebeau

Acad Vet France Bull 41(1):53-54

Jan 1968 41.9 R24

Animal histology, Dogs, Neoplasms, Surgery, Urine.

#### 6692-69

CONTRIBUTION TO THE STUDY OF UTERINE DYSPLASIAS OF FUNCTIONAL ORIGIN IN DOGS. (0R) R Lefeuvre

Alfort Ecole Nat Vet These (78):54P REF 1968 41.2 AL23

Animal diseases, Dogs, Dysplasia, Endometrium, Uterus.

### 6693-69

STUDY OF THE INSECTICIDAL ACTION OF TRANS-CHRYSANTHEMATE ALLETR-HOLONE ON MUSCA DOMESTICA. (FR ) J Lhoste J Lambert F Rauch

Paris Acad Agr France Compt Rend Hebd Seances 53(9):686-691

1967 14 P215BC

Insect metabolism, Insect physiology, Insecticides, Musea domestica, Pyrethrum.

#### 6694-69

#### METASTATIC UTERINE ADENOCARCINOMA IN THE COW. (A RECOGNIZABLE CLINICAL ENTITY ).

D R Lingard E O . Dickinson Vet Med/small Anim Clin 64(3):234-236 Mar 1969 41.8 M69

Adenocarcinoma, Cattle, Livestock diseases, Metastasis, Uterus.

### 6695-69

### RHEUMATOID ARTHRITIS IN A DOG.

S K Liu P F Suter C A Fisher H D Dorfman Amer Vet Med Ass J 154(5):495-502 REF 01 Mar 1969 41.8 AM3 Arthritis, Dogs, Joint diseases, Radiography.

6696-69

STUDIES ON THE EFFECTIVENESS OF FOX DEN FUMIGATION FOR RABIES CONTROL IN THE DISTRICT OF WOLGAST. (GE ) H Locpelmann

Monatsh Vet 23(3):81-86 REF

01 Fcb 1968 4I.8 M742

Animal discases, Badgers, Foxes, Fumigation, Phosphine, Predatory animals, Rabies, Soil moisture, Sulfur dioxide. English and Russian summaries.

### BIBLIOGRAPHY

6697-69 PATHOGENETIC THERAPEUTICS IN CASES OF COW MASTITIS. (RUS ) D D Loginov Veterinariya (12):92-94 Dec 1968 41.8 V6426

Cattle, Livestock diseases, Mastitis, Microorganisms, Therapeutics.

6698-69

BOVINE LEUKAEMIA. A REPORT OF FOUR CASES. L N Loomis

Australian Vet J 44(6):270-274 REF Jun 1968 41.8 AU72

Cattle, Hematology, Leukemia, Livestock diseases. 6699-69

### DIARRHOEA IN PIGS.

R K Loveday Farming S Afr 44(8):9,11,23 Nov 1968 24 SO842

Deficiency diseases, Diarrhea, Drug therapy, Escherichia coli, Infectious diseases, Livestock discases, Swine.

6700-69

### LONG-TERM STUDIES OF RENAL FUNCTION IN CANINE LEPTOSPIROSIS.

D G Low G W Mather D R Finco N V Anderson Amer J Vet Res 28(124):731-739 REF May 1967 41.8 AM3A

Dogs, Kidneys, Leptospira ieterohaemorrhagiae.

#### 6701-69

RESULTS OF MICROBIOLOGICAL EXAMINA-TION OF RESERVOIR ANIMALS IN THE WEST SLOVAKIA REGION FOR TULAREMIA. (CZ)

J Lysy D Gurycova

Cesk Epidemiol Mikrobiol Imunol 16(4):222-227 REF

Jul 1967 448.8 C332

Animal diseases, Animal vectors, Epizootic discases, Pasteurella tularensis, Rodents, Tularemia, Wildlife. Russian and English abstracts.

#### 6702-69

### THE CONTROL OF CONTAGIOUS ABORTION.

F H Manley

Rhodesian Farmer 39(3):13

31 May 1968 24 R347 Bacterial diseases (animals), Brucellosis, Cattle, Disease control, Infectious diseases, Livestock discases, Symptomatology.

6703-69

### HISTOCHEMICAL PREMISES TO THE STUDY OF THE ADRENAL MEDULLARY TUMORS OF CATTLE. (IT )

P S Marcato

Nuova Vet 43(6,NOV-DEC):629-634 REF 1967 41.8 N922

Adrenal glands, Animal histology, Bone marrow, Catechol amines, Cattle, Histochemistry, Livestock diseases, Neoplasms. English, French and German summaries.

### 6704-69

PLASMODIUM BRASILIANUM IN COLUMBI-AN MONKEYS. C J Marinkelle E S Grose Trop Geogr Med 20(3):276-280 REF Sep 1968 448.8 D65

Animal diseases, Malaria, Malaria control, Monkeys, Parasitism, Plasmodium. French summary

### 6705-69

#### THE HISTOPATHOLOGY OF ACTINOMYCO-SIS. (SP) A A Martinez

Oviedo Univ Fac Vet Leon An 13(13):47-51 1967 41.9 OV4

Actinomycosis, Fungus discases (animals), Histopathology. English and French summaries.

72

6706-69 VAGINAL PAPILLOMA OF THE CAT. (IT) A Marusi Nuova Vet 43(6,NOV-DEC):640-644 1967 41.8 N922 Animal diseases, Cats, Neoplasms, Papilloma, Symptomatology, Vagina. English, French and German summaries.

### 6707-69

SAFETY AND COMPATIBILITY OF SULFADIMETHOXINE POTENTIATED MIX-TURE (RO 5-0013), A NEW BROAD SPEC-TRUM COCCIDIOSTAT-ANTIBACTERIAL, IN CHICKENS. W L Marusich E Ogrinz M Brand M Mitrovie Poultry Sci 48(1):217-222 Jan 1969 47.8 AM33P Chickens, Coccidiosis, Drug therapy, Poultry discases, Sulfadimethoxine.

6708-69

ABORTION IN SHEEP AND CATTLE AS-SOCIATED WITH BACILLUS SPP. R W Mason B L Munday

Australian Vet J 44(6):297-298

Jun 1968 41.8 AU72

Abortion, Bacillus, Cattle, Livestock diseases, Sheep.

### 6709-69

THE DIAGNOSIS OF EUROPEAN SWINE FEVER. (GE )

G Matschullat

Deut Tierarztl Wochensch 75(7):172-174 01 Apr 1968 41.8 D482

Diagnosis, Hog cholera, Immunofluorescence, Swine. English summary.

### 6710-69

PREVALENCE OF SINDBIS V IR US AN-TIBODIES IN AN EGYPTIAN RU RAL COMMU-NITY.

V Mayer A T Hanna M H Wahdan J S Mohamed K El-Dawla

J Hyg Epidemiol Microbiol Immunol 11(1):1-4 1967 448.8 J826

Antibodies, Human diseases, Immunity, Sindbis virus, Virus diseases (animals).

6711-69

SURVEY OF DAIRY HERDS IN THE MOSS VALE DISTRICT OF NEW SOUTH WALES. I. DISEASE WASTAGE.

T J McClure A E Dowell

important in young stock.

R H McCoy F Steenbergen

Wildlife Dis Ass Bull 5(1):11

STAPHYLOCOCCUS

Jan 1969 41.9 W64B

Australian Vet J 44(12):536-542

Dec 1968 41.8 AU72 Dairy cattle, Economics, Livestock diseases, Sur-

WESTERN OREGON COTTONTAILS.

Can J Microbiol 15(2):189-192 REF

Diseases of reproduction and lactation were most

important affecting adult cattle while parasitism,

malutrition/exposure and gastroenteritis are most

Blood tests, Epizootic diseases, Infectious diseases,

**PROPERTIES OF THE IN VITRO SOLUBLE** 

RNA METHYLASE ACTIVITY OF HAMSTER TUMORS INDUCED BY ADENOVIRUS-12.

Neoplasms, Properties, Ribonucleic acid, Virus dis-

A MYCOPLASMA ASSOCIATED WITH OVINE

Rabbits, Staphylococcus aureus, Wildlife diseases.

**EPIZOOTIC** 

media,

IN

Hamsters,

veys.

6712-69

6713-69

E S McFarlane

cases (animals).

6714-69

ORCHITIS.

Feb 1969 448.8 C162

Adenoviruses, Culture

### LIVESTOCK PROTECTION

6738-69

# P K Mellwain F M Bolin

Amer J Vet Res 28(124):885-887 May 1967 41.8 AM3A

Biochemistry, Inflammation, Mycoplasma, Sheep,

Testes.

### 6715-69

VACCINATION OF CATTLE AGAINST EPIZOOTIC BOVINE ABORTION. D G McKereher E A Robinson E M Wada J K Saito C E Franti Cornell Vet 59(2):211-226

Apr 1969 41.8 C81

Abortion, Cattle, Epizootic diseases, Immunology, Livestock diseases, Viral vaccines.

#### 6716-69

CAUSE AND PREVENTION OF EPIZOOTIC BOVINE ABORTION.

D G McKercher

Amer Vet Med Ass J 154(10):1192-1196 REF 15 May 1969 41.8 AM3

Abortion, Antibiotics, Cattle, Chlorotetracycline, Diagnosis, Epizootic diseases, Infectious diseases.

### 6717-69

CASSIA OCCIDENTALIS TOXICOSIS IN CAT-TLE.

H D Mereer F C Neal J A Himes G T Edds Amer Vet Med Ass J 151(6):735-741 REF 15 Sep 1967 41.8 AM3

Cassia occidentalis, Cattle, Poisonous plants, Tox-icology.

#### 6718-69

ON ANTIBODY METABOLISM IN PIGS AND CALVES, FOLLOWING THE APPLICATION OF HOMOLOGOUS AND HETEROLOGOUS SPECIFIC GAMMA-GLOBULINS. (BU )

K Mermerski K Haralambiev S Simeonov M lotov S Peshev

Vet Med Nauk 5(8):23-29 REF 1968 41.8 V6468

Animal metabolism, Antibodies, Calves, Gamma globulins, Preventive medicine, Pseudorabies, Swine, Virus diseases (animals). English and Rus-

#### 6719-69

sian summaries.

ELECTRON MICROSCOPY STUDY OF THE LOCALIZATION OF ANTIGENS IN A VIRU-LENT AND AN AVIRULENT STRAIN OF FRAN-CISELLA TULARENSIS, USING MERCURY-LABELLED ANTIBODIES.

1 C Mesheryakova L N Katz l B Favlova A Y Kulberg

J Hyg Epidemiol Microbiol Immunol 11(2):147-150

1967 448.8 J826

Antigens, Bacterial diseases (animals), Electron microscopy, Mercury, Pasteurella tularensis, Rabbits, Serological tests.

### 6720-69

HEREDITY AND BREEDING MEASURES TAKEN AGAINST HIP JOINT DYSPLASIA OF THE DOG. (GE ) H Mevcr

Kleintier-praxis 13(2):41-45

Mar 1968 41.8 K67

Animal breeding, Animal genetics, Dogs, Dysplasia, Hereditary diseases, Hip joint.

#### 6721-69

### FOOT-AND-MOUTH DISEASE IN ENGLAND. N L Meyer

Amer Vet Med Ass J 154(10):1226-1229 15 May 1969 41.8 AM3 Agricultural legislation, Cattle, Epizootic diseases,

Foot-and-mouth disease, Livestock diseases. 6722-69

A HEMOLYTIC NEONATAL DISEASE IN SWINE ASSOCIATED WITH BLOOD GROUP INCOMPATIBILITY.

R C Meyer B A Rasmuscn J Simon Amer Vet Med Ass J 154(5):531-537 REF 01 Mar 1969 41.8 AM3 Baby pigs, Blood analysis, Blood groups, Hematologic diseases, Hemolytic anemia.

#### 6723-69

DIETARY HEPATIC NECROSIS ASSOCIATED WITH SELENIUM-VITAMIN E DEFICIENCY IN SWINE.

R L Michel C K Whitehair K K Keahey Amer Vet Med Ass J 155(1):50-59 REF

01 Jul 1969 41.8 AM3

Deficiency diseases, Diet, Necrosis, Selenium, Swine, Vitamin e.

### 6724-69

THE ISOLATION OF LEPTOSPIRA SEJROE FROM THE KIDNEYS OF ABORTING CAT-TLE.

S W Michna R S F Campbell M C Path Vet Rec 84(4):83-86 REF

25 Jan 1969 41.8 V641

25 Jan 1909 41.8 V041

Abortion, Antibodics, Brucella abortus, Cattle, Kidneys, Leptospira sejroe, Livestoek diseases, Nephritis, Serological tests, Vibrio fetus.

#### 6725-69

SALMONELLOSIS IN SHEEP. I. PRODUCTION OF A COMPLEX ANTIGEN AND SOME OF ITS CHEMICAL AND SEROLOGICAL FEATURES. (BU) M Milanov

Vet Med Nauk 5(8):7-14 REF

1968 41.8 V6468 Amino acids, Antigens, Bacterial diseases

(animals), Chromatography, Saccharides, Salmonellosis, Serological tests, Sheep. English and Russian summaries.

### 6726-69

ANTICOCCIDIAL ACTIVITY OF SULFADINETHOXINE POTENTIATED MIX-TURE (RO 5-0013) IN CHICKENS. M Mitrovic E G Schildknecht G Fusick Poultry Sci 48(1):210-216 Jan 1969 47.8 AM33P

Chickens, Coccidiosis, Drug therapy, Feed additives, Poultry diseases, Sulfadimethoxine.

#### 6727-69

SPECIFIC ACTIVATION OF THE PROPERDIN SYSTEM IN ORIENTATION EXPERIMENTS FOR A THERAPEUTIC CONTROL OF BOVINE LEUKOSIS. (GE) H Mohlmann H Schutzler G Zimmermann Monatsh Vet 23(18):698-700 REF 15 Sep 1968 41.8 M742

Cattle, Leukosis, Livestock diseases, Properdin, Therapeutics. English and Russian summaries.

### 6728-69

MYXOVIRUSES OF ANIMALS. (FR) J P Moine

Alfort Ecole Nat Vet These (69):145P REF 1967 41.2 AL23

Livestock diseases, Myxoviruses, Poultry diseases, Virology, Virus diseases (animals).

#### 6729-69

VIRAL ETIOLOGY OF THE BOVINE LYMPHOLEUKOSIS.

F Montemagno

Acta Med Vet 14(1/2, JAN-APR):3-5

1968 41.8 AC84

Animal histology, Cattle, Diagnosis, Etiology, Hematology, Leukosis, Livestock discases, Lymph nodes, Virology, Virus discases (animals).

#### 6730-69

BOVINE BRUCELLOSIS AND INFECTIOUS ABORTION. (SP)

G G Morales

Soc Antioquena Agr Bol Agr (573):11.092-11.094 01 Apr 1968 9.4 SO1

Brucella abortus, Brucellosis, Diagnosis, Human diseases, Immunization, Livestock diseases.

73

#### 6731-69

TRANSFORMATION OF CHICK FIBROBLAST CULTURES WITH AVIAN MYELOBLASTOSIS VIRUS. C Moscovici M G Moscovici M Zanetti

J Cell Compar Physiol 73(2):105-108 Apr 1969 444.8 J822 Avian mycloblastosis virus, Chick embryos,

Cytology, Tissue culture.

#### 6732-69

CATABOLITE REPRESSION IN ESCHERICHIA COLI. A STUDY OF TOW HYPOTHESES. V Moses M D Yudkin

Biochem J 110(1):135-142 REF Nov 1968 382 B52

Bacteria, Enzymes, Escherichia coli, Glucose, Lactose, Metabolism, Mutation, Proteins, Ribonucleic acid, Synthesis, Tables (data).

#### 6733-69

CANINE NOCARDIOSIS DUE TO NOCARDIA CAVIAE.

I E Mostafa L Cerny J Cerna

Rev Elevage Med Vet Pays Trop (N s)21(2):181-

189 REF 1968 41.8 R3262

908 41.8 K3202

Animal diseases, Animal histology, Dogs, Nocardia eaviae, Nocardiosis. French and Spanish summaries.

### 6734-69

INCIDENCE OF UDDER INFECTIONS ARISING AT VARIOUS STAGES OF LACTATION OF COWS.

Epidemiology, Lactation, Livestock diseases, Milk

**ELECTRON MICROSCOPIC OBSERVATIONS** 

Electron microscopy, Inclusion bodies, Livestock

discases, Swinepox, Virology, Virus discases (animals). English summary.

**EFFECTS OF SALMONELLA SENFTENBERG** 

**INJECTION ON CHICKS HATCHED FROM** 

EGGS IN TREATMENT OF TESTOSTERONE

Hiroshima Univ Fac Fish Anim Husb J 7(2):217-

Antibodics, Bacteria, Chicks, Eggs, Hatching, In-

fectious diseases, Propionates, Salmonella senften-

A NEW INFLUENZA A VIRUS INFECTION IN TURKEYS. IV. EXPERIMENTAL SUSCEPTI-BILITY OF DOMESTIC BIRDS TO VIRUS STRAIN TURKEY/ONTARIO 7732/1966.

Arch Gesamte Virusforsch 26(1-2):149-165 REF

A NEW INFLUE NZA A VIRUS INFECTION IN

TURKEYS. V. PATHOLOGY OF THE EXPERI-MENTAL DISEASE BY STRAIN TURKEY/ON-TARIO 7732/66.

Animal histology, Influenza viruses, Poultry dis-

Influenza viruses, Poultry diseases, Turkeys.

Arch Gesamte Virusforsch 26(1-2):166-182

berg, Testosterone. Japanese summary.

O Narayan G Lang B T Rouse

O Narayan G Lang B T Rouse

Feb 1969 448.3 A R23

Feb 1969 448.3 AR23

cases, Turkeys.

**OF INCLUSION BODIES IN SWINEPOX. (GE )** 

E Munch-Petersen

Australian Vet J 44(12):543-549

M Nakamatsu M Goto M Morita

Jap J Vet Sci 30(5):289-297 REF

Dec 1968 41.8 AU72 Antibiotics, Bacterial diseases (animals), Cattle,

analysis, Udders.

Oct 1968 41.8 J27

6735-69

6736-69

221 REF

6737-69

6738-69

**PROPIONATE.** 

T Nakamura H Hashimoto

Sep 1968 22.5 H6122

#### 6739-69

## 6739-69

METABOLIC SUBSTANCES OF STAPHYLOCOCCUS AUREUS OF BOVINE UDDER ORIGIN - A QUANTITATIVE STUDY. C Natarajan P R Nilakantan

Indian J Vet Sci Anim Husb 38(3):443-448 REF Sep 1968 41.8 IN22

Catalase, Cattle, Coagulase, Livestock diseases, Metabolism, Quantitative analysis, Staphylocoecus aureus, Udders, Urease, Veterinary medicine.

#### 6740-69

CONTRIBUTION TO THE TRAUMATIC SPLENITIS AND HEPATITIS IN CATTLE. (GE) B Natscheff | Simoff

Deut Tierarztl Wochensch 75(20):506-508 15 Oct 1968 41.8 D482

Cattle, Feed, Foreign bodies, Hepatitis, Injuries, Livestock diseases, Spleen, Symptomatology. English summary.

#### 6741-69

#### SPECIAL REFERENCE TO VIRAL AND P. P. L. **O. INFECTIONS.**

S K Nigam

Agra Univ J Res Sci 16(PT 1):183-184 Jan 1967 513 AG8

Chronic respiratory disease, Histology, Infectious bronchitis, Infectious laryngotracheitis, Pleuropneumonia-like organisms, Poultry, Respiratory diseases.

### 6742-69

#### A CASE OF PRURIGINOUS RABIES IN GOATS. (POR)

M R Nilsson M Alberto M A da Sc Portugal Biologico 33(2):38-40 REF Feb 1967 442.8 B529 Diagnosis, Goats, Inclusion bodies, Livestock dis-

eases, Rabies. English abstract.

### 6743-69

#### **DIAGNOSIS OF RABIES. WHAT IS NECESSA-**RY IN THE FIELD LABORATORY. (POR ) M R Nilsson

Biologico 33(1):21-23 REF Jan 1967 442.8 B529 Diagnosis, Rabies.

### 6744-69

A COMPARATIVE STUDY OF MORPHOLOGIC **CHANGES WITHIN HEP-2 CULTURE CELLS INOCULATED WITH VARIOUS ADENOVIRUS** SEROTYPES. (RUS) S Nitavskaya

Latv P Sr Zinat Akad Vestis 7(240):121-127 REF 1967 511 R442

Adenoviruses, Animal morphology, Immunization, Microbiology, Tissue culture.

#### 6745-69

#### FIBRINOUS COLITIS IN PIGS. (NO)

K Nordstoga F Saxegaard E Johannessen Nord Veterinaermed 20(9):487-494 REF Sep 1968 41.8 N813

Colitis, Disease transmission, Fibrin, Intestines, Mucous membrane, Swine. German and English summaries.

#### 6746-69

#### ESTABLISHMENT AND CHARACTERIZATION OF A FELINE NEUROFIBROSARCOMA (FNFS) CELL LINE.

Cornell Vet 59(2):326-340

culture, Virus diseases (animals).

### 6747-69

**CRYSTALLINE INCLUSIONS IN BACILLUS** THURINEIENSIS. J R Norris H M Proctor J Bacteriol 98(2):824-826 May 1969 448.3 J82

F Noronha K M Lee

Apr 1969 41.8 C81

Biological assay, Cats, Cells, Cytogenetics, Fibrosarcoma, Neoplasms, Neurofibroma, Tissue

Bacillus thuringiensis, Bacteriophages, Cytology, Electron microscopy, Inclusion bodies. 6748-69

BIBLIOGRAPHY

INCIDENCE OF BOVINE COCCIDIA IN WESTERN OREGON. P A Nyberg D H Helfer S E Knapp

Helminthol Soc Wash Proc 34(1):13-14 REF Jan 1967 436.9 H36 Cattle, Coceidiosis, Eimeria, Surveys.

### 6749-69

ASPERGILLOSIS IN JAPANESE QUAIL.

L D Olson Avian Dis 13(1):225-227 Feb 1969 41.8 AV5 Aspergillosis, Aspergillus fumigatus, Culture mcdia, Epizootie discases, Microscopy, Mycosis, Poultry diseases, Quail.

### 6750-69

### VARIATION IN CONCENTRATION AND COM-POSITION OF TOXIC ALKALOIDS AMONG STRAINS OF PHALARIS TYBERISA L.

R N Oram J D Williams Nature 213(5079):946-947 Mar 1967 472 N21

Alkaloids, Biological assay, Feed toxicity, Phalaris tuberosa, Poisonous plants, Sheep, Toxicology.

#### 6751-69

### A STUDY OF EXPERIMENTAL ORNITHOSIS IN THE WHITE MOUSE INFECTED THROUGH THE PERITONEAL CAVITY. (FR)

J Orfila A Lepinay Inst Pasteur Ann 116(1):111-120 REF Jan 1969 448.3 AN75

Complement fixation, Dosage, Immunity, Mice, Ornithosis, Symptomatology, Virus (animals). English summary. diseases

6752-69

### STUDIES ON MYCOPLASMA OF RATS. I. OB-SERVATION OF MYCOPLASMA IN THE RESPIRATORY SYSTEM OF RATS. (JA ) Y Oshima Y Osada M Ogata

Jap J Vet Sci 30(5):265-274

### Oct 1968 41.8 J27

Mycoplasma, Rats, Respiratory diseases. English summary.

#### 6753-69

### EVIDENCE FOR CONVERSION OF DDT TO TDE IN RAT LIVER: II. CONVERSION OF P,P'DDT TO P,P'TDE IN AXENIC RATS. A Ottoboni R Gcc R L Stanley M E Goctz

Bull Environ Contam Toxicol 3(5,SEP-OCT):302-308 REF 1968 RA1270 P35A1

Animal physiology, Biochemistry, DDT, Liver, Rats.

### 6754-69

EFFECTS OF FREEZING ON AFRICAN HORSE-SICKNESS VIRUS.

### Y Ozawa S Bahrami

Arch Gesamte Virusforsch 25(2):201-210 Dec 1968 448.3 AR23

African horsc sickness virus, Culture media, Freezing, Salts, Virulence.

### 6755-69

#### ANTIBODY RESPONSE IN ANIMALS IMMU-WITH DIFFERENT TYPES OF NIZED ANTHRAX VACCINE. A Palit P R Nilakantan Indian J Vet Sci Anim Husb 38(3):431-442 REF

Sep 1968 41.8 IN22 Anthrax vaccines, Antibodies, Immunization,

Serological tests, Veterinary medicine. 6756-69

### **OUTBREAK OF INFLUENZA A/EQUI 2 IN ITA-**LY. (IT)

A Paltrinieri R Farina A Ceccarelli E Salutini A Buonaccorsi Nuova Vet 44(4, JUL-AUG): 199-214 REF Jul 1968 41.8 N922

74

Enzymes, Epidemiology, Equine influenza, Horses, Myxoviruses, Serum, Virus diseases (animals). French and English summaries.

#### 6757-69

#### INFLUENCE OF A PAPILLOMA VACCINE ON CHRONIC BOVINE ENZOOTIC HEMATURIA. A M Pamukcu C Olson S K Goksoy

Cancer Res 27(11, PT 1):2197-2200 REF

Nov 1967 448.8 C16

Cattle, Hematuria, Histopathology, Livestock dis-cases, Papilloma viruses, Vaceines.

### 6758-69

#### HISTOPLASMIC (HISTOPLASMA CAPSU-LATUM) INFECTION IN A HORSE. **R** J Panciera

Cornell Vet 59(2):306-312

Apr 1969 41.8 C81

Histoplasma capsulatum, Histoplasmosis, Horses, Livestock diseases, Mycosis.

#### 6759-69

#### AN ASSESSMENT OF EIMERIAN LESIONS IN BUFFALO-CALVES (BUBALUS BUBALIS) AND THEIR SIGNIFICANCE.

B P Pande B B Bhatia P P S Chauhan R K Garg Indian J Vet Sci Anim Husb 38(3):449-454 REF Sep 1968 41.8 IN22

Buffaloes, Coccidiosis, Parasitism, Protozoa, Vcterinary medicine.

#### 6760-69

6761-69

6762-69

REF

1967 41.9 OV4

IN DAIRY COWS.

K J Peterson R E Coon

01 Aug 1967 41.8 AM3

MYCOPLASMA AGALACTIAE.

Arch Vet 2(2):63-69 REF

1967 41.8 AR27

summaries.

6763-69

6764-69

rics.

6765-69

Farinha

**R** C Pathak

1968 41.8 V6468

SEROLOGICAL INVESTIGATIONS INTO Q-FEVER IN SHEEP. (BU) S Pandurov

Complement fixation, Livestock discases, Q fever,

Abortion, Agricultural legislation, Bacterial dis-

cases (animals), Brucellosis, Cattle, Epizoot ic dis-

Bruccllosis is discussed as a vcterinary health problem in India. Diagnostic symptoms and precautionary measures are given.

**IDENTIFICATION OF ENTEROCOCCI IN** 

Bacterial diseases (animals), Chickens, Cysts, Liver, Streptococcus faecalis. English and French

SALMONELLA TYPHIMURIUM INFECTION

Bactcrial diseases (animals), Dairy cattle, Milk

ELECTRONMICROSCOPICAL ASPECTS OF

Bacteriology, Electron microscopy, Mycoplasma

agalactiae. French, German and Russian summa-

THE INCREASE OF CONTAGIOUS ECTHYMA IN THE STATE OF SAO PAULO. (POR )

N S Piegas M R Nilsson F M Rodrigues F B N

A Petrescu N Grigoriu M de Simon R Iftimovici

production, Pathology, Salmonclla typhimurium.

Amer Vet Med Ass J 151(3):344-350 REF

Oviedo Univ Fac Vet Leon An 13(13):423-428

Vet Med Nauk 5(3):33-39 REF

**BEWARE OF BRUCELLOSIS.** 

Indian Farming 18(7):39

Oct 1968 22 IN283

eases, Scrological tests.

CHICKEN LIVERS. (SP)

B S Perez M C Guticrrcz A G Diaz

Sheep. English and Russian summaries.

6789-69

### Biologico 33(1):18-20

Jan 1967 442.8 B529

Ecthyma, Goats, Livestock discases. English abstract.

#### 6766-69

STUDIES ON THE FLUORESCENT AND NEUTRALIZING ANTIBODIES TO BLUETON-**GUE VIRUS IN SHEEP.** A Pini H Ohder A P Whiteland L J Lund

Arch Gesamte Virusforsch 25(2):129-136 Dcc 1968 448.3 AR23

Antibodics, Bluetonguc virus, Fluorescent antibody technic, Serum neutralization test, Sheep.

### 6767-69

THE ROLE OF THE HYPOPHYSEAL-SUPRARENAL SYSTEM IN THE SUPRARENAL ETIOPATHOGENESIS OF PRIMARY KETOSIS IN CATTLE. (POL )

E Pinkiewicz B Robaj

Lublin Univ Mariae Curie Ann Sect Dd 22:129-150 REF

1967 512 L96AD

Adrenal cortex hormones, Adrenal glands, Animal histology, Cattle, Corticotropin, Hormones, Ketosis, Livestock diseases, Pituitary gland. English and Russian summarics.

### 6768-69

THE INCREASE OF THE INCIDENCE OF FOOT-AND-MOUTH DISEASE IN THE STATE OF SAO PAULO IN 1966. (POR) A A Pinto O Suga L P Netto

Biologico 33(2):42-43

Feb 1967 442 8 B529 Foot-and-mouth discase, Livestock discases.

#### 6769-69

INVESTIGATIONS ON THE INCIDENCE OF RINDERPEST VIRUS INFECTION IN GAME ANIMALS OF N. TANGANYIKA AND S. KENYA 1960/63.

W Plowright B McCulloch J Hyg 65(3):343-358 MAP REF

Scp 1967 449.8 J82

Animal discases, Rinderpest virus, Serological tests, Surveys, Wildlife.

### 6770-69

TRICHOPHYTOSIS PROPHYLAXIS BY FEED-ING. (RUS)

S I Plyashchenko V T Sidorov A I Alcksandrova Veterinariya (12):69-70

Dcc 1968 41.8 V6426

Feeding, Livestock diseases, Preventive medicine, Ringworm.

#### 6771-69

SALMONELLA IN THE STARLING (STURNUS VULGARIS). (FR)

P Pohl J Thomas Ann Med Vet 112(8):704-711 REF Dec 1968 41.8 AN78

Discase transmission, Salmonella, Starlings. English, German and Flemish summaries.

### 6772-69

SYNTHESIS OF SATURATED LONG CHAIN FATTY ACIDS FROM SODIUM ACETATE-I-C14 BY MYCOPLASMA.

J D Pollack M E Tourtellottc J Bacteriol 93(2):636-641 REF

Fcb 1967 448.3 J82

Biochemistry, Carbon isotopes, Fatty acids, Mycoplasma, Radioactive tracers, Sodium acetate.

### 6773-69

PREPARATION OF STABLE NONINFECTIVE INFLUENZA VIRUS ANTIGENS FOR TYPING BY HEMAGGLUTINATION-INHIBITION. J R Polley

Can J Microbiol 15(2):203-207

Fcb 1969 448.8 C162

Allantoin, Antigens, Gamma rays, Hemagglutina-tion-inhibition test, Human diseases, Immunochemistry, Influenza viruses, Virus diseases (animals).

#### 6774-69

A STUDY OF THE RELATIONSHIP BETWEEN THE SEROLOGICAL SALMONELLA TYPES ISOLATED FROM HUMANS AND FROM FOODSTUFFS. (FR )

M Popovici L Szegli L Soare M Negut V Raicev Ft Al

Arch Gesamte Virusforsch 26(2):345-352 Jun 1967 448.3 AR22

Epidemiology, Food contamination, Human dis-cases, Salmonella, Serological tests. Russian, German, and English abstracts

#### 6775-69

STUDIES ON INFECTIOUS LARYN-**GOTRACHEITIS (ILT) VIRUS OF POULTRY. I. ISOLATION AND IDENTIFICATION OF THE** VIRUS.

### I J Prasad B S Malik

Indian J Vet Sci Anim Husb 38(3):410-414 Scp 1968 41.8 IN22

Infectious laryngotracheitis virus, Poultry discases, Scrological tests, Veterinary medicine, Virology.

#### 6776-69

STUDIES ON INFECTIOUS LARYN-GOTRACHEITIS (ILT) VIRUS OF POULTRY. II. SURVEY OF THE INFECTION BY IMMUNO-DIFFUSION TEST.

I J Prasad B S Malik

Indian J Vet Sci Anim Husb 38(3):415-417 Scp 1968 41.8 IN22

Immunodiagnosis, Infectious laryngotracheitis virus, Poultry diseases, Scrological tests, Veterina-ry medicine, Virology.

#### 6777-69

#### CHANGES IN PERMEABILITY OF THE MU-COSA DURING INTESTINAL COCCIDIOSIS IN-FECTIONS IN THE FOWL.

R A Preston-Mafham A H Sykcs Experientia 23(11):972-973

15 Nov 1967 475 EX7

Animal physiology, Dyes, Eimeria acervulina, In-testines, Permcability, Poultry diseases.

### 6778-69

#### PRE-DISPOSING FACTORS IN MASTITIS. III. GENETIC INFLUENCES ON UDDER HEALTH. (**GE**)

A Probst J Behringer F Kiermeicr Zuchtungskunde 40(4,JUL-AUG):248-253 REF 1968 49 78

Animal genetics, California mastitis test, Cattle, Heredity, Livestock diseases, Mastitis. English, French and Russian summaries.

#### 6779-69

RINDERPEST PROTECTION IN CATTLE BY MEASLES VIRUS. APPLICATION IN CALVES WITH PASSIVE IMMUNITY FROM MATER-NAL ANTIBODIES. (FR)

A Provost Y Maurice C Borredon Rev Elevage Med Vet Pays Trop (N s)21(2):145-164 REF

#### 1968 41.8 R3262

Antibodics, Cattle, Immunity, Livestock discases, Measles virus, Rinderpest, Virology, Virus diseases (animals). English and Spanish summaries.

#### 6780-69

THE USE OF AN AVIAN POLYVALENT VAC-CINE IN CENTRAL AFRICA. (FR) A Provost C Borredon

Cornell Vet 59(2):258-268 REF Apr 1969 41.8 C81

Rev Elevage M ed Vet Pays Trop (N s)21(2):165-179 REF

1968 41.8 R3262

Avian leukosis complex, Fowl typhoid, Fowlpox, Newcastle disease, Poultry diseases, Vaccines.

### 6781-69

CENTRAL AFRICAN UTILIZATION OF A POLYVALENT AVARIAN VACCINE. (FR ) A Provost C Borredon

Rev Elevage Med Vet Pays Trop 21(2):165-179 REF

### 1968 41.8 R3262

Birds, Newcastle disease, Salmonellosis, Typhoid, Vaccines.

75

### 6782-69

**RESISTANCE AGAINST CANINE DISTEMPER** INDUCED BY MEASLES VIRUS, I. MEASLES VACCINATION IN THE PRESENCE OF DISTEMPER ANTIBODIES.

### J Prydic

Vet Rec 83(22):554-559 REF

30 Nov 1968 41.8 V641

Antibodies, Canine distemper, Dogs, Immunization, Measles virus, Virology.

### 6783-69

ADAPTATION, CULTURING OF R. SIBIRICA IN RABBIT LICE AND PREPARATION OF A COMBINED ANTIGEN FOR DIAGNOSIS OF IN-FECTION. (RUS)

R A Pshcnichnov E P Ivanova M I Gulvakova Zhur Mikrobiol Epidemiol Immunobiol 4:73-75 1968 448.3 74

Agglut ination, Anoplura, Antigens, Biology, Culturc media, Feeding, Morphology, Predaceous in-sects, Rickettsia. English summary

#### 6784-69

(animals).

6785-69

Habashy

425 REF

6786-69

K Reuss

6787-69

6788-69

6789-69

K R Rhoades

Feb 1969 41.8 AV5

CHOLERAESUIS.

C E Ricc C L'Ecuyer

media, Globulins,

choleraesuis, Swine.

Fcb 1969 41.8 AV5

1967 448.8 J826

Fcb 1969 41.8 AV5

AVIAN LEUKOSIS-SARCOMA VIRUSES AND ANTIBODY IN FIELD FLOCKS, AND THEIR RELATIONSHIP TO LEUKOSIS MORTALITY. H G Purchase J J Solomon D C Johnson Avian Dis 13(1):58-71 REF

Antibodies, Avian lcukosis complex viruses, Avian

lymphomatosis, Biological assay, Immunity, Mor-tality, Rous sarcoma virus, Viremia, Virus diseases

ACTION OF BAYER PREPARATION A 139 ON RABIES VIRUS.

I M Reda A A Shokeir A M Abdelaziz Y Z

J Hyg Epidemiol Microbiol Immunol 11(4):422-

Drug therapy, Mice, Rabies virus, Tissue culture, Vaccines.

INFLUENCE OF FIXATION ON GROSS

A HEMAGGLUTINATION-INHIBITION TEST FOR MYCOPLASMA MELEAGRIDIS AN-TIBODIES.

Agglutination test, Antibodies, Antigens, Culture media, Embryos, Hemagglutination-inhibition test, Mycoplasma melcagridis, Phenol compounds, Poultry diseases, Serological tests, Turkeys.

Agglutination, Complement fixation, Culture

A HISTOLOGIC STUDY OF MEDULLARY BONE OF LAYING HENS UNDER DIFFERENT DIET AND HOUSING CONDITIONS.

Animal histology, Animal physiology, Bcdding (livestock), Bone diseases, Calcium phosphates, Egg production, Feed, Phosphorus, Poultry houses.

C Riddell C F Helmboldt E P Singsen

Avian Dis 13(1):163-170 REF

Immunology, Salmonella

IMMUNOGLOBULIN DEVELOPMENT SERA OF PIGS INJECTED WITH KILLED SUSPENSIONS OF SALMONELLA

MORPHOLOGY OF MYCOPLASMA.

Formaldchyde, Morphology, Mycoplasma.

J Bacteriol 93(1):490-491

Avian Dis 13(1):22-26 REF

Jan 1967 448.3 J82

### 6790-69

6790-69 **IDENTIFICATION OF A PIROPLASME FOUND** WITH SUFFICIENT FREQUENCY IN OUR CATTLE. (SP) I G Rodriguez

Spain Patronato Biol Anim Rev 11(3/4):45-56 REF

1967 49.9 SP16

Babesia, Baeterial diseases (animals), Blood, Cattlc, Livestock discases, Piroplasmosis, Splcen. English and French summaries.

#### 6791-69

EFFECT OF CYTOSTATICS ON THE REPLI-CATION OF VACCINIA, PSEUDO-RABIES AND SINDBIS VIRUSES AND ON THE INTERFERON **PRODUCTION BY TISSUE CULTURE CELLS.** 1 Rosztoczy 1 Mecs

Acta Microbiol 15(1):41-47 REF

04 Apr 1968 448.3 AC84

Biological assay, Cyclophosphamidc, Dcox-yribonucleic acid, Drug therapy, Interferon, Pseu-dorabies virus, Sindbis virus, Tissuc culture, Vaecinia virus.

#### 6792-69

**TESTICLE HYPOPLASIA IN A BOAR OF THE GOTTINGER MINIATURE SWINE BREED. (GE** 

#### E Roth D Schmidt

Deut Tierarztl Wochensch 75(24):627

15 Dcc 1968 41.8 D482

Animal abnormalitics, Boars, Hypoplasia, Livestock, Testes.

#### 6793-69

EFFECTS OF **AFLATOXIN** BI ON POLYSOMAL PROFILES AND RNA SYNTHES-IS IN RAT LIVER. A K Roy

Biochim Biophys Acta 169(1):206-211 REF 20 Nov 1968 381 B522

Aflatoxin, Biochemistry, Carcinogens, Dosage, Inhibitors, Liver, Rats, Ribonucleic acid, Synthesis.

### 6794-69

### COLOSTRAL IMMUNITY AGAINST SAL-MONELLA INFECTION IN CALVES.

W A Royal R A Robinson D M Duganzich New Zeal Vet J 16(8/9, AUG-SEP): 141-145 REF 1968 41.8 N483

Antibodics, Calves, Colostrum, Immunity, Infectious diseases, Livestock diseases, Salmonella typhimurium, Vaccincs.

### 6795-69

# EFFECTS OF RATION ENERGY LEVEL, VAC-CINATION, AND ANTIBIOTICS ON FEEDLOT PERFORMANCE OF RANGE LAMBS.

J L Ruttle C N Sundt

N Mex Agr Exp Sta Bull (537):20P

Oct 1968 100 N465 (1)

Animal nutrition, Antibiotics, Clostridium perfringens, Enterotoxemia, Feedlots, Immunization, Lambs.

#### 6796-69

#### **BOVINE HERPES MAMMILLITIS VIRUS. III. OBSERVATIONS ON EXPERIME NTAL INFEC-**TION.

M M Rweyemamu R H Johnson M R McCrca Brit Vet J 124(8):317-324 REF

Aug 1968 41.8 V643

Animal histology, Cattle, Herpcsviruscs, Laboratory animals, Udders, Virology, Virus diseases (animals). French, German and Spanish summarics.

#### 6797-69

#### **INTERACTION OF RUBIDIUM AND POTASSI** UM IN CHICK DIETS.

L B Sasser E W Kienholz G M Ward

Poultry Sci 48(1):114-118

Jan 1969 47.8 AM33P

Animal nutrition, Chicks, Potassium, Rubidium, Toxicology.

### **BIBLIOGRAPHY**

6798-69

INTERSTATE TRANSPORTATION OF ANIMALS AND POULTRY. BRUCELLOSIS. DESIGNATION OF MODIFIED CERTIFIED BRUCELLOSIS AREAS, PUBLIC STOCKYARDS, SPECIFICALLY APPROVED STOCKYARDS, AND SLAUGHTERING ESTABLISHMENTS. MODIFIED CERTIFIED BRUCELLOSIS AREAS.

### E E Saulmon

Fed Regist 34(102):8233

28 May 1969 L1.451

Bruccllosis, Cattle, Interstate commerce, Livestoek diseases, Regulations.

#### 6799-69

#### SYNTHESIS OF RADIOACTIVE TRICHINELLA SPIRALIS LARVAL ANTIGEN IN VITRO.

H Savel C W Kim L D Hamilton

Exp Parasitol 24(2):171-175 REF

Apr 1969 436.8 EX7

Amino acids, Antigens, Guinea pigs, Larvae, Radioactive isotopes, Tissue culture, Trichinella spiralis.

### 6800-69

#### HERPESVIRUS IN MAREK'S DISEASE TU-MORS.

G Schidlovsky K E Jensen M Ahmed

Science 164(3882):959-961 REF

23 May 1969 470 SCI2

Animal histology, Avian lymphomatosis, Chicks, Epizootic diseases, Hcrpcsviruses, Neoplasms, Poultry diseases, Tissue culture, Virology, Virus discases (animals).

#### 6801-69

### EPIDEMIC PROPHYLAXIS AND CONTROL OF **INFECTIOUS DISEASES IN LARGE MODERN** POULTRY FARMS. (GE)

**D** Schimmel

Monatsh Vet 23(18):681-685

15 Sep 1968 41.8 M742

Infectious diseases, Poultry diseases, Poultry industry, Veterinary medicine. English and Russian summaries.

#### 6802-69

#### **ON ANTIBIOTIC-ANTIMYCOTIC THERAPY IN** CATTLE MASTITIS, (RUM)

O Schobesch L Urcchc M Rusu

Rev Zootech 18(9):54-62 REF

Scp 1968 49 P943

Antibiotics, Cattle, Chloramphenicol, Drug therapy, Fungicides, Livestock diseases, Mastitis, derivativcs, Prcdnisone, Polyoxyethylenc Propylene glycol. English, French and Russian summaries.

#### 6803-69

#### CONTRIBUTION TO ATROPHIC RHINITIS IN PIGS. (GE) P Schoss

Deut Tierarztl Wochensch 75(24):625-630 REF 15 Dec 1968 41.8 D482

Atrophic rhinitis, Disease transmission, Etiology, Infectious diseases, Livestock diseases, Swine. English summary. continuation from preceding issue.

#### 6804-69

THE INFLUENCE OF STREPTOCOCCI ON THE GENITALS AND FERTILITY THOROUGHBRED MARES. (GE ) OF J Schute

Hanover Tierarztl Hochsch Inang Diss (73):43P REF

1966 41.2 H198

Fcrtility, Livestock diseases, Reproduction, Reproductive organs, Sterility, Streptococcus, Thoroughbred horses.

#### 6805-69

# STUDIES ON GOAT-POX VIRUS. I. HOST RANGE PATHOGENICITY.

76

K C Sen N S Datt

Indian J Vet Sci Anim Husb 38(3):388-393 Sep 1 968 41.8 IN22

Goatpox virus, Goats, Livestock diseases, Veterinary medicine, Virology.

#### 6806-69

**STUDIES ON GOAT-POX VIRUS. II. SEROLOG-**ICAL REACTIONS.

K S Sen N S Datt

Indian J Vet Sci Anim Husb 38(3):394-398 Sep 1968 41.8 IN22

Anaphylaxis, Goatpox virus, Immunology, Laboratory animals, Poxviruses, Serum neutralization test, Vctcrinary medicine.

### 6807-69

COLI DYSENTERY (COLIBACILLOSIS) OF SUCKLING PIGS. (GE )

W Scnf

6808-69

1945-1958.

**O P Settues** 

6809-69

M Sevoian

6810-69

cases.

6811-69

6812-69

BERTA.

1969 7 R31

(animals).

6813-69

J A Shemanchuk

MYCOBACTERIUM

C C Shepard J A Habas

**MYCOBACTERIUM LEPRAE.** 

J Bacteriol 93(3):79/-796 REF

Oct 1968 41.8 M69

37(5,SEP/OCT):617

1968 448.8 M469

TOXOPLASMA

H G Sheffield M L Melton

Science 164(3878):431-432

Canada Agr 14(1,WINTER):24-25

25 Apr 1969 470 SCI2

Sep 1968 41.8 N813

- Monatsh Vet 23(19):744-750
- 01 Oct 1968 41.8 M742

Baby pigs, Bacterial diseases (animals), Colibacillosis, Escherichia coli, Immunization, Livestock discases. English and Russian summaries.

THE IN VITRO SENSITIVITY OF AVIAN SAL-MONELLA STRAINS TO 6 DRUGS. I. IN-

**VESTIGATION ON 1024 STRAINS ISOLATED** 

Antibiotics, Drug resistance, Feed additives, Poultry, Salmonella. French and Danish summa-

rics. the 6 drugs tested were: sulfamethizol, strepto-mycin, tetracycline, chloramphenicol, nifu-razolidon and nitrofurmeton.

EGG TRANSMISSION STUDIES OF TYPE II LEUKOSIS INFECTION (MAREK'S DISEASE).

Avian lymphomatosis, Chick embryos, Eggs, Kid-

**DETECTION OF COMPLEMENT FIXING AN-**

TIBODY TO THE AGENTS OF TICK TYPHUS FEVER OF NORTHERN ASIA AND Q FEVER IN WILD ANIMALS OF THE EXTREME NORTH OF WESTERN SIBERIA. (RUS)

Antibodies, Complement fixation, Ixodidae, Parasitism, Piroplasmosis, Q fever, Wildlife dis-

THROUGH FECES IN ABSENCE OF TOX-OCARA CATI EGGS.

Animal vectors, Bacterial diseases (animals), Dis-

casc transmission, Feces, Mice, Parasitism, Tem-perature, Toxocara cati, Toxoplasmosis.

WESTERN ENCEPHALITIS VIRUS IN AL-

Animal vcctors, Birds, Culicidae, Encephalitis, Human discases, Insect vectors, Virus discases

**RELATION OF INFECTION TO TISSUE TEM-**

MARINUM

PERATURE IN MICE INFECTED

GONDII: TRANSMISSION

Ixodidac.

WITH

AND

M S Shaiman N M Stolbov A A Chistyakov

Med Parazitol Parazitarn Bolezni

Vet Med/small Anim Clin 63(10):973-974

neys, Poultry discases, Tissue culture.

Nord Veterinaermed 20(9):458-470 REF

Mar 1967 448.3 J82 Animal diseases, Mice, Mycobactcrium, Physiolo-

gy, Temperature, Tissucs.

### 6814-69

**OBSERVATIONS ON CROOKED CALF DIS-**EASE.

J L Shupe L F James W Binns Amer Vet Med Ass J 151(2):191-197 15 Jul 1967 41.8 AM3

Calves, Crooked calf disease, Etiology, Lupine, Pastures.

#### 6815-69

LUPINE, A CAUSE OF CROOKED CALF DIS-EASE.

J L Shupe W Binns L F James R F Keeler Amer Vet Med Ass J 151(2):198-203 REF 15 Jul 1967 41.8 AM3 Calvcs, Crooked calf disease, Lupine, Pathogenicity, Poisonous plants.

6816-69

THE OLFACTORY BULB LESION IN THE SQUIRREL (CITELLUS INFECTED WITH COX-HIBERNATING LATERALIS) SACKIEVIRUS B-3. II. IMMUNOLOGICAL STUDY.

R Siboo E I Grodums Can J Microbiol 15(2):197-202 REF Fcb 1969 448.8 C162

Antibodics, Coxsackie viruses, Fluorescent antibody technic, Gamma globulins, Hibernation, Im-munology, Smell, Squirrels, Virus diseases (animals).

#### 6817-69

### FOWL POX INCLUSION-BODY FORMATION IN SKIN EPITHELIUM OF CHICKS.

C F Simpson Avian Dis 13(1):89-100 REF Feb 1969 41.8 AV5

Chicks, Cytology, Electron microscopy, Epitheli-um, Fowlpox, Illustrations, Inclusion bodies, Mitochondria, Poultry diseases, Skin, Virus discases (animals).

6818-69

ANIMAL DISEASES AND PESTS.

C M Singh

Indian Farming 17(8):12-13 Nov 1967 22 IN283

Livestock diseases, Poultry diseases, Research, Vaccincs.

In India, livestock and poultry diseases have received much research attention and vaccines have been developed for bacterial, viral, and other parasitic diseases.

#### 6819-69

**TUBERCULOSIS IN DUCKS.** G Singh T P Joshi J M L all P K R Iycr Indian J Vet Sci Anim Husb 38(3):424-430

Scp 1968 41.8 1N22 Agglutination tcst, Ducks, Poultry diseases, Tu-berculin tcst, Tuberculosis, Vcterinary medicine.

6820-69

PRACTICE OF PULLORUM DISEASE ERADI-CATION AT A POULTRY PLANT IN BAKU. (RUS)

M 1 Smirnov K S Gadzhicv

Veterinariya (12):75-76

Dcc 1968 41.8 V6426

Poultry discases, Poultry industry, Pullorum discase.

### 6821-69

ANTI-MICROBIAL DRUGS IN ANIMAL FEEDS. H W Smith

Nature 218(5143):728-731 REF 25 May 1968 472 N21

Animal nutrition, Antibiotics, Bacteria, Drug therapy, Feed additives, Livestock diseases. 6822-69

AN OUTBREAK OF MALE FERN (DRYOP-TERIS FILIX-MAS) POISONING.

P J Smyth Irish Vet J (N s)22(4):69-71 Apr 1968 41.8 IR4 Animal nutrition, Cattle, Drug thcrapy, Dryopteris filixmas, Feed toxicity, Livestock diseases, Poisoning. 6823-69 DYNAMICS OF SALMONELLA INFECTION IN CHICKS REARED ON LITTER.

G H Snoeycnbos V L Carlson C F Smyser O M Olcsiuk

Avian Dis 13(1):72-83

Fcb 1969 41.8 AV5

Bedding (livestock), Chicks, Infectious diseases, Mortality, Poultry diseases, Salmonellosis, Serological tests.

#### 6824-69

ISOLATION OF ARIZONA 7:1,7,8 FROM LITTER OF PENS HOUSING INFECTED TUR-KEYS.

G H Snoeyenbos C F Smyser Avian Dis 13(1):223-224 Fcb 1969 41.8 AV5 Bacteria, Bedding (livestock), Culture mcdia, Paracolobactrum arizonae, Poultry houses, Turkevs.

### 6825-69

## **EXPERIMENTAL SALMONELLOSIS IN SWINE** AND ITS CLINICAL-HEMATOLOGICAL CHARACTERISTICS. (2E)

D Sofrenovic J M Jovanovic L Miroslava Vet Glas 22(10):841-847 REF 1968 41.8 J93

Baby pigs, Bacterial diseases (animals), Culture media, Hematology, Salmonella choleraesuis, Salmonellosis, Symptomatology. English and Russian summaries.

6826-69

FIELD OBSERVATION OF A MUCOSAL TYPE OF DISEASE AT AAREY MILK COLONY. A D Sohoni A K Gudi S V Kukade Gosamvardhana 16(9):31-32,30 Dcc 1968 43.8 G69 Dairy cattle, Drug therapy, Livestock diseases, Mucosal disease, Virus diseases (animals).

6827-69

EFFECT OF THIABENDAZOLE ON OVINE POSTHITI S. W H Southcott

Australian Vet J 44(11):526

Nov 1968 41.8 AU72

Bactericides, Livestock diseases, Posthitis, Sheep, Thiazolyl)-benzimidizole, 2-(4-.

#### 6828-69

EFFECT OF PADDOCK SIZE, STOCKING RATE, ANTHELMINTICS, AND TRACE ELE-MENTS ON THE WEIGHT GAIN OF YOUNG CATTLE.

W H Southcott M K Hill B R Watkin J L Whceler

Australian Soc Anim Prod Proc 7:118-122

Feb 1968 49.9 AU72

Animal physiology, Anthelmintics, Cattle, Cobalt, Habitats, Methyridine, Micronutrients, Selenium, Thiazolyl)-benzimidizole, Weights. 2-(4-. Proceedings of Australian Society of Animal Production.

6829-69

THE CONTROL AND TREATMENT OF POSTHITIS. W H Southcott

Pastoral Rev 78(7):613

18 Jul 1968 23 AU75

Animal nutrition, Antiseptics, Bacteri al diseases (animals), Diet, Hormones, Livestock diseases, Posthitis, Shecp, Testosterone.

### 6830-69

EXPERIMENTAL TRANSMISSION OF HISTOMONAS **MELEAGRIDIS** AND HETERAKIS GALLINARUM BY THE SOW-

### LIVESTOCK PROTECTION

6837-69

BUG, PORCELLIO SCABER, AND ITS IMPLI-CATIONS FOR FURTHER RESEARCH. L A Spindler Helminthol Soc Wash Proc 34(1):26-29 Jan 1967 436.9 H36 Epizootic diseases, Heterakis gallinarum, Histomonas meleagridis, Isopoda, Poultry diseases, Turkeys. 6831-69 A TETRAZOLIUM REDUCTION TEST TO EVALUATE THE VIABILITY OF STRAIN 19 VACCINES. (POR ) R Sprovieri D C Freitas Biologico 33(2):31-34 Fcb 1967 442.8 B529 Colorimetry, Lyophilization, Tetrazolium, Vaccines. English abstract. 6832-69 THE ROLE OF ESCHERICHIA COLI IN GAS-TROENTERITIS IN NEWLY-BORN CALVES IN THE DISTRICT OF TOLBUHIN. (BU) T Stamatov Vet Med Nauk 5(2):63-66 1968 41.8 V6468 Bacterial diseases (ani mals), Calves, Escherichia coli, Gastroenteritis, Livestock diseases. English and Russian summaries, 6833-69 DETECTION OF PSEUDORABIES VIRUS BY IMMUNOFLUORESCENCE. W C Stewart E A Carbrey J I Kresse Amer Vet Med Ass J 151(6):747-751 15 Sep 1967 41.8 AM3 Antigens, Baby pigs, Diag nofluorcscence, Pseudorabies virus. Diagnosis, Immu-6834-69 **EXPERIENCES AND IDEAS REGARDING CAT-**TLE TUBERCULOSIS SANITATION IN A STATE PRACTITIONERS AREA. (GE ) G Strassburger Monatsh Vet 23(18):689-692 REF 15 Sep 1 968 41.8 M742 Cattle, Disease transmission, Livestock diseases, Sanitation, Tuberculin test, Tuberculosis. English and Russian summaries. 6835-69

DESMOSTEROL AS A COMMON INTER-MEDIATE IN THE CONVERSION OF A NUMBER OF C28 AND C29 PLANT STEROLS TO CHOLESTEROL BY THE TOBACCO HORNWORM. J A Svoboda W E Robbins

Experientia 24(11):1131-1132 REF 15 Nov 1968 475 EX7 Cholesterol, Desmosterol, Manduca sexta, Plant

physiology, Sterols. French abstract

### 6836-69

EVALUATION OF SEVERAL METHODS OF ISOLATING SALMONELLAE FROM POULTRY LITTER AND ANIMAL FEEDSTUFFS. C F Symser G H Snoeyenbos Avian Dis 13(1):134-141 REF

Feb 1969 41.8 AV5

Bedding (livestock), By-products, Culture media, Feed, Poultry diseases, Salmonella, Salmonella senftenberg.

#### 6837-69

INFLUENCE OF SOME PREPARATIONS AP-PLIED INTO THE UDDER ON THE PH, MICROSCOPIC CELLULAR APPEARANCE, CALIFORNIA MASTITIS TEST AND ON THE CONTENT OF CATALASE AND CHLORIDES IN MILK. (POL ) S Tarkiewicz

Lublin Univ Mariae Curie Ann Sect Dd 22:245-

262 1967 512 L96AD

Antibiotics, California mastitis test, Catalasc, Chlorides, Glands (animals), Hydrogen-ion con-centration, Microscopy, Milk, Udders. English and Russian summaries.

### 6838-69

6838-69 MUTANT AUJESZKY'S AVIRULENT OF VIRUS, INDUCED BY RIDINE (IUDR). (BU) 5-IODO-2-DEOXIU-G Tatarov Vet Med Nauk 5(6):95-101 REF

1968 41.8 V6468

Idoxuridine, Mutation, Pseudorabies, Tissue culture, Virology, Virulence, Virus diseases (animals). English and Russian summaries

#### 6839-69

## THE EVALUATION OF THE METABOLIC-IN-HIBITION TECHNIQUE FOR THE STUDY OF MYCOPLASMA GALLISEPTICUM.

D Taylor-Robinson D M Berry

J Gen Microbiol 55(1):127-137 REF Jan 1969 448.3 J823

Antimetabolites, Antiserum, Chickens, Immunology, Myeoplasma galliseptieum, Rabbits, Serological tests.

#### 6840-69

### STUDIES ON THE EPIZOOTIOLOGY OF RIN-DERPEST IN BLUE WILDEBEEST AND OTHER GAME SPECIES OF NORTHERN TANZANIA AND SOUTHERN KENYA, 1965-7. W P Taylor R M Watson

J Hyg 65(4):537-545 REF

Dec 1967 449.8 J82

Epizootic diseases, Livestock diseases, Rinderpest,

Wildlife.

#### 6841-69

### CYSTIC ENDOMETRIUM IN WESTERN AUS-TRALIAN CATTLE.

R 1 Thain P B Lewis K J Austen Australian Vet J 44(6):295-296 Jun 1968 41.8 AU72

Cattle, Cysts, Endometrium, Livestock diseases.

### 6842-69

### THE SIGNIFICANCE OF DEEP LITTER FOR PROPHYLAXIS OF CHICKEN COCCIDIOSIS. (RUS)

A F Tolstopyatenko

Veterinariya (12):100-102

Dee 1968 41.8 V6426

Bedding (livestock), Coccidiosis, Poultry diseases, Sanitation.

### 6843-69

# COMPARATIVE STUDY OF THE AUJESZKY VIRUS AND OF THE HERPES SIMPLEX VIRUS BY THE IMMUNO-FLUORESCENCE METHOD. II. KINETIC STUDY OF THE HERPES SIM-PLEX VIRUS BY THE IMMUNO-FLUORESCENCE METHOD. (FR)

V Toneva

Clin Vet 91(9):279-286 REF

Sep 1968 41.8 C61

Antibodies, Antigens, Fluorescence, Herpes sim-plex, Pseudorabies, Virology, Virus diseases (animals). Italian summary.

#### 6844-69

**EXPERIMENTAL STUDIES ON BOVINE TICK-**BORNE FEVER. I. CLINICAL AND HAE-MATOLOGICAL DATA, SOME PROPERTIES OF THE CAUSATIVE AGENT, AND HOMOLOGOUS IMMUNITY.

J Tuomi Acta Pathol Microbiol Scand 70(3):429-445 MAP REF

1967 448.3 AC8

Cattle, Electron microscopes, Epidemiology, Im-munity, Livestock diseases, Piroplasmosis, Serum, Sheep, Symptomatology.

#### 6845-69

#### **TGE PREVENTION YOUR GOAL.**

N R Underdahl M J Twichaus C A Mebus Nebr Univ Ext Ec (69-219):19-20 Jan 1969 275.29 N272EX

Baby pigs, Disease control, Immunology, Infectious diseases, Livestock diseases, Symptomatology, Transmissible gastroenteritis, Virus diseases (animals).

### BIBLIOGRAPHY

### 6846-69

**BIOCHEMISTRY OF AFLATOXINS.** S D Varma 1 S Yadava J Nutr Dietics 5(1):87-89 REF

Jan 1968 QP141.A1J6 Agricultural products, Animals, Aspergillus flavus, Biochemistry, Feed, Metabolism, Penieillium, Plant extracts.

#### 6847-69

### NEURAMINIDASE ACTIVITY OF THE NEW-CASTLE DISEASE VIRUS. I. A STUDY OF THE **ENZYME ACTIVITY IN DIFFERENTLY CUL-TIVATED STRAINS. (BU )** L Vasileva

Vet Med Nauk 5(8):39-43 REF

1968 41.8 V6468

# Enzymes, Hydrogen-ion concentration, Newcastle disease virus, Serum, Substrates, Virology, Virus diseases (animals). English and Russian summaries

### 6848-69

THE CANINE LEPTOSPIROSES. (FR)

P Vaugien

Patre (154):23

Jun 1968 45.8 P272

Baeterial diseases (animals), Dogs, Immunization, Leptospira eanicola, Leptospira icterohaemorr-hagiae, Leptospirosis, Symptomatology.

#### 6849-69

#### HYPERCALCEMIA AND GASTRO-DUODENAL **ULCERATIONS. (FR)**

H Verine M Barbier J P de Roissard Lyon soc Sci Vet Bull 69(5):417-426 REF 1967 41.9 L99

Animal diseases, Caleification (physiologieal), Digestion, Dogs, Duodenum, Gastrointestinal system, Uleers.

#### 6850-69

### NOTES ON THE SPONTANEOUS PATHOLOGY OF THE DOG IN THE LABORATORY. 2ND NOTE: HEMATOMA OF THE SPLEEN. (FR ) H Verine M Chrzanowska

Acad Vet France Bull 41(1):29-33

Jan 1968 41.9 R24

Dogs, Hematology, Mieroseopy, Neoplasms, Spleen.

#### 6851-69

# NOTES ON THE SPONTANEOUS PATHOLOGY OF THE DOG IN THE LABORATORY. IST NOTE: LEIOMYOSARCOMA OF THE MESEN-TERY IN A FEMALE DOG. (FR)

H Verine M Chrzanowska S Botev

Acad Vet France Bull 41(1):25-28

Jan 1968 41.9 R24

Animal histology, Diagnosis, Dogs, Drug therapy, Metastasis, Neoplasms.

#### 6852-69

A PRELIMINARY REPORT ON THE IN-CIDENCE OF INFECTIOUS LARYN-GOTRACHEITIS (ILT) OF POULTRY BY GEL-DIFFUSION TEST. K C Verma B S Malik

Indian J Vet Sci Anim Husb 38(3):405-409 Sep 1968 41.8 IN22

Agglutination test, Epidemiology, Infectious laryn-gotracheitis, Poultry discases, Serologieal tests, Veterinary medicine, Virus diseases (animals).

#### 6853-69

#### **OCCURRENCE OF INFECTIOUS BRONCHITIS OF POULTRY IN INDIA.**

K C Verma G R Singh C M Singh

Indian J Vet Sci Anim Husb 38(3):418-423 REF Sep 1968 41.8 1N22

Chickens, Embryos, Infectious bronchitis, Poultry discases, Respiratory diseases, Serum neutraliza-tion test, Veterinary medicine.

#### 6854-69

### PATHOMORPHOLOGICAL STUDIES ON RAB-BITS AND GUINEA-PIGS EXPERIMENTALLY INFECTED WITH THE VIRUS OF AUJESZKY'S DISEASE. (BU)

78

A Vesselinova

#### Vet Med Nauk 5(5):17-27 REF 1968 41.8 V6468

Contral nervous system, Guinea pigs, Laboratory animals, Pseudorabies, Rabbits, Tissue eulture, Virus diseases (animals). English and Russian summaries.

#### 6855-69

AN AUTORADIOGRAPHIC AND IMMU-NOFLUORESCENT STUDY OF THE INFEC-TIOUS CYCLE OF SHEEPPOX VIRUS IN CELL CULTURES EXPOSED TO 5-FLUORODEOXYU-RIDINE.

J Vigario A Terrínha J Nunes A Bastos D Marques Et Al

Arch Gesamte Virusforsch 25(3-4):321-329 REF Dee 1968 448.3 AR23

Autoradiography, Cells, Deoxyribonueleie aeid, Floxuridine, İmmunofluorescence, Sheep, Sheep-pox virus, Tissue culture.

#### 6856-69

6857-69

Pfander

6858-69

6859-69

DUCKS. (GE)

G Waehendorfer G Schoop

01 Apr 1968 41.8 D482

THE SWINE. (GE)

01 Oet 1968 41.8 M742

W Waehtel

maries.

6860-69

perature.

6861-69

SIEKTE).

J G Wandera

PULMONARY

hepatitis. English summary.

Monatsh Vet 23(19):750-757 REF

# THE TRANSMISSION OF WEST EQUINE EN-CEPHALOMYELITIS VIRUS FROM CHICKEN TO CHICKEN BY CULEX PIPIENS (SAY). (SP)

L J Villa C B de P Arrieta A E M Vega Argent Repub Inst Nac Zoonosis Ser Tec (N

s)(11):97-103 REF

1962 41.9 AR36

Chiekens, Culex pipiens, Disease transmission, Epizootie diseases, Equine encephalomyelitis, Insect vectors, Poultry diseases, Virus diseases (animals). English summary. reprint from: Revista de Investigaciones ganaderas, (13).

ROLE OF CALCIUM IN THE NUTRITIONAL

ETIOLOGY OF A METABOLIC DISORDER IN RUMINANTS FED A HIGH GRAIN RATION.

Animal nutrition, Caleium, Cattle, Corn, Deficien-

ey diseases, Diet, Lambs, Livestoek diseases, Metabolism, Phosphorus.

VIRUS HEPATITIS OF DUCKS. 6. COMMUNI-CATION: PASSIVE IMMUNIZATION OF DUCKLINGS BY VACCINATING PARENT

Ducklings, Ducks, Immunization, Vaccines, Virus

ACTION OF BACTERIAL ENDOTOXINS ON THE BLOOD CIRCULATION SYSTEM WITH CONSIDERATION OF THE RELATIONS TO ENTEROTOXEMIA (EDEMA DISEASE) OF

Baeterial diseases (animals), Blood eirculation, En-

dotoxins, Enterotoxemia, Livestoek diseases, Swine, Symptomatology. English and Russian sum-

**TEMPERATURE RESPONSE IN ANIMALS IN-**

Animal diseases, Anthrax, Baeillus anthraeis, Tem-

EXPERIMENTAL TRANSMISSION OF SHEEP

ADENOMATOSIS

(LIAAG-

FECTED WITH BACILLUS ANTHRACIS.

J Bacteriol 94(3):552-556 REF

Vet Rec 83(19):478-482 REF

09 Nov 1968 41.8 V641

Sep 1967 448.3 J82

J S Walker F Klein R E Lincoln A L Fernelius

Deut Tierarztl Wochensch 75(7):165-171 REF

P E Vipperman R L Preston L D Kintner W H

J Nutr 97(4, PT 1):449-462 REF

Apr 1969 389.8 J82

6886-69

Discase transmission, Jaagziekte, Microscopy, Respiratory diseases, Sheep.

#### 6862-69

HEMATOLOGICAL RESPONSE OF DIF-FERENT STOCKS OF CHIKENS TO IRON-COPPER DEFICIENT DIET.

K W Washburn

Poultry Sci 48(1):204-209 REF

Jan 1969 47.8 AM33P

Ancmia, Animal nutrition, Chickens, Copper, Deficiency diseases, Hematology, Iron.

#### 6863-69

STUDIES ON THE INTRAOCULAR INOCULA-TION OF DOGS WITH VARIOUS STRAINS OF LEPTOSPIRES. (JA ) S Watanabe

Kagoshima Univ Fac Agr Bull 18:193-197 REF Fcb 1968 107.6 K114B

Dogs, Eyes, Horses, Injections, Leptospirosis, Livestock diseases. English summary.

#### 6864-69

### **BIOCHEMICAL AND BIOPHYSICAL CHARAC-**TERISTICS OF VESICULAR EXANTHEMA VIRUS AND THE VIRAL RIBONUCLEIC ACID. J Wawrzkiewicz C J Smale F Brown

Arch Gesamte Virusforsch 25(3-4):337-351 REF Dec 1968 448.3 AR23

Biochemistry, Culture media, Electron microscopy, Physiology, Radioactive isotopes, Ribonucleic acid, Swine, Tissue culture, Vesicular exanthema virus (swinc).

#### 6865-69

### INFLUENCE OF SULFUR ON INCIDENCE OF WHITE MUSCLE DISEASE IN LAMBS.

P D Whanger O H Muth J E Oldfield P H Weswig J Nutr 97(4, PT 1):553-561 REF

Apr 1969 389.8 J82

Animal nutrition, Diet, Lambs, Livestock diseases, Methionine, Selenium, Sulfur, White muscle discase.

#### 6866-69

MECHANISMS OF PATHOGENESIS IN LISTERIA MONOCYTOGENES INFECTION. **III. CARBOHYDRATE METABOLISM.** M S Wilder C P Sword

J Bacteriol 93(2):538-543 REF

Feb 1967 448.3 J82

Animal diseases, Animal metabolism, Biochemistry, Carbohydrates, Listeria monocytogenes, Mice.

### 6867-69

POLIOENCEPHALOMALACIA: RESPONSE TO THIAMINE TREATMENT IN SHEEP AND A COW.

J S Wilkinson

Australian Vet J 44(11):525

Nov 1968 41.8 AU72

Cattle, Encephalomalacia, Livestock diseases, Pyruvic acid, Sheep, Thiamine.

#### 6868-69

SALMONELLA PENETRATION OF THE OUTER STRUCTURES OF WHITE- AND SPECKLED-SHELL TURKEY EGGS. J E Williams L H Dillard Avian Dis 13(1):203-210 Feb 1969 41.8 AV5

Abnormalities, Culture media, Salmonella typhimurium, Turkey eggs.

### 6869-69

### USE USE OF A SCANNING ELECTRON MICROSCOPE FOR THE EXAMINATION OF ACTINOMYCETES. S T Williams F L Davies

J Gen Microbiol 48(2):171-177 REF

Aug 1967 448.3 J823

### Actinomycetes, Electron microscopy, Morphology.

### 6870-69

RELAT IONSHIP OF AFLATOXIN TO EPIZOOTICS OF TOXIC HEPATITIS AMONG AN IMALS IN SOUTHERN UNITED STATES. то B J Wilson P A Teer G H Barney F R Blood

Amer J Vet Res 28(126):1217-1230 REF Scp 1967 41.8 AM3A

Aflatoxicosis, Aspergillus, Dogs, Epizootic discases, Hepatitis, Swinc.

### 6871-69

GROWTH AND RESPIRATION OF MONOLAYER CELL CULTURES OF CHICK EMBRYO HEART AND SKELETAL MUSCLE: ACTION OF MALATHION AND MALAOXON. B W Wilson H O Stinnett

Soc Exp Biol Med Proc 130(1):30-34 REF Jan 1969 442.9 SO1

Chickens, Hcart, Malathion, Muscles, Physiology, Respiration.

#### 6872-69

#### **CELL CULTURE TECHNIQUES FOR PRIMA-**RY ISOLATION OF MAREK'S DISEASE-AS-SOCIATED HERPESVIRUS.

R L Witter J J Solomon G H Burgoyne Avian Dis 13(1):101-118 REF

Feb 1969 41.8 AV5

Animal histology, Avian lymphomatosis, Biological assay, Cells, Chickens, Chicks, Dosage, Ducks, Herpesviruses, Kidneys, Poultry diseases, Tissue culture, Virus diseases (animals).

#### 6873-69

EVIDENCE FOR A HERPESVIRUS AS AN ETIOLOGIC AGENT OF MAREK'S DISEASE. R L Wittler G H Burgoyne J J Solomon

Avian Dis 13(1):171-184 REF Feb 1969 41.8 AV5

Avian lymphomatosis, Biological assay, Chicks, Herpcsviruses, Poultry diseases, Tissue culture, Virus diseases (animals).

#### 6874-69

CATTLE BLOAT IN SOUTHERN NEW EN-GLAND, N.S.W. 1961-66. E C Wolfe

Australian Soc Anim Prod Proc 7:1 23-128

Feb 1968 49.9 AU72

Bloat, Cattle, Clover, Environment, Livestock dis-cases. Proceedings of Australian Society of Animal Production.

### 6875-69

### MULTIPLICATION AND DIFFERENTIATION OF TRYPANOSOMA CRUZI IN AN INSECT CELL CULTURE SYSTEM. D E Wood A C Pipkin Exp Parasitol 24(2):176-183 REF Apr 1969 436.8 EX7 Biology, Blood, Cells, Insect cultures, Mice, Tissue culture, Trypanosoma cruzi. 6876-69 EFFECT OF EXOGENOUS PROGESTERONE ON CORPORA LUTEA IN UNILATERALLY HYSTERECTOMIZED HEIFERS.

C O Woody O J Ginther J Anim Sci 27(5):1387-1390 Sep 1968 49 J82 Animal physiology, Cattle, Corpus luteum hormones, Hysterectomy, Progesterone.

#### 6877-69

ADRENAL NEOPLASMS IN SLAUGHTERED CATTLE. B J Wright G H Conner Cancer Res 28(2):251-263 Feb 1968 448.8 C16 Adrenal glands, Animal discases, Animal histology,

### Animal physiology, Cattle, Neoplasms. 6878-69

THE INFLUENCE OF CORTISONE AND LOW ENVIRONMENTAL TEMPERATURE ON EX-PERIMENTAL INFECTIOUS CANINE PERIMENTAL INFECTIOUS HEPATITIS IN THE GUINEA-PIG. N G Wright

79

Res Vet Sci 8(4):450-453 Oct 1967 41.8 R312

Cold, Cortisone, Guinea pigs, Inclusion bodies, In-fectious canine hepatitis, Injections, Virus diseases (animals).

### 6879-69

STUDY OF THE TRANSFER OF AMINO ACIDS FROM AMINOACYL TRANSFER RIBONUCLE-IC ACID INTO PROTEIN BY RIBOSOMES FROM UREDOSPORES OF THE BEAN RUST FUNGUS.

Z Yaniv R C Staples

Boyce Thompson Inst Contrib 24(5,OCT-DEC):103-108 REF

Dec 1968 451 B69

Amino acids, Plant biochemistry, Proteins, Ribonucleic acid, Ribosomes, Rust, Spores, Uromyces phaseoli.

### 6880-69

THE IMPALA AS A SOURCE OF FOOD AND BY-PRODUCTS. DATA ON PRODUCTION POTENTIAL, PARASITES AND PATHOLOGY OF FREE-LIVING IMPALAS OF THE KRUGER NATIONAL PARK.

E Young L J J Wagner S Afr Vet Med Ass J 39(4):81-86 REF Dec 1968 41.8 SO8

Animal diseases, Echinococcosis, Infectious discases, Parasitism.

#### 6881-69

LONG COMPLEMENT FIXATION TEST FOR LEPTOSPIROSIS DIAGNOSIS. (RUS) A S Zaichenko Veterinariya (12):106-108 Dec 1968 41.8 V6426 Complement fixation, Diagnosis, Leptospirosis.

6882-69

HYPOVITAMINOSIS HYPOVITAMINOSIS A AN NESAEMIA OF SWINE. (RUS ) AND HYPOMAG-I P Zapadnyuk M V Senvak Veterinariya (12):88-89

Dec 1968 41.8 V6426

Deficiency discases, Hypomagnesemia, Livestock diseases, Swine, Vitamin a.

### 6883-69

INVESTIGATIONS OF ANTIVIRAL SUB-STANCES PRESENT IN NORMAL HORSE AND CALF SERA.

E Zilka L Kawaklova G Vicari I Archetti Arch Gesamte Virusforsch 25(2):177-187 REF Dec 1968 448.3 AR23 Calves, Enteroviruses, Horses, Immunochemistry, Scrological tests, Scrum.

#### 6884-69

THALLIUM POISONING IN DOGS. B C Zook C E Gilmore Amer Vet Med Ass J 151(2):206-217 REF

15 Jul 1967 41.8 AM3

Dogs, Histopathology, Poisoning, Poisons, Thallium.

#### 6885-69

1967 512 L96AD

6886-69

INVESTIGATIONS ON THE VIRUSES OF THE ORPHAN TYPE OCCURRING IN PIGS IN POLANND. V. HISTOPAPHOLOGICAL CHANGES IN THE CENTRAL NERVOUS SYSTEM OF PIGLETS INFECTED WITH VIRUS L1. (POL) T Zulinski T Jastrzebski J Buczek

Lublin Univ Mariae Curie Ann Sect Dd 22:55-60

Baby pigs, Brain, Central nervous system, En-cephalomyelitis, Livestock diseases, Swine, Virus diseases (animals). English and Russian summaries.

THE FEEDING HABITS OF THE YELLOW MONGOOSE, CYNICTIS PENICILLATA, THE SURICATE, SURICATA SURICATTA AND THE CAPE GROUND SQUIRREL, XERUS INAURIS. I. ANALYSIS OF STOMACH CONTENTS 2. OB-SERVATIONS ON FREE-LIVING AND CAP-TIVE ANIMALS.

### 6887-69

1 F Zumpt S Afr Vet Med Ass J 39(4):89-91 Dec 1968 41.8 SO8 Animal nutrition, Animal vectors, Insects, Mongoose, Predatory animals, Rabies, Squirrels.

### ARTHROPODS

### 6887-69

THE OCCURRENCE OF THE CAPILLATE LOUSE, SOLENOPOTES CAPILLATUS, IN SOUTH AFRICA. R du Toit

S Afr Vet Med Ass J 39(4):73-74

Dec 1968 41.8 SO8

Anoplura, Cattle, Insect identification, Parasitism, Zoogeography.

### 6888-69

A RECORD OF THE MITE, SPELEOGNATHUS AUSTRALIS, IN BOVINES IN SOUTH AFRICA. R du Toit S Afr Vet Med Ass J 39(4):69-70 Dec 1968 41.8 SO8

Acarina, Cattle, Insect identification, Parasitism, Respiratory system, Zoogeography.

#### 6889-69

CATTLE LICE; HOW TO CONTROL THEM. USDA Leafl (456):8P

09 Feb 1969 1 AG84L

Accident prevention, Bovicola bovis, Cattle, Chemical control (insects), Dipping, Dusting, Haematopinus eurysternus, Insceticide application, Insecticides, Linognathus vituli, Spraying.

#### 6890-69

LICE AND MITES IN POULTRY.

A B Coronel Philippine Farms Gard 5(2):8-9,30-31

Fcb 1968 25 P5323

Anoplura, Dermanyssus gallinac, Insect control, Insect pests, Knemidokoptes, Mites, Ornithonyssus bursa, Poultry.

#### 6891-69

**OBSERVATIONS OF DEFENCE REACTIONS** TO OESTRID FLIES BY SEMIDOMESTIC FOREST REINDEER (RANGIFER TARANDUS L.) IN SWEDISH LAPLAND.

Y Espmark

Zool Beitr 14(1-2):155-167 REF 1968 410 Z753

Behaviorism, Insect behavior, Oestridae.

This article is concerned with the growing defensiveness of reindeer to oestrid flies with age. The life habits of these flies are also described.

#### 6892-69

1969 INSECT CONTROL GUIDE FOR COLORADO. III. LIVESTOCK PESTS, POULTRY PESTS, FARM FLY CONTROL. W M Hantsbarger

Colo Agr Exp Sta Gen Ser (SER)(885):12P

Feb 1969 100 C71G

Chemical control (insects), Diptera, Insect pests, Insecticides, Livestock, Poultry.

#### 6893-69

THE ROLE OF ARGAS PERSICUS IN EPIZOOTIC POULTRY CHOLERA. (GE ) E lovcev

Angew Parasitol 8(2):114-117

Jun 1967 436.8 AN4

Argas persicus, Argasidac, Brucella, Chickens, Fowl cholera, Pasteurella. German, russian, english and bulgarian abstract

#### 6894-69

EFFECT OF DIFFERENCES IN AMBIENT TEM-PERATURE UPON THE FATE OF PASTEUREL-LA PESTIS IN XENOPSYLLA CHEOPIS. L Kartman

Roy Soc Trop Med Hyg Trans 63(1):71-75 1969 448.9 R813

### BIBLIOGRAPHY

Bacteria, Discase transmission, Insect vectors, Pasteurella pestis, Pulicidae, Temperature, Xenopsylla chcopis.

#### 6895-69

CATTLE FATALITY CAUSED BY BITES OF ODAGMIA ORNATA (DIPTERA, SIMULIIDAE). (CZ)

J Kubec J Minar

Veterinarstvi 18(8):372

1968 41.8 V6439

Cattle, Death, Simuliidae, Simulium ornatum.

#### 6896-69

### PRE-TREATED RICE HULL LITTER FOR THE CONTROL OF THE LESSER MEALWORM (AL-PHITOBIUS DIAPERINUS PANZER).

J L Lancaster J S Simco R Everett Ark Agr Exp Sta Rep Ser (SER 174):13P REF Jan 1969 100 AR42R Alphitobius diapcrinus, Insect pests, Poultry.

#### 6897-69

**GETTING RID OF CAMEL MANGE.** 

K R Lodha

Indian Farming 16(2):33-34

May 1966 22 IN283 Camels, Chemical control (insects), Coumaphos, DDT, Lindane, Mangc.

#### 6898-69

NEW MANGEMITES OF ENDEMIC INSEC-TIVORES. (PSORERGATIDAE: TROM-BIDIFORMES). (GE )

F Lukoschus

Tijdschr Entomol 111(3):75-88

21 Jun 1968 421 T21 Insect taxonomy, Insectivora, Mange, Mites. Ger-

man abstract

### 6899-69

INSECT AND MITE PESTS OF LIVESTOCK, POULTRY, AND FARM BUILDINGS.

W F Lyon R E Trecce Ohio State Univ Ext Bull (473):16P

Jan 1969 275.29 OH32

Accident prevention, Chemical control (insects), Farm buildings, Insect pests, Livestock, Mites, Pesticides, Poultry.

#### 6900.69

EVALUATION OF ACARICIDAL DIPS FOR **CONTROL OF PSOROPTES OVIS ON SHEEP.** W P Melcney I H Roberts

Amer Vet Med Ass J 151(6):725-731 15 Sep 1967 41.8 AM3

Acaricides, Chemical control (insects), Cou-maphos, Diazinon, Dipping, Insect control, Lin-dane, Psoroptes ovis, Sheep, Toxaphene.

6901-69

#### HOUSEFLIES, BLOWFLIES AND CLUSTER FLIES.

Great Brit Min Agr Fish Food A dv Leafl (365):1-

Dec 1966 10 G79LA

Animal disease transmission, Calliphora, Chemical control (insects), DDT, Fannia, Insect behavior, Insect vectors, Life cycle, Lindane, Musca, Musca domestica, Phaenicia sericata, Sarcophaga, Stomoxys calcitrans.

The life cycles, ecology and disease transmission by houseflies, blowflies and cluster flies are discussed. Control with lindane, diazinon, fenchlorphos and DDT are recommended.

### 6902-69

ADVANCES IN CATTLE ECTOPARASITE CONTROL WITH A DISCUSSION OF SOME PROBLEMS RELATED TO TREATMENT WITH SYSTEMIC INSECTICIDES. J O Mozier

Amer Vet Med Ass J 154(10):1206-1213

15 May 1969 41.8 AM3

Cattle, Chemical control (insects), Insecticide application, Insecticides, Organophosphorus compounds, Toxicology.

80

### 6903-69

**ENCEPHALITIS FIELD SURVEILLANCE IN ORLEANS PARISH.** P L Rieth M A Bech W C Machado

Mosquito News 28(3):328-330

Sep 1968 421 M85

Acdes sollicitans, Aedes vexans, Avian encephalomyclitis, Birds, Culex, Culex pipiens quinquefasciatus, Equine encephalomyelitis, Insect vectors, Surveys, Virus diseases

A program which is surveying the encephalitis virus titers in the local bird population and the presence of the virus in the local mosquito population of New Orleans is discussed.

#### 6904-69

# SALT MARSH MOSQUITO CONTROL IN RELATION TO BEEF CATTLE PRODUCTION: A PRELIMINARY REPORT.

D P Sanders M E Riewe J C McNeill Mosquito News 28(3):311-313

Sep 1968 421 M85

R A Scheibner F W Knapp

1969 275.29 K415M

V A Sinel'shchikov

Dec 1967 421 R322AE

Australian Vet J 44(11):527

Nov 1968 41.8 AU72

BITING MIDGES.

H A Standfast A L Dyce

Dec 1968 41.8 AU72

Australian Vet J 44(12):585-586

licidae, Insect behavior, Parasitism.

Australian Vet J 44(11):530

system, Speleognathopsis galli.

A A Zemskaya A A Pchelkina

NATURAL Q-FEVER FOCI. (RUS)

Nov 1968 41.8 AU72

Ky Univ Ext Misc (362-A):2P

Acdes sollicitans, Beef cattle, Culicidae, Insect control, Marshes, Surveys, Watershed management.

A survey of mosquitoes from the salt marshes of Texas is correlated with beef cattle production in the area. Control measures are suggested.

1969, CONTROLLING INSECTS ON SHEEP AND GOATS.

Anoplura, Chemical control (insects), Chlorinated

hydrocarbons, Cochliomyia hominivorax, Goats, Insect pests, Insecticides, Ixodides, Melophagus

ovinus, Organophosphorus compounds, Sheep. The insecticides listed are: coumaphos, ronnel, dioxathion, lindane, DDT, malathion, methox-ychlor, toxaphene.

THE GAMASID MITES (PARASITIFORMES, GAMASOIDEA) OF THE PAVLODAR PROVINCE OF KAZAKHSTAN.

Catalogs, Epizootic diseases, Insect taxonomy, In-

MORTALITY IN SHEEP DUE TO IXODES SPE-

Ixodcs, Ixodides, Mortality, Parasitic insects,

ATTACKS ON CATTLE BY MOSQUITOES AND

Cattle, Ccratopogonidae, Culex annulirostris, Cu-

**RESPIRATORY MITES OF POULTRY IN THE** 

Mites, Parasitic insects, Poultry, Respiratory

INFECTION OF SOME SPECIES OF GAMASIDAE WITH R. BURNETI IN THE

Zhur Mikrobiol Epidemiol Immunobiol 4:130-132

TERRITORY OF PAPUA NEW GUINEA.

sect vectors, Mites. Russian journal pp. 835-844

Entomol Rev 46(4,OCT-DEC):495-500 REF

#### 6905-69

6906-69

6907-69

C A Sloan

CIES.

Sheep.

6908-69

6909-69

N Talbot

6910-69

1968 448.3 Z4

6935-69

Animal diseases, Gamasides, Insect vectors, Laboratory animals, Q fever, Rickettsia burneti.

### PARASITES

### 6911-69

NOTE ON BOURGELATIA DIDUCTA. OESOPHAGOSTOMUM LONGICAUDUM AND GLOBOCEPHALUS UROSUBULATUS (NE-MATODA-STRONGYLIDEA) IN SWINE OF MINAS GERAIS, BRAZIL. (POR ) H Mde A Costa M G Freitas

Minas Gerais Univ Escol Vet Arg 18:53-57 1966 41.9 M662

Nematode infestation, Nematodes, Ocsophagostomum longicaudum, Parasitism. Strongyloides, Swine, Zoogeography. English summary.

#### 6912-69

EFFECTS OF GASTROINTESTINAL NE-MATODE PARASITES ON PERFORMANCE IN FEEDLOT CATTLE.

E R Ames R Rubin J K Matsushima J Anim Sci 28(5):698-704 REF May 1969 49 J82

Animal nutrition, Anthelminties, Cattle, Cooperia, Drug therapy, Feedlots, Gastrointestinal system, Nematode infestation, Ostertagia ostertagi, Parasitism, Thiazolyl)-benzimidazole, (2-(4-.

#### 6913-69

STUDY INDICATES MOST DAIRY CATTLE HAVE WORMS.

Anonymous

Miss Farmer 17(4):26

Apr 1969 6 M6992

Ascaris, Chemical control (nematodes), Dairy eat-tle, Nematode infestation, Parasitism, Thibenzole.

#### 6914-69

EURYCESTUS AVOCETI CLARK, 1954 (CESTODA, CYCLOPHYLLIDAEN PARASITE OF THE AVOCET IN CAMARGUE. (FR ) J C Baer

Vie Milieu Ser C Biol Terrestre 19(1-C):189-198 1968 QH301.V5

Birds, Cestoda, Helminthiasis, Morphology, Tax-onomy. English and German abstracts.

#### 6915-69

BASIC, FACTS ON THE PARASITIC NE-MATODES OF THE SHEEP (OVIS ARIES) IN TUNISIA. (FR)

J Bernard F B Osman

Inst Pasteur Tunis Arch 45(1):33-60 REF

Mar 1968 448.3 1N72

Nematode infestation, Nematodes, Parasitism, Sheep, Zoogeography. 15 different species of ne-matodes were found in sheep and are described.

#### 6916-69

WORMS IN PIGS.

**B W Bootes** 

Agr Gaz New S Wales 80(PT 1):15-22 Jan 1969 23 N472

Chemical control (nematodes), Diagnosis, Drug therapy, Livestock diseases, Nematode infestation, Swine, Symptomatology.

The worms discussed were Asearis suum, Hyostrongylus rubidus, Ascarops strongulina, Physocephalus sexalatus, Oesophagostomum dentatum, Trichuris suis, Macracanthorynchus hirudinaceus, Stephanurus dentatus, Metastrongy-lus apri and M. pudendoctectus.

### 6917-69

CONTRIBUTION TO THE PROBLEMS OF TOXIC ACTION OF ASCARIDIA GALLI ON LABORATORY ANIMALS. (CZ) Z Boroskova

Biologia (bratislava) 22(12):929-934 REF 1967 442.8 B5265

Ascaridae, Ascaridia galli, Guinea pigs, Ne-matodes, Parasitism, Toxins. English, ezech, russian and german abstracts

THE BIOCHEMICAL MECHANISM OF AC-TION OF THE ANTHELMINTIC DRUG TETRAMISOLE. H van den Bossche P A J Janssen Life Sci 6(16,PT 2):1781-1792 REF 15 Aug 1967 442.8 L62 Anthelminties, Ascaris lumbricoides suum, therapy, Enzymes, Dehydrogenases, Drug Metabolism, Tetramisole. 6919-69 EVALUATION OF PARBENDAZOLE AS AN ANTHELMINTIC IN CATTLE.

6918-69

R E Bradley Amer J Vet Res 29(10):1979-1982 Oct 1968 41.8 AM3A Anthelmintics, Cattle, Haemonchosis.

### 6920-69

STUDIES ON THE PATHOGENESIS OF TRICHOCEPHALIASIS IN SHEEP. (BU) V Bratanov

Vet Med Nauk 5(5):39-46

1968 41.8 V6468

Nematodes, Parasitism, Sheep, Trichuriasis, Trichuris. English and Russian summaries.

#### 6921-69

A NEW COMPOUND EFFECTIVE AGAINST ACUTE FASCIOLIASIS IN SHEEP. A Campbell M K Martin K J Farrington A Erdelyi R Johnston Experientia 23(12):992-993 15 Dec 1967 475 EX7

Chemical control (animal diseases), Drug therapy, Fascioliasis, Sheep.

### 6922-69

INVESTIGATION OF THE EFFECT OF PREPARATION BAYER 9015-12.50W.G. ON ADULT FASCIOLA HEPATICA IN SHEEP. (SE ) M Cankovic J Rukavina Vet Glas 22(9):783-786 1968 41 8 193 Bayer 9015, Dosage, Drug therapy, Fasciola hepatica, Livestock discases, Nematode infestation, Sheep, Symptomatology. English and Russian summaries.

#### 6923-69

EFFECTS OF TOTAL AND PARTIAL BODY RADIATION ON HELMINTHIC INFECTIONS. L Casarosa

Pisa Univ Stud Fac Med Vet Ann 20:13-27 REF 1967 41.9 P67

Animals, Helminths, Irradiation. Italian and French summaries.

#### 6924-69

IN VITRO CULTURE AND HATCHING OF ASCARIDIA GALLI EGGS. **R K Chatterice K S Singh** 

Indian J Vet Sci Anim Husb 38(3):517-523 REF Scp 1968 41.8 IN22

Animal diseases, Ascariasis, Ascaridia galli, Culture media, Nematode infestation.

#### 6925-69

HISTOCHEMICAL STUDIES IN CHICK ASCARIDIASIS. R K Chatterjee K S Singh

Indian J Vet Sci Anim Husb 38(3):509-516 REF Sep 1968 41.8 IN22

Ascariasis, Chicks, Histochemistry, Poultry diseases.

#### 6926-69

THE DEVELOPMENT OF THE INFECTIVE LARVA OF THE CANINE OESOPHAGEAL TU-MOUR WORM SPIROCERCA LUPI IN RAB-BITS AND ITS HISTOPATHOLOGY.

N Chowdhury B P Pande Z Parasitenk 32(1):1-10 REF

14 Apr 1969 442.8 Z33F

Animal histology, Animal physiology, Larvae, Rabbits, Spirocerea lupi.

81

THE DETERMINATION OF ENTEROKINASE ACTIVITY IN THE DUCK INTESTINE DURING EXPERIMENTAL ECHINOSTOMATOSIS. (RU) E Ciuniene Acta Parasitol Lithuanica 8:95-101 REF 1968 436.9 AC8 Biochemistry, Ducks, Echinostoma revolutum, Enzymes, Helminthiasis, Intestines, Kinases, Metabolism.

#### 6928-69

6927-69

ANCYLOSTOMA CANINUM: FOOD RESERVES AND CHANGES IN COMPOSITION WITH AGE IN THIRD STAGE LARVAE. F E Clark Exp Parasitol 24(1):1-8 REF Feb 1969 436.8 EX7 Aging, Ancylostoma caninum, Biochemistry, Carbohydrates, Larvae, Lipids, Metabolism, Proteins.

### 6929-69

THE SYSTEMIC ACTION OF METHYRIDINE AGAINST HELMINTHS, ESPECIALLY WHIP-WORMS, IN DOGS.

M L Colglazier F D Enzie R H Burtner Helminthol Soc Wash Proc 33(1):40-41 Jan 1966 436.9 H36

Anthelmintics, Dogs, Drug therapy, Methyridine, Nematodes, Trichuris vulpis.

#### 6930-69

MEASUREMENTS OF THE OSMOTIC PRES-SURE IN THE HABITAT OF POLYMORPHUS MINUTUS (ACANTHOCEPHALA) IN THE IN-TEST INE OF DOMESTIC DUCKS. D W T Crompton S J Edmonds

J Exp Biol 50(1):69-77

Feb 1969 442.8 B77

Acanthocephala, Ducks, Habitats, Intestines, Livestock diseases, Osmotic pressure, Parasitism.

#### 6931-69

THE INVESTIGATION OF ALKALINE PHOSPHATASE IN THE FECES OF PIGS DUR-ING EXPERIMENTAL OESOPHAGOSTOMO-SIS. (RU)

E Danilevicius A Matusevicius

Acta Parasitol Lithuanica 8:11-18 REF

1968 436.9 AC8

Alkaline phosphatase, Biochemistry, Nematodes, Oesophagostomiasis, Swinc. English and Lithuanian abstract s.

6932-69

HISTOPATHOLOGY OF PARAFILARIASIS IN MULES.

V P S Dedrani S C Dutt

Cur Sci 36(9):240-241

05 May 1967 475 SCI23

Filariasis, Histopathology, Livestock diseases, Mules, Nematode infestation.

#### 6933-69

RESULTS AND PROSPECTS OF DEHEL-MINTHIZATION MEASURES. (RUS) N V Demidov Veterinariya (12):46-50 Dec 1968 41.8 V6426 Anthelmintics, Livestock diseases, Veterinary medicine.

### 6934-69

6935-69

TION IN MICE.

CHEMICAL MOLLUSCACIDES AND THE PROPHYLAXIS OF HELMINTHIASES WHICH CAN BE TRANSMITTED TO MAN BY FRESH-WATER GASTEROPODS. (FR)

Chemical control (pests), Gastropoda, Helminthia-

TRICHINELLA SPIRALIS: IMMUNE ELIMINA-

**R** Deschiens Acad Sci Compt Rend Ser D Sci Nat 266(10, 1ST SEMESTER):1036-1038

04 Mar 1968 505 P21

sis, Human diseases, Molluseacides.

D D Despommier B S Wostmann

### 6936-69

Exp Parasitol 24(2):243-250 REF Apr 1969 436.8 EX7

Immunity, Mice, Nutrition, Trichinella spiralis.

#### 6936-69

THE UKRAINE ON THE WAY OF FREEING ANIMAL HUSBANDRY FROM THE MAIN HEL-MINTHOSES. (RUS)

S R Didovets G K Bozhko

Veterinariya (12):8-11

Dec 1968 41.8 V6426

Animal husbandry, Helminthiasis, Livestock discases.

#### 6937-69

**EPIZOOTIOLOGIC FACTORS OF INFESTA-**TION BY TRICHOSTRONGYLIDAE IN OVINES IN LEON. (SP) M F Diez

Oviedo Univ Fac Vet Leon An 13(13):53-108 REF

1967 41.9 OV4

Epizootic diseases, Nematode infestation. Parasitism, Sheep, Trichostrongylus. English and French summaries.

The most common species found are: Ostertagia circumcineta, O. trifureata, Trichostrogylus axei, T. colubriformis, T. vitrinus, Nematodirus filicollis and N. spathiger.

#### 6938-69

PELECITUS CEYLONENSIS N. SP. FROM THE CHICK AND ASH-DOVE EXPERIMENTALLY INFECTED WITH LARVAE FROM MANSONIA CRASSIPES, AND FROM NATURALLY-IN-FECTED CROWS IN CEYLON.

A S Dissanaike

Ceylon J Sci Biol Sci 7(1-2):96-104 REF Oct 1967 475 C33

Birds, Culicidae, Life cycle, Mansonia, Nematodes, Pelecitus, Poultry, Taxonomy. English abstract

### 6939-69

#### A HELMINTHOLOGICAL SURVEY OF WILD MINK IN WISCONSIN.

R S Dorney L H Lauerman Wildlife Dis Ass Bull 5(1):35-36 Jan 1969 41.9 W64B

Helminthology, Minks, Parasitism, Surveys.

The following helminths were located: Alaria mustelae, Euparyphium beaveri, Corynosoma constrictum, Capillaria sp., Filaroides martis, Skrjabin-gylus nasicoza. and Molineus patens.

#### 6940-69

# COUMAPHOS, A NEW ANTHELMINTIC FOR CONTROL OF CAPILLARIA OBSIGNATA, HETERAKIS GALLINARUM, AND ASCARIDIA GALLI IN CHICKENS.

T H Eleazer

Avian Dis 13(1):228-230

Feb 1969 41.8 AV5

Anthelmintics, Ascaridia galli, Capillaria obsignata, Chickens, Coumaphos, Helminthiasis, Heterakis gallinarum, Organophosphorus compounds, Parasitism, Poultry diseases.

#### 6941-69

HELMINTHOSES AS ALLERGIC DISEASES. (RUS)

**V** S Ershov

Veterinariya (12):3G-41

Dec 1968 41.8 V6426

Allergies, Helminthiasis, Livestock diseases. Parasitism.

#### 6942-69

### WORM CONTROL IN SWINE.

D L Ferguson

Nebr Univ Ext Ec (69-219):13-14 Jan 1969 275.29 N272EX

Ascaris lumbricoides suum, Chemical control (nematodes), Nematode infestation, Paragonimus, Respiratory diseases, Swine, Trichuris.

### BIBLIOGRAPHY

### 6943-69

#### THE EPIZOOTIOLOGY OF OVINE VER-MINOUS BRONCHOPNEUMONIAS IN LEON. (SP)

A P R Fernandez

Oviedo Univ Fac Vet Leon An 13(13):135-210 REF

1967 41.9 OV4

Dictyocaulus filaria, Epizootic diseases, Hel-minthiasis, Nematode infestation, Parasitism, Sheep. English and French summaries. other less important nematodes were found.

6944-69

### THE EFFECTS OF LOW TEMPERATURE ON THE SPORULATION AND SURVIVAL OF OO-CYSTS OF EIMERIA PERFORANS, MEDIA, MAGNA AND IRRESIDUA. (IT ) G Francalanci

Nuova Vet 44(4,JUL-AUG):256-263 Jul 1968 41.8 N922

Coccidiosis, Eimeria irresidua, Eimeria magna, Eimeria media, Eimeria perforans, Parasitism, Rabbits, Sporulation, Temperature. French, English and German summaries.

#### 6945-69

#### CONTRIBUTION TO THE KNOWLEDGE OF PARASITIC FAUNA OF DOMESTIC ANIMALS AND SOME GAME IN VOJVODINA. (SE ) R Golosin A Kosovac T Panjevic-Blazekovic

Vet Glas 22(10):857-864 REF 1968 41.8 193

Game animals, Livestock, Nematode infestation, Parasitism, Zoogcography. English and Russian summaries.

The spread of the following parasitic species was investigated: B. divergens, T. genitalis, T. anseri, T. gondii, E. granulosus and T. spiralis.

#### 6946-69

### **REMARKS CONCERNING THE EXPERIMEN-**TAL INFESTATION OF GUINEA PIGS WITH THE EAST AFRICAN STRAIN OF TRICHINEL-LA SPIRALIS. (FR )

S Gretillat G Vassiliades

Acad Sci Compt Rend Ser D Sci Nat 268(11, 1ST SEMESTER):1511-1514

17 Mar 1969 505 P21

Animal physiology, Calcification (physiological), Cysts, Guinea pigs, Trichinella spiralis.

#### 6947-69

#### COMPARATIVE SUSCEPTIBILITIES OF THE CAT AND THE DOMESTIC PIG TO THE WEST STRAIN OF TRICHINELLA AFRICAN SPIRALIS. (OWEN, 1835). (FR) S Gretillat G Vassiliades

Acad Sci Compt Rend Ser D Sci Nat 266(11, 1ST SEMESTER):1139-1141 11 Mar 1968 505 P21

Cats, Helminthiasis, Livestock diseases, Suscepti-

bility, Swine, Trichinella spiralis.

#### 6948-69

#### THE VALUE OF SOME STANDARDIZED TRICHINELLA SPIRALIS ANTIGENS, AS ESTI-MATED BY INTRADERMAL TESTS. (FR) A Hacig P Solomon L Ianco M Smolinski V

Badou Et Al Arch Gesamte Virusforsch 26(2):273-278 Jun 1967 448.3 AR22 Antigens, Skin tests, Swine, Trichinella spiralis. Russian, German, and English abstracts

6949-69

### REGIONAL RESEARCH IN NEMATODE PARASITES OF RUMINANTS IN THE WESTERN UNITED STATES, A 10-YEAR SUM-MARY, 1958-1968. D M Hammond D E Worley Utah Agr Exp Sta Bull (480):25P Feb 1969 100 UT1 (1) Agricultural research, Bionomics, Nematodes, Nematology, Parasitism, Ruminants, Zoogcography.

82

### 6950-69

**CRITICAL AND CONTROLLED LA BORATORY** TRIALS IN SHEEP WITH TETRAMISOLE. J A Hart C Curr

Australian Vet J 44(8):373-376

Aug 1968 41.8 AU72

Anthelmintics, Dosage, Drug therapy, Gastroin-

testinal system, Helminthiasis, Sheep, Tetramisole.

Drug was used against: Haemonchus contortus, Ostertagia, Trichostrongylus axei, T., Nematodirus, Ocsophagostomum columbianum, and Chabertia ovina, and Trichuris ovis.

#### 6951-69

THE INTRODUCTION OF NEMATODIRUS BATTUS (CROFTON AND THOMAS, 1951) INTO A NEW ENVIRONMENT. O Helle

Vet Rec 84(7):157-160 REF

15 Feb 1969 41.8 V641

Anthelminties, Farm management, Grazing, Larvac, Livestock discases, Nematodirus battus, Temperature.

#### 6952-69

#### AMINO ACID COMPOSITION OF SOME STRONGYLE PARASITES OF CATTLE. **H** Herlich

Helminthol Soc Wash Proc 33(1):103-105 Jan 1966 436.9 H36

Amino acids, Biochemistry, Cattle, Chemical analysis, Cooperia, Nematodes, Ocsophagostomum radiatum, Ostertagia ostertagi, Trichostrongylus.

#### 6953-69

PROPHYLACTIC TREATMENT FOR **HEARTWORM INFESTATION OF DOGS.** 

J L Hills

6954-69

medicine.

6955-69

HOSTS.

stract

6956-69

I Kh Irgashev

cases, Sheep.

TAINS. (GE)

1967 410.9 B872I

J Jancey

6957-69

W G Inglis

Australian Vet J 44(6):297

Jun 1968 41.8 AU72

S Husain P G Deo

Sep 1968 41.8 IN22

Apr 1968 410.9 L64

MINTHOSES. (RUS)

Veterinariya (12):18-19

Dec 1968 41.8 V6426

Evolution, Host

Blood analysis, Dirofilaria immitis, Dirofilariasis, Dogs, Dosage, Drug therapy.

STUDIES ON THE ACQUIRED RESISTANCE

Indian J Vet Sci Anim Husb 38(3):478-483 REF

Goats, Haemonchus, Nematodes, Veterinary

THE GEOGRAPHICAL AND EVOLUTIONARY

**RELATIONSHIPS OF AUSTRALIAN TRICHOS-**

TRONGYLOID PARASITES AND THEIR

relationships,

Nematodes,

Linn Soc London J Zool 47(312):327-347 REF

Parasitism, Strongyloides, Vertebrates. English ab-

**RIDDING SHEEP BREEDING FARMS OF HEL-**

Animal breeding, Helminthiasis, Livestock dis-

INVESTIGATION INTO THE HELMINTHID FAUNA OF DEER (CAPREOLUS (APREOLUS

L.) IN THE BULGARIA. II. MATERIAL ON THE

**HELMINTHED FAUNA OF DEER (CAPREOLUS** 

CAPREOLUS L.) IN THE BALKAN MOUN-

Bulgarska Akad Nauk Zool Inst Muz Izv 25:72

Catalogs, Deer, Helminths. German abstract

OF GOATS TO HAEMONCHUS SPP.

### LIVESTOCK PROTECTION

6982-69

#### 6958-69

HISTOCHEMICAL AND BACTERIOLOGICAL STUDIES ON DIGESTION IN NINE SPECIES OF LEECHES (ANNELIDA: HIRUDINEA). J B Jennings V M van der Lande

Biol Bull 133(1):166-183 REF

Aug 1967 442.8 B52 Bacteria, Digestion, Enzymes, Hirudinea. Histochemistry.

#### 6959-69

ON THE NEMATODE FAUNA OF DOMESTIC FOWL IN THE LITHUANIAN SSR. (RU) J Kazlauskas G Volskis A Slikas

Acta Parasitol Lithuanica 7:45-48

1968 436.9 AC8

Chickens, Helminthiasis, Lithuania, Nematodes, Surveys. English and Lithuanian abstracts.

#### 6960-69

PARASITOLOGICAL SITUATION ON THE HEN FARMS IN LITHUANIA. (RU)

J Kazlauskas T Arnastauskiene Acta Parasitol Lithuanica 7:39-43

1968 436.9 AC8

Chickens, Parasitology, Poultry diseases, Surveys. English and Lithuanian abstracts.

**GROWTH AND DEVELOPMENT OF POULTRY** ECHINOSTOMATIDS IN THE ORGANISM OF **DEFINITIVE HOST. (RU)** V Kiscliene

Acta Parasitol Lithuanica 7:55-66 REF 1968 436.9 AC8

Echinostoma revolutum, Helminthiasis, Physiology, Poultry. English and Lithuanian abstracts.

#### 6962-69

AESCHNA GRANDIS L., A NEW ADDITIONAL HOST OF PROSTHOGONIMUS CUNEATUS (TREMATODA. (RUD., 1809) **PROSTHOGONIMIDAE). (RU)** V Kiselienc

Acta Parasitol Lithuanica 7:67-69

1968 436.9 AC8

Aeshna grandis, Insect vectors, Poultry, Prosthogonimus cuncatus. English and Lithuanian abstracts.

#### 6963-69

MORPHOLOGIC AND HISTOCHEMICAL STU-DIES ON THE NERVOUS SYSTEM OF TAPEWORMS REVEALED BY THE METHOD (T CHOLINESTERASE (TAENIA HYDATIGENA, DIPYLIDIUM CANINUM AND MONIEZIA EXPANSA).

N Kralj

Vet Arh 37(9-10):277-286 REF

1967 41.8 V6416

Animal morphology, Cestoda, Cholinesterases, Dipylidium, Histochemistry, Moniczia expansa, Nervous system, Tacnia hydatigena. French and yugoslavian abstracts

#### 6964-69

THE INVESTIGATIONS OF MAIN INTESTINE **ENZYMES--ENTEROKINASE AND ALKALINE** PHOSPHATASE IN EXPERIMENTAL PIG TRICHOCEPHALIASIS. (RU) V Kuciukas A Medzevicius

Acta Parasitol Lithuanica 8:39-46 REF 1968 436.9 AC8

Alkalinc phosphatase, Biochemistry, Enzymes, Intestines, Kinases, Nematodes, Swine, Trichuriasis. English and Lithuanian abstracts.

#### 6965-69

METABOLIC FATE OF HISTIDINE IN THE PARASITIC WORM FASCIOLA HEPATICA L.. B Kurclec M Rijavcc R Klepac

Compar Biochem Physiol 29(2):885-887 May 1969 444.8 C73

Chromatography, Fasciola hepatica, Histidine, Mctabolism, Radioactive tracers, Tissue culture.

#### 6966-69

STUDY OF BLOOD SERUM OF PARASITIZED ANIMALS. I. ELECTROPHORESIS. (SP) J Lopcz-Gorge F Sanchez-Rasero M Montcoliva Rev Iberica Parasitol 27(1-2, JAN-JUN):11-23 REF

Jun 1967 436.8 R32

Ascaris, Blood proteins, Blood serum, Echinococcosis, Electrophoresis, Livestock, Parasitism. English abstract

6967-69

# THE EPIZOOTIOLOGY OF DICROCELIOSIS IN THE PROVINCE OF LEON. (SP) J Lozano

Oviedo Univ Fac Vet Leon An 13(13):211-285 MAP REF

### 1967 41.9 OV4

Animal vectors, Cattle, Dicroceliasis, Epizootic diseases, Formicidae, Helminths, Insect vectors, Sheep. English and French summaries.

#### 6968-69

ECHINOCOCCUS GRANULOSUS EQUINUS WILLIAMS AND SWEATMAN, 1963 IN ITALY; EPIZOOTIOLOGICAL ASPECTS AND MORPHOLOGICAL ASPECTS AND MORPHOLOGICAL AND BIOLOGICAL STU-DIES OF THE PARASITE. (IT )

G Macchioni C Gallo

Pisa Univ Stud Fac Med Vet Ann 20:58-77 REF 1967 41.9 P67

Echinococcus granulosus, Epizootic diseases, Hel-minths, Horses, Parasitism. English and French summaries.

#### 6969-69

STANDARD TECHNIQUES FOR LARVAL DISCOVERY IN MICROASCARIDIC INFEC-TION BY TOXOCARA CANIS (WERNER, 1782) IN THE WHITE MOUSE; OBSERVATIONS ON THE LARVAL MIGRATIONS AND BURDENS IN THE EXPERIMENTAL INFECTIONS CON-FERRED THROUGH ORAL, IN-TRAPERITONEAL AND SUBCUTANEOUS ROUTE. (IT)

G Macchioni A Marconcini

Pisa Univ Stud Fac Med Vet Ann 20:85-102 REF 1967 41.9 P67

Micc, Nematode infestation, Tissue culture, Toxocara canis. English and French summaries.

### 6970-69

SHEEP COENUROSIS CONTROL IN UZ-BEKISTAN. (RUS ) N M Matchanov Veterinariya (12):15-16 Dec 1968 41.8 V6426

Cocnurosis, Livestock diseases, Sheep.

#### 6971-69

THE DYNAMICS OF TOTAL PROTEIN AMOUNT AND PROTEIN FRACTIONS IN THE BLOOD SERUM DURING EXPERIMENTAL PIG TRICHOCEPHALIASIS. (RU) A Medzcvicius L Titiskyte V Kuciukas Acta Parasitol Lithuanica 8:57-64 1968 436.9 AC8 Blood chemistry, Blood scrum, Nematodes, Proteins, Swine, Trichuriasis. English and Lithuanian abstracts.

#### 6972-69

CATTLE PARAMPHISTOMATIDOSIS IN POLESYE. (RUS) A 1 Mereminsky 1 Ya Gluzman Yu G Artemenko

Veterinariya (12):51-54

Dec 1968 41.8 V6426 Amphistomiasis, Cattle, Livestock discases, Paramphistomum.

#### 6973-69

# NEUROSECRETORY CELLS IN THE VEN-TRAL NERVE CORD OF LEECH (HIRU-DINARIA GRANULOSA). N K Mishra

83

Experientia 23(12):1055-1056 15 Dec 1967 475 EX7 Biochemistry, Hirudinea, Histology, Nerves. 6974-69

THORNY-HEADED WORM INFECTION IN NORTH AMERICAN PREHISTORIC MAN. J G Moore G F Fry E Englert Science 163(3873):1324-1325 REF 21 Mar 1969 470 SCI2 Acanthocephala, Feces, Humans, Nematode vectors, Rodents.

#### 6975-69

SOME FACTORS OF OVINE INFESTATION WITH PROTOSTRONGYLIDAE. (SP) E M Morales

Oviedo Univ Fac Vet Leon An 13(13):109-134

REF

1967 41.9 OV4

Nematode infestation, Nematode migration, Sheep, Snails. English and French summaries.

#### 6976-69

A PHYSICO-CHEMICAL APPROACH TO THE SEROLOGICAL DIAGNOSIS OF CYSTICERCO-SIS.

N Morris E M Proctor R Elsdon-Dew

S Afr Vet Med Ass J 39(4):41-43

Dec 1968 41.8 SO8

Antigens, Diagnosis, Echinococcosis, El ec-trophoresis, Helminths, Hemagglutination-inhibition test, Livestock diseases, Precipitin test, Swine.

### 6977-69

THE GUILTY FOX.

L Morrisroe

J Agr 66(9):318-320

Sep 1968 23 V66J

Cestoda, Cysts, Discase transmission, Foxes, Livestock diseases, Parasitism, Sheep, Taenia, Virus diseases (animals).

#### 6978-69

6979-69

6980-69

RESPONSE

SPIRALIS INFECTION.

Apr 1969 436.8 EX7

P Nasir L Rodriguez M

A A Noujaim S M Gaafar

SOUTHWEST TENNESSEE.

W A Olexik A E Pcrry W E Wilhelm Tenn Acad Sci J 44(1):4-6 REF

Oct 1968 41.8 M69

Jan 1969 500 T25A

6982-69

Jul 1966 436.9 H36

I Mota E H Sadun R W Gore

Exp Parasitol 24(2):251-258 REF

Serological tests, Trichinella spiralis.

SPERMTAIL FINESTRUCTURE OF ECHIN-**OCOCCUS GRANULOSUS AND DICROCOELI-**UM DENDRITICUM. D J Morseth

Exp Parasitol 24(1):47-53 REF

Feb 1969 436.8 EX7

Cytology, Dicrocoelium dendriticum, Echinococcus granulosus, Electron microscopy, Spermatozoa, Ultrastructure.

HOMOCYTOTROPIC ANTIBODY RESPONSE IN MICE INFECTED WITH SCHISTOSOMA MANSONI: COMPARASION WITH THE

Fluorescent antibody technic, Mice, Schistosoma,

BRACHYLAIMA DEGIUSTII N. SP. FROM COLUMBA LIVIA IN VENEZUELA.

Pigcons, Taxonomy, Trematoda, Zoogeography.

EFFICACY OF TETRAMISOLE ON NE-

Ancylostoma caninum, Dogs, Drug therapy, Hel-minthiasis, Nematodes, Parasitism, Tctramisole, Toxocara canis, Trichuris vulpis.

ECTOPARASITES AND HELMINTH EN-DOPARASITES OF THE TREE SQUIRRELS OF

Helminthol Soc Wash Proc 33(2):170-172

MATODE INFECTIONS OF DOGS.

Vet Med/small Anim Clin 63(10):986

TRICHINELLA

FOLLOWING

### 6983-69

Cestoda, Nematodes, Orchopeas, Parasitism, Squirrels, Trematoda.

#### 6983-69

PROBLEMS OF THE ERADICATION OF THE MOST IMPORTANT HELMINTHOSES. (RUS) I V Orlov Veterinariya (12):50-51

Dec 1968 41.8 V6426 Helminthiasis, Livestock diseases.

### 6984-69

CHEMOTHERAPEUTIC AGENTS. G F Otto

Amer Vet Med Ass J 154(4):387-390 15 Fcb 1969 41.8 AM3

Anthelmintics, Arsenamide, Diethylcarbamazine, Dirofilaria immitis, Dithiazanine iodide, Dogs, Drug therapy, Nematodes.

### 6985-69

HOME PRODUCED CYAZID IS A HIGHLY EF-FECTIVE ANTHELMINTHIC AGAINST SHEEP DICTYOCAULOSIS. (ROS) D 1 Panasyuk E S Khutoretsky Veterinariya (12):55-56 Dec 1968 41.8 V6426 Cyazid, Drug therapy, Livestock diseases, Sheep,

Verminous bronchítis.

#### 6986-69

HELMINTHOLOGICAL EVALUATION OF DEEP LITTER IN POULTRY HOUSES. (RUS) Z A Panina

Veterinariya (12):98-99

Dec 1968 41.8 V6426

Bedding (livestock), Helminthology, Poultry houses, Sanitation.

#### 6987-69

#### BLOOD PARASITES FOUND IN IMPORTED BIRDS AT POST-MORTEM EXAMINATION. M A Peirce

Vet Rec 84(5):113-116 REF

01 Feb 1969 41.8 V641

Autopsies, Birds, Blood parasites, Hacmoproteus, Infectious discases, Leucocytozoon discase, Microfilariae, Parasitism, Plasmodium, Tables (data), Trypanosoma.

### 6988-69

# CANINE FILARIASIS ON OKINAWA, RYUKYU ISLANDS.

N E Pennington C A Phelps

J Med Entomol 6(1):59-67

30 Jan 1969 421 J828

Dipetalonema reconditum, Dogs, Ectoparasites, Filariasis, Helminths, Insect vectors, Medical entomology.

#### 6989-69

#### COMPLEX INVESTIGATION OF THE FUNC-TIONAL STATE OF THE LIVER IN THE COURSE OF EXPERIMENTAL FLUKEWORM DISEASE IN SHEEP. (POL)

E Pinkiewicz S Grzebula M Pienkowski A Zimowski

Lublin Univ Mariae Curie Ann Sect Dd 22:167-190 REF

1967 512 L96AD

Enzymes, Fasciola hepatica, Liver, Liver function tests, Livestock diseases, Sheep, Trematoda. English and Russian summaries.

### 6990-69

ADENOSINETRIPHOSPHATASE ACTIVITY IN MUSCLE TISSUE MITOCHONDRIA OF SWINE ASCARID (ASCARIS SUUM, GOEZE, 1758). (RUS)

L I Povyakel

Med Parazitol Parazitarn Bolezni 37(5,SEP/OCT):530-533 REF

1968 448.8 M469

Adenosinetriphosphatase, Ascaris lumbricoides suum, Enzymes, Mitochondria, Muscles, Nematodes, Swine. English summary.

### BIBLIOGRAPHY

### 6991-69

### PRACTICE OF ANIMAL DICTYOCAULOSIS AND FASCIOLIASIS CONTROL. (RUS) A A Poyarkov Veterinariya (12):11-14 Dec 1968 41.8 V6426

Fascioliasis, Livestock diseases, Verminous bronchitis, Veterinary medici ne.

#### 6992-69

#### CLINICAL OBSERVATIONS AND STUDIES RE-GARDING THE ETIOLOGY OF ENZOOTI-CALLY OCCURRING BOVINE KERATOCON-JUNCTIVITIS, WITH PARTICULAR CON-SIDERATION OF THELAZIA. (GE) H Prange R Kokles G Zimmermann Monatsh Vet 23(18):692-698 REF 15 Sep 1968 41.8 M742 Cattle, Keratoconjunctivitis, Livestock diseases, Nematode infestation, Thelazia. English and Russian summaries.

#### 6993-69

#### THE GLYOXYLATE CYCLE, FRUCTOSE-1,6-DIPHOSPHATASE AND GLYCONEOGENESIS IN FASCIOLA HEPATICA.

R K Prichard P J Schofield Compar Biochem Physiol 29(2):581-590 REF May 1969 444.8 C73 Biochemistry, Enzymes, Fasciola hcpatica, Glyconeogenesis, Metabolism.

#### 6994-69

### ON THE BIOLOGY OF APATEMON GRACILIS (RUD., 1819), A TREMATODE PARASITIZING IN DOMESTIC AND WILD DUCKS. (RU )

D Raisytc

Acta Parasitol Lithuanica 7:71-84

1968 436.9 AC8

Apatemon gracilis, Biology, Ducks, Ecology, Gastrointestinal system, Trematoda. English and Lithuanian abstracts.

### 6995-69

THE NUMBERS AND DYNAMICS OF EGGS PRODUCED BY A TREMATODE APATEMON GRACILIS (YAMAGUTI, 1933) IN RELATION TO THE AGE OF A HOST AND POST-INFEC-TION IMMUNITY. (RU) D Raisyte

Acta Parasitol Lithuanica 8:65-73

1968 436.9 AC8

Aging, Apatemon gracilis, Ducks, Immunity, Trcmatoda. English and Lithuanian abstracts.

#### 6996-69

METASTRONGYLUS SALMI GEPOELST, 1923--THE PIG PARASITE.

N S K Rao

Cur Sci 38(5):117

05 Mar 1969 475 SCI23

Helminthiasis, Livestock diseases, Metastrongylus salmi, Nematodes, Swine.

### 6997-69

BOVINE OSTERTAGIA INFECTION. BIBLIOG-RAPHY ORGANIZED AROUND THE DISEASE, ITS TREATMENT, AND ITS PREVENTION. (FR

#### J P Raynaud

Rec Med Vet 144(8):743-769 REF 1968 41.8 R24 Cattle, Diagnosis, Ostertagiasis, Thiazolyl)-

benzimidizole, 2-(4-. English and spanish abstracts 6998-69

# A SURVEY OF PARASITES IN LABORATORY PRIMATES.

L V Reardon B F Rininger Lab Anim Care 18(5):577-580 REF Oct 1968 410.9 P94

000 1908 410.9 194

Animal diseases, Cestoda, Health surveys, Helminths, Monkeys, Nematodes, Parasitism, Protozoa, Trematoda. Listing of the number of parasites found in each kind of monkey.

84

#### 6999-69

#### A COMPARATIVE STUDY OF THE ACTIVI-TIES OF 2,6-DIIODOPARA-NITROPHENOL (DISOPHENOL) AND 2-PARA-THIAZOLYL-BENZIMIDAZOLE (THIABENDAZOLE) AS ANTHELMENTHIC FOR SHEEP. (POR )

U F Rocha M S de Campos J O Prucoli P C Goncalves R G Serra

Bol Indus Anim 24(1):89-103

1967 49 R324

Anthelmintics, Diiodo-4-nitrophenol, 2,6-, Haemonchus contortus, Oesophagostomum, Sheep, Thiazolyl)-benzimidizole, 2-(4-, Trichuris. English abstract

### 7000-69

### VISCERAL CYSTICERCOSIS IN BOVINE ANIMALS. (IT )

B Romboli G Del Bono N Pellegrini P Pierotti Pisa Univ Stud Fac Med Vet Ann 20: 64-296 REF 1967 41.9 P67

Cattle, Cysticercus, Helminths, Livestock diseases, Viscera. English and French summaries.

#### 7001-69

AN APPROACH TO THE TREATMENT OF OUTBREAKS OF FASCIOLIASIS IN SHEEP. J G Ross

Irish Vet J (N s)22(4):62-68

Apr 1968 41.8 IR4

Anthelmintics, Drug therapy, Fasciola hepatica, Fascioliasis, Helminths, Livestock diseases, Sheep.

### 7002-69

REPORT ON THE WORKING PARTY ON LIVER-FLUKE IN WALES.

W T Rowlands

Vet Rec 84(7):154-157

15 Feb 1969 41.8 V641

Nov 1968 41.8 AU72

Clonorchis, Copper sulfate, Drainage, Drug therapy, Farm management, Fascioliasis, Grazing, Livestock diseases, Molluscacides.

7003-69

7004-69

**R** Rubin

7005-69

(RUS)

7006-69

**J** Senutaite

1968 436.9 AC8

BENDAZOLE.

15 Jan 1969 41.8 AM3

L N Savinkova L A Chukleb

FASCIOLA HEPATICA, L.. (RU)

Acta Parasitol Lithuanica 8:75-80 REF

Veterinariya (12):54-55

Dec 1968 41.8 V6426

A FIELD STUDY OF CHEMICAL PROPHYLAX-IS AGAINST THE DEVELOPING STAGES OF DIROFILARIA LIMITIS IN THE DOG. F Roy-Smith C H Carlisle

Diethylcarbamazine dihydrogen citrate, Dirofilaria

immitis, Dirofilariasis, Dogs, Dosagc, Drug therapy, Parasitism.

TREATMENT OF GASTROINTESTINAL PARASITISM OF CATTLE WITH PAR-

Anthelmintics, Cattle, Gastrointestinal diseases,

Nematodes, Nematodirus, Oesophagostomum, Ostertagi a, Trichostrongylidae.

THE EFFICIENCY OF COPPER SULPHATE, PHENOTHIAZINE AND SODIUM CHLORIDE

MIXTURE AGAINST SHEEP HELMINTHOSES.

Anthelmintics, Copper sulfate, Drug therapy, Helminthiasis, Livestock diseases, Phenothiazine, Sheep, Sodium chloridc.

VOLATILE FATTY ACIDS EXCRETED BY

Acetic acid, Carbohydrates, Excreta, Fasciola hepatica, Fatty acids, Metabolism, Propionic acid. English and Lithuanian abstracts.

Australian Vet J 44(11):508-509

Amer Vet Med Ass J 154(2):177-180

7030-69

7007-69

MATERIALS FOR THE INVESTIGATION OF **HELMINTHOSIS PATHOGENESIS. (RUS )** R S Shults E A Davtyan Veterinariya (12):43-46 Dec 1968 41.8 V6426 Helminthiasis, Livestock diseases, Veterinary medicine.

#### 7008-69

ACHIEVMENTS OF SOVIET INVESTIGATORS IN THE STUDY OF HELMINTH BIOLOGY AND HELMINTHOSIS EPIZOOTIOLOGY. (RUS ) **E E Shumakovich** 

Veterinariya (12):41-43

Dec 1968 41.8 V6426

Biology, Epizootic diseases, Helminthiasis, Helminthology.

#### 7009-69

ADULTS OF EUMEGACETES ARTAMII FROM WHITE LEGHORN PULLETS INFECTED WITH THE METACERCARIAE FROM DRAGONFLIES. TWO P Singh B P Pandc Cur Sci 37(19):563-564

05 Oct 1968 475 SC123

Chickens, Eumegacctes artamii, Insect vectors, Odonata, Parasitism, Trematoda.

#### 7010-69

**OBSERVATIONS ON THE OCCURRENCE OF** THELAZIA OR EYEWORM INFECTION OF CATTLE IN NORTHERN NEW SOUTH WALES. M G Smeal

Australian Vet J 44(11):516-521 REF

Nov 1968 41.8 AU72 Cattle, Eyes, Keratoconjunctivitis, Livestock diseases, Thelazia.

# FURTHER EXPERIMENTS ON THE TREAT-MENT OF STRONGYLOIDES INFESTATION OF HORSES WITH THIABENDAZOLE. (GE ) M Stoye

Deut Tierarztl Wochensch 75(24):622-625 REF 15 Dec 1968 41.8 D482

Drug therapy, Horses, Livestock diseases, Ne-matode infestation, Strongyloides, Thiazolyl)benzimidizolc, 2-(4-.

#### 7012-69

AN IMPROVED PORTABLE SHEEP DIPPING VAT.

R K Strickland O J Hummon J L Hourrigan Amer Vet Med Ass J 151(2):188-190 15 Jul 1967 41.8 AM3

Agricultural mechanics, Dipping, Equipment, Scabics, Shecp.

#### 7013-69

THE FINE STRUCTURE OF THE SPER-MATOZOON OF SHEEP TAPEWORM, EXPANSA MONIEZIA EXPAN 1810)(CYCLOPHYLLIDEA, (RUD. ANOPLOCEPHALIDAE). Z Swiderski

Zool Pol 18(4):475-486 REF 1968 410 Z712

Electron microscopy, Moniezia cxpansa, Sheep.

#### 7014-69

# CYTOCHROME C OXIDASE IN MIGRATING LARVAE OF ASCARIS LUMBRICOIDES VAR. SUUM.

S R Sylk

Exp Parasitol 24(1):32-36 REF

Feb 1969 436.8 EX7

Ascaris lumbricoides, Biochemistry, Cytochrome oxidase, Larvae, Metabolism, Swine.

### 7015-69

ANTHELMINTIC TREATMENT OF SOWS WITH THIABENDAZOLE. R J Thomas W C Smith Vet Rec 83(19):489-491 REF 09 Nov 1968 41.8 V641

Anthelmintics, Drug therapy, Hyostrongylus ru-bidus, Nematode infestation, Ocsophagostomum, Parasitism, Swine, Thiazolyl)-benzimidizole, 2-(4-. 7016-69

NEBRASKA'S SPECIFIC PATHOGEN-FREE (SPF) SWINE PROGRAM; TENTH YEAR RE-PORT.

N R Underdahl R E Coupe D L Ferguson E R Pco M J Twiehaus

Nebr Univ Coll Home Econ Quart Serv Farm Ranch Home 499:15P REF Jul 1968 100 N27N

Ascariasis, Ascaris, Germ-free life, Livestock diseases, Parasitism, Reports, Swine, Uterus.

### 7017-69

MONOPHOSPHORIC ACID ESTERS OF HALOGEN CONTAINING 2,2'-METHYLENEDIPHENOLS. PATENT 3,439,069.

S Van Der Mccr H Pouwels Us Patent Office Offic Gaz 861(3):931 15 Apr 1969 156.65 OF2

Drugs, Fascioliasis, Halogens, Methylenediphenols, 2,2'-, Patents, Phosphoric acid esters.

7018-69

ON THE INFECTION OF THE LITHUANIAN BIRDS BY THE CESTODES. (RU) G Volskis

Acta Parasitol Lithuanica 7:21-29 REF 1968 436.9 AC8

Birds, Cestoda, Ecology, Surveys. English and Lithuanian abstracts.

### 7019-69

EPIDEMIOLOGY OF HELMINTH INFESTA-TION OF BEEF CATTLE IN CENTRAL QUEEN-SLAND. R Winks

Australian Vet J 44(8):367-372 REF Aug 1968 41.8 AU72 Animal ecology, Beef cattle, Cattle, Epidemiology, Haemonchus placei, Helminthiasis,

Haemonchus placei, Oesophagostomum radiatum.

### 7020-69

HELMINTHOSIS LIQUIDATION- A RESERVE OF INCREASING ANIMAL PRODUCTION. (RUS)

- S A Yakovlev

Veterinariya (12):6-8 Dec 1968 41.8 V6426

Helminthiasis, Livestock diseases.

A COMPARATIVE ANALYSIS OF THE LO-CALIZATION OF CHOLINESTERASE ACTIVI-TY IN SOME PARASITIC NEMATODES. II. AS-CARIS SUUM, PARASCARIS EQUORUM, NEOASCARIS VITULORUM AND OXYURIS EQUI.

#### **D** Znidaric

Vet Arh 37(9-10):268-276 REF 1967 41.8 V6416

Animal physiology, Ascaridae, Biochemistry, Cholinesterases, Nematodes, Oxyuridae. French and yugoslavian abstracts

### COMMODITY PROTECTION

7022-69

RADIOBIOLOGICAL DAMAGE: A NEW CLASS IDENTIFIED IN BARLEY SEEDS STORED AFTER IRRADIATION. B V Conger R A Nilan C F Konzak Science 162(3858):1142-1143 06 Dec 1968 470 SC12 Barley, Cobalt isotopes, Gamma rays, Plant genetics, Plant physiology, Radiobiology, Seeds, Storage, Temperature. 7023-69

A SINGLE-SPORE ANALYSIS OF RUST PUSTULES PRODUCED BY MIXING ISOLATES OF TWO RACES OF PUCCINIA CORONATA VAR. AVENAE.

Can J Bot 46(11):1455-1458 Nov 1968 470 C16C Culture media, Fungus diseases (plants), Genetics, Injections, Puccinia coronata, Research, Rust. 7024-69 STUDY ON THE IMMUNOGENICITY OF COCOA BEANS. (POR) Y Levanon S M O Rossetini Inst Adoolfo Lutz Rev 25/27:1-9 REF 1967 449.9 SA62 Antigens, Cocoa, Fermentation, Immunogenicity, Industry, Ring test. English summary.

### **STORAGE DISEASES**

7025-69

A Dinoor J Khair

SENSITIVITY OF STORED MELON FRUIT FUNGI TO GAMMA IRRADIATION.

R Barkai-Golan R S Kahan N Temkin-Gorodeiski Int J Appl Radiat Isotopes 19(7):579-583 REF Jul 1968 334.8 IN84

Alternaria tenuis, Dosage, Fruit, Fungus diseases (plants), Fusarium, Gamma rays, Irradiation, Melons, Penicillium, Rot, Storage diseases. German, French, and Russian summaries.

#### 7026-69

STUDIES ON STORED GRAIN FUNGI. PART I.--FUNGI FROM WHEAT AND RICE FROM KARACHI.

S M Hasany M Yousuf S S Husain

Pakistan J Sci Indus Res 11(3):288-293

Jul 1968 475 P174

Fungi, Fungicides, Fungus diseases (plants), Mer-cury chloride, Rice, Wheat.

Fourty-three species of fungi representing seven genera were isolated from rice and wheat stored in godowns in Pakistan. Aspergillus flavus was the most prevalent species found, and surface treat-ment with 1:1000 Mercuric chloride for five min. greatly inhibited fungal growth.

#### 7027-69

OXYGEN AND CARBON DIOXIDE AFFECT THE GROWTH OF WOOD-DECAYING FUNGI. K F Jensen

Forest Sci 13(4):384-389 REF Dec 1967 99.8 F7632 Carbon dioxide, Fungi, Oxygen, Physiology.

7028-69

THE IMPORTANCE OF RELATIVE HUMIDITY IN THE STORAGE OF CEREALS. (POR ) D Puzzi Biologico 35(1):17-20 Jan 1969 442.8 B529

Grain, Humidity, Sitophilus oryzae, Stored products.

#### 7029-69

A NEW DISEASE OF POTATO TUBERS CAUSED BY GILMANIELLA HUMICOLA BAR-RON. D Sahai Cur Sci 36(23):645-646 05 Dec 1967 475 SCI23

Deuteromycetes, Fungus diseases (plants), Morphology, Potatoes, Storage diseases.

Gilmaniella humicola, a fungus, was identified as the agent causing necrotic spots around lenticels and eyes of potatoes. This is the first report of the fungus attaching potato tubers. It may become a serious disease due to its destruction of all the tuber eyes upon storage and thus affecting its seeding capacity.

### **ARTHROPODS**

7030-69

FUMIGATE STORED RICE TO REDUCE LOSS TO INSECTS. J L Bagent

### COMMODITY PROTECTION

7031-69

Rice J 72(3):15-16

Mar 1969 59.8 R36

Aluminum phosphide, Anobiidae, Chemical control (insects), Chlorinated hydrocarbons, Cucujidac, Fumigants, Insect pests, Insecticides, Malathion, Methoxychlor, Organophosphorus compounds, Rice, Storage, Tenebrionidae.

#### 7031-69

#### LABORATORY TESTS OF FIVE NEW INSECTI-CIDES AS PROTECTANTS FOR STORED **ROUGH RICE.** (ABSTRACT).

R R J Cogburn

Rice J 71(13):21

Dec 1968 59.8 R36

Benzylidene O,O-dimethyl phosphorodithioate, S-, Dimethyl O-(4-nitro-tolyl) phosphorothioate, O,O-, Insecticides, Isopropoxyphenyl methylcarbamate, o-, Laboratories, Malathion, Methylbenzyl 3-hydroxy-cis-crotonate dimethyl phosphate, alp o, Rice, Storage. Abstracts furnished by David F. Houston, 223 Behrens St., El Cerrito, Calif.

#### 7032-69

**TERMITE WORKERS. (FR )** 

J de Feytaud Paris Acad Agr France Compt Rend Hebd Seances

53(4):276-277

1967 14 P215BC

Insect behavior, Isoptera, Reviews, Social insects. 7033-69

PROTECT STORED GRAIN FROM INSECT DAMAGE.

J C French H Womack

11:2P.

May 1968

Dusting, Grain, Insecticides, Insects, Spraying, Storage, Storage injuries, Stored product insects.

#### 7034-69

#### STORED GRAIN INSECTS AS CARRIER OF FUNGI.

S S Hushin S S Qureshi S A Hasan M Anwarullah Pakistan J Sci Indus Res 11(3):297-298

Jul 1968 475 P174

Bruchus, Catalogs, Fungi, Sitophilus oryzae, Stored product insects, Tribolium confusum, Trogoderma granarium.

Several stored grain insects, Tribolium confusum, Bruchus chinensis, Trogoderma granarium and Sitophilus oryzae were examined for fungi. Fourteen species representing four genera were isolated.

#### 7035-69

### NEW POSSIBILITIES OF PEST CONTROL IN MILLS AND FLOUR STORAGES BY DDVP CHEMICALS. (SE ) B Ilic G Divar I Gici-Kalinovic

Agrohemija (3/4):121-130

1968 385 AG87

Acarina, Chemical control (pests), Dichlorvos, Flour, Laemophlocus, Storage, Tenebrio molitor, Tenebroides mauritanicus, Tribolium. English summary.

#### 7036-69

MASS APPEARANCE AT BRUSSELS OF SITOTROGA CEREALELLA (GELECHIIDAE). (FR ) OL.

E Janmoulle

Lambillionea 66(7/10):70-71

05 Sep 1967 420 N15

Food contamination, Gelechiidae, Grain, Insect identification, Insect outbreaks, Sitotroga cerealella, Zoogcography.

### 7037-69

### SAVING STORED RICE FROM ATTACKS OF **INSECT PESTS.**

P B Mookherjee B N Bose Indian Farming 17(3):32-33

Jun 1967 22 IN283

Benzene hexachloride, Chemical control (insects), Chlorinated hydrocarbons, Containers, Dieldrin, DDT, Endrin, Insect pests, Insecticides, Pyrethrum,

### **BIBLIOGRAPHY**

Rice, Sitophilus oryzae, Stored products.

Stored rice to be used only for seed may be protected from insects by spraying with DDT, BHC, dieldrin, endrin, or pyrethrins. Rice for consump-tion purposes should be parboiled, dried, and stored in air-tight containers.

### **RODENTS AND OTHER PESTS**

#### 7038-69

TOLERANCE STATUS OF SOME RATS TO AN ANTICOAGULANT RAT POISON. P J Deoras Cur Sci 36(8):207-208 20 Apr 1967 475 SCI23

Anticoagulants, Rats, Rodenticides, Warfarin.

SURVIVAL OF ENCYSTED LARVAE OF TRICHINELLA SPIRALIS: EFFECT OF EXPO-SURE TO 0 F, USING PRECOOLED AND FRESH GROUND PORK.

C H Hill

Helminthol Soc Wash Proc 33(2):130-133

Jul 1966 436.9 H36

Cold storage, Cysts, Larvae, Pork, Temperature, Trichinella spiralis.

Tests were made on the survival of encysted larvae of Trichinella spiralis in ground pork packages at a temperature of 0 F. The study used pork that had first been precooled at 35 F for 104 to 171 days and pork from freshly killed hogs. Larvae in precooled pork survived for as long as 280 hours but only for 232 hours in fresh pork. These results indicated that precooling or preconditioning increases the resistance of larvac to the lethal effects of a temperature of 0 F.

### 7040-69

### ANTICOAGULANT RESISTANCE IN EUROPE. W B Jackson

Pest Contr 37(3):51-55 Mar 1969 449.8 EX8

Anticoagulants, Coumarin, Rats, Rodent control, Rodenticides, Warfarin.

### 7041-69

### THIEVES IN THE POULTRY HOUSE.

W A Kollner

Poultry Farmer (Sydney) 36(29):10-12,14-15 25 Jan 1969 280.28 OR32

Animal breeding, Animal vectors, Norbormide, Poisons, Poultry, Rats, Rodent control, Rodenti-cides, Warfarin.

7042-69

### THESE WEEDS MEAN TROUBLE. L J Matthews B E Manson

New Zeal J Agr 118(4):33-35,37,39 MAP Apr 1969 23 N48J

Algae, Aquatie weeds, Biological control (weeds), Chemical control (weeds), Diquat, Electric power generation, Floods, Herbieides, Paraquat, Water pollution, Weed control.

Aquatic weeds in New Zealand are causing eonsiderable conomic problems in reducing the effi-ciency of electric power plants, eausing water pollution, and killing desirable aquatic fauna. All of the control techniques are very expensive and none are both effective and safe for other members of the ecosystem.

7043-69

### **CONTROL OF RODENTS. (POR )**

J C Queiroz Biologico 33(7):151-154

Jul 1967 442.8 B529

Aldrin, Arsenie, Chemical control (pests), Chlorinated hydrocarbons, Dieldrin, Insecticides, Rodenticides, Rodents, Storage, Warfarin.

#### 7044-69

NOTE ON THE EVALUATION OF THE EF-FICACY OF RODENTICIDES. E Radova

86

J Hyg Epidemiol Microbiol Immunol 11(4):511-515

1967 448.8 J826

Chemical control (pests), Methodology, Pestieide analysis, Rats, Rodenticides, Zinc phosphide, 1-(1naphthyl)-2-thiourea.

#### 7045-69

THE MURIDS IN THE VICINITY OF LAKE KIVU AND NEIGHBORING REGIONS (CEN-TRAL AFRICA) AND THEIR ECOLOGY. (FR ) U Rahm

Rev Suisse Zool 74(2):439-520 MAP REF Sep 1967 410 R324

Animal ecology, Behaviorism, Catalogs, Climate, Habitats, Rodents, Sex ratios, Surveys, Zoogeography.

### 7046-69

ESTIMATION OF MARINE-BORER ATTACK ON WOODEN SURFACES.

C C Walden 1 V F Allen P C Trussell Can Fish Res Board J 24(2):261-272 Feb 1967 442.9 C161

Ecology, Limnoria, Marine biology, Marine borers, Teredo, Wood borers.

### **MICROBIAL CONTAMINATION**

7047-69

INTERACTION OF SALT, PH, AND TEMPERA-TURE ON THE GROWTH AND SURVIVAL OF SALMONELLAE IN GROUND PORK. J A Alford S A Palumbo

Appl Microbiol 17(4):528-532 REF

Apr 1969 448.3 AP5

MONELLA-NEGATIVE

G J Banwart M J Kreitzer Poultry Sci 48(1):235-240

Jan 1969 47.8 AM33P

ING INDUSTRY.

Jul 1968 389.9 AS7Q

R C S Burnett B I Davies J Hyg 65(1):1-8

PIGMENTED

Inst Pasteur Lille Ann 18:177-183

Ass Offic Anal Chem J 51(3):611-612

DEHYDRATED FOOD. (FR)

Mar 1967 449.8 J82

1967 448.39 IN75

glish summary.

N L Clements

7052-69

W B Bradley

PASTEURIZED DRIED EGG.

Baeteria, Culture media, Food contamination, Mortality, Pork, Salmonella, Sodium chloride, Temperature.

Eggs, Food contamination, Microbiology, Sal-monella bacterins.

SALMONELLA CONTROL PROGRAMS: BAK-

Baking, Egg whites, Flour, Food contamination,

Human diseases, Infectious diseases, Salmonellosis.

SOCIATED WITH IMPORTED CANNED MEAT.

Canned food, Food poisoning, Pork, Salmonella.

Bacteria, Culture media, Dried food, Enterobac-

teriaceae, Food contamination, Pigmentation. En-

NOTE ON A MICROBIOLOGICAL ASSAY FOR AFLATOXIN B.: A RAPID CONFIRMATORY TEST BY EFFECTS ON GROWTH OF BACIL-LUS MEGATERIUM.

FOOD POISONING

COLIFORMS

Ass Food Drug Offic Us Quart Bull 32(3):140-

SAMPLES

OF

OF

7048-69 FURTHER STUDIES ON THE SCREENING TECHNIQUE FOR DETERMINING SAL-

7049-69

141

7050-69

7051-69

M Catsaras

THE

SALMONELLA

### **ENVIRONMENTAL CONTAMINATION**

CAUSES OF CAN SWELLING AND BLACKEN-

ING OF CANNED BABY CLAMS. 3. BAC-TERIOLOGY AND CHEMISTRY OF SEA-BOT-TOM MUD INVOL VED IN CAN SPOILAGE.

Baeteria, Biochemistry, Calcium chloride, Canned

**ENVIRONMENTAL** 

CONTAMINATION

**STRONTIUM-90: CONCENTRATIONS IN SUR-**

Quantitative analysis, Radioactive contamination, Strontium isotopes, Water analysis.

DDT: THE CRITICS ATTEMPT TO BAN ITS

FACE WATERS OF THE ATLANTIC OCEAN.

V T Bowen V E Noshkin H L Volehok T T

J Food Sci 34(1, JAN-FEB):88-92 MAP REF

E Tanikana T Motohiro M Akiba

food, Clams, Food contamination.

Science 164(3881):825-827 REF 16 May 1969 470 SC12

1969 389.8 F7322

7076-69

May 1968 381 AS7

Aflatoxin, Bacillus megaterium, Biological assay, Food contamination, Microbiology, Physiology.

### 7053-69

#### CONFIRMATORY TEST RAPID FOR AFLATOXIN B, USING BACILLUS MEGATERI-UM.

N L Clements

Ass Offic Anal Chem J 51(6):1192-1194 Nov 1968 381 AS7

Aflatoxin, Bacillus megaterium, Chromatography, Food contamination, Microbiology.

#### 7054-69

# INVESTIGATIONS INTO THE SOURCE OF BACTERIAL CONTAMINATION OF PORK. II. IN STEAMING. (BU)

H Delehev D Savov

Vet Med Nauk 5(2):67-73

1968 41.8 V6468

Bacteria, Benzene, Chlorine, Food contamination, Pork, Salmonella, Steam, Temperature. English and russian summaries.

#### 7055-69

LOW TEMPERATURE GROWTH OF TYPE E CLOSTRIDIUM BOTULINUM SPORES. I. EF-FECTS OF SODIUM CHLORIDE, SODIUM NITRITE AND PH. 2. EFFECTS OF SOLUTES AND INCUBATION TEMPERATURE.

A S Emodi R V Leehowieh J Food Sci 34(1, JAN-FEB):78-87 REF 1969 389.8 F7322

Baeteria, Biochemistry, Clostridium botulinum, Culture media, Food contamination, Sodium chloride, Sodium nitrite, Solutes, Temperature.

### 7056-69

COMPARISON OF TWO PROCEDURES FOR DETECTION OF SALMONELLA IN FOOD, FEED, AND PHARMACEUTICAL PRODUCTS. L D Fantasia W H Sperber R H Deibel Appl Microbiol 17(4):540-541

Apr 1969 448.3 AP5

Bacteriology, Feed, Food contamination, Sal-monella, Serological tests.

#### 7057-69

# HEAT RESISTANCE OF SALMONELLA IN VARIOUS EGG PRODUCTS.

J A Garibaldi R P Straka K ljichi Appl Microbiol 17(4):491-496 REF Apr 1969 448.3 AP5

Bacteria, Eggs, Food contamination, Heat treatment, Poultry products, Salmonella, Sucrose.

#### 7058-69

# GAS CHROMATOGRAPHIC ANALYSIS OF HEAD-SPACE VAPORS TO IDENTIFY MICRO-ORGANISMS IN FOODS.

P A Guarino A Kramer J Food Sci 34(1, JAN-FEB): 31-37 REF 1969 389.8 F7322

Bacteria, Chromatography, Culture media, Food contamination, Microorganisms. The bacteria tested for food contamination were:

Proteus, Escherichia, Salmonella, Citrobacter, Enterobacter, Alkaligenes, and Pseudomonas.

#### 7059-69

#### THE ISOLATION OF SALMONELLAS FROM ANIMAL FEEDINGSTUFFS.

R W S Harvey T H Price J Hyg 65(2):237-244 REF Jun 1967 449.8 J82 Bone meal, Culture media, Feed, Food contamination, Meat, Salmonella.

#### 7060-69

ON THE BIOCHEMICAL ACTIVITY OF MICROORGANISMS IN THE PROCESS OF MEAT DEGRADATION. (GE ) S Kendereski

Schlacht-viehhof-zeit 68(9):365-368 REF Sep 1968 286.85 D48

Biochemistry, Degradation, Food contamination, Meat, Microorganisms.

#### 7061-69

PENICILLIN AND OTHER INHIBITORY SUB-STANCES IN MILK: THE DEVELOPMENT AND APPLICATION OF A ROUTINE TEST IN NEW ZEALAND.

W A McGillivray P S Robertson P J Liddell New Zeal J Dairy Technol 1(1):4-9 REF Mar 1966 SF221.N4

Antibiotics, Bromoercsol purple, Chemical indicators, Dairy industry, Inhibitors, Milk, Milk analysis, Penicillin, Residues, Streptococeus thermophilus.

#### 7062-69

#### INVESTIGATIONS CONCERNING THE MICROFLORA OF ISTERBAND , A SWEDISH FERMENTED TYPE OF SAUSAGE. (SW ) K Ostlund B Regner

Nord Veterinaermed 20(10):527-542 REF Oct 1968 41.8 N813

Baeillus cereus, Fermentation, Food analysis, Food contamination, Lactobacillaceae, Microflora, Salmonella typhimurium, Sausages, Staphylocoecus aureus. English and German summaries.

### 7063-69

### PRODUCTION OF ENTEROTOXIN-B CURED MEATS. GENIGEORGIS, C. H Riemann W W Sadler

J Food Sci 34(1, JAN-FEB):62-68 REF 1969 389.8 F7322 Bacteria, Biochemistry, Culture media, Food con-

tamination, Meat, Staphylococcus aureus, Toxins. 7064-69

### SALMONELLA IN MEAT IMPORTED FROM SOUTH AMERICAN COUNTRIES. M van Schothorst E H Kampelmacher

J Hyg 65(3):321-325 Sep 1967 449.8 J82

Beef, Feed, Food contamination, Horsemeat, Salmonella, Surveys.

#### 7065-69

DRY MILK EQUIPMENT DESIGN AND ITS RELATION TO THE SALMONELLA PROBLEM. R G Semerad

Milk Food Sanit Annu Rep 41:117-124

Dec 1967 44.9 N4833 Bacteria, Dried milk, Equipment, Human diseases, Microbial contamination, Salmonella.

#### 7066-69

# ACTION OF MICROORGANISMS ON THE PEROXIDES AND CARBONYLS OF FRESH LARD.

J L Smith J A Alford J Food Sci 34(1, JAN-FEB):75-78 REF 1969 389.8 F7322 Biochemistry, Carbonyl group, Culture media, Food contamination, Lard, Microorganisms, Peroxides. Twenty eight microorganisms were studied.

#### 7067-69

#### **ON THE USE OF TEGO 51 IN ANIMAL FOOD** INDUSTRIES--TOXICITY AND ICIDAL PROPERTIES. (POR ) **BACTER-**

B Soerensen H S Correa L Z Neto Biologico 35(1):3-7 Jan 1969 442.8 B529 Bactericides, Dodicin, Enterobacteriaceae, Feed additives, Industrial medicine, Mice, Toxicology. English abstract.

#### 7068-69

#### ACCELERATED PROCEDURE FOR SAL-**MONELLA DETECTION IN DRIED FOODS** AND FEEDS INVOLVING ONLY BROTH CUL-TURES AND SEROLOGICAL REACTIONS. W H Sperber R H Diebel

Appl Microbiol 17(4):533-539

Apr 1969 448.3 AP5

Bacteriology, Culture media, Dried food, Feed, Food contamination, Salmonella, Serological tests.

# Science 163(3867):548-551 07 Feb 1969 470 SC12

Agricultural industries, Dieldrin, DDT, Pestieide residues, Pesticides, Water analysis, Water pollution.

### 7072-69

7069-69

7070-69

Sugihara

7071-69

L J Carter

**USE IN WISCONSIN.** 

IN

### **ENVIRONMENTAL POLLUTION: SCIENTISTS** GO TO COURT.

L J Carter Science 158(3808):1552-1556

22 Dec 1967 470 SC12

Dieldrin, DDT, Environment, Insect control, Legislation, Pesticides, Spraying, Water pollution.

### 7073-69

### PESTICIDES AND MAN'S ENVIRONMENT. D H Jenkins

Amer Forests 75(1):30-31,46-47 Jan 1969 99.8 F762

Dieldrin, DDT, Insecticide residues, Legislation.

Persistent pesticides which contribute heavily to environmental contamination have aroused Michigan communities. recommendations from various groups are discussed.

#### 7074-69

### ENVIRONMENTAL PROBLEMS. (SW ) CONTAMINATION S Jensen Fauna Flora (Uppsala) 63(5):190-195 Dec 1968 442.8 F27

Chlorinated hydrocarbons, DDT, Ecology, Environment.

### 7075-69

#### WATER POLLUTION AND AGRICULTURE. (**FR**)

France Min Agr Bull Tech Inform (224):881P Nov 1967 14 F844B

Aerial spraying, Agriculture, Aquatic animals, Biology, Irrigation, Lakes, Pesticide residues, Tem-perature, Water analysis, Water pollution.

#### 7076-69

**BIOLOGICAL INVESTIGATIONS OF AN IN-**FILTRATION AREA AND EXPERIMENTS WITH SOME ALGICIDES.

V Moraveova

Hydrobiologia 29(3-4):505-546 REF

30 May 1967 410 H992

Algae, Algicides, Antibiotics, Cycloheximide, Plankton, Silver nitrate, Water treatment.

### **ENVIRONMENTAL CONTAMINATION**

### 7077-69

#### 7077-69 DDT: CRITICISM, CURBS ARE ON THE UPSW-ING.

M Mueller

Science 164(3882):936-937

23 May 1969 470 SC12

Accident prevention, Chlorinated hydrocarbons, DDT, Insecticide residues, Legislation, Salmon, Water pollution.

#### 7078-69

### WILL THE USE OF 2,4,5-T TO CONTROL STREAMSIDE VEGETATION CONTAMINATE **PUBLIC WATER SUPPLIES**.

I C Reigner W E Sopper R R Johnson

J Forest 66(12):914-918 REF

Dcc 1968 99.8 F768

Environment, Herbicide residues, Streams, T, 2,4,5-, Weed control.

### 7079-69

### PESTICIDES: TRANSATLANTIC MOVEMENTS IN THE NORTHEAST TRADES.

R W Risebrough R J Huggett J J Griffin E D Goldberg

Science 159(3820):1233-1236 REF

15 Mar 1968 470 SC12

Air pollution, Chlorinated hydrocarbons, Dichloro-2,2-bis(p-chlorophenyl) cthylcne, 1,1-, Dicldrin, DDT, Pesticide residues, Water pollution.

#### 7080-69

### AGRICULTURAL PESTICIDES AND THEIR DETRACTORS. (FR)

Siriez

Agriculture (paris) 31(316):311-315 Dcc 1968 14 AG823

Aflatoxin, Balance of nature, Birds, Cancer, Chemical control (pests), Dosage, History, Pesticides, Plant protection, Regulation (pesticides).

#### 7081-69

### **INTERACTION OF PESTICIDES WITH NATU-RAL ORGANIC MATERIAL.**

R L Wershaw P J Burcar M C Goldberg Environ Sci Technol 3(3):271-273 REF

Mar 1969 TD420.A1E5

Chlorinated hydrocarbons, DDT, Humic acids, Organic compounds, Pesticides, Phenoxy acid compounds, Sodium humate, Soil chemistry, T, 2,4,5-, Water analysis.

### RESIDUES

#### 7082-69 **BIOASSAY OF CAPTAN BY ZEBRAFISH LAR-**VAE.

Z H Abedi W P Mckinley

Nature 216(5122):1321-1322

30 Dec 1967 472 N21

Biological assay, Captan, Chlorinated hydrocar-bons, Fish, Fungicides, Larvae, Methodology, Pesticide residues.

#### 7083-69

PERSISTENT PESTICIDES.

P H Abelson

Science 164(3880):633

09 May 1969 470 SC12

Chlorinated hydrocarbons, DDT, Endrin. Malathion, Pesticide residues, Pesticides, Regulation (posticides), Volatile substances.

#### 7084-69

#### SOIL FACTORS CONTRIBUTING TO ATRAZINE CARRYOVER. R S Jr. Adams

Minn Sci 25(1,FALL):9-12

1968 100 M668

Atrazine, Chemical control (wceds), Corn, Herbicides, Posticide application, Pesticide residues, Soils, Soybeans, Sugar beets, Weather.

#### BIBLIOGRAPHY

### 7085-69

### **REDUCTION OF RESIDUES OF HEPTACHLOR** AND CHLORDANE IN CARROTS WITH SOIL APPLICATIONS OF ACTIVATED CARBON. J F Ahrens J B Kring

J Econ Entomol 61(6):1540-1543 REF 16 Dcc 1968 421 J822

Carrots, Chlordanc, Chlorinated hydrocarbons, DDT, Heptachlor, Insecticide residues, Radishes,

Soil sanitation.

#### 7086-69

### THE EFFECT OF A PRETREATMENT WITH PHENOBARBITAL ON THE METABOLISM OF DDT IN DAIRY COWS AND YOUNG BULLS.

J G Alary M G Brodeur J C Cotc J C Panisset P Lamothc P Guay

Rev Can Biol 27(3):269-271 REF

Scp 1968 442.8 R325

Adipose tissue (animals), Animal nutrition, Cattle, DDT, Insecticide residues, Livestock diseases, Metabolism. English and french abstract

#### 7087-69

#### DDT. SUBLETHAL EFFECTS ON BROOK TROUT NERVOUS SYSTEM.

J M Anderson M R Peterson Science 164(3878):440-441

25 Apr 1969 470 SCI2

Chlorinated hydrocarbons, DDT, Nervous system, Tempcrature, Trout.

#### 7088-69

### UNIVERSITY OF WISCONSIN SCIENTISTS DISCUSS INSECTICIDES AND POLLUTION.

Anonymous Com Fert Plant Food Indus 118(3):8-9

Mar 1969 57.8 C73 Biological control (insccts), Chemical control (insccts), Chlorinated hydrocarbons, DDT, Insecticide application, Insecticide residues, Insecticides, Regulation (pesticides).

7089-69

### NO SERIOUS PROBLEM WITH PESTICIDE **RESIDUES.**

Anonymous

Fruit World Market Grower 69(11):44

11 Nov 1968 80 F948

Chlorinated hydrocarbons, DDT, Foreign trade, Pesticide residues, Quarantine, Surveys.

#### 7090-69

MORE ABOUT THE PESTICIDE RESIDUE PROBLEM.

Anonymous

Farm Res News 9(5,SEP/OCT):106

1968 10.5 F223 Aldrin, Chlorinated hydrocarbons, Dieldrin, DDT, Lindanc, Pesticide residues.

### 7091-69

DETERMINATION OF RESIDUAL BHC AND LINDANE QUANTITIES IN THE SOIL AND PLANTS AND INVESTIGATIONS ON THEIR TOXICITY. (BU)

1 Balinov

Rastenievud Nauk 5(3):93-101

1968 64.8 R18

Beets. Benzenc hexachloride, Chlorinated hydrocarbons, Crops, Dosagc, Insccticide residues, Insecticides, Lindane, Plant injuries, Toxicology. English and Russian summaries.

7092-69

### CONTRIBUTION OF AERIAL CONTAMINA-TION TO THE ACCUMULATION OF DIEL-DRIN BY MATURE CORN PLANTS.

H L Barrows J H Caro W H Armiger Environ Sci Technol 3(3):261-263 REF Mar 1969 TD420.A1E5 Air pollution, Chlorinated hydrocarbons, Corn, Dicldrin, Insecticide residues, Insecticides.

7093-69 **POPULATIONS OF DALAPON-DECOMPOSING** BACTERIA IN SOIL AS INFLUENCED BY AD-

88

**DITIONS OF DALAPON OR OTHER CARBON** SOURCES.

W D Burgc

Appl Microbiol 17(4):545-550 REF Apr 1969 448.3 AP5

Carbon, Chlorinated hydrocarbons, Dalapon, Decomposition, Herbicides, Soil bacteria.

#### 7094-69

EFFECTS OF THE INSECTICIDE SEVIN ON SURVIVAL AND GROWTH OF THE COCKLE **CLAM CLINOCARDIUM NUTTALLI.** 

J A Butler R E Millemann N E Stewart Can Fish Res Board J 25(8):1621-1635

Aug 1968 442.9 CI6J

C 1 Chacko J L Lockwood

Aug 1967 448.8 C162

Jan 1969 442.9 C16J

mycin, TDE.

1968 381 18223

7097-69

7098-69

stract

7099-69

7100-69

J Cassady

residues.

7101-69

CITRUS PESTS.

H A Dean M T Waddell A Shull

ORCHARD.

Can J Microbiol 13(8):1123-1126

A D Cherrington U Paim O T Page

FRACTIONS OF HELA S CELLS.

R A Chung Y D Lin R W Brown

Pesticide residucs, Pl Ribonuclcic acid, Synthesis.

N Collett D L Harrison

Austral Sugar J 60(10):547

Jun 1968 514 N482

Jan 1969 65.8 AU7

Mar 1969 449.9 AM3J

Can Fish Res Board J 26(1):47-54 REF

Carbaryl, Clams, Insecticide residues, Statistical analysis.

#### 7095-69

tics.

7096-69

ACCUMULATION OF DDT AND DIELDRIN BY MICROORGANISMS.

Absorption, Dieldrin, DDT, Pesticides, Soil proper-

IN VITRO DEGRADATION OF DDT BY IN-TESTINAL CONTENTS OF ATLANTIC SAL-MON (SALMO SALAR).

Chlorinated hydrocarbons, Chromatography, Degradation, Dichloro-2,2-bis(p-chlorophenyl)

cthylenc, 1,1-, DDT, Fish, Intestines, Microflora, Microorganisms, Salmon, Sterilization, Strcpto-

EFFECT OF DDT AND DIELDRIN ON RNA

AND PROTEIN SYNTHESIS IN SUBCELLULAR

J Agr Food Chem 16(2,MAR-APR):298-299 REF

Biochcmistry, Cells, Culturc media, Dieldrin, DDT,

SOME OBSERVATIONS ON THE EFFECTS OF

USING ORGANOCHLORINE SPRAYS IN AN

Autopsies, Birds, DDT, Insecticidc residues, Lin-

dane, Orchards, Soil analysis, Spraying. English ab-

PESTICIDE RESIDUES ARE NOT A PROBLEM.

Agricultural industries, Agricultural research, Chemical control (pcsts), Dieldrin, DDT, Pesticide residucs, Pcsticide safcty, Pesticides, Surveys.

AN EPIDEMIOLOGIC APPLICATION OF THE

STUDY OF DDE LEVELS IN WHOLE BLOOD.

J E Davies W F Edmundson A Maceo A Barquet

Amer J Public Health Nat Health 59(3):435 REF

Blood composition, Chlorinated hydrocarbons, Dichloro-2,2-bis(p-chlorophenyl) cthylene, 1,1-,

DDT, Epidemiology, Histology, Humans, Pesticide

OIL DEPOSIT ON GRAPEFRUIT LEAVES WITH 3 TYPES OF SPRAY EQUIPMENT IN RELATION TO CONTROL OF CERTAIN

New Zealand J Sci 11(2):371-379 REF

Physiology,

Proteins,

7123-69

#### Rio Grande Val Hort Soc J 22:35-41 1968 81 L95

Aonidiella aurantii, Chemical control (insects), Citrus, Diaspididac, Grapefruit, Insect pests, Insecticide application, Insecticides, Mineral oil, Particle size determination, Spraying equipment, Surface-active agents.

#### 7102-69

# INDUSTRIAL FERTILIZERS AS HERBICIDES SEEN IN THE LIGHT OF NEW AND OLD EX-PERIMENTS. (CZ)

F Duchon

Agrochemia 8(7):193-195 REF

1968 385 AG88

Ammonium sulfate, Chemical control (weeds), D, 2,4-, Dinoseb, Fertilizers, Herbicide residues, Herbicides, Nitrated phenols, Phenoxy acid com-pounds, Potassium, Salts, Soil analysis, Soil chemis-try. English, Russian, and German summaries.

#### 7103-69

# EFFECTS ON WILD YOUNG SALMON OF SPRAYING DDT OVER NEW BRUNSWICK FORESTS.

#### P F Elson

Can Fish Res Board J 24(4):731-767 MAP REF Apr 1967 442.9 C16J

Chlorinated hydrocarbons, DDT, Insecticide residues, Insecticides, Mortality, Salmon, Water pollution.

#### 7104-69

### THE INFLUENCE OF SOME ELECTROLYTES ON THE ADSORPTION AND RELEASE OF SYMMETRICAL TRIAZINES ON SOME OR-GANIC COLLOIDS. (IT )

P Fusi R Corsi

Agrochimica 12(2/3,FEB-APRE: 09-119 REF 1968 385 AG84

Adsorption, Atrazine, Electrolytes, Pesticide residues, Pesticides, Prometryne, Simazine, Soil chemistry, Soil colloids, Triazines. English, French, German and Spanish summaries.

#### 7105-69

#### NO EFFECT LEVEL OF DDT IN INDUCTION OF MICROSOMAL EPOXIDATION. **I W Gillett**

J Agr Food Chem 16(2,MAR-APR):295-297 REF 1968 381 J8223

Aldrin, Dieldrin, Dict, DDT, Liver, Pesticide residues, Rats.

#### 7106-69

### TOLERANCES AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE CHEMICALS IN OR ON RAW AGRICULTURE COMMODI-TIES. DDT.

J L Goddard

Fed Regist 33(125,PT.1):9396

27 Jun 1968 L1.451

Chemicals, DDT, Food plants, Insecticides, Pesticide residues.

#### 7107-69

### TOXICITY OF PESTICIDES TO MAN: RISKS FROM PRESENT LEVELS.

W J Haycs

Roy Soc Proc Ser B, Biol Sci 167(1007):101-127 REF

21 Feb 1967 501 L84B

Abnormalitics, Aging, Biochemistry, Carcinogene-sis, Dosage, Mctabolism, Ncoplasms, Nutrition, Pesticide residues, Pesticide synergists, Pesticides, Scx, Toxicology.

### 7108-69

#### CHLORINATED **HYDROCARBONS** AND EGGSHELL CHANGES IN RAPTORIAL AND FISH-EATING BIRDS.

J J Hickcy D W Anderson

Science 162(3850):271-273 REF

11 Oct 1968 470 SCI2

Birds, Chlorinated hydrocarbons, Ecology, Fish, Insecticides, Pesticide residues, Population statistics, Reproduction.

### 7109-69

### **ORGANOCHLORINE PESTICIDES IN SEALS.**

A V Holden K Marsden Nature 216(5122):1274-1276 REF

30 Dcc 1967 472 N21

Adipose tissue (animals), Animal histology, Chemical control (pests), Chlorinated hydrocarbons, Pesticide residues, Seals (animals). The pesticides discussed are: Dieldrin, DDT, DDE, TDE, MDE. PCB.

### 7110-69

PERSISTENT PESTICIDES: A PROBLEM. E M Holst

Holly Agr News 15(3, FALL): 15-16 1967 66.8 H72

Chlorinated hydrocarbons, Degradation, Insecti-cides, Nematocides, Pesticide residues, Plant biochemistry, Sugar beets. Many persistent pesticides were noted.

#### 7111-69

EFFECTS OF FOREST SPRAYING WITH DDT IN NEW BRUNSWICK ON FOOD OF YOUNG ATLANTIC SALMON.

M H A Kecnleyside

Can Fish Res Board J 24(4):807-822 MAP REF Apr 1967 442.9 C16J

Chemical control (insects), Chlorinated hydrocarbons, DDT, Fish, Food supply, Insecticide residucs, Insecticides, Water pollution.

The changes in food content of the digestive systems of salmon were analyzed after aerial appli-cations of DDT were made in forested areas of New Brunswick.

#### 7112-69

FISH LOSSES AFTER FOREST SPRAYINGS WITH INSECTICIDES IN NEW BRUNSWICK, 1952-62, AS SHOWN BY CAGED SPECIMENS AND OTHER OBSERVATIONS.

C J Kerswill H E Edwards

Can Fish Res Board J 24(4):709-729 MAP REF Apr 1967 442.9 C16J

DDT, Fish, Insecticide residues, Insecticides, Mor-

tality, Water pollution.

The survival of fish in forested areas sprayed with different percentages of DDT for budworm control is discussed. Caged and free-living salmon and brook trout were examined.

#### 7113-69

STUDIES ON EFFECTS OF FOREST SPR AY-INGS WITH INSECTICIDES, 1952-63, ON FISH AND AQUATIC INVERTEBRATES IN NEW BRUNSWICK STREAMS: INTRODUCTION AND SUMMARY.

#### C J Kerswill

Can Fish Res Board J 24(4):701-708 MAP REF Apr 1967 442.9 C16J

Chemical control (insects), Choristoneura fumiferana, DDT, Forest management, Insecticide residues, Marine biology, Salmon, Water pollution.

A review is presented of insecticide sprays used in New Brunswick and fisheries checked for insecti-cide residues in fish and water from 1952 through 1963. This is the introductory paper of a scries.

#### 7114-69

EXPERIENCE WITH A SHORTER EXTRAC-TION PROCEDURE FOR INSECTICIDE **RESIDUES FROM LIQUID MILK PRODUCTS.** (GE)

F Kiermeier G Wildbrett M Rudolphi

Z Lebensmittel-untersuchung -forsch 135(3):122-125

16 Oct 1967 384 Z39

Dairy products, Food contamination, Insecticide residues, Milk analysis.

TOLERANCE AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE CHEMICALS IN OR ON RAW AGRICULTURAL COMMODI-TIES. SIMAZINE. I K Kirk

89

Fed Regist 34(97):7962

21 May 1969 L1.451

Agricultural products, Herbicide residues, Herbicides, Simazinc, Tolerances.

#### 7116-69

BORAX AND BORIC ACID. PROPOSED ESTABLISHMENT OF PESTICIDE TOLERANCE.

### J K Kirk

Fed Regist 34(104, PT 1):8372

30 May 1969 L1.451 Borax, Boric acid, Citrus, Fungicides, Pesticide residues. Sodium tetraborate decahydrate, Tolerances.

#### 7117-69

CALCIUM OXYTETRACYCLINE. NOTICE OF **EXTENSION OF TEMPORARY TOLERANCE.** J K Kirk

Fed Regist 34(74):6670

18 A pr 1969 L1.451

Agricultural legislation, Agricultural products, Calcium oxytctracycline, Peaches, Pesticide residues, Regulations, Tolerances.

7118-69

7119-69

7120-69

H L Ley

7121-69

STRACT).

6/1, (45-57).

7122-69

Niemczyk

7123-69

REĔ

WHEAT. (SE)

1967 106 B41Z

B Milojic M Misovic

Mar 1967 450 C16

SOIL DEGRADATION OF DIAZINON, A PHOSPHOROTHIOATE INSECTICIDE.

J G Konrad D E Armstrong G Chesters Agron J 59(6,NOV-DEC):591-594 REF

R A Ledford J H Chen W F Shipe

AGRICULTURAL COMMODITIES.

J Dairy Sci 51(2):219-220

Feb 1968 44.8 J822

cide residues, Steam.

Fed Regist 34(97):7974

A E J McGill J Robinson

Dec 1968 241.64 EX23

21 May 1969 L1.451

### Dcc 1967 4 AM34P

Adsorption, Diazinon, Hydrolysis, Insecticide residues, Soil hydrogen-ion concentration, Soil organic matter.

EFFECT OF DIRECT STEAM HEATING AND

VACUUM TREATMENT ON LEVELS OF PESTICIDE RESIDUES IN MILK.

Dieldrin, Distillation, DDT, Lindanc, Milk, Pesti-

TDE (OR DDD). PROPOSED REDUCTION OF

TOLERANCES FOR RESIDUES IN OR ON RAW

Agricultural products, Chlorinated hydrocarbons,

Insecticide resi dues, TDE, Tolerances, Vegetables.

ORGANOCHLORINE INSECTICIDE RESIDUES

IN COMPLETE PREPARED MEALS: A 12-MONTH SURVEY IN S. E. ENGLAND. (AB-

Chlorinated hydrocarbons, Dieldrin, DDT, Food, Insecticides, Milk, Pesticide residues, Surveys, From Food Cosmetology and Toxicology, 1968,

TRANSLOCATION OF DIAZINON FROM PLANTING WATER BY CABBAGE AND TOBACCO SEEDLINGS.

Cabbage, Diazinon, Insecticide residues, Plant translocation, Tobacco.

THE EFFECT OF HERBICIDE RESIDUE IN THE SOIL ON THE YIELD OF WINTER

Beograd Univ Zb Rad Poljopr Fak 15(455):13P

J R W Miles G F Manson W W Sans H D

Can J Plant Sci 47(2):187-192

Excerpta Med Pharm Toxicol 21(12):599-600

### RESIDUES

### 7124-69

Atrazine, Chemical control (weeds), Crop yields, Herbicide residues, Herbicides, Simazine, Soils, Wheat. English summary.

### 7124-69

INVESTIGATION OF SHEEP DIPS. 3. THE IN-FLUENCE OF BREED ON STRIPPING AND DEPOSITION IN THE FLEECE OF DIAZINON. D K O'Neill S P Hebden

Australian Vet J 44(8):344-349 REF Aug 1968 41.8 AU72

Diazinon, Dust (soil), Insecticides, Measurement, Organophosphorus compounds, Sheep breeds, Suint, Wool fat.

#### 7125-69

DDT RESIDUES ABSORBED FROM ORGANIC DETRITUS BY FIDDLER CRABS. W E Odum G M Woodwell C F Wurster

Science 164(3879):576-577 REF 02 May 1969 470 SCI2 Absorption, Chlorinated hydrocarbons, Crabs, DDT, Metabolites, Pesticide residues.

7126-69

# DDT RESIDUES ABSORBED FROM ORGANIC DETRITUS BY FIDDLER CRABS.

W E Odum G M Woodwell C F Wurster Science 164(3879):576-577 REF

02 May 1969 470 SC12

Absorption, Chlorinated hydroearbons, Crabs, DDT, Insectieide residues, Metabolites.

#### 7127-69

TOXICOLOGY OF PLANT PROTECTION PREPARATIONS. TOLERANCE LIMITS FOR TOXIC RESIDUES. (IT )

P Pagani

Romagna Agr Zoot 52(8):308-314 Aug 1967 16 R66

Agricultural products, Chlorinated hydrocarbons, Fruit, Meat, Pesticide residues, Regulations.

Includes a 1960 table from the Food and Drug Administration, Washington, D.C. setting forth giving residue tolerance limits for 43 pesticides in 17 eategories of agricultural products.

#### 7128-69

#### AN INVESTIGATION OF THE CONTENT OF THE CHLORINATED HYDROCARBON RESIDUES OF THE CRUSTACEAN PLANKTON IN THE BALATON.

J E Ponyi F Csonti F Baron

Tihany Biol Kutatointezetenek Evkon 35:183-189 REF

1968 442.9 M27

Chlorinated hydrocarbons, Dosage, Pesticide residues, Plankton, Spraying. Russian and Hungarian summaries.

#### 7129-69

#### RETENTION AND VOOATILIZATION OF LIN-DANE AND DDT IN PRESENCE OF ORGANIC COLLOIDS ISOLATED FROM SOILS AND LEONARDITE.

L K Porter W E Beard J Agr Food Chem 16(2,MAR-APR):344-347

1968 381 J8223

Colloids, DDT, Laumontite, Lindane, Pesticide residues, Radioactivity, Soils, Temperature, Volatile substances.

### 7130-69

### RESIDUES OF DIELDRIN (HEOD) IN THE TIS-SUES OF EXPERIME NTALLY POISONED BIRDS.

J Robinson V K H Brown A Richardson M Roberts

Life Sci 6(11,PT 1):1207-12-20

01 Jun 1967 442.8 L62

Birds, Dieldrin, Insecticide residues, Statistical analysis, Toxicology.

#### 7131-69

# PHARMACODYNAMICS OF DIELORIN IN PIG EONS.

J. Robinson A Richardson V K H Brown Nature 213(5077):734-736 REF 18 Feb 1967 472 N21 Animal histology, Animal physiology, Chlorinated hydrocarbons, Dieldrin, Insecticide residues, Pigeons.

**BIBLIOGRAPHY** 

#### 7132-69

#### INSECTICIDE RESIDUES IN SPRING WHEAT PLANTS GROWN IN THE FIELD FROM SEED TREATED WITH ALDRIN OR HEPTACHLOR. J G Saha R H Burrage

Can J Plant Sci 47(1):114-115 Jan 1967 450 C16

Aldrin, Heptachlor, Insecticide residues, Seed treatment, Wheat.

#### 7133-69

# SOME EFFECTS OF DIAZINON ON THE MICROFLORA OF SUBMERGED SOILS.

N Sethunathan I C MacRae *Plant Soil 30(1):109-112* Feb 1969 450 P696

Algae, Diazinon, Insecticide residues, Microflora, Organophosphorus compounds, Soil chemistry.

### 7134-69

### BIRDS AND AGRI CULTURE. (FR)

H Siricz Bull Inform Rizicult France (110,MAY-JUN):24 -1967 59.8 B872

Agriculture, Balance of nature, Birds, Pestieide residues, Pesticides. This is a book review

### 7135-69

#### PESTICIDE RESIDUES.

K J Smith

Us Agr Res Serv Ars-72 (72-69):69-74

Jan 1969 A381 R31

Agricultural industries, Cotton, DDT, Food contamination, Pesticide residues, Pesticides, Tolcrances.

#### 7136-69

#### HIGH PRAISE FOR LOW VOLUME INSECTI-CIDE SPRAYING.

J F Spears

Pest Contr Oper News 27(12):18-20

Dec 1967 SB951.A1P4 Anthonomus grandis, Circulionidae, Insecticide application, Insecticides, Malathion, Organophosphorus compounds, Pesticide residues, Plant protection, Spraying, Volumetric analysis.

#### 7137-69

### PESTICIDE LEVELS AND FLUCTUATION IN SOIL BACTERIA IN AN IRRIGATED FIELD AND A POND OF SOUTHWEST TEXAS. R G Taylor H G Applegate

Southwest Natur 13(4):393-400 REF

31 Dec 1968 409.6 SO8

Bacteria, Biological assay, Chemical analysis, DDT, Pesticide residues, Soil bacteria.

#### 7138-69

### PESTICIDE RESIDUES; HISTORY, ALTERNA-TIVES AND ANALYSIS.

J Thomson D C Abbott Roy Inst Chem Lect Ser (3):33P REF

1966 382 IN7L

Chemical analysis, Chlorinated hydroearbons, Chromatography, Food analysis, History, Humans, Methodology, Pesticide residues, Spectroscopy, Water, Wildlife.

### 7139-69

#### **PESTICIDE RESIDUES - USDA'S POSITION.** A Tufano

West Tobacco J 96(3):46,48-49

Mar 1969 286.89 W52

Chemical control (insects), Chlorinated hydrocarbons, DDT, Foreign trade, Light traps, Pesticide residues, Pesticides, Regulation (pesticides), TDE, Tobacco.

#### 7140-69

DISTRIBUTION OF STRONTIUM 90 AND CESI-UM 137 IN DAIRY PRODUCTS IN THE PROCESSING OF EWE'S MILK. 2. IN WHITE BRINED CHEESE. (BU) A Vrigazov V Marinov

90

Vet Med Nauk 5(6):83-86

1968 41.8 V6468

Cesium-137, Cheese, Chemistry, Dairy products, Food contamination, Food processing, Isotopes, Milk analysis, Sheep, Strontium isotopes. English and Russian summaries.

#### 7141-69

CONTRIBUTION TO THE STUDY OF AN-TIBIOTIC SUBSTANCES IN MEATS. (FR ) A Wuillcret

Schweizer Arch Tierbeilk 110(10):523-531 REF Oct 1968 41.8 SCH9

Antibiotics, Bacteriology, Legislation, Meat, Penicillin, Residues, Sarcina lutea. English, German and Italian summaries.

### TOXICOLOGY

7142-69

DDT AND RELATED CHLORINATED HYDROCARBONS: THEIR METABOLISM IN THE CHICK AND THEIR INDUCTION OF MICROSOMAL ENSYMES.

M B Abou-Donia

Diss Abstr Sect B 28(10):3937B

Apr 1968 Z5055.U49D53

Carbamates, Chick embryos, Chlorinated hydrocarbons, Chromatography, DDT, Eggs, Infrared spectra, Insecticides, Metabolism, Microsomes.

#### 7143-69

SYMPTOMS OF INTOXICATIONS BY POISONOUS PESTICIDES. (JPRS 46216) TRANSL. 17061.

Arsenic compounds, Carbamates, Chlorinated hydroearbons, Copper compounds, Drug therapy, Gastrointestinal diseases, Mereury compounds, Pesticides, Poisons, Symptomatology. Translation

from Meditsinskaya Gazeta, page3, June 25, 1968.

DETECTION AND DIFFERENTIATION OF PATHOGENIC CLOSTRIDIA AND THEIR TOX-

Clostridium, Livestock diseases, Microorganisms, Pyrogallol, Toxicology, Toxins. English and Rus-

MANGANESE TOXICITY OF LEGUMES SEEDED IN KENTUCKY STRIP-MINE SPOILS.

Chlorosis, Legumes, Manganese, Soil hydrogen-ion

TABLE OF HUMAN INFECTIONS. IN: DIS-

Animal vectors, Bacterial diseases (animals), Dis-

case transmission, Epidemiology, Fungus diseases (animals), Helminths, Human diseases, Insect vectors, Methodology, Pets, Tables (data), Virus discases (animals). Many disease organisms and dis-

BIOLOGICAL METHODS FOR DETERMINING THE TOXICITY OF GRAIN IN CONNECTION WITH ITS INFESTATION WITH TOXIGENIC

EASES OF MAN ACQUIRED FROM HIS PETS.

423-465 PHILADELPHIA, LIPPINCOTT

Toxicology,

S Batayev L Katsenovich

5P 16 Aug 1968

issued by CFSTI.

J Beer G Al-Khatib

sian summaries.

7145-69

Vegetables.

7146-69

**B** Bisseru

1967 RC639.B5

eases are listed.

MICROFUNGI. (RUS) V P Bogoroditskaya

Vup Pitan 27(3,MAY-JUN):73-76

7147-69

15 Sep 1968 41.8 M742

W A Berg W G Vogel

1968 A99.9 F7622UN

Monatsh Vet 23(18):709-714 REF

Us Forest Serv Res Pap Ne (119):12P

eoneentration, Strip-mined areas,

7144-69

INS. (GE)

7171-69

1968 389.8 V89

Fungus discascs (plants), Fusarium, Grain, Labora-ory animals, Pigcons, Sporotrichum, Stored products, Toxicology. English summary.

#### 7148-69

TESTS WITH A COMBINATION PREPARA-TION FOR THE TREATMENT OF INFECTIOUS DISEASES OF MICROBIAL ORIGIN. (GE ) E Buser

Schweizer Arch Tierbeilk 110(11):573-581 Nov 1968 41.8 SCH9

Antibiotics, Drug thcrapy, Drugs, Infectious diseases, Livestock diseases, Microorganisms. En-glish, french and italian summarics.

#### 7149-69

EFFECTS IN WARMBLOODED ANIMALS OF THIOMETON (2-ETHYLTHIOETHYL 0,0-DIMETHYLTHIOPHOSPHATE) INGESTED IN **DRINKING WATER. (POL)** 

I Cabcjszck M Rybak S Szulinski

Warsaw Panstw Zakl Hig Rocz 18(3):257-265 1967 449.9 W26

Blood plasma, Ekatin, Insecticides, Organophosphorus compounds, Rats, Water. English and Russian summarics.

#### 7150-69

EFFECT OF DRUGS ON LUMINESCENCE IN LARVAL FIREFLIES.

A D Carlson

J Exp Biol 49(1):195-199

Aug 1968 442.8 B77

Drugs, Epinephrinc, Insect biochemistry, Lampyridac, Larvae, Luminescence. Many drugs were tested.

#### 7151-69

STUDIES ON A SERIES OF BRANCHED-CHAIN ANALOGS OF DIETHYL MALATHION AND MALAOXON WITH REGARD TO TOXICITY AND IN VITRO ENZYMATIC REACTIONS. (ABSTRACT).

Y C Chiu A Hassan F E Guthric W C Dauterman Excerpta Med Pharm Toxicol 21(12):599 Dec 1968 241.64 EX23

Analogs, Dicthyl S-(1,2-di(cthoxycarbonyl)cthyl) phosphorothioate, d, Enzymes, Micc, Or-ganophosphorus compounds, Toxicity. From Tox-icology and Applied Pharmacology, 1968, 12/2, (219-228).

### 7152-69

ENHANCED METABOLISM OF METHYP-RYLON, MEPROBAMATE, AND CHLOR-DIAZEPOXIDE HYDROCHLORIDE AFTER CHRONIC FEEDING OF A LOW DIETARY LEVEL OF DDT TO MALE AND FEMALE RATS.

P R Datta M J Nclson

Toxicol Appl Pharmacol 13(3):346-352 REF Nov 1968 391.8 T662

Animal metabolism, Chlorinated hydrocarbons, DDT, Feed, Pesticides, Rats, Testing, Tranquil-izers. The following drugs were used: methyprylon, meprobamate and chloriazepoxide hydrochloride.

### 7153-69

#### A METHOD FOR STUDYING MOTOR REAC-TIONS OF ASCARIDS. (RUS)

O N Davydov Med Parazitol Parazitarn Bolezni 37(5,SEP/OCT):618-619 REF 1968 448.8 M469

Animal physiology, Ascaridia, Mcthodology, Motor skills. English summary.

### 7154-69

### MAXIMUM PLACE OF WORK CONCENTRA-TIONS OF HEALTH-ENDANGERING INDUS-TRIAL MATERIALS. (GE) Deut Forschungsgem (5):22P

06 Mar 1969 391.9 D48

Accident prevention, Air pollution, Allergics, Cancer, Human discases, Industry, Pesticides, Poisons.

A listing of many chemicals is included indicating their maximum permissable concentrations.

### 7155-69

HERBICIDE TOXICITY. J E Dewey N Y Turfgrass Assoc Bull (83):322 1969 60.19 N42 Accident prevention, Diquat, Dosage, Herbicides,

Paraquat, Pesticide application, Spraying.

7156-69

### HEMATOLOGICAL EFFECTS OF APHOLATE ON CHANNEL CATFISH (ICTALURUS PUNC-TATUS).

C L Dodgen S Sullivan Soc Exp Biol Med Proc 131(1):124-126 REF May 1969 442.9 SO1

Apholate, Catfish, Fish, Hematology, Lymphocytcs, Platclets, Toxicology.

The hematological effects of oral administration of apholate to channel catfish (Ictalurus punctatus), and the delay in lethality, even with massive doses arc discussed. Apholate has a profound effect in producing a lymphocytopenia in channel catfish, but less effect on the thrombocytes.

7157-69

### NOTICE OF FILING OF PETITION FOR FOOD ADDITIVES.

R E Duggan

Fed Regist 34(110):9139

10 Jun 1969 L1.451

Chickens, Coccidiosis, Drug therapy, Feed, Food additives, Nitro-4-hydroxyphenylarsonic acid, 3-, Penicillin, Regulations.

#### 7158-69

NOTICE OF WITHDRAWAL OF PETITION FOR FOOD ADDITIVES DIENESTROL DIACETATE, AMPROLIUM, AND PENICILLIN.

R E Duggan

Fed Regist 34(110):9140

10 Jun 1969 L1.451

Amprolium, Chickens, Dienestrol diacetate, Drug therapy, Fecd, Food additives, Growth factors, Penicillin, Regulations.

### 7159-69

### NOTES ON PRECAUTIONS TO BE TAKEN IN THE USE OF SPRAY CHEMICALS.

S K Dutta D N Barbora

Tocklai Exp Sta Newslett 13(3):92-93 Scp 1966 68.18 T93

Accident prevention, Animals, Humans, Pesticides, Poisoning, Spraying.

#### 7160-69

SYNERGISTIC TOXICITY AND CAR-CINOGENICITY OF 'FREONS' AND PIPERO-NYL BUTOXIDE.

S S Epstein S Joshi J Andrea P Clapp H Falk N Mantel

Nature 214(5087):526-528 REF

29 Apr 1967 472 N21

Biochemistry, Carcinogens, Freon, Insecticide synergists, Laboratory animals, Pesticide residues, Piperonyl butoxide, Toxicology.

### 7161-69

COMMON POISONOUS PLANTS IN HOME AND GROUNDS.

#### **J R Fcucht**

Colo State Univ Ext Bull (466A):24P Mar 1969 275.29 C71E

Accident prevention, Food poisoning, Poisonous plants, Toxicology. Many poisonous plants are listed with their toxic substances

7162-69

#### PURIFICATION AND PROPERTIES OF IN VITRO--PRODUCED ANTHRAX TOXIN COM-PONENTS.

D C Fish B G Mahlandt J P Dobbs R E Lincoln J Bacteriol 95(3):907-918 REF

Mar 1968 448.3 J82

Antigens, Bacillus anthracis, Biochemistry, Rats, Scrological tests, Toxicology, Toxins.

91

TREATMENT OF TOPICAL FUNGUS INFEC-TIONS WITH DICHLORODIPHENYL-TRICHLOROETHANE. PATENT 3,389,049. H E Frantz Us Patent Office Offic Gaz 851(3):800

18 Jun 1968 156.65 OF2

DDT, Drug thcrapy, Fungicides, Human diseases.

#### 7164-69

7163-69

#### EFFECT OF AMINOTRIAZOLE ON THYROID FUNCTION IN THE RAT. M J Fregly

Toxicol Appl Pharmacol 13(3):271-286 REF Nov 1968 391.8 T662 Amitrolc, Dosage, Drug therapy, Rats, Thyroid

gland.

### 7165-69

TROLENE TOXICITY FOR BED BUGS. (RUS) B A Frolov

Veterinariya (12):102-104 Dec 1968 41.8 V6426 Cimex lectularius, Ronnel, Toxins.

#### 7166-69

HEPATOTOXIC POTENCY OF VARIOUS CHLORINATED HYDROCARBON VAPORS RELATIVE TO THEIR NARCOTIC AND LETHAL POTENCIES IN MICE. P J Gchring

Toxicol Appl Pharmacol 13(3):287-298 Nov 1968 391.8 T662

Ancsthctics, Chlorinated hydrocarbons, Drug thcrapy, Liver, Liver function tests, Mice, Vapors.

#### 7167-69

7168-69

J Guilhon

7169-69

7170-69

H W Hays

7171-69

241).

ING IN PIGS.

TOLERANCE OF SHEEP WITH REGARD TO A NEW PHOSPHORIC ESTER: CHLORFEN-VINPHOS. (FR) J Guilhon

Chemical control (insccts), Chlorfenvinphos, Dosage, Mortality, Phosphoric acid esters, Sheep,

TOLERANCE OF SHEEP TO PARENTERALLY ADMINISTERED IQDO-3 HYDROXY NITBO-5

**EXPERIMENTAL ARSANILIC ACID POISON-**

Animal abnormalities, Arsanilic acid, Bladder,

ECONOMIC POISONS CONTAINING CERTAIN

PESTICIDE CHEMICALS FOR CERTAIN USES.

ganophosphorus compounds, Poisons, Thiocarba-

AVERSION TO STRYCHNINE SULFATE BY NORWAY RATS, ROOF RATS, AND POCKET GOPHERS. (ABSTRACT).

Gophers, Pesticides, Rats, Rodenticides, Rodents, Strychnine, Sulfates, Toxicology. From Toxicology and Applied Pharmacology, 1968, 12/2, (229-

W E Howard S D Palmateer M Nachman

Excerpta Med Pharm Toxicol 21(12):599

Insecticides,

Or-

CANCELLATION OF REGISTRATION.

Acad Vet France Bull 41(7):279-284 Jul 1968 41 9 R24

Acad Vet France Bull 41(1):37-40

J D J Harding G Lewis J T Done

Vet Rec 83(22) :560-564 REF

30 Nov 1968 41.8 V641

Poisons, Swine, Toxicology.

Fed Reg.st 34(93):7712-7713

Fungicides, Herbicides,

Dec 1968 241.64 EX23

15 May 1969 L1.451

mates, Tolerances.

Drug thcrapy, Nitroxinil, Sheep, Tolerances.

Sheep-dip, Toxicology.

BENZONITRIL. (FR)

Jan 1968 41.9 R24

### TOXICOLOGY

### 7172-69

7172-69 SELECTED CROTALIDAE VENOM PROPER-TIES AS A SOURCE OF TAXONOMIC CRITERIA. **B D** Johnson Toxicon 6(1):5-10 REF

Aug 1968 391.8 T66 Animal taxonomy, Biological assay, Snake vcnom, Toxicology.

### 7173-69

THE MANAGEMENT OF CASES OF SUSPECTED POISONING.

**D** W Jolly

Vet Rec 84(7):166-168

15 Fcb 1969 41.8 V641

Accident prevention, Autopsics, Lesions, Management, Pets, Poisoning, Symptomatology, Veterinary medicinc.

### 7174-69

AN IN VITRO AND IN VIVO STUDY OF THE EFFECT OF DDT ON THE PHAGOCYTIC AC-TIVITY OF RAT WHITE BLOOD CELLS. L A Kaliser

Toxicol Appl Pharmacol 13(3):353-357 Nov 1968 391.8 T662

Blood cells, Chlorinated hydrocarbons, DDT, Pesticides, Phagocytes, Rats, Staphylocoecus.

#### 7175-69

ANTIFUNGAL ACTION OF A PHOSPHATE ESTER PESTICIDE, O-MCHLOROPHENYL O,O-DIMETHYL PHOSPHOROTHIOATE, USED NUTRIENT MEDIA FOR FUNGI. (AB-STRACT).

J Kcida

Excerpta Med Pharm Toxicol 21(12):600 Dec 1968 241.64 EX23

Chlorophenyl O,O-dimethyl phosphorothioate, Om-, Culture media, Esters, Fungi, Fungicides, Mitcs, Molds, Nutrient solutions (plants), Phosphates, Scopulariopsis brevicaulis, Toxicology, Y casts. From Mykoscn, 1968, 11/5, (395-398).

#### 7176-69

NOVOBIOCIN FOR USE IN CHICKEN AND TURKEY FEED. DRUGS FOR VETERINARY USE; DRUG EFFICACY STUDY IMPLEMENTA-TION.

J K Kirk

Fed Regist 34(103):8303-8304

29 May 1969 L1.451

Chickens, Drug therapy, Feed additives, Novobioein, Staphylococcic infections, Turkeys.

7177-69

ANTIBIOTICS. USE IN ANIMALS.

J K Kirk

Fed Regist 34(67):6284-6288 09 Apr 1969 L1.451

Animals, Antibiotics, Drug therapy, Labeling, Regulations.

The following antibiotic drugs were listed: tetracyclinc, chlortetracycline, ncomycin, oleandomycin phosphate, nystatin, novobiocin. dcmcthchlortetracycline hydrochloride, chloramphenicol and bacitracin.

### 7178-69

NOTICE OF WITHDRAWAL OF PETITION FOR FOOD ADDITIVES. J K Kirk Fed Regist 34(110):9140 10 Jun 1969 L1.451 Amprolium, Chickens, Coecidiosis, Dienestrol diacetate, Drug therapy, Ethopabate, Feed, Food additives, Regulations.

#### 7179-69

**CENTRAL NEUR OT OXIC EFFECTS OF THE** VENOMS OF NAJA NAJA AND VIPERA PALESTINAE. J Krupnick H 1 Bicher S Gitter Toxicon 6(1):11-15 REF

Aug 1968 391.8 T66

### **BIBLIOGRAPHY**

Animal physiology, Biological assay, Central nervous system, Methodology, Snake venom, Toxicology.

### 7180-69

PHOSPHOLIPASE A IN THE VENOM OF THE AUSTRALIAN BULLDOG ANT MYRMECIA **PYRIFORMIS.** 

J C Lewis A J Day 1 S de la Lande Toxicon 6(2):109-112 Oct 1968 391.8 T66 Biochemistry, Insect metabolism, Lecithins, Myrmccia pyriformis, Phospholipase, Toxicology,

Venoms

7181-69

### **USE OF ANTIBIOTICS IN ANIMALS.**

H L Lcv Fed Regist 34(95):7849-7853

17 May 1969 L1.451

Animal nutrition, Animals, Antibiotics, Drugs, Feed additives, Regulations, Tolerances.

#### 7182-69

PRESCRIPTION VETERINARY DRUGS. **DIRECTIONS FOR USE.** 

H L Ley Fed Regist 34(92):7655-7656

14 May 1969 L1.451

Drugs, Labeling, Regulations, Veterinary medicinc.

#### 7183-69

### DIAGNOSIS AND TREATMENT OF POISON-ING IN CATS AND DOGS.

J C Malone

Vet Rec 84(7):161-166

15 Feb 1969 41.8 V641

Cats, Central nervous system, Copper sulfate, Drying, Gastrointestinal system. Dogs, Hemorrhage, Poisoning, Symptomatology. Many compounds causing poisoning arc listed.

### 7184-69

### AMPROLIUM AS A COCCIDIOSTAT FOR AN-GORA GOATS.

C H B Marlow S Afr Vet Med Ass J 39(4):93 Dcc 1968 41.8 SO8 A mprolium, Bacterial discases (animals), Coccidiosis, Coccidiostats, Drug therapy, Goats, Livestock diseases.

#### 7185-69

## AFLATOXIN IN THE GROUNDNUT CROP AT HARVEST IN NORTHERN NIGERIA. D McDonald C Harkness

Samaru Res Bull 89:148-161 1

1968 24 N562S

Aflatoxin, Harvesting, Peanuts, Plant scnescence, Tables (data), Toxicity, Weather. Was reprinted fromTropical Science vol. 9, no. 3

### 7186-69

### ANTIGENIC RELATIONSHIPS OF THE VENOM OF ATRACTASPIS MICROLEPIDOTA TO THAT OF OTHER SNAKES.

S A Minton Jr

Toxicon 6(1):59-64

Aug 1968 391.8 T66

Animal taxonomy, Antigens, Precipitin test, Serological tests, Snake venom, Toxicology.

#### 7187-69

### **EFFECTS OF ECHIS CARINATUS VENOM ON** TISSUE AND BLOOD HISTAMINE AND THEIR RELATIONS TO LOCAL TISSUE REACTIONS AND EOSINOPHIL CHANGES.

A H Mohamcd A Kamel M H Ayobe Toxicon 6(1):51-54 REF Aug 1968 391.8 T66 Animal histology, Animal physiology, Eosinophils, Ethylenediaminctetraacetic acid, Histamine, Snake venom, Toxicology.

#### 7188-69

ZIERIA ARBORESCENS (STINKWOOD) IN-TOXICATION IN CATTLE.

92

**B** L Munday Australian Vet J 44(11):501-502 REF Nov 1968 41.8 AU72

Cattle, Poisoning, Poisonous plants, Zieria arborescens.

#### 7189-69

DEGRADATION AND ACTIVATION OF PARATHION ANALOGS BY MICROSOMAL ENZYMES.

T Nakatsugawa N M Tolman P A Dahm Biochem Pharmacol 17(8):1517-1528 REF

Aug 1968 396.8 B52

Degradation, Enzymes, Insecticides, Laboratory animals, Metabolism, Organophosphorus com-pounds, Parathion.

#### 7190-69

INTERACTION OF DDT WITH THE COM-PONENTS OF LOBSTER NERVE MEMBRANE CONDUCTANCE. T Narahashi H G Haas

J Gen Physiol 51(2):177-198 REF

Fcb 1968 447.8 J822

Bio-clectric potential, Chlorinated hydrocarbons, DDT, Lobsters, Nerves, Physiology.

### 7191-69

EFFECT OF FLOXOSCELES RECLUSA GERTSCH AND MULAIK VENOM AGAINST EFFECT HEMOCYTES OF ACHETA DOMESTICUS (LINNAEUS). B R Norment O E Smith Toxicon 6(2):141-144

Oct 1968 391.8 T66

Acheta domesticus, Hemolysis, Insect physiology, Loxosceles reclusa, Necrosis, Toxicology, Venoms.

#### 7192-69

**RESIDUES IN THE BODY FAT OF STEERS FED KELTHANE IN THEIR RATION. (ABSTRACT). S A Peoples** 

Fed Amer Soc Exp Biol Fed Proc 27(2):597 Mar 1968 442.9 F31P

Adipose tissue (animals), Animal metabolism, Cat-tle, Chemurgy, Dicofol, DDT, Feed, Insecticide residues, Toxicology.

#### 7193-69

icology.

7194-69

A M Rama

macology.

L Rammer

7196-69

Georgescu

1968 448.3 AC8

OUS TESTS. (RUM )

7195-69

1967 49.9 SP16

REF

Pest Contr 37(1):9-10,12

Jan 1969 449.8 EX8

PESTICIDE SAFETY: PLAIN OL' GOOD JUDGEMENT. S Rachesky

Accident prevention, Pest control, Pesticides, Tox-

TECHNIQUES FOR THE SYSTEMATIC CON-TROL OF ANTHELMINTICS. GASTROIN-TESTINAL NEMATODES. TESTS WITH A SE-RIES OF INDOLE-HYDRAZINES. (SP)

Spain Patronato Biol Anim Rev 11(3/4):71-157

Anthelmintics, Drug therapy, Gastrointestinal system, Hydrazine, Indole, Livestock diseases, Ne-

matocides, Nematodes, Nematodiasis, Phar-

CORTISONE NEPHROPATHY IN THE RABBIT. THE EFFECT OF WARFARIN ADMINISTRA-TION.

Acta Pathol Microbiol Scand 74(4):514-518 REF

Animal diseases, Animal histology, Cortisone, Drug therapy, Electron microscopy, Kidneys, Rab-bits, Warfarin.

CLINICAL AND LABORATORY NOTES ON PARATHION POISONING IN FOWL, SCREEN-ING AVAILABILITIES IN MEAT AND VARI-

M D Rapeanu E Crainiccanu C Tanase A

PLANT PHYSIOLOGY & BIOCHEMISTRY

7221-69

Oct 1968 49 P943 Food contamination, Insecticides, Meat inspection, Organophosphorus compounds, Parathion, Poisoning, Poultry, Poultry meat, Symptomatology, Tcsting. 7197-69

POISONING ON THE FARM. A REPORT OF A CASE OF ORGANOPHOSPHORUS POISONING. (ABSTRACT). I H Redhead

Excerpta Med Pharm Toxicol 21(12):600

Dcc 1968 241.64 EX23

Rev Zootech 18(10):67-71

Cholinesterases, Demeton, Disulfoton, Humans, Organophosphorus compounds, Pesticides, Poisoning, Reports, Toxicology. From Lancet, 1968, 1/7544, (686-688).

#### 7198-69

THE EFFECT OF SEX AND AGE ON THE RESPONSE TO WARFARIN IN A NON-INBRED STRAIN OF MICE. F P Rowe R Rcdfern

J Hyg 65(1):55-60

Mar 1967 449.8 J82

Aging, Chemical control (pests), Mice, Rodenticides, Sex, Toxicology, Warfarin.

### 7199-69

VENOM OF THE SCORPION VEJOVIS SPINIGERUS. F E Russell C B Alcndcr F W Buess Science 159(3810):90-91 REF

05 Jan 1968 470 SC12 Insect biochemistry, Mortality, Pharmacology, Scorpionida, Venoms.

#### 7200-69

REDUCTION IN AFLATOXIN CONTAMINA-TION OF RICE BY MILLING PROCEDURES. H W Schroedcr R A Boller H Hein Cereal Chem 45(6):574-580 REF Nov 1968 59.8 C33

Aflatoxin, Aspergillus candidus, Aspergillus flavus, Aspergillus glaucus, Aspergillus parasiticus, Chromatography, Food contamination, Food processing, Fungus diseases (plants), Humidity, Milling, Rice, Storage, Temperature.

#### 7201-69

EFFECT OF CARBARYL ON THE NEUROEN-**DOCRINE SYSTEM OF RATS.** 

A 1 Shtenberg M N Rybakova

Food Cosmet Toxicol 6(4):461-467 REF

Dcc 1968 391.8 F73

Carbamatcs, Carbaryl, Pesticides, Rats, Toxins. French and German summaries.

### 7202-69

TERATOGENIC ACTION OF CARBARYL IN BEAGLE DOGS.

H E Smalley J M Curtis F L Earl Toxicol Appl Pharmacol 13(3):392-403 REF Nov 1968 391.8 T662

Animal abnormalitics, Carbamates, Carbaryl, Dogs, Insecticides, Symptomatology.

### 7203-69

**ON THE BEHAVIOR OF XANTHURENIC ACID** IN RABBITS TREATED WITH MASSIVE DOSES OF PYRIDOXINE. (IT )

D Spisni A P Mariani Pisa Univ Stud Fac Med Vet Ann 20:210-214

1967 41.9 P67 Drug therapy, Rabbits, Tables (data), Urine, Vitamin b6, Xanthurenic acid. English and French

summaries.

### 7204-69

THE SAFTEY PET **EVALUATION** OF PRODUCTS.

D E Stevenson

Vet Rec 84(7):168-170

15 Feb 1969 41.8 V641

Accident prevention, Chemicals, Drugs, Legislation, Pets, Therapcutics, Veterinary medicine.

7205-69 FLUOROSIS IN CATTLE AND SHEEP, OB-SERVED AROUND INDUSTRIAL PLANTS IN BULGARIA. (BU) B Tatarov E Lazarov G Dimitrov L Kunchev Vet Med Nauk 5(7):29-34 REF 1968 41 8 V6468 Cattle, Diagnosis, Fluorosis, Poisoning, Sheep, Tecth. English and Russian summaries. 7206-69 COMBINED ACTION OF DDT WITH CHLOROPHOS AND OF THIOPHOS WITH CHLOROPHOS. (RUS) A A Tostanovskaya V S Lapchenko V I Svatkov G P Egorova Vup Pitan 27(3,MAY-JUN):69-73 1968 389.8 V89 Chlorinated hydrocarbons, DDT, Or-ganophosphorus compounds, Parathion, Pcsti-cides, Toxicology, Trichlorfon. English summary. 7207-69 BIOCHEMICAL STUDIES ON TERATOGENIC ACTION OF BIDRIN OTHER NEUROACTIVE AGENTS THE AND IN **DEVELOPING HEN EGGS.** D G Upshall J C Roger J E Casida Biochem Pharmacol 17(8):1529-1542 REF Aug 1968 396.8 B52 Animal abnormalities, Bidrin, Biochemistry, Eggs, Organophosphorus compounds. 7208-69 AMMONIA POISONING IN CARP. 3. THE OX-YGEN CONTENT AS A FACTOR INFLUENC-ING THE TOXIC LIMIT OF AMMONIA. R Vamos R Tasnadi Acta Biol (N s) 13(3/4):99-105 1967 442.8 AC86 Ammonia, Copper sulfatc, Decay, Fish, Hydrogenion concentration, Poisoning, Ponds. 7209-69 HOW FDA KEEPS DRUGS SAFE, EFFECTIVE. C D Van Houweling Western Livestock 47(10):45-46 Jan 1969 6 F2278 Drugs, Labeling, Veterinary medicine. 7210-69 TOXICITIES OF TWO INSECTICIDES TO YOUNG COHO SALMON. F P J Velscn D F Alderdice Can Fish Res Board J 24(5):1173-1175 May 1967 442.9 C16J Benzcne hexachloride, C-8514/Schering 36268, Insccticide residues, Salmon, Water pollution. The toxicitics of C8514 and BHC were compared in coho salmon. Much higher concentrations of C8514 were required to produce toxic effects than BHC, however, the instability of C8514 could cause harmful residues.

#### 7211-69

COMBATING POISONING DUE TO INSECTI-CIDES.

E J Vevai

Pesticides 1(5):21-24 Jan 1968 SB951.P43 Accident prevention, Insecticides, Poisoning, Safety cducation.

#### 7212-69

NICKEL TOXICITY IN YOUNG GROWING MICE.

C W Weber B L Reid J Anim Sci 28(5):620-623 REF

May 1969 49 J82

Animal nutrition, Animal physiology, Mice, Nickel, Toxicology.

### 7213-69

**INCREASE IN RESISTANCE TO ANTIBIOTICS** IN MASTITIS AGENTS. (GE)

U Wcigt R Kramer

Deut Tierarztl Wochensch 75(24):617-622 REF

### 15 Dec 1968 41.8 D482

Antibiotics, Bacterial diseases (animals), Drug therapy, Mastitis, Penicillin, Streptomycin, Tetra-cycline. English summary.

### 7214-69

APPLICABILITY OF MILDEW-INFESTED WHEAT TO FEEDING.- SHORT COMMUNICA-TION. (GE) E Wiesner

Monatsh Vet 23(18):706-708

15 Sep 1968 41.8 M742

Feed toxicity, Laboratory animals, Mildew, Swine, Tilletia caries, Toxicology, Wheat. English and Russian summaries.

7215-69

TOXICITY OF DDT AND RELATED COM-POUNDS TO CERTAIN LEPIDOPTERAN COT-TON INSECTS. D A Wolfenbarger W L Lowry

J Econ Entomol 62(2):432-435 REF

15 Apr 1969 421 J822

Chlorinated hydrocarbons, Cotton, DDT, Insect pests, Lepidoptera, Spraying.

#### 7216-69

PERMISSIBLE LEVELS OF OCCUPATIONAL EXPOSURE TO AIRBORNE TOXIC SUB-STANCES. SIXTH REPORT OF THE JOINT ILO/WHO COMMITTEE ON OCCUPATIONAL HEALTH.

World Health Organ Tech Rep Ser 6(415):16P 1969 449.9 W892T

Air pollution, Reports, Tolerances, Toxicology.

### **PLANT PHYSIOLOGY &** BIOCHEMISTRY

7217-69

POSTIRRADIATION MODIFICATION OF UL-TRAVIOLET-SENSITIVITY OF NORMAL AND NITROFURAZONE-RESISTANT STRAINS OF THE BLUE-GREEN ALGA ANACYSTIS NIDU-LANS.

Radiat Bot 9(2):105-110 REF

Mar 1969 450 R11

Algae, Irradiation, Microorganisms, Nitrofurazone, Plant biochemistry, Ultraviolet rays. French and German summaries.

7218-69

EFFECTS OF GROWTH RETARDANTS ON VITIS VINIFERA L.

Vitis 6(3):278-287

Aug 1967 95.8 V833

Chloroethyl)trimethylammonium chloride, (2-, Crop yields, Grapes, Plant growth inhibitors, Suc-cinic acid, 2,2-dimethylhydrazide, Tributyl(2,4-dichlorobenzyl)phosphonium chloride.

#### 7219-69

EFFECT OF PARAQUAT ON THE NITROGEN CONTENT AND REGROWTH OF COASTAL BERMUDAGRASS (CYNODON DACTYLON (L.) PERS.). S C O Agbakoba J R Goodin Agron J 59(6,NOV-DEC):605-607 Dec 1967 4 AM34P

Cynodon dactylon, Fertilizers, Nitrogen, Paraquat, Plant physiology, Proteins.

#### 7220-69

COTTON UNAFFECTED BY SYSTEMICS AND HERBICIDES.

Anonymous

Miss Farmer 17(4):12D

Apr 1969 6 M6992

Chemical control (weeds), Cotton, Herbicides, Systemic insecticides, Trifluralin.

#### 7221-69

PENETRATION AND DISTRIBUTION OF SOME ANTIBIOTICS IN COTTON TISSUE AND ITS RESISTANCE TO BACTERIAL BLIGHT OF COTTON. (RUS)

### PLANT PHYSIOLOGY & BIOCHEMISTRY

### 7222-69

S A Askarova Uz Biol Zhur (3):20-23 1968 442.8 UZ1 Angular leafspot, Antibiotics, Cotton, Plant disease resistance, Plant embryos. English summary

#### 7222-69

### EFFECTS OF ORGANIC ARSENICAL HERBI-CIDES ON COTTON RESPONSE AND CHEMI-CAL RESIDUES.

R S Baker H F Arle J H Miller J T Holstun Weed Sci 17(1):37-40 Jan 1969 79.8 W41

Arsenic compounds, Cotton, Disodium methancarsonate, Herbicide residues, Herbicides, Methodology, Organic compounds, Pesticide application, Plant physiology, Seeds, Sodium, Soil analysis.

#### 7223-69

INFLUENCE OF SOME HERBICIDES ON AC-CUMULATION OF 32P IN ABOVE-GROUND ORGANS OF OATS. (POL)

R Baranowski J Bors M Ploszynski H Zurawski Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 28:63-77 REF

#### 1967 64.9 IN7

Amino acids, Herbicides, Isotopes, Monuron, Oats, Phosphorus, Photosynthesis, Plant physiology, Striazine, Simazine, Sugars, Urea. English and Russian summaries.

#### 7224-69

STIMULATORY EFFECTS OF GIBBERELINS ON THE GROWTH OF CHLORELLA PYRE-NOIDOSA (CHICK).

F E Bendana M Fried

Life Sci 6(10, PT 1):1023-1033 REF

01 May 1967 442.8 L62

Carbon dioxide, Chlorella, Gibberellins, Light, Plant nutrition, Plant physiology, Plant regulators.

#### 7225-69

NITROGEN METABOLISM IN DEVELOPING SEEDS OF VICIA FABA.

D Boulter O J Davis New Phyto Logist 67(4):935-946 REF

Oct 1968 450 N42

Broadbeans, Globulins, Nitrogen, Plant metabolism, Seed analysis.

#### 7226-69

**COMPARATIVE SUSCEPTIBILITY OF ASPER-**GILLUS TOWARDS VARIOUS FUNGICIDES AND ANTISEPTICS. (FR ) **P** Boutibonnes

Acad Vet France Bull 41(7):305-308 Jul 1968 41.9 R24

Antisepties, Aspergillus, Fungicide resistant fungi, Fungicides, Quaternary ammonium compounds, Thiazolyl)-benzimidizole, 2-(4-.

#### 7227-69

# THE EFFECT OF SOME HERBICIDES ON WEEDINESS AND YIELD OF POTATOES ON ALLUVIUM SOIL. (SE )

D Bozic M Misovic

Beograd Univ Zb Rad Poljopr Fak 15(456):7P REF

1967 106 B41Z

Alluvi al soils, Chemical control (weeds), Crop yields, Herbicides, Potatoes, Prometryne, yields, Herbicides, Po Simazine, English summary,

#### 7228-69

# THE EFFECT OF MAGNESIUM ON THE GROWTH OF LUCERNE, GROWN ON GREY FOREST SOILS. ( BU )

I Bucharova G Hinov Pochvozn Agrokhim 3(1):91-96 REF

1968 S590.P6

Alfalfa, Forest soils, Magnesium, Micronutrients, Plant biochemistry, Plant nutrition. English and Russian summaries.

#### 7229-69

AN INJECTION METHOD FOR TREATING HEMEROCALLIS SPIKES WITH COLCHICINE.

### W Q Buck

Calif Hort Soc J 29(2):47-48 Apr 1968 81 C1293 Cell division, Colchicine, Hemerocallis, Horticulture, Inhibitors, Injections, Methodology, Plant biochemistry, Plant breeding.

**BIBLIOGRAPHY** 

#### 7230-69

### FOLIAR PENETRATION OF PLANT GROWTH SUBSTANCES WITH SPECIAL REFERENCE TO BINDING BY CUTICULAR SURFACES OF PEAR LEAVES.

N J Bukovac Norris

Agrochimica 12(2/3,FEB-APR):217-230 REF 1968 385 AG84

Foliar application, Naphthaleneacetic acid, Pears, Plant biochemistry, Plant regulators. French, Gcrman, Spanish, Italian summaries.

#### 7231-69

# INFLUENCE OF RETARDANTS ON THE GROWTH AND FLOWERING OF PLANTS.

M Kh Chailakhyan V G Kochankov Fiziol Rast 14(5, SEP-OCT):652-660 REF

Oct 1967 450 F58

Chloroethyl)trimethylammonium chloride, (2-, Grain, Phosfon, Plant physiology, Plant regulators, Plant reproduction, Shrubs.

### 7232-69

### **GROWTH CHARACTERISTICS AND HERBI-**CIDE SUSCEPTIBILITY OF TEXAS PANICUM.

J M Chandler P W Santelmann Weed Sci 17(1):91-93

Jan 1969 79.8 W41

Annual plants, Chlorinated hydrocarbons, Hcrbicides, Panicum, Plant physiology, Seed germina-tion, Seed treatment, Susceptibility, Temperature.

#### 7233-69

#### AUXIN AND WALL EXTENSIBILITY: REVER-SIBILITY OF AUXIN-INDUCED LOOSENING PROCESS. WALL-

R Cleland

Science 160(3824):192-194 REF

12 Apr 1968 470 SCI2

Avena, Cell wall, Enzymes, Plant biochemistry, Plant growth inhibitors, Plant regulators, Plant respiration.

#### 7234-69

#### EFFECT OF DDT, DIELDRIN, HEPTACHLOR ON THE GROWTH OF SELECTED BACTERIA. J A Collins B E Langlois

Appl Microbiol 16(5):799-800

May 1968 448.3 AP5

Biochemistry, Dicldrin, DDT, Escherichia coli, Hcptachlor, Pesticides, Plant physiology, Pseu-domonas fluorescens, Soil bacteria, Staphylococcus aureus.

### 7235-69

# EFFECT OF DDT, DIELDRIN AND HEP-TACHLOR ON THE GROWTH OF SELECTED BACTERIA. (ABSTRACT).

J A Collins B E Langlois

J Dairy Sci 51(4):619

Apr 1968 44.8 J822

Bacteria, Dieldrin, DDT, Escherichia coli, Heptachlor, Plant physiology, Pseudomonas fluorescens, Skim milk. Abstract of paper presented at the American Dairy Science Association Southern Division annual meeting, Louisville, Feb. 5-7, 1968.

#### 7236-69

#### INFLUENCE OF ATRAZINE AND VARIED CARBON AND NITROGEN AMENDMENTS ON **GROWTH OF SCLEROTIUM ROLFSII AND** TRICHODERMA VIRIDE IN SOIL.

E A Curl R Rodriguez-Kabana H H Funderburk Phytopathology 58(3):323-328 REF Mar 1968 464.8 P56

Atrazine, Carbon, Fungí, Glucose, Nitrogen, Plant biochemistry, Plant physiology, Potassium phosphate, Sclerotium rolfsii, Sodium nitrate, Soil Potassium sterilization, Trichoderma viride.

94

### 7237-69

EFFECTS OF INDOLEACETIC ACID ON IN-TRACELLULAR DISTRIBUTION OF BETA-GLUCANASE ACTIVITIES IN THE PEA EPICOTYL.

E Davies G A MacLachlan

Arch Biochem Biophys 128(3):595-600 REF Dec 1968 381 AR2 (1)

Actinomycin d, Cells, Cellulase, Indoleacetic acid, Pcas, Plant biochemistry, Plant hormones, Plant physiology, Plant translocation.

#### 7238-69

JUICE QUALITY OF GRAPEFRUIT FOLLOW-ING JUNE VERSUS SEPTEMBER APPLICA-TIONS OF A 412 PARAFFINIC PETROLEUM **OIL WITH DATA ON CONTROL OF CERTAIN** PESTS.

H A Dean C E Hoelscher

Rio Grande Val Hort Soc J 22:26-34 REF 1968 81 L.95

Chemical control (pests), Chlorinated hydrocarbons, Citrus, Coccus hesperidum, Dicofol, Eutetranychus banksi, Food analysis, Grapefruit, Grapefruit juice, Malathion, Organophosphorus compounds, Paraffin oils, Parlatoria pergandii, Pesticide application, Pesticides, Quality control.

#### 7239-69

EFFECT OF THE MOISTURE CONTENT AND POST-IRRADIATION TEMPERATURE ON THE RADIOSENSITIVITY OF WHEAT AND BAR-LEY SEEDS. (SE)

M Denic

Zvornik 15(436):25P REF

1967 106 B41Z

Barley, Moisture content (seeds), Plant genetics, Radiation, Seeds, Temperature, Wheat.

### 7240-69

INFLUENCE OF SOIL AND SITE ON RED PINE (PINUS RESINOSA AIT.) PLANTATIONS IN NEW YORK. II. SOIL TYPE AND PHYSICAL PROPERTIES.

J A DeMcnt E L Stone

Jul 1968 100 N48C (1)

Science 164(3879):564-565

02 May 1969 470 SCI2

3(4,JUL/AUG):394-400

L B Fenn F T Bingham J J Oertli

R B Ferguson J D Westover

01 Apr 1969 156.65 OF2

Calif Avocado Soc Yearbook 52:113-116

Us Patent Office Offic Gaz 861(1):220

Tree planting.

7241-69

**R E Drury** 

7242-69

(RUS)

1967 385 P93

glish summary.

1968 81 C128

tion, Toxicology.

7243-69

7244-69

3,436,311.

TY.

Plant regulators.

N C (Cornell) Agr Exp Sta Bull (1020):25P MAP REF

Climate, Pinus resinosa, Site index, Soil science,

Gibbercllins, Plant biochemistry, Plant hormones,

EFFECT OF THE COMPOSITION OF THE NUTRIENT MEDIUM ON THE AMYLASE LO-CALIZATION IN ASPERGILLUS ORYZAE.

Amylases, Aspergillus oryzae, Biosynthesis, Mycclium, Plant biochemistry, Plant nutrition. En-

**ON THE MECHANISM OF CHLORIDE TOXICI-**

Avocados, Chlorides, Micronutrients, Plant nutri-

FUNGAL POLYSACCHARIDE COMPOSITION

AND METHOD FOR MAKING SAME. PATENT

R V Fenixova A S Tikhomirova A K Kulikova

Priklad Biokhim Mikrobiol Akad Nauk SSSR

INTERACTION OF PLANT HORMONES.

Absorption, Fungi, Hyphac, Methodology, Plant biochemistry, Polysaccharides, Water.

7245-69

CYTOCHEMICAL EFFECTS OF IN-DOLEACETIC ACID AND KINETIN ON MEGAGAMETOPHYTIC DEVELOPMENT IN LILIUM. F F Flint

Phytomorphology 17(1-4,MAR-DEC):462-468 RĖF

1967 450 P566

Cytology, Gametogenesis, Indoleacetic acid, Kinetin, Lilium candidum, Plant biochemistry, Plant growth inhibitors, Plant regulators.

### 7246-69

METABOLISM THE OF 3.4-DICHLOROPROPIONANILIDE IN PLANTS. PARTIAL PURIFICATION AND PROPERTIES OF AN ARYL ACYLAMIDASE FROM RICE. D S Frear G G Still

Phytochemistry 7(6):913-920

Jun 1968 450 P5622

Carbamates, Enzymes, Insecticides, Pl biochemistry, Plant metabolism, Propanil, Rice. Plant

#### 7747-69

**ACCUSTOMING OF FUNGI-ANTAGONISTS TO** COTTON RHIZOSPHERE AND THEIR EF-FECTS ON COTTON PRODUCTIVITY AND **DISEASE WITH VERTICILLIUM WILT. (RUS )** 

M A Gazikhodzhacva Z E Bekkcr Uz Biol Zhur (3):24-28

1968 442.8 UZ1

Cotton, Crop yields, Fungicides, Rhizosphere, Verticillium wilt. E nglish summary.

#### 7248-69

INFLUENCE OF HERBICIDES FROM S-TRIAZINE GROUP ON DYNAMICS OF SOME BIOCHEMICAL PROCESSES OF OATS IN TEST EXPERIMENTS. PART II. RESEARCHES ON ACTION OF PROPAZINE, PROMETRINE, AND PROMETONE. (POL )

J Glabiszcwski M Ploszynski G Szumilak H Zurawski

Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 28:45-61 REF

1967 64.9 IN7

Biochemistry, Greenhouse culture, Herbicides, Oats, Plant physiology, Prometone, Prometryne, Propazin, Research, S-triazine. English and Russian summarics.

#### 7249-69

# TOBACCO STALK AND ROOT DESTRUCTION WITH HERBICIDES AND THEIR EFFECT ON TOBACCO MOSAIC VIRUS.

G V Gooding G B Lucas Plant Dis Rep 53(3):174-178 Mar 1969 1.9 P69P

Herbicides, Mosaic, Plant diseases, Plant injuries, Plant physiology, Roots, Tobacco, Tobacco mosaic virus, Virus diseases (plants).

### 7250-69

CHANGES IN RATION OF SUGARS AND AMINO ACIDS IN COTTON-PLANT AND MAIZE UPON GAMMA-IRRADIATION OF SEEDS PRIOR TO SOWING. (RUS) A P Ibragimov K G Marphina

Biokhimiya 33(3,MAY-JUN):445-450 1968 385 B523

Amino acids, Corn, Cotton, Gamma rays, Irradiation, Plant biochemistry, Seed planting, Sugar. English summary.

#### 7251-69

# **GIBBERELLIN AND GROWTH IN STONE FRUITS: INDUCTION OF PARTHENOCARPY** IN PLUM.

D I Jackson

Australian J Biol Sci 21(6):1103-1106 REF Dcc 1968 442.8 AU72

Fruit, Gibberellic acid, Plant hormones, Plant morphology, Plant physiology, Plums, Sccds.

7252-69

CHEMOSTERILIZATION OF THE TWO-SPOTTED SPIDER MITE. III. EFFECT ON HOST PLANT. M Jalil P E Morrison J Econ Entomol 62(2):506-507

15 Apr 1969 421 J822

Apholate, Biological control (insects), Chemical control (insects), Chemosterilants, Fluoroorotic acid, 5-, Fluorouracil, 5-, Phytotoxicity, Scarlet runner bcans, Tepa, Tetranychus urticae.

### 7253-69

OCCURRENCE OF ACCESSORY CHROMOSOMES IN PANICUM MAXIMUM JACO ..

- P P Jauhar
- Cur Sci 36(9):244-245
- 05 May 1967 475 SCI23

Chromosomes, Evolution, Panicum maximum, Plant genetics.

### 7254-69

CONVERSION OF DDT TO DDD BY PATHOGENIC AND SAPROPHYTIC BAC-TERIA ASSOCIATED WITH PLANTS.

B T Johnson R N Goodman R N Goldberg

157(3788):560-561 REF

04 Aug 1967 470 SCI2

Bacteria, Chromatography, Degradation, Dichloro-2,2-bis(p-chlorophcnyl) ethylenc, 1,1-, DDT, Metabolites, Oxygen, Saprophytes, Tde.

#### 7255-69

**ARGININE METABOLISM IN GERMINATING** SEEDS OF SOME MEMBERS OF THE LEGU-MINOSAE. V M Jones D Boulter

New Phyto Logist 67(4):925-934 REF Oct 1968 450 N42

Arginase, Argininc, Broadbeans, Jackbeans, Kidney beans, Leguminosae, Ornithinc, Pisum sativum, Plant mctabolism, Seed germination.

#### 7256-69

**RECOVERY FROM GAMMA RADIATION IN-**JURY IN BARLEY SEEDS.

R K Joshi B K Gaur N K Notani

Radiat Bot 9(2):141-145

Mar 1969 450 R11

Barley, Gamma rays, Humidity, Plant injuries, Radiation, Storage. French and German summaries

#### 7257-69

#### **ENZYME STUDIES IN NEMATODE INFECTED ROOT-KNOTS OF THE TOMATO PLANT.** S Kannan

Cur Sci 36(21):585-586

05 Nov 1967 475 SCI23

Enzymcs, Mcloidogyne incognita acrita, Plant mctabolism, Plant nematodes, Root knot, Tomatoes

#### 7258-69

#### THE EFFECT OF SOME TREATMENT CONDI-TIONS ON THE RADIOMIMETIC ACTIVITY

1-METHYL-3-NITRO-1-NITROSOGUANIDINE IN PLANTS.

**B** L Kaul

Mutation Res 7(1, JAN-FEB):43-49 REF 1969 443.8 M98

Chromosomes, Deoxyribonucleic acid, Hydrogen-Methyl-3-nitro-1concentration. ion nitrosoguanidine, 1-, Plant biochemistry, Plant genetics, Tcmperature.

#### 7259-69

AZO FORMATION OF SYMMETRICAL DERIVATIVES OF MONOCHLOROTOLUIDINES BY PEROX-

95

#### **IDATIC CATALYSIS.** C O Knowles A K Sen Gupta T K Hassan

J Econ Entomol 62(2):411-414

15 Apr 1969 421 J822

#### 7266-69

Azo compounds, Catalase, Horseradish, Peroxidases. Toluidine compounds.

The monochlorotoluidincs tested were: 3-chloro-4-chloro-o-toluidine, otoluidine, 5-chloro-otoluidine. 6-chloro-o-toluidinc, 2-chloro-ptoluidine, 3-chloro-ptoluidine, and o-toluidine.

### 7260-69

EFFECT OF THE TRIAZINE HERBICIDES SIMAZINE AND ATRAZINE UPON YOUNG PLUM TREES. (BU) M Krasteva

Horticult Viticult Sci 5(3):47-52 REF

1968 87 G75

Atrazine, Herbicidcs, Morphology, Oxygen, Plant physiology, Plums, Simazine, Trees, Triazine hcrbi-cides. English and Russian summaries.

#### 7261-69

THE INFLUENCE OF INDOLE-3-ACETIC ACID AND VITAMIN B1 ON THE GROWTH AND YIELDS OF SUNFLOWER PLANTS. T G Kudrev

Bulg Akad Nauk Dokl 21(3):273-275 1968 512 SO2

Crop yields, Indoleacetic acid, Plant regulators, Sunflowers, Thiamine.

#### 7262-69

7263-69

LANT.

mination.

7264-69

Alfalfa.

2.4-d.

algae.

7266-69

K Majcwski

Pulawski 28:99-108

1967 64.9 IN7

7265-69

TRANSLOCATION OF LABELED ASSIMI-LATES INTO AND OUT OF BEAN LEAVES AS AFFECTED BY 2,4-D AND BENZYL ADENINE. O A Leonard T W Donaldson D E Bayer

Bot Gaz 129(4):266-279 REF

Dec 1968 450 B652

D S Lingaraj K M Srinivasan

Cur Sci 36(8):215-216

20 Apr 1967 475 SCI23

THIS HERBICIDE.

Sep 1968 381 J8223

Bcans, Benzyladenine, D, 2,4-, Leaves, Phenoxy acid compounds, Plant physiology, Plant translocation.

A NOTE ON CYCOCEL (2-CHLOROETHYL TRIMETHYL AMMONIUM CHLORIDE), A

NEWLY RELEASED PLANT GROWTH REGU-

Cycocel, Kidncy beans, Plant physiology, Secd gcr-

**CONVERSION OF 4-(2,4-DICHLOROPHENOX-**Y) BUTYRIC ACID TO HOMOLOGS BY AL-FALFA; MECHANISM OF RESISTANCE TO

Dichlorophenoxy) butyric acid, 4-(2,4-, Herbicide

resistant plants, Herbicides, Immunity, Insecticide

application, Metabolites, Plant hardiness, Spraying,

EFFECTS OF SELECTED HERBICIDES UPON

Atrazine, Chemical control (weeds), Chla-mydomonas rcinhardi, Chlorella, Diphenamid,

Hcrbicides, Metobromuron, Plant physiology, Soil

INFLUENCE OF MAGNESIUM AND ZINC FER-TILIZING ON THE YIELD, QUALITY AS WELL AS HEALTH OF HOPS. (POL )

Crop yields, Environment, Fertilizers, Hops, Mag-

ncsium, Plant physiology, Sulfates, Tortricidae, Zinc. English and Russian summaries.

Inst Uprawy Nawozenia Gleboznawstwa Pam

Chromatography,

D L Linscott R D Hagin J E Dawson

J Agr Food Chem 16(5):844-848 REF

Biochemistry,

**GROWTH OF SOIL ALGAE.** 

Weed Sci 17(1):110-113 REF

C Loeppky B G Tweedy

Jan 1969 79.8 W41

### PLANT PHYSIOLOGY & BIOCHEMISTRY

### 7267-69

7267-69 EFFECTS OF FUNGICIDE DRENCHES ON ESTABLISHED POINSETTIA PLANTS. W J Manning F J Campbell M Glickman Plant Dis Rep 53(3):225-227

Mar 1969 1.9 P69P

Euphorbia pulcherrima, Fungicides, Fungus discases (plants), Pythium, Rhizoctonia solani, Roots, Soils, Thiclaviopsis basicola.

#### 7268-69

**RETARDATION OF THE ELABORATION OF** AFLATOXIN IN COTTONSEED BY PERMEABILITY OF THE SEEDCOATS. IM-R Y Mayne G A Harper A O Franz L S Lee L A

Goldblatt Crop Sci 9(2, MAR-APR): 147-150 REF

1969 64.8 C883

Aflatoxin, Aspergillus flavus, Cottonseed, Culture media, Fungi, Permeability, Plant physiology, Seed coats.

#### 7269-69

#### THE EFFECT OF THE DOSE AND METHOD **OF USING HERBICIDE A-1802 AND CULTIVA-**TION MEASURES ON WEEDINESS AND YIELD OF CORN. (SE)

M Milic D Bozic

Beograd Univ Zb Rad Poljopr Fak 15(452):12P REF

1967 106 B41Z

Amctrync, Atrazinc, Chemical control (wceds), Climate, Corn, Crop yields, Cultural control (weeds), Dosage, Formulations, Herbicides. English summary.

#### 7270-69

### **REACTION OF SELECTED SORGHUM VARIE-**TIES AND LINES TO DOWNY MILDEW.

F R Miller R A Frederiksen S T A Khan D T Roscnow

Tex Agr Exp Sta Mp- (890):8P

Aug 1968 100 T31M

Biological control (plant diseases), Breeding, Crop varictics, Downy mildew, Fungus diseascs (plants), Plant diseasc resistance, Plant physiology, Sclerospora sorghi, Sorghum.

#### 7271-69

#### THE EFFECT OF HERBICIDES AND CULTIVA-TION MEASURES ON THE YIELD OF CORN. (SE)

B Milojic M Misovic

Beograd Univ Zb Rad Poljopr Fak 15(458):11P 1967 106 B41Z

Atrazinc, Buturon, Chemical control (weeds), Corn, Crop yields, Cultural control (weeds), Herbi-cides, Simazine, Tables (data). English summary

#### 7272-69

# THE EFFECT OF THE APPLICATION OF HER-BICIDES IN THE CONTROL OF WEEDS IN CORN FIELDS. (SE )

B Milojic M Misovic Beograd Univ Zb Rad Poljopr Fak 15(440):12P 1967 106 B41Z

Afalon, Buturon, Chemical control (weeds), Chenopodium album, Corn, Dosage, Herbicides,

Pesticide application, Simazine, Testing. English summary.

#### 7273-69

#### FORMATION OF ADVENTITIOUS ROOTS IN TOMATO SEEDLINGS BY CCC TREATMENT. D Mishra G C Pradhan

Cur Sci 37(9):263-264

05 May 1968 475 SC123

Chlorocthyl)trimethylammonium chloridc, (2-Plant physiology, Roots, Secdlings, Tomatoes.

#### 7274-69

#### INTERACTION OF CCC AND COUMARIN OR IAA ON SEEDLING GROWTH OF RICE. D Mishra S C Paul Cur Sci 36(20):550-551 REF

20 Oct 1967 475 SCI23

### BIBLIOGRAPHY

Chlorocthyl)trimethylammonium chloridc, (2-, Coumarin, Indolcacctic acid, Plant growth inhibitors, Plant physiology, Ricc.

### 7275-69

# **TRANSLOCATION O F THE GROWTH RETAR-**DANT N,N'DIMETHYLAMINOSUCCINAMIC ACID-14C (B-995-14C)9.

T C Moore

Bot Gaz 129(4):280-285

Dcc 1968 450 B652

Dimcthylaminosuccinamic acid, N-, Plant mctabolism, Plant regulators, Plant translocation. Ten plant species are discussed.

#### 7276-69

### **MICROBIAL DEGRADATION OF FIVE SUB-**STITUTED UREA HERBICIDES.

D S Murray W L Rieck J Q Lynd Weed Sci 17(1):52-55

Jan 1969 79.8 W41

Aspergillus, Degradation, Dimcthyl-3-(alpha,alpha,alpha-trifluoro-m-tolyl)urea, 1,1-, Diuron, Fenuron, Herbicides, Monuron, Norea, Oats, Phytotoxicity, Urea.

### 7277-69

#### **EFFECT OF LIGHT AND GIBBERELLIC ACID ON THE GROWTH OF PEA INTERNODES.** M Neskovic

Fiziol Rast 14(6, NOV-DEC):844-847 REF Dcc 1967 450 F58

Gibberellic acid, Light, Peas, Plant physiology, Plant regulators. Russian journal- vol. 14(6):1006-1010, Nov.-dcc. 1967

#### 7278-69

### **ENHANCEMENT BY 2,4-DICHLOROPHENOX-**YACETIC ACID OF CHROMATIN RNA POLYMERASE IN SOYBEAN HYPOCOTYL TISSUE.

T J O'Bricn B C Jarvis J H Cherry J B Hanson Biochim Biophys Acta 169(1):35-43 REF

20 Nov 1968 381 B522

Chromatin, D, 2,4-, Nucleosides, Plant biochemistry, Polymers, Ribonuclcic acid, Soybeans, Synthesis. Tissues.

#### 7279-69

#### THE EFFECT OF MICROELEMENTS ON THE **RATE AND PERCENTAGE OF GERMINATION** WITH LUCERNE AND SOYBEAN. (SE) S Ocokoljic A Mitrovic

Agrohemija (3/4):91-98 1968 385 AG87

Alfalfa, Micronutrients, Plant physiology, Seed gcrmination, Soybeans. English summary.

7280-69

### **EFFECTS OF DIMETHYL SULFOXIDE ON THE** BIOLOGICAL ACTIVITY OF SELECTED MITI-CIDES AND INSECTICIDES. L D Olinger S H Kerr

J Econ Entomol 62(2):403-407

15 Apr 1969 421 J822

Absorption, Acaricides, Biological assay, Cotton, Dimcthylsulfoxide, Dosage, Epilachna varivestis, Insect mortality, Insecticides, Nutrient solutions (plants), Plant translocation, Squash, Tetranychus tumidus.

Carbophenothion, DDT, dicofol, dieldrin, cndosulfan, cthion and malathion were used with in combination with DSMO.

#### 7281-69

# FLAVONE COMPOSITION, FLOWERING, AND HYPERSENSITIVITY TO VIRUS IN VEGETA-BLES. (FR)

M Paynot C Martin

Acad Sci Compt Rend Ser D Sci Nat 266(7, 1ST SEMESTER):680-682

12 Fcb 1968 505 P21

Flavones, Flowcring, Mosaic, Nicotiana, Plant biochemistry, Temperature, Virus diseases (plants).

96

7282-69

THE EFFECT OF TRACE ELEMENTS ON THE YIELD AND QUALITY OF CAMOMILE FLOWERS AND PEPPERMINT LEAVES. (RU) R Pcskova

Latv P Sr Zinat Akad Vestis (7):111-119 REF 1968 511 R442

Azulcnc, Camomile, Choline, Crop yields, Fertilizers, Micronutrients, Plant biochemistry, Plant nutrition. English summary.

#### 7283-69

#### EFFECT OF BORDEAUX MIXTURE SPRAY ON FRUIT SET IN COFFEE (COFFEA ARABICA L.).

B S Put taswamy Gowda J C Joshi Mysore J Agr Sci 2(3):247-249

1968 S19.M9

Bordeaux mixture, Coffee, Fruit setting, Fungicides, Plant physiology, Spraying.

#### 7284-69

TRANSLOCATION AND METABOLISM OF C14-LABELED TETRAMINE BY DOUGLAS-FIR, ORCHARD GRASS, AND BLACKBERRY. M A Radwan

Forest Sci 13(3):265-273

Sep 1967 99.8 F7632

Dactylis, Plant biochemistry, Plant mctabolism, Plant translocation, Pseudotsuga menziesii, Radioactive tracers, Rubus.

### 7285-69

STUDIES ON THE LIGHT SENSITIVITY OF PLANTAGO MAJOR L. SEEDS. I. THE EFFECT OF GIBBERELLIN, KINETIN AND POTASSIUM NITRATE. M R Rczk

Acta Biol (N s)13(3/4):31-37 REF 1967 442.8 AC86

CHRYSANTHEMUM MORIFOLIUM.

M N Rogers D E Hartley B O S Tjia

Florist Rev 143(3716):19-21,87-90

13 Fcb 1969 80 W41

PLANT TEST. (POL)

M Ruszkowska

1968 64.9 IN7

M Ruszkowska

1968 64.9 IN7

Micronutrients,

7289-69

YACETIC

**J A Sargent** 

LEAVES.

7288-69

Gibbercllins, Kinctin, Light, Plant growth inhibi-tors, Plant physiology, Plant regulators, Plantago major, Potassium nitrate, Sced germination.

Air pollution, Chromatography, Chrysanthemum morifolium, Control equipment, Ethylene, Green-house culture, Photoperiodism, Plant physiology, Symptomatology, Temperature.

STUDIES ON THE MOLYBDENUM AVAILA-BILITY.PART III. AN ATTEMPT TO ESTI-MATE THE AVAILABLE MOLYBDENUM CON-

TENT IN SOILS IN CONNECTION WITH THE

Deficiency discases, Fertilizers, Molybdenum,

STUDIES ON THE MOLYBDENUM AVAILA-BILITY. PART I. MOLYBDENUM UPTAKE BY

PLANTS UNDER DIFFERENT NITROGEN AND

Molybdenum,

AND BENZOIC ACIDS INTO

Phosphorus, Plant biochemistry, Plant nutrition. English and Russian summaries.

PENETRATION OF CHLORINATED PHENOX-

Agrochimica 12(2/3,FEB-APR):166-172

Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 33:53-76 REF

Plant nutrition. English and Russian summary.

Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 33:5-29 REF

**PHOSPHORUS NUTRITION. (POL )** 

RESPONSE

NORMAL

Nitrogen,

IN

# 7286-69 PHOTOPERIODIC DECE

7287-69

7312-69

### 1968 385 AG84

Benzoic acid, Kidney beans, Phenoxy acid com-pounds, Plant biochemistry, Plant translocation, Radioactive substances, T, 2,4,5-, Trichlorophenoxyacetic acid, 2,4,6-. French, Ger-man, Spanish, Italian summaries.

#### 7290-69

EFFECTS OF HERBICIDES ON RESPIRATION OF RED PINE SEED LINGS. II. MONURON, DIURON, DCPA, DALAPON, CDEC, CDAA, EPTC, AND NPA.

S Sasaki T T Kozlowski

Bot Gaz 129(4):286-293 REF

Dcc 1968 450 B652

Herbicides, Pinus resinosa, Plant physiology, Plant respiration, Seedlings. The following herbicides are discussed: Monuron, diuron, DCPA, dalapon, CDEC, CDAA, EPTC, and NPA.

#### 7291-69

THE DIFFERENTIAL INTERACTION OF AFLATOXINS B1,G1 AND G2 WITH DEOX-YRIBONUCLEIC ACIDS FROM DIFFERENT SOURCES.

J C Schabort

S Afr Chem Inst J 22(1):80-87 REF

Jan 1969 385 SO84

Aspergillus flavus, Deoxyribonucleic acid, Metabolites, Plant biochemistry, Spectroscopy. Afrikaans summary.

#### 7292-69

EFFECT OF TRIFLURALIN ON GROWTH, MORPHOLOGY, AND NUCLEIC ACID SYNTHESIS.

D P Schultz H H Funderburk N S Ncgi Plant Physiol 43(2):265-273

Fcb 1968 450 P692

Corn, Nucleic acids, Plant growth inhibitors, Plant histology, Plant morphology, Synthesis, Trifluralin.

#### 7293-69

SOME FACTORS AFFECTING GERMINATION AND SEEDLING GROWTH OF SCOTCH THIS-TLE (ONOPORDUM ACANTHIUM L.). C J Scifrcs M K McCarty

Nebr Agr Exp Sta Bull (228):29P REF

Fcb 1969 100 N27 (1)

Onopordum acanthium, Plant ecology, Plant Weed control.

#### 7294-69

INFLUENCE OF SIMAZINE ON CHLOROPLAST METABOLISM. R P Singh S H Wcst Cur Sci 36(19):510-511 05 Oct 1967 475 SC123 Chlorophylls, Chloroplasts, Hcrbicides, Oats, Plant

# metabolism, Proteins, Simazine.

#### 7295-69

INCREASES IN THE LEVELS OF CYTOKININS IN BLEEDING SAP OF VITIS VINIFERA L. AFTER CCC TREATMENT. K G M Skcnc

Science 159(3822):1477-1478 29 Mar 1968 470 SC12

Chlorocthyl)trimcthylammonium chloridc, (2-, Chromatography, Cytokinins, Grapes, Plant physiology, Sap.

#### 7296-69

# SULFUR RESPONSE OF ALFALFA IN WESTERN MONTANA.

C M Smith L E Stoltcnberg D R Graham Pacific Northwest Fert Conf Proc 19:76-83 16 Jul 1968 57.9 P11

Alfalfa, Fertilizers, Plant analysis, Plant nutrition, Plant regulators, Sulfur.

### 7297-69

THE DISTRIBUTION OF TRACE ELEMENTS IN THE LEAVES OF THE COCONUT PALM, AND THE EFFECT OF TRACE ELEMENT IN-JECTIONS. P J Southern K Dick

Oliagineux 23(819, AUG-SEP):521-527

#### 1968 77.8 OL2

Borax, Coconuts, Injections, Iron sulfates, Leaves, Micronutrients, Plant nutritional deficiencies, Plant physiology, Sulfates, Tables (data), Zine sulphate.

#### 7298-69

# EFFECTS OF SIMULATED RADIOACTIVE FALLOUT DECAY ON GROWTH AND YIELD OF CABBAGE, MAIZE, PEAS AND RADISH.

A H Sparrow L Pugliclli Radiat Bot 9(2):77-92 REF

Mar 1969 450 R11

Cabbage, Ccsium isotopes, Corn, Crop yields, Decay, Peas, Plant biochemistry, Plant physiology, Radioactive contamination, Radishes. French and German summaries.

#### 7299-69

# PROPAGATION OF GRAPE (VITIS VINIFERA L.) BY AIR LAYERING WITH THE AID OF PLANT REGULATORS.

A C Srivastava S N Singh

Madras Agr J 55(11):499-502

Nov 1968 22 M262

Grapcs, Plant layering, Plant physiology, Plant regulators, Reproduction.

#### 7300-69

INVESTIGATION OF THE EFFECT OF GROWTH INHIBITORS ON SHOOT GROWTH OF POZEGACA PLUM CULTIVAR. (SE ) D Stankovic S Savic S Milovanovic

Beograd Univ Zb Rad Poljopr Fak 15(444):7P REF

### 1967 106 B41Z

Chloroethyl)trimethylammonium chloride, (2-. Crop varicties, Glucose, Plant growth inhibitors, Plums. English summary.

#### 7301-69

# ASSIMILATION OF THE HERBICIDE PHENAZONE AND ITS DETOXICATION WITHIN PLANTS. (RUS)

O Straume O Romanovskaya V Egert

Latv P Sr Zinat Akad Vestis (1):62-68 REF

1968 511 R442

Dctoxification, Herbicides, Plant physiology, Pyrazon. English summary.

#### 7302-69

CYTOGENIC ACTIVITY OF THE HERBI-CIDES-SIMAZINE AND MALEIC ACID HYDRAZIDE. (RUS)

V S Strocv

Genetika 4(12):130-134

1968 QH431.A1G4

Barley, Cytogenetics, Herbicides, Maleic hydra-zide, Plant genetics, Plant physiology, Simazine. English summary.

### 7303-69

## THE MUTAGENIC EFFECT BY THE ACTION OF HERBICIDES ON BARLEY. (RUS ) V S Stroev

Genetika 4(11):164-167 REF

1968 OH431.A1G4

Barley, Herbicides, Mutagens, Plant genetics, Plant regulators, Seed germination. English summary.

The herbicides tested were: Simazine, atrazine, HMA and chloro-IPA.

#### 7304-69

### EFFECT OF ACAR ON BLOOM DATE OF **RICHARED APPLES.**

D T Sullivan F B Widmoyer Fruit Varieties Horticult Dig 22(4):70-71 Oct 1968 80 F9464

Apples, Crop varieties, Dimethyl amino succinamic acid, N-, Plant biochemistry, Plant physiology, Plant regulators.

#### 7305-69

INFLUENCE OF SIMAZINE ON APPARENT PHOTOSYNTHESIS OF AQUATIC PLANTS AND HERBICIDE RESIDUE REMOVAL FROM WATER.

D L Sutton D A Durham S W Bingham C L Foy Weed Sci 17(1):56-59 REF

97

### Jan 1969 79.8 W41

Absorption, Aquatic weeds, Chemical control (weeds), Elodea canadensis, Herbicide residues, Lemna minor, Photosynthesis, Simazine, Water pollution.

#### 7306-69

THE INFLUENCE OF INCREASING DOSES OF SIMAZINE UPON THE RATE OF ROOT AND GREEN PARTS GROWTH OF WINTER WHEAT. (POL)

B Swietochowski J Glabiszewski

Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 28(3):19-29

1967 64 9 IN7

Atrazine, Corn, Dosage, Herbicides, Plant physiology, Roots, Simazine, Triazine herbicides, Wheat. English and Russian summaries.

#### 7307-69

THE INFLUENCE OF INCREASING DOSES OF SIMAZINE UPON THE RATE OF ROOT AND GREEN PARTS GROWTH OF SOME WEEDS OCCURING IN THE WINTER WHEAT STAND. (POL)

B Swietochowski J Glabiszewski

Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 28:31-43

1967 64.9 IN7

7308-69

**J R Syme** 

7309-69

J R Thomas

1968 81 L95

Storage diseascs.

M Varga M Bito

1967 442.8 AC86

7310-69

tors.

7311-69

7312-69

N Vertregt

Oct 1968 23 AU792

Chemical control (weeds), Dosage, Herbicides, Plant physiology, Roots, Simazine, Weeds, Wheat. English and Russian summaries.

LODGING IN WHEAT AND ITS CONTROL BY (2-CHLOROETHYL) TRIMETHYLAMMONIUM CHLORIDE (CCC) IN SOLID FORM.

Australian J Exp Agr Anim Husb 8(34):574-577

Chloroethyl)trimethylammonium chloride, (2-,

Environment, Lodging, Nitrogen, Plant abnormali-ties, Plant regulators, Wheat.

NITROGEN INCREASES BELL PEPPER

SUSCEPTIBILITY TO BACTERIAL SOFT ROT.

Bacterial diseases (plants), Bacterial soft rot, Crop yields, Fertilization (plants), Hot water treatment (plants), Nitrogen, Redpeppers (vegetable),

ON THE MECHANISM OF GIBBERELLIN-

AUXIN INTERACTION. IV. EFFECT OF GIB-

BERELLIN TREATMENT ON THE OXIDATIVE

DESTRUCTION OF INDOLEACETIC ACID IN BEAN HYPOCOTYL TISSUES.

Beans, Gibberellins, Indoleacetic acid, Plant growth inhibitors, Plant hormones, Plant rcgula-

THE PREPARATION OF L- AND D-ALPHA-AMINO-BETA-METHYLAMINOPROPIONIC ACIDS AND THE IDENTIFICATION OF THE COMPOUND ISOLATED FROM CYCAS CIR-

Amino acids, Cycas circinalis, Isomers, Plant

**RELATION BETWEEN BLACK SPOT AND** 

Black spot, Crop varieties, Phenolases, Plant biochemistry, Plant discases, Plant injuries, Plant

biochemistry, Propionic acid, Seeds, Synthesis.

**COMPOSITION OF THE POTATO TUBER.** 

Rio Grande Val Hort Soc J 22:58-63

Acta Biol (N s)13(3/4):107-112 REF

CINALIS AS THE L-ISOMER.

Phytochemistry 7(10):1885-1887

A Vega E A Bell P B Nunn

Europe Potato J 11(1):34-44

Oct 1968 450 P5622

Mar 1968 75.8 EU7

### 7313-69

physiology, Potassium, Potatoes, Tyrosine. German and French summaries.

### 7313-69

EFFECTS OF 2-CHLOROETHYL-TRIMETHYLAMMONIUM CHLORIDE (CCC) ON YIELD AND LODGING OF WHEAT. N M De Vos K Dilz J Bruinsma

Neth J Agr Sci 15(1):50-62 REF

Fcb 1967 12 N3892

Crop yields, CCc, Lodging (wheat), Nitrogen, Plant growth inhibitors, Wheat. English abstract

### 7314-69

#### **RESPONSE OF FLAX TO POSTEMERGENCE HERBICIDES.**

J D Walewaja R E Bothun Crop Sci 9(2,MAR-APR):160-162 1969 64.8 C883

Bromoxynil, Chemical control (weeds), Chlorinated hydrocarbons, Dalapon, Dicamba, Flax, Herbicides, Methyl-4-chlorophenoxyacetic acid, 2-, Phenoxy acid compounds, Picloram, Plant physiology.

### 7315-69

THE EFFECT OF POTASSIUM ON THE METABOLISM OF SUGAR BEET PLANTS IN-FECTED WITH SUGAR BEET YELLOWS VIRUS. PART II. NET ASSIMILATION RATE AND SUGAR PRODUCTION. (POL)

M Warcholowa

Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 33:121-142 REF

1968 64.9 IN7

Photosynthesis, Plant biochemistry, Plant metabolism, Potassium, Sucrose, Sugar, Sugar bects, Virus diseases (plants), Yellows. English and Russian summarics.

### 7316-69

THE EFFECT OF POTASSIUM ON THE METABOLISM OF SUGAR BEET PLANTS IN-FECTED WITH SUGAR BEET YELLOWS VIRUS. PART I. WATER BALANCE AND THE OPTAKE OF SOME MINERAL NUTRIENTS. (POL)

M Warcholowa

Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 33:91-119 REF

1968 64.9 IN7

Micronutrients, Myzus persicae, Plant metabolism, Plant nutrition, Potassium, Sugar beets, Virus diseases (plants), Yellows. English and Russian summaries.

#### 7317-69

EFFECT OF CCC AND GLYCINE BETAINE ON GROWTH AND GROWTH-SUBSTANCE CON-TENT OF PRIMARY LEAVES OF DWARF FRENCH BEAN (PHASEOLUS VULGARIS L.). A W Wheeler

Ann Appl Biol 63(1):127-133 REF

Feb 1969 442.8 AN72

Betaine, Chloroethyl)trimethylammonium chloride, (2-, Glycine, Kidney beans, Leaves, Plant biochemistry, Plant physiology.

#### 7318-69

INFLUENCE OF INBREEDING CARRIED OUT DURING MANY YEARS ON HEMP GROWTH AND DEVELOPMENT. (POL )

1 Wichert-Kobus

Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 28:85-98

1967 64.9 IN7

Hemp, Heterosis, Plant breeding, Plant physiology, Pollination. English and Russian summaries.

#### 7319-69

### TRIALS OF OBTAINING ARTIFICAL TOBAC-CO POLIPLOIDS. (POL )

I Wichert-Kobus Inst Uprawy Nawozenia Gleboznawstwa Pam Pulawski 28:79-84 1967 64.9 IN7 Colchicine, Gibberellins, Plant breeding, Plant cytology, Plant physiology, Polyploidy, Tobacco. English and Russian summarics.

**BIBLIOGR APHY** 

### 7320-69

TESTING OF FUNGICIDES AS TO THEIR EF-FECTIVENESS AGAINST BOTRYTIS CINEREA WITH THE AID OF A GRAPE JUICE TEST. (GE

#### A F Wilhelm

Weinberg Keller 14(9):421

Sep 1967 95.8 W435

Botrytis cinerca, Fungicides, Fungus diseases (plants), Grapes, Methodology, Testing.

#### 7321-69

### DISTRIBUTION OF LABELLED PLANT GROWTH REGULATORS WITHIN CELLS.

J A Zwar R Brown

Nature 220(5166):500-501

02 Nov 1968 472 N21

Artichokes, Cells, Chromatography, Kinetin, Plant physiology, Plant regulators, Radioactive tracers.

#### 7322-69

# THE INFLUENCE OF CCC ON DISEASE CONTRACTION OF GRAIN. (GE )

B Zwatz Pflanzenarzt 20(6):65-68

01 Jun 1967 464.9 P482

Black rust, Brown rust, Cercosporella herpotrichoides, Chlorocthyl)trimethylammonium chloride, (2-, Fertilizers, Fungus diseases (plants), Grain, Mildew, Plant disease resistance, Septoria, Stem rust, Storage diseases, Wheat.

### CHEMISTRY

#### 7323-69

DDT - TYPE COMPOUNDS: SEPARATION AND IDENTIFICATION BY A SYSTEM COMBINING THIN LAYER CHROMATOGRAPHY, GAS CHROMATOGRAPHY, AND INFRARED SPEC-TROSCOPY.

M B Abou-Donia D B Menzel

Ass Offic Anal Chem J 51(6):1247-1260 REF Nov 1968 381 AS7

Chlorinated hydrocarbons, Chromatography,

DDT, Insecticides, Pesticide residues, Spectroscopy.

#### 7324-69

THIN-LAYER CHROMATOGRAPHIC-ENZY-MATIC IDENTIFICATION OF OR-GANOPHOSPHORUS INSECTICID ES. ACTIUA-TION OF WEAK ESTERASE INHIBITORS. (GE

#### H Ackermann

J Chromatography 36(3):309-317 REF

27 Aug 1968 475 J824 Biochemistry, Chromatography, Dimethoate, Enzymes, Esterases, Insecticides, Organophosphorus compounds, Trichlorf on. English abstract

#### 7325-69

SEPARATION AND QUANTITATIVE ANALY-SIS OF THE ACTIVE INGREDIENT DIMETHOATE AND OF ITS CHANGED COM-PONENTS CONTAINED IN EMULSIONS AND WETTABLE POWDERS. (FR) N C Adam G S Spyropoulos

Inst Phytopathol Benaki Ann 7(4):208-218 1966 464.9 AT4

Chemical analysis, Dimethoate, Dosage, Emulsions, Insecticides, Methodology, Quantitative analysis.

#### 7326-69

ORGANOPHOSPHORUS PESTICIDES. A GAS CHROMATOGRAPHIC SCREENING TECHNIQUE BASED ON THE DETECTION OF METHYLATED HYDROLYSIS PRODUCTS. J Askew J H Ruzicka B B Wheals J Chromatography 41(2):180-187 REF 06 May 1969 475 J824

98

Biochemistry, Chemical analysis, Chromatography, Methodology, Organophosphorus compounds, Pesticide analysis.

### 7327-69

SYNTHESIS OF COMPOUNDS RELATED TO GIBBERELLIC ACID. III. ANALOGS OF RING A OF THE GIBBERLLINS. M D Bachi J W Epstein Y Herzberg-Minzly H J

E Locwenthal

J Org Chem 34(1):126-135 Jan 1969 381 J827

Chemical reactions, Gibberellic acid, Gibberellins, Plant regulators, Synthesis.

#### 7328-69

METHOD FOR CONTROLLING THE GROWTH OF POTATO PLANT ORGANISMS. PATENT 3,443,928.

G S Batchelor

Us Patent Office Offic Gaz 862(2):517

13 May 1969 156.65 OF2

Plant growth inhibitors, Plant physiology, Potatoes.

7329-69

FUNGICIDAL COMPOSIT IONS AND METHODS USING MESOMERIC PHOSPHONI-UM COMPOUNDS. PATENT 3,445,570. G H Birum C N Mathews

O IT BITUILI C IN Mathews

Us Patent Office Offic Gaz 862(3):889 20 May 1969 156.65 OF2

Fungicides, Organophosphorus compounds, Patents.

#### 7330-69

CHEMICAL CONSTITUTION AND ACTIVITY OF BIPYRIDYLIUM HERBICIDES- III PYRAZINO(1.2.3.4-LMN)1,10-PHENANTHROLINIUM DIBROMIDE.

A L Black

Tetrahedron 24(21):6453-6457 REF Nov 1968 382 T29

Bipyridylium compounds, Diquat, Herbicides, Synthesis.

#### 7331-69

7332-69

7333-69

L E Carosino

dcw, Patents.

7334-69

icylanilides.

3,446,801.

CAROTENOID

7335-69

COMPLEX ADDITION PRODUCTS OF PHOSPHORUS PENTAFLUORIDE AND SUB-STITUTED NITRILES. PATENT 3,438,983. M E Brokke G E Lukes J Hazzard D R Arncklev

Us Patent Office Offic Gaz 861(3):916-917 15 Apr 1969 156.65 OF2

Herbicides, Nitriles, Patents, Pentafluoride, Phosphorus compounds.

ALPHA-(4-CHLORO-2-METHYLPHENOXY) PROPIONALIDES. PATENT 3,439,018.

Chloro-2-methylphenoxy)propionanilides, alpha-(4-, Herbicides, Patents.

TRI(C8-C10 ALKYL) M- AND P-NITROBENZYL QUATERNARY AMMONIUM HALIDES. PATENT 3,446,844.

Ammonium compounds, Fungicides, Halides, Mil-

**BROMINATION PROCESS. PATENT 3,450,757.** 

Bactericides, Bromine compounds, Patents, Sal-

COMPOUNDS.

PATENT

R F Brookes D H Godson E L Leafe

15 Apr 1969 156.65 OF2

27 May 1969 156.65 OF2

C A Carroll J J Vaka

17 Jun 1969 156.65 OF2

A J Chechak C D Robeson

27 May 1969 156.65 OF2

Us Patent Office Offic Gaz 861(3):922

Us Patent Office Offic Gaz 862(4):1237

Us Patent Office Offic Gaz 863(3):893

Us Patent Office Offic Gaz 862(4):1231

HALOGENATED

HERBICIDAL, HALOGENATE DERIVATIVE. PATENT 3,431,289.

7362-69

Carotenoids, Food additives, Patents, Poultry.

#### 7336-69

### ZIRCONIUM COMPOUNDS AS ALGAECIDES. PATENT 3,446,656.

C J Conner Us Patent Office Offic Gaz 862(4):1204

27 May 1969 156.65 OF2 Algicides, Cotton, Patents, Textiles, Zirconium compounds.

#### 7337-69

(-)-PIMARADIENE: A NEW PRECURSOR OF THE GIBBERELLINS. **B E Cross J C Stewart** 

Tetrahedron Lett (50):5195-5196

Oct 1968 385 T29

Fermentation, Gibberella fujikuroi, Gibberellins, Pimaradiene, Spectrochemistry, Synthesis.

### 7338-69

**BIOSYNTHESIS OF GIBBERELLIC ACID. A** CORRECTION. **B E Cross J C Stewart** 

Tetrahedron Lett (60):6321-6322

Dec 1968 385 T29

Degradation, Fermentation, Gibberella fujikuroi, Gibberellic acid, Pimaradiene, Synthesis.

#### 7339-69

THE PERMEABILITY OF PROTECTIVE CLOTHING AND PACKING MATERIALS IN REGARD TO INSECTICIDAL PHOSPHORIC ACID DERIVATIVES. (GE )

W Dcdck K Lohs

Chem Tech 20(7):432-433

Jul 1968 384 C4283

Dichlorvos, Dimethoatc, Insecticides, Methyl parathion, Packing materials, Permeability, Phosphoric acid, Protective clothing, Testing. 29 different materials are tested.

### 7340-69

USE OF AN ELECTRON CAPTURE DETECTOR IN GAS CHROMATOGRAPHY. III. AN EXAM-PLE OF ITS APPLICATION. A STUDY OF THE RESPONSE OF SOME CHLORINATED AND PHOSPHORATED PESTICIDES. (FR) P Devaux G Guiochon

Soc Chim France Bull (4):1627-1633 REF

Apr 1968 383 P21B

Chlorinated hydrocarbons, Chromatography, Electron capture, Isotopes, Nickel, Organophosphorus compounds, Pesticides. English summary.

#### 7341-69

DEGRADATION OF THE INSECTICIDE GS 13005 IN THE RAT. ELUCIDATION OF THE STRUCTURE OF THE MOST IMPORTANT **METABOLITES. (GE )** 

H O Esser W Muckc K O Alt Helv Chim Acta 51(3):513-517

20 Apr 1968 385 H36

Degradation, Dimethyl-S-(2-methoxy-1,3,4-thiadazol-5 (4H)-onyl-(4)- i, Metabolites, Or-ganophosphorus compounds, Spectrochemistry. English summary.

### 7342-69

GAS CHROMATOGRAPHIC ANALYSIS OF DALAPON IN WATER. P A Frank R J Demint Environ Sci Technol 3(1):69-71 Jan 1969 TD420.A1E5 Chemical analysis, Chlorinated hydrocarbons,

Chromatography, Dalapon, Water.

#### 7343-69

A COMPARISON OF NEW TECHNIQUES FOR THE DETECTION AND DETERMINATION OF TRIAZINE HERBICIDES SEPARATED BY THIN-LAYER CHROMATOGRAPHY. III. FLUORESCENCE QUENCHING. R W Frci C D Freeman Mikrochim Acta (6):1214-1223 1968 384 M58 Chromatography, Degradation, Fluorescence, Her-

bicides, Methodology, Quantitative analysis, Triazinc. German summary.

Us Patent Office Offic Gaz 860(1):258 04 Mar 1969 156.65 OF2 Chemical control (weeds), Chemistry, Halogen compounds, Herbicides, Patents, Urca. 7345-69 METABOLISM OF DDT BY RUME MICROORGANISMS IN VITRO. (ABSTRACT). RUMEN G F Fries J Dairy Sci 51(6):981 Jun 1968 44.8 J822 Acctonitrilc, Biochemistry, Chromatography, DDT, Fermentation, Metabolism, Microorganisms, Radioactive substances, Rumen. 7346-69

7344-69

H E Freund F Arndt

MICROBIAL DEGRADATION OF AROMATIC COMPOUNDS.

D T Gibson

Science 161(3846):1093-1097 REF

13 Scp 1968 470 SCI2

Benzene, Degradation, Enzymes, Microbiology, Microorganisms, Odors, Organic compounds.

### 7347-69

# NUCLEAR MAGNETIC RESONANCE STUDIES OF PHOSPHORUS(V) PESTICIDES- III, THE HYDROLYSIS OF ALIPHATIC PESTICIDES BY AQUEOUS SOLUTIONS.

M C Goldberg H Babad D Groothius H R Christianson

Us Geol Surv Prof Pap (600):D20-D23 REF 1968 407 G29PR

Dimcthoate, Half-life, Hydrolysis, Malathion, Nuclear magnetic resonance, Organophosphorus compounds, Trichlorfon.

7348-69

# THE CARBON-FLUORINE BOND IN COM-POUNDS OF BIOLOGICAL INTEREST.

P Goldman Science 164(3884):1123-1130 REF 06 Jun 1969 470 SCI2 Biochemistry, Carbon, Fluorine.

### 7349-69

### ASPECTS OF GIBBERELLIN BIOSYNTHESIS.

J R Hanson A F White Chem Commun (24):1689-1690

18 Dcc 1968 382 C4223

Biosynthesis, Chemical reactions, Gibberellins, Pimaradiene, Plant regulators.

#### 7350-69

# LOWER ALKANOYL ESTERS OF POLYMYXIN ANTIBIOTICS. PATENT 3,450,687.

D C Hobbs Us Patent Office Offic Gaz 863(3):882

17 Jun 1969 156.65 OF2

Antibiotics, Drugs, Patents, Polymyxin.

### 7351-69

### PRODUCING ALKYLLEAD HALIDE. PATENT 3,439,012.

J B Honeycutt

Us Patent Office Offic Gaz 861(3):921-922 15 Apr 1969 156.65 OF2 Alkyllead halide, Fungicides, Patents.

### 7352-69

### NOVEL SUBSTITUTED 1,2,4-TRIAZOLES(4H). PATENT 3,444,162. A A Hyatt

Us Patent Office Offic Gaz 862(2):559 13 May 1969 156.65 OF2 Fungicides, Patents, Pesticides, Plant regulators,

Toxins.

### 7353-69

### FAT AS A FACTOR IN THE EPIMERIZATION OF CHLORTETRACYCLINE IN FEEDS. S E Katz C A Fassbender

99

Ass Offic Anal Chem J 51(3):557-562 May 1968 381 AS7

Antibiotics, Chlortctracycline, Fats, Feed, Isomerization, Stercochemistry.

#### 7354-69

UREA

PHOTODECOMPOSITION OF THE ACARI-CIDE N'-(4-CHLORO-O-TOLYL)-N,N-DIMETHYLFORMAMIDINE. C O Knowles A K S Gupta

J Econ Entomol 62(2):344-348

15 Apr 1969 421 J822

Acaricides, Chloro-o-tolyl)-N,N-dimethylfor-mamidine, N'-(4-, Chromatography, Decomposi-tion, Light, Silica gcls, Spectrochemistry.

#### 7355-69

# BROMINATION PROCESS OF SALICYLANI-LIDE. PATENT 3,450,756.

V Lamberti H Lemaire

Us Patent Office Offic Gaz 863(3):893 17 Jun 1969 156.65 OF2

Bactericides, Bromine compounds, Patents, Salicylanilides.

#### 7356-69

2,3-DIHYDRO-1,4-DITHIINS AS STABILIZERS FOR CHLORINATED HYDROCARBONS. PATENT 3,439,051. L Levinc

Us Patent Office Offic Gaz 861(3):928

15 Apr 1969 156.65 OF2

Chlorinated hydrocarbons, Dihydro-1,4-dithiins, 2,3-, Patents.

#### 7357-69

7358-69

7359-69

7360-69

16P REF 09 Dcc 1968

7361-69

7362-69

METHOD FOR DEODORIZING O,O-DIALKYL S-(ALKYLTHIO)ALKYL PHOSPHORODITHIOATES. PATENT 3,439,071.

SUBSTITUTED AND UNSUBSTITUTED N-LOWER ALKYL BENZHYDRYLCARBAMATES

Alkyls, Carbamatcs, Chemical control (wceds),

PESTICIDAL COMPOSITIONS COMPRISING N-SUBSTITUTED GAMMA HYDROXYCAR-BOXYLIC ACID AMIDES. PATENT 3,436,463.

Amides, Chemistry, Hydroxycarboxylic acids, In-

CHEMISTRY OF PESTICIDES. (JPRS 47038) TRANSL. 17062.

Chemical control (pcsts), Pesticide application, Pesticides, Plant pest control, Volatile substances. Translated from Khimiya Pestitsidov, p8-20, 1968.

PHOTOCHEMICAL DECOMPOSITION OF DDT

Chlorinated hydrocarbons, Chromatography, Degradation, DDT, Insecticides, Radiation.

DEGRADATION OF GAMMA-BHC IN SIMU-LATED LAKE IMPOUNDMENTS AS AF-

BY A FREE-RADICAL MECHANISM.

A R Mosicr W D Guenzi L L Miller

Science 164(3383):1083-1085

30 May 1969 470 SCI2

FECTED BY AERATION.

D P Mayer S B Richter

04 Mar 1969 156.65 OF2

R L Mayhew E P Williams

01 Apr 1969 156.65 OF2

sccticides, Nitrogen.

N N Mclinikov

issued by CFSTI.

A F Marks A Wolfgang Us Patent Office Offic Gaz 861(3):931

15 Apr 1969 156.65 OF2

Deodorizing, Dithiophosphatcs, Methodology, Or-ganophosphorus compounds, Patcnts, Pesticides, Thiols.

AS HERBICIDES. PATENT 3,431,099.

Us Patent Office Offic Gaz 860(1):225

Chemistry, Herbicides, Nitrogen, Patents.

Us Patent Office Offic Gaz 861(1):250

### CHEMISTRY

### 7363-69

I. W Newland G Chesters G B Lee Water Pollut Contr Fed J 41(5,PT 2):R174-R188 REF May 1969 293.8 SE8 By-products, Chlorinated hydrocarbons, Chro-matography, Degradation, DDT, Heptachlor, In-7372-69 secticide residues, Lakes, Lindane, Methodology, S K Shrivastava Reservoirs, Sediments, Water pollution. METHOD FOR CONTROL OF GROWTH. PATENT 3,443,924. ALGAE G P Papp J W Clapp 7373-69 Us Patent Office Offic Gaz 862(2):517 13 May 1969 156.65 O F2 Algae, Algieides, Patents. DNA. (RUS) 7364-69 ANTICOCCIDIAL COMPOSITION CONTAIN-ING 6,7-DISUBSTITUTEDQUINOLINE - 3-CAR-BOXYLATES. PATENT 3,448,193. 1968 QH431.A1G4 A A Patchett R L Clark E F Rogers Us Patent Office Offic Gaz 863(1):248 03 Jan 1969 156.65 OF2 7374-69 Baetericides, Carboxyl group, Patents, Quinoline. 7365-69 THE NATURE OF ACTIVATING ACTION OF DINITROPHENOL ON ATPASE ACTIVITY OF **MYOSIN. (RUS)** G B Spero E V Petushkova I M Bocharnikova Biokhimiya 33(3,MAY-JUN):618-624 REF 1968 385 B523 Progestcrone. Adenosine triphosphatase, Biochemistry, Dinitrophenols, Myosins, Proteins. English summa-7375-69 гy. 7366-69 T Sproston PHENOXYTHIOACETIC ESTERS AS DESIC-CANTS. PATENT 3,445,221. E K Regel Us Patent Office Offic Gaz 862(3):829 20 May 1969 156.65 OF2 7376-69 Cotton, Defoliants, Esters, Patents, Phenoxyacetic DIMETHYL acid compounds. 7367-69 **H C Steeker** SPIRO THIOPHOSPHATES. PATENT 3,445,468. F W Rudi A D Bliss Us Patent Office Offic Gaz 862(3):873 20 May 1969 156.65 OF2 pounds, Patents. Nematocides, Organophosphorus compounds, Patents, Pesticidcs, Synthesis. 7377-69 7368-69 THE CHEMISTRY OF GS 13005, A NEW IN-SECTICIDAL PHOSPHORIC ACID ESTER. (GE D M Stout K Rufcnacht Helv Chim Acta 51(3):518-526 20 Apr 1968 385 H36 Chemical analysis, Degradation, Dimethyl-S-(2stances. methoxy-1,3,4-thiadazol-5 (4H)-onyl-(4)- i, Or-ganophosphorus compounds, Phosphorie acid esters, Synthesis. English summary. 7378-69 ALDRIN. 7369-69 N-BENZOYLOXYMETHYL BENZAMIDES AND THEIR PREPARATION. PATENT 3,439,019. L H Sarett C S Rooney L H Peterson Us Patent Office Offic Gaz 861(3):922 15 Apr 1969 156.65 OF2 Bactericides, Benzoyloxymethyl benzamides, N-, 7379-69 Patents. 7370-69 ASYMMETRICAL PARA-NITROPHENYL PHOSPHATES. PATENT 3,444,274. G Schrader Us Patent Office Offic Gaz 862(2):575 13 May 1969 156.65 OF2 Nitrophenol, p-, Patents, Pesticides, Phosphates. 7371-69

ORGANOTIN OR MERCURY (CARBOXY HYDROCARBYLENE AMIDES). PATENT 3,446,827.

H Schwartz J B Skaptason

### BIBLIOGRAPHY

Us Patent Office Offic Gaz 862(4):1234 27 May 1969 156.65 OF2 Amides, Mereury compounds, Organotin com-pounds, Patents, Pesticides. **ESTIMATION OF DDT IN FACTORY WASTE.** Cur Sci 36(7):177-178 05 Apr 1967 475 SCI23 Chemical analysis, DDT, Industrial wastes, Insectieide residues, Methodology. ON THE REPAIR OF THE DAMAGES IN-DUCED BY N-METHYL-N'-NITRO-N-NITROSOGUANIDINE IN THE BACTERIAL G B Smirnov A G Skavronskaya Genetika 4(11):111-115 REF Bacteria, Deoxyribonueleie acid, Genetics, Mutagens, Nitrosoguanidine. English summary. METHOD OF CONTROLLING REPRODUC-TIVE CYCLE WITH 6ALPHA - METHYL -17ALPHA HYDROXYPROGESTERONE 17-ACETATE. PATENT 3,444,296. Us Patent Office Offic Gaz 862(2):579 13 May 1969 156.65 OF2 Animals, Drugs, Estrus, Ovulation, Patents, **ANTIBIOTIC LAMBERTELLIN AND METHOD** FOR PRODUCTION. PATENT 3,438,998. Us Patent Office Offic Gaz 861(3):919 15 Apr 1969 156.65 OF2 Antibiotics, Lambertellin, Patents, Plant extracts. **FLUORIDE-SUBSTITUTED** METHYLENE BISPHENOL GERMICIDES AND FUNGICIDES. PATENT 3,341,343. Us Patent Office Offic Gaz 860(1):267 04 Mar 1969 156.65 OF2 Bactericides, Chemistry, Fungicides, Halogen com-IMMOBILIZING INSECTS BY SUDDEN REDUCTION OF BODY TEMPERATURE. PATENT 3,446,892. Us Patent Office Offic Gaz 862(4):1246 27 May 1969 156.65 OF2 Aerosols, Chemical control (insects), Insect tem-perature, Patents, Vaporization, Volatile sub-**ELECTRO-REDUCTION OF DIELDRIN AND** O A Swanepoel N J J Van Rensburg S G Scanes S Afr Chem Inst J 22(1):57-62 Jan 1969 385 SO84 Aldrin, Chlorinated hydrocarbons, Chromatog-raphy, Dieldrin, Electrodes, Oxidation-reduction potential, Pesticides. Afrikaans summary. KILLING OF PESTS WITH ALKYL SULFONA-MIDE PHOSPHATES AND PHOSPHONATES. PATENT 3,446,896. K Szabo L W Fancher D J Broadbent Us Patent Office Offic Gaz 862(4):1246 27 May 1969 156.65 OF2 Chemical control (pests), Patents, Pesticides, Phosphates, Phosphonates, Sulfonamides. PROCESS FOR DESTROYING MICROORGAN-ISMS IN AGRICULTURE. PATENT 3,444,301. C O Tant E O Bennett H T Freebairn

Oct 1967 436.8 P212 Aldrin, Benzene hexachloride, Chlorinated hydrocarbons, Diagnosis, Dieldrin, DDT, Endrin, Insecticide residues, Lindane, Microscopy. 7382-69 SUBSTITUTED PHENYL-N-METHYLCARBA-MATES. CHOLINESTERASIS INHIBITION AND **INSECTICIDAL ACTION. (GE) G** Voss Anz Schadlingskunde 40(5):73-77 May 1967 421 AN9 Carbamates, Chemistry, Cholinesterascs, Inhibi-tors, Insecticides, Phenyl N-methylcarbamates, Tables (data), Testing. English summary. 7383-69 3-HYDROXY-6,7-DIMETHOXYDIFUROX-ANTHONE - A NEW METABOLITE FROM ASPERGILLUS FLAVUS. A C Waiss M Wiley D R Black R E Lundin Tetrahedron Lett (28):3207-3210 REF May 1968 385 T29 Aspergillus flavus, Hydroxy-6,7-dimethoxydifuroxanthone, 3-, Metabolites, Spectrochemistry. 7384-69 ON THE TOXICOLOGY OF PYRETHRUM TO WARM BLOODED ANIMALS. (GE) H J Wasscrburger Angew Parasitol 9(3):177-178 Aug 1968 436.8 AN4 Birds, Diazinon, DDT, Insecticide synergists, Insecticides, Mammals, Piperonyl butoxide, Pyrethrum, Toxicology. English, russian and german abstracts 7385-69 **PYRIDINE ESTERS OF CYCLOPROPANECAR-**BOXYLIC ACID. PATENT 3,438,993. G Wilbert S Hyden H Wetstein Us Patent Office Offic Gaz 861(3):918 15 Apr 1969 156.65 OF2 Cyclopropanecarboxylic acid, Esters, Herbieides, Patents, Pyridinc, Quinoline. 7386-69 METHOD OF FACILITATING HARVEST OF MATURE PLANTS. PATENT 3,447,919. D C Young Us Patent Office Offic Gaz 863(1):201

13 May 1969 156.65 OF2

isms, Patents.

7381-69

Bactericides, Bananas, Hydrocarbons, Microorgan-

MICROSCOPIC IDENTIFICATION OF SOME CHLORINATED HYDROCARBON INSECTI-

CIDES ON DIFFERENT SUBSTRATA.

L Ungurcanu E M Ungureanu

Parassitologia 9(2):101-106

03 Jun 1969 156.65 OF2 Ammonium salts, Defoliation, Dosage, Forma-

mide, Harvesting, Patents.

### **ENGINEERING**

#### 7387-69

NEW EQUIPMENT ANSWER TO DEMAND FOR IMPROVED HERBICIDE PRODUCT. Anonymous

Croplife 28,30

Feb 1969 381 C882 Agricultural economics, Agricultural products, Equipment, Herbicides, Pesticide application, Weed control.

7388-69

**OPERATION AND MAINTENANCE OF POWER** SPRAYERS. D N Barbora S K Dutta Tocklai Exp Sta Newslett 13(3):88-91 Sep 1966 68.18 T93 Maintenance, Mist blowers, Spraying equipment.

Us Patent Office Offic Gaz 862(2):580

### 7414-69

#### 7389-69

RAPID COLORIMETRIC DETERMINATION OF DOT IN MILK AND BUTTER. R C Blinn F A Gunther Ass Offic Anal Chem J 46(2):191-194

Apr 1963 381 AS7 Agricultural chemistry, Butter, Colorimetry, DDT,

Milk.

### 7390-69

SPRAY NOZZLES MUST BE RECALIBRATED AT REGULAR INTERVALS.

R P Cromwell D S Harrison Citrus Vet Mag 32(5):8,32 Jan 1969 80 C498

Nozzles, Pesticide application, Spraying equipment.

### 7391-69

PEST CONTROL WITH HELICOPTER AND BIPLANE. (GE )

H J Fitschen Kartofelbau 19(12):346 Dee 1968 75.8 K145 Acrial spraying, Aircraft, Helicopters, Pest control, Pesticide application, Potatoes.

#### 7392-69

AGRICULTURAL ENGINEERING.

C M Jacob G S Bcdi

*Rev Agr Res Punjab 1(PT 2):1-6 REF* 1965 \$280.P8K3

Agricultural engineering, Equipment, Reviews, Surveys.

#### 7393-69

APPLICATION OF HERBICIDES AND CALIBRATING EQUIPMENT.

J E Kinsey

Amer Nurseryman J 129(6):76-78

15 Mar 1969 80 AM371

Chemical control (wccds), Chlorinated hydrocarbons, Herbicide application, Herbicides, Spraying equipment.

The following herbicides are discussed: simazine, Casoron, diphenamid, Treflan, Herban, Daethal, Chloropropham, Ramrod.

#### 7394-69

THE MICROFOIL BOOM.

J H Kirch

Agrichem West 11(12):16,18

Dcc 1968 381 AG85

Accident prevention, Acrial spraying, Helicopters, Nozzles, Particle size determination, Pesticide application, Plant injuries, Spraying equipment.

### 7395-69

PERFORMANCE OF SOME LEVER-OPERATED KNAPSACK SPRAYERS. G A Matthews

O A Matthews

Empire Cotton Growing Rev 46(2):134-142 REF Apr 1969 72.8 EM7

Insecticide application, Spraying equipment.

#### 7396-69

SUGGESTED TECHNIQUES FOR ASSESSING THE DURABILITY OF LEVER-OPERATED KNAPSACK SPRAYERS.

G A Matthews A E H Higgins E Thornhill Empire Cotton Growing Rev 46(2):143-148 Apr 1969 72.8 EM7

Insceticide application, Spraying equipment.

#### 7397-69

PRESSURISED SOIL FUMIGATION EQUIP-MENT FOR CONTROL OF EELWORM. C W Robartson

Fruit World Market Grower 69(9):54,56 10 Scp 1968 80 F948

Chemical control (ncmatodcs), Dairy cquipment, Nematoci des, Nematodes, Pesticide application, Soil fumigation.

### 7398-69

FORMULATION ANALYSIS: THE EFFECT OF DIFFERENT STORAGE TREATMENTS ON THE SUSCEPTIBILITY, AGGLOMERATION AND DETERIORATION OF SURFACTANTS OF DDT WATER-DISPERSIBLE POWDERS. M T Shafik M A Elamayem World Health Organ Bull 37(4):687-695 1967 449.9 W892B Chemistry, Deterioration, DDT, Pesticides, Spraying, Storage.

#### 7399-69

A SUB-SURFACE APPLICATOR FOR HERBI-CIDES.

J L Shcpherd

Aust Tob Growers Bull (14):11-13 1968 69.8 AU72

1900 09.0 AUT2

Chemical control (weeds), Cyperus esculentus, Digitaria, Equipment, Herbicide application, Herbicides, Peanuts, Pigweed, Spraying, Tillage, Tillam, Tobacco, Vernam.

### 7400-69

AIR BLAST SPRAYER COVERS 24 ROWS. W Spencer

Cotton 5(5):10-11 May 1969 72.8 C8225 Chemical control (insects), Disulfoton, Hydroxy-N-methyl-cis-crotonamide dimethyl phosphate, 3-, Pesticide application, Spraying equipment.

#### 7401-69

THEORETICAL AND PRACTICAL ASPECTS OF ROOM SPRAYING. M Sy

Prakt Schadlingsbekampfer 20(5):57-61 May 1968 421 P882

DDT, Equipment, Fog, Insecticide application, Insects, Pest control, Spraying.

7402-69

### LOG-NORMAL SPRAY DROP DISTRIBUTION ANALYZED BY TWO NEW COMPUTER PRO-GRAMS. G S Walton

USDA Forest Serv Res Note PSW- (174):8P

1968 A99.9 F7652

Chemical control (insects), Chi-square test, Insecticide application, Insecticide residues, Insecticides, Nozzles, Programming (computers), Spraying, Spraying equipment, Tables (data).

### **INDUSTRY**

### 7403-69 PEST CONTROL'S 1969 DIRECTORY OF PESTICIDES.

Anonymous

Pest Contr 37(3):68-85 Mar 1969 449.8 EX8

Mar 1909 449.8 EA8

Acaricides, Bird control, Chemical control (pests), Fumigants, Insect repellents, Insecticides, Pest control, Pesticides, Rodenticides. List of basic manufacturers and advertising formulators of pesticides.

### 7404-69

ASPECTS OF THE INDUSTRIAL PRODUCTION OF MICROBIAL INSECT CONTROL AGENTS. H T Dulmage

120-124

1967 SB932.15

Bactería, Biological control (insects), Insect control, Insect pests, Methodology, Microbial insecticides, Production economics, Viruses.

7405-69

THE ORGANISATION OF THE AUSTRALIAN POULTRY INDUSTRY AND ITS INFLUENCE ON DISEASE. P. Gilchrist Poultry Farmer (Sydney) 36(21):14,16,1

101

8,22,24,26,28 23 Nov 1968 280.28 OR32 Agricultural industries, Disease transmission, Legislation, Organizations, Poultry diseases, Poultry industry.

### **ECONOMICS**

7406-69 COMMODITY NOTES. PESTICIDES. Anonymous U S Defense Serv Admin Quart Indus Rep 16(1):12-14 Mar 1969 157.32 C42 Forcign trade, Pesticides, Surveys. Many pesticides were mentioned.

7407-69

U. S. PESTICIDE PRODUCTION AGAIN TOPS BILLION POUND LEVEL. Anonymous Agr Chem 23(12):36-37 Dec 1968 381 AG8 Chemical control (pests), Pesticides, Production economics. Many pesticides arc listed.

### 7408-69

NEWS ON ECONOMICS. (FR ) Anonymous Fruits 23(10):559-562 Nov 1968 80 F9492 Bananas, Citrus, Priccs.

### 7409-69

PRODUCTION AND SALES OF PESTICIDES SHOW INCREASE. Anonymous

Croplife 18

Feb 1969 381 C882

Acrial spraying, Agricultural production cconomics, Costs, Forcign trade, Fungicides, Herbicides, Pesticide application, Pesticides.

### 7410-69

GROUNDNUTS.

K E Elliot

### 1967 MEETING:35

Jul 1967 S573.R45

Agricultural economics, Crop yields, Equipment, Herbicides, Peanuts. In Rhodesía National Farmers' Union. Diversification guide from the RNFU Crops Conference.

### 7411-69

7412-69

7413-69

B W Lee

7414-69

B W Lee

1968 81 C128

SOCIOLOGY.

1965 S280.P8K3

RA COUNTY.

1968 81 C128

A S Kahlon

COST TO DEVELOP AN AVOCADO ORCHARD IN SAN DIEGO COUNTY. C D Gustafson R C Rock

AGRICULTURAL ECONOMICS AND RURAL

COSTS TO PRODUCE AVOCADOS IN VENTU-

Avocados, Costs, Crops, Production economics.

AVOCADO

Calif Avocado Soc Yearbook 52:87-90 1968 81 C128 Avocados, Costs, Crops, Dairy equipment.

Rev Agr Res Punjab 2(PT 4):1-26 REF

Calif Avocado Soc Yearbook 52:84-86

COST TO ESTABLISH AN

Calif Avocado Soc Yearbook 52:81-83

Avocados, Costs, Crops, Dairy cquipment.

ORCHARD IN V ENTURA C OUNTY.

Agricultural cconomics, Reviews.

### INDUSTRY

### 7415-69

7415-69 WE LOSE 06 MILLION A YEAR THROUGH DAMAGE TO HIDES - ARE YOU AT FAULT. G W Vivian Spur 1(1):9-11 Oct 1967 S544.5.A83S6 Bactericides, Breeding, Economics, Foreign trade, Fungicides, Hides, Industry. 7416-69

AGRICULTURAL AND HORTICULTURAL FUNGICIDES-PAST, PRESENT, AND FUTURE. D Woodcock Chem Vet 4(7):294-300 REF Jul 1968 382 C4224 Agriculture, Biochemistry, Chemical control (plant diseases), Economic plants, Economics, Fungicides, Fungus diseases (plants), Phytophthora in-

### **EDUCATION**

festans, Plant protection.

7417-69 COMMONSENSE PRECAUTIONS WITH AGRICULTURAL CHEMICALS. K D Agrawal Indian Farming 17(1):45-46 Apr 1967 22 IN283 Accident prevention, Chemicals, Pesticides, Safety education.

7418-69

### BIBLIOGRAPHY

MANY PROBLEMS IN TEACHING PEST CON-TROL TO INDONESIANS. Anonymous Croplife 24,26 Feb 1969 381 C882 Agricultural economics, Agricultural education, Benzene hexachloride, Diazinon, Endrin, Foreign trade, Pest control. 7419-69

PESTICIDE CHEMICALS; A PROGRAMMED TEXT. TP248.P47C6. 256 P. FORT COLLINS, COLORADO STATE UNIVERSITY Mar 1967 Agricultural regulation, Chemicals, Insect pests,

Labeling, Methodology, Pesticides, Plant diseases, Programming (computers), Research, Weeds.

### REGULATIONS

7420-69 FISH AND WILDLIFE ACT OF 1956 AS AMENDED; AN EXCERPT FROM TITLE 16 OF THE UNITED STATES CODE. U S Fish Wildlife Serv 4:11P Dec 1968 156.2 C49 Fisheries, Insurance, Legislation, Research, Ships, United States, Wildlife.

7421-69

MEDICATED FEEDS: STATES RESPONSIBILI-TIES. R Kirkpatrick Ass Food Drug Offic Us Quart Bull 32(3):147-151 Jul 1968 389.9 AS7Q Agricultural policies, Animal nutrition, Drugs,

Agricultural policies, Animal nutrition, Drugs, Feed additives.

### 7422-69

SALMONELLA CONTROL PROGRAM MICHIGAN. R C Swanson

Ass Food Drug Offic Us Quart Bull 32(3):141-144

Jul 1968 389.9 AS7Q

Agricultural policies, Agricultural products, Human diseases, Infectious diseases, Salmonellosis. 7423-69

INTERAGENCY ENVIRONMENTAL HAZARDS COORDINATION; PESTICIDES AND PUBLIC POLICY. 1379:86P

21 Jul 1966 SB959.U5

Agricultural legislation, Environment, Pesticides, Public health, Reports.

7424-69

PEST CONTROL: ADVISE AND CONSENT. W M Upholt Science 160(3823):13 05 Apr 1968 470 SCI2

Ecology, Environmental control, Legislation, Pest control.

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A redescription of the type specimen of Crotonia

(OAcronothrus) obtecta (O. Pickard-Cambridge, 1875), (Acari, Cryptostigmata) and a discussion

(Canestrini, 1899). A feather mite from the tree

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Home fruit spray guide.	5959
1969 insect control guide for Colorado. I. ( crops, field crops, forage crops, stored grain	
1969 tree fruit spray guide.	6182
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Control cotton insects.	6278
1968 eranberry weed control chart.	6330
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Editorial: The problem of herbicides.	6376
1967 guide to chemical weed control.	6385
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CAMPONOTUS

**CALOPHASIA LUNULA** 

CALLOSOBRUCHUS MACULATUS

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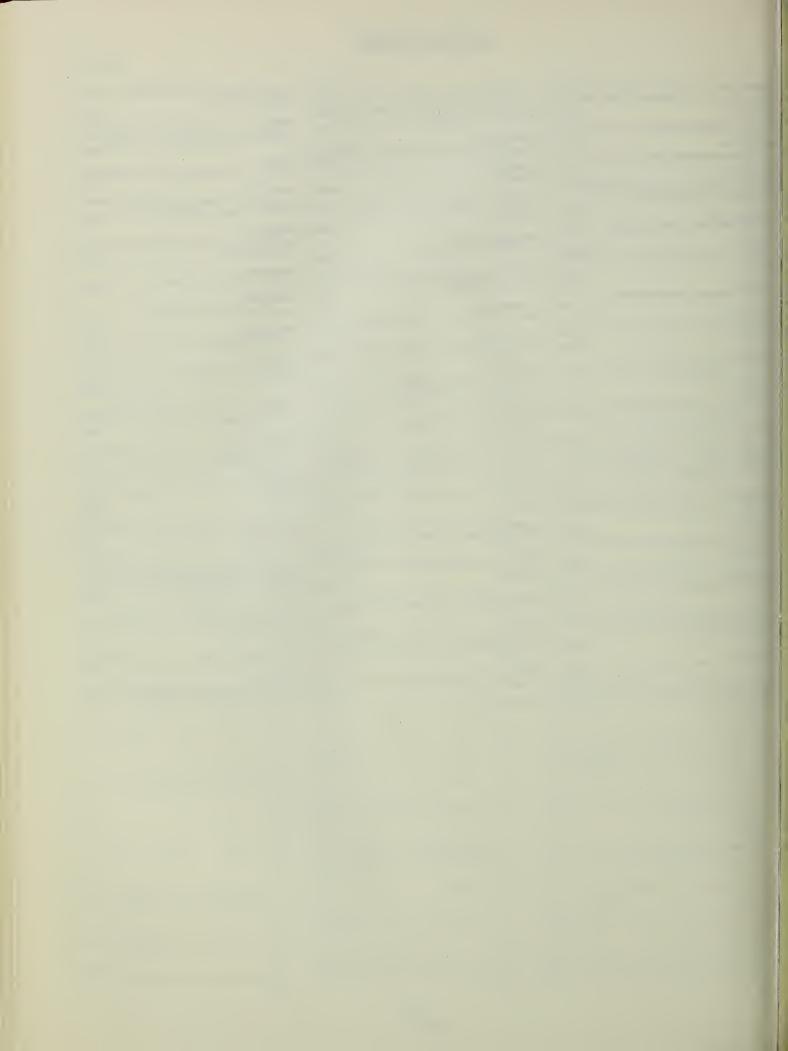
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