





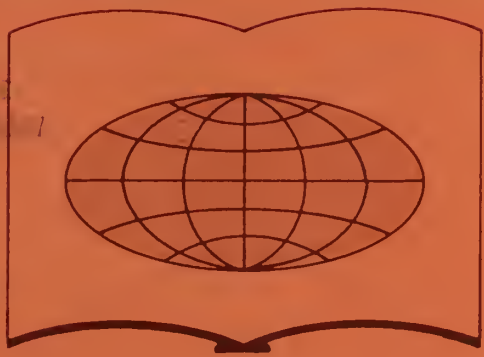
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Pesticides DOCUMENTATION BULLETIN

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Volume 4 Number 19
September 13, 1968



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PESTICIDES DOCUMENTATION BULLETIN

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Volume 4
September 13, 1968
Number 19

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.

Biographical Index: Names of first authors are arranged alphabetically, followed by organizational affiliation and accession number.

Author Index: Names of personal authors are arranged alphabetically, followed by accession numbers of pertinent citations.

Organizational Index: Names of corporate authors or sponsoring organizations are arranged alphabetically followed by accession numbers of pertinent citations.

Other Files

In addition to the citations contained in the Bulletin, the Pesticides Information Center maintains two other files, the INTREDIS Register and the Herbicides Data File.

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).

PLEASE GIVE COMPLETE BIBLIOGRAPHIC INFORMATION AS IT APPEARS IN THIS PUBLICATION FOR EACH ITEM REQUESTED.

This publication reports research involving pesticides. It does not contain recommendations for their use, nor does it imply that the uses discussed here have been registered. All uses of pesticides must be registered by appropriate State and/or Federal agencies before they can be recommended.

CAUTION: Pesticides can be injurious to humans, domestic animals, desirable plants, and fish or other wildlife—if they are not handled or applied properly. Use all pesticides selectively and carefully. Follow recommended practices for the disposal of surplus pesticides and pesticide containers.

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ENTOMOLOGY

17731-68
PARASITIC AND FREE-LIVING CYCLES IN ENTOMOGENOUS NEMATODES OF THE GENUS DELADENUS.

R A Bedding
Nature 214(5084):174-175
08 Apr 1967 472 N21

Deladenus, Insect morphology, Life cycle, Parasitism, *Sirex noctilio*.

17732-68
THE FORAGING BEHAVIOR OF HONEYBEES (APIS MELLIFERA) AND BUMBLEBEES (BOMBUS SPP.) ON BLACKCURRANT (RIBES NIGRUM), RASPBERRY (RUBUS IDAEUS) AND STRAWBERRY (FRAGARIA X ANANASSA) FLOWERS.

J B Free
J Appl Ecol 5(1):157-168 REF
Apr 1968 410 J828

Apis mellifera, *Bombus*, Insect behavior, Pollination, Population statistics, Raspberries, Research, *Ribes nigrum*, Strawberries.

17733-68
SIMPLE FIELD AND LABORATORY METHOD FOR RECOVERING LIVING TICKS (IXODOIDEA) FROM HOSTS.

M N Kaiser H Hoogstraal
J Parasitol 54(1):188-189
Feb 1968 448.8 J824

Insect cages, Ixodidae, Ixodoidea, Microbiology, Parasitism.

17734-68
AN IMPROVED INCUBATOR FOR INSECTS FOR OPERATION ABOVE ROOM TEMPERATURE AND RELATIVE HUMIDITY.

C F Nicholls E E Grills
J Econ Entomol 61(5):1142-1145
15 Oct 1968 421 J822

Equipment, Humidity, Incubators, Insects, Research, Temperature.

17735-68
THE MULTIPLICATION OF MIDDELBURGS AND I PLAQUE VIRUSES IN AEDES AEGYPTI MOSQUITOES.

S R Pattxn L Vleeschauer
Acta Virol 12(4):347
Jul 1968 448.3 AC85

Aedes aegypti, Culture media, Middelburg virus, Research, Virus diseases (insects).

17736-68
CATCH OF INSECTS AT DIFFERENT HEIGHTS IN TRAPS EQUIPPED WITH BLACKLIGHT LAMPS.

P A Stewart J J Lam
J Econ Entomol 61(5):1227-1230
15 Oct 1968 421 J822

Insect collecting equipment, Insect flight, Insect traps, Light traps, *Manduca quinquemaculata*, *Manduca sexta*, Research, Tobacco.

SYSTEMATICS

17737-68
A NEW SPECIES OF HARPACTEA FROM THE PONTINE ISLANDS (ARANEAE, DYSDERIDAE). (IT)

P Alicata
Fragmenta Entomol 4(8):113-115
30 Dec 1966 421 F84

Insect taxonomy, Spiders. Consiglio nazionale delle ricerche

17738-68
NEW INDIAN THYSANOPTERA.

T N Ananthakrishnan
Soc Entomol France Ann 3(1):227-237
1967 420 F84

Insect taxonomy, Thysanoptera. French summary

17739-68
NEW DATA CONCERNING THE ANT GENUS CAMPONOTUS (HYMENOPTERA, FORMICIDAE) FROM THE USSR FAUNA. (RUS)

K V Arnoldi
Zool Zhur 46(12):1815-1831 REF
Dec 1967 410 R92
Camponotus, Formicidae, Insect taxonomy. German abstract

17740-68
ON A TENTH NEW SPHAEROCERASPIS OF THE CENTRAL AFRICAN FOREST (HOM. COCCOIDEA DIASPIDINI). (FR)

A S Balachowsky D Ferrero
Soc Entomol France Ann 11(2):343-348
1966 420 F84

Coccoidea, Forests, Habitats, Insect ecology, Insect taxonomy.

Abstract

17741-68
NOTES ON THE CHOROLOGY AND ECOLOGY OF ARANEIDAE FROM THE ALBAN HILLS (ARANEAE). (IT)

P M Brignoli
Fragmenta Entomol 4(8):125-140 REF
30 Dec 1966 421 F84

Insect ecology, Insect taxonomy, Spiders, Zoogeography. English and Italian summaries

Abstract

17742-68
NEOTROPICAL MIRIDS, XCVIII: THREE NEW SPECIES OF THE TRIBES BRYOCORINI AND ORTHOTYLINI (HEMPTERA). (POR)

J C M Carvalho A V Fontes
Rev Brasil Biol 27(3):315-320
Oct 1967 442.8 R326

Insect taxonomy, Miridae. English summary

Abstract

17743-68
BIOLOGICAL AND ECOLOGICAL STUDIES ON CALOGLYPHUS MITE (ACARINAI ACARIDAE) ASSOCIATED WITH SCARABAEIDAE.

W Chmielewski J J Lipa
Acta Parasitol Polon 14(15-27):179-186
1966 436.8 AC8

Ecology, Insect biology, Mites, Phoresy, Scarabaeidae. English and polish abstract

Abstract

17744-68
A REVISION OF THE ORIENTAL SPECIES OF PALEXORISTA TOWNSEND (DIPTERA: TACHINIDAE, STURMIINI).

R W Crosskey
Brit Mus (natur Hist) Entomol Bull Suppl 21(2):37-97 REF
1967 420 B773

Insect identification, Insect morphology, Insect taxonomy, Palexorista, Tachinidae, Zoogeography.

17745-68
ERIGONIDS FROM THE PONTINE ISLANDS (ARANEAE ERIGONIDAE). (IT)

J Denis
Fragmenta Entomol 4(8):117-124
30 Dec 1966 421 F84

Insect taxonomy, Spiders. English and Italian summaries

Abstract

17746-68
LARVAE OF CLICK BEETLES OF THE GENUS IDOLUS DESBR. AND POSITION OF THIS GENUS IN THE SYSTEM ELATERIDAE (COLEPTERA). (RUS)

V G Dolin
Zool Zhar 46(12):1860-1863
Dec 1967 410 R92

Elateridae, Insect taxonomy, Larvae.

Abstract

17747-68
SUBTERRANEAN TERMITE STUDIES IN SOUTHERN ONTARIO.

G R Esenther D E Gray
Can Entomol 100(8):827-834
Aug 1968 421 C16
Baits, Chemical control (insects), Insecticides, *Lenzites trabea*, *Mirex*, Research, Termites.

17748-68
INSECTS AFFECTING SEED PRODUCTION OF SHORTLEAF PINE IN THE GEORGIA PIEDMONT.

R T Franklin R N Coulson
Can Entomol 100(8):807-812 REF
Aug 1968 421 C16

Diptera, Forest seed production, Georgia, Insects, Lepidoptera, Light traps, *Pinus echinata*.

17749-68
NEW ZEALAND NOCTUIDAE (LEPIDOPTERA): SUMMARY OF KNOWN HOST PLANTS AND A BIBLIOGRAPHY RELEVANT TO THE BIOLOGY OF THE GROUP.

D E Gaskin
New Zeal Entomol 3(5):19-27 REF
Dec 1966 421 N48
Economics, Indexing, Insect identification, Insect pests, Noctuidae.

17750-68
ON DIPTERA IN SMALL MAMMAL BURROWS IN NORTHERN EUROPE AND SOUTHERN SPAIN.

W Hackman
Notulae Entomol 47(1):1-14
1967 421 N84
Diptera, Habitats, Rodents, Symbiosis, Tunnels.

17751-68
NOTES ON MEGALYRIDAE (HYM. ICHNEUMONOIDEA) AND DESCRIPTION OF NEW SPECIES FROM MADAGASCAR.

K-j Hedqvist
Soc Entomol France Ann 3(1):239-246
1967 420 F84
Insect taxonomy, Megalyridae, Parasitic insects. French summary

17752-68
TWO NEW SPECIES OF THYASIDAE (ACARINA) FROM NIKKO NATIONAL PARK JAPAN.

T Imamura R Mitchell
Annot Zool Jap 40(3):171-176 REF
Sep 1967 410 AN79

Japonothyas, Mites, Panisopsis, Taxonomy.
Abstract: *Japonothyas ornatus*, n. g., n. sp., and *Panisopsis orientalis*, n. sp. are described. They show close affinities with common, cool-water Holarctic mites.

17753-68
THE COMPOSITION OF THE THRIPS SPECIES IN CEREALS IN FINLAND.

P Koppa
Ann Agr Fenn 6(1):30-44 REF
1967 20 AN7

Grain, Thysanoptera.

Abstract

17754-68
A CONTRIBUTION TO THE ECOLOGY OF THE MAY-FLY PALINGENIA SUBLONGICAUDA TSHERN. IN THE VOLGA DELTA. (RUS)

A A Kosova
Zool Zhar 46(12):1856-1859
Dec 1967 410 R92

Ephemeroptera, Insect ecology.

Abstract

17755-68
A NEW GENUS AND TWO NEW SPECIES OF MIRID BUGS (HETEROPTERA, MIRIDAE) FROM THE EASTERN REGIONS OF THE USSR. (rus)

S A Kulik

17756-68

Zool Zhur 47(1):140-142

Jan 1968 410 R92

Insect taxonomy, Miridae, Salix, Ulmus. English abstract

Abstract

17756-68

NEW SPECIES OF CULEX (MELANOCONION). (POR)

M Q de Linero

Rev Brasil Biol 27(3):289-291

Oct 1967 442.8 R326

Culex, Insect taxonomy, Zoogeography.

17757-68

A NEW GENUS AND SPECIES OF THE PHYTOPHAGOUS MITE (BRYOBIIDAE, ACARIFORMES). (RUS)

I S Livshitz V I Mitrofanov

Zool Zhur 46(12):1850-1852

Dec 1967 410 R92

Cistus, Insect taxonomy, Mites, Tetranychidae.

Abstract

17758-68

ON MORPHOLOGY OF LARVAE OF THE III INSTAR IN SYNANTHROPIC SPECIES OF FLIES FROM THE GENUS HYDROTAEA R.D. (DIPTERA, MUSCIDAE). (RUS)

A M Lobanov

Zool Zhur 47(1):85-90

Jan 1968 410 R92

Insect identification, Insect morphology, Insect taxonomy, Larvae, Muscidae. English and russian abstract

Abstract

17759-68

ON LARVAE OF HISPINAE (COLEOPTERA, CHIRYSOMELIDAE) OF THE FAUNA OF THE USSR. (rus)

L N Medvedev

Zool Zhur 47(1):79-84

Jan 1968 410 R92

Chrysomelidae, Insect identification, Insect taxonomy, Larvae, Pupae. English and russian abstract

Abstract

17760-68

FLEAS (SIPHONAPTERA) NEW TO NORWAY.

R Mehl

Norsk Entomol Tidsskr 14(1):60-62

1967 421 N812

Siphonaptera, Taxonomy, Zoogeography.

Abstract: Species mentioned: *Doratomyia d. dasycnema*, *Paraceras m. melis*, *Dasypyllus g. galinulae*, *Megabothris turbidus*, *Megabothris walckeri*, *Ceratophyllus dclichoni* *Ceratophyllus l. lunatus*, *Ceratophyllus borealis*.

17761-68

HABITAT SELECTION BY LIPARA LUCENS MG. (DIPTERA, CHLOROPIDAE) AND ITS SURVIVAL VALUE.

J H Mook

Arch Neer Zool 17(4):469-549 MAP, REF

Dec 1967 410 AR27

Chloropidae, Insect behavior, Insect biology, Insect ecology, *Lipara lucens*, Oviposition, Zoogeography.

17762-68

INFORMATION CONCERNING THE AFRICAN BARK AND NUT BEETLES FAUNA (COLEOPTERA SCOLYTIDAE AND PLATYPODIDAE). (GE)

M Nunberg

Rev Zool Bot Afr 76(3):313-340 REF

30 Dec 1967 410 R326

Ecology, Environment, Platypodidae, Research, Scolytidae.

17763-68

NOTES ON RAISING LEPIDOPTERA IN MEURTHE AND MOSELLE. (FR)

G Oligier

Alexandor 5(2):49-52

1967 421 AL2

Environment, Geography, Insect ecology, Insect rearing, Larvae, Lepidoptera.

17764-68

HEMIPTERA ASSOCIATED WITH PIG CARRION.

J A Payne F W Mead E W King

Entomol Soc Amer Ann 61(3):565-567 REF

May 1968 420 EN82

Carcasses, Hemiptera, Larvae, Predaceous insects, Research, Swine.

17765-68

REPRODUCTION OF SOME POORLY KNOWN SPECIES OF BLATTARIA.

L M Roth

Entomol Soc Amer Ann 61(3):571-579 REF

May 1968 420 EN82

Blaberidae, *Blaberus discoidalis*, *Eublaberus distanti*, *Eublaberus posticus*, Insect anatomy, Insect rearing, *Phortioeca phoraspidoides*, Starvation.

17766-68

FURTHER STUDIES ON THE EFFECT OF BOVINE DIET ON FACE FLY DEVELOPMENT.

N S Ruprah R E Treece

J Econ Entomol 61(5):1147-1150

15 Oct 1968 421 J822

Cattle, Diet, Feces, Insect morphology, Insect rearing, Larvae, *Musca autumnalis*, Oviposition, Research.

17767-68

CIRCADIAN EMERGENCE RHYTHM OF A TROPICAL SCOLYTID, XYLEBORUS FERRUGINEUS.

J L Saunders J K Knock

Entomol Soc Amer Ann 61(3):587-590

May 1968 420 EN82

Cacao, Diurnal rhythm, Insect control, Light, Research, Temperature, *Xyleborus ferrugineus*.

17768-68

ON THE DISTRIBUTION OF IXODES ANGSTUS NEUM. (IXODIDAE). (RUS)

B P Savitzky E V Okuntzova

Zool Zhur 46(12):1849-1850

Dec 1967 410 R92

Insect ecology, Ixodids, Rodents, Surveys, Zoogeography.

Abstract

17769-68

A NEW SPECIES OF THE GAMASID MITE ICHORONYSSUS MIRABILIS SENOTRUSOVA ET TAGILTSEV SP. N. (ACARIFORMES, GAMASOIDEA) FROM WHISKERED MILLERS OF THE ZAISAN HOLLOW. (RUS)

V N Senotrusova A A Tagiltsev

Zool Zhur 47(1):134-136

Jan 1968 410 R92

Epidemiology, Gamasides, *Ichoronyssus*, Insect taxonomy, Mites. English abstract

Abstract

17770-68

A REVIEW OF RECENT LITERATURE ON THE HOST PLANT RANGE OF THE GENUS LIRIOMYZA MIK (DIPTERA: AGROMYZIDAE) IN THE CONTINENTAL UNITED STATES AND HAWAII, EXCLUDING ALASKA.

C E Stegmaier

Flu Entomol 51(3):167-182 REF

Sep 1968 420 F662

Geography, Insect dissemination, *Liriomyza*, Literature, Morphology, Research. Names of other species are in abstract.

17771-68

THE GENERA OF AFRICAN LYCAENIDAE (LEPIDOPTERA: RHOPALOCERA).

H Stempffer

Brit Mus (natur Hist) Entomol Bull Suppl

00(10,SUP):3-322

1967 420 B773

Insect morphology, Insect taxonomy, Lycaenidae.

17772-68

A PRELIMINARY REPORT OF THE MOSQUITOES IN THE GILGIT AGENCY AREA.

Z K Tariq

Pakistan J Sci 19(1-2):47-56 REF

Jan 1967 475 P172

Altitude, Culicidae, Insect ecology, Insect taxonomy, Malaria, Zoogeography.

Abstract

17773-68

A DESCRIPTION OF THE PUPA OF THE PALES WEEVIL, HYLOBIUS PALES, AND A METHOD FOR IDENTIFYING ITS SEX.

H A Thomas

Can Entomol 100(4):434-437

Apr 1968 421 C16

Hylobius pales, Insect identification, Insect taxonomy, *Pachylobius picivorus*, Pupae, Sex.

17774-68

CONTRIBUTION TO THE STUDY OF THE GENERA STIZOCERA SERV., 1834. BRAZILIAN SPECIES (COLEOPTERA, CERAMBYCIDAE). (POR)

D Zajciw

Rev Brasil Biol 27(3):293-314 REF

Oct 1967 442.8 R326

Cerambycidae, Insect taxonomy, Zoogeography.

17775-68

A PRODROME OF THE GENUS ORTHOPODOMYIA (DIPTERA, CULICIDAE).

T J Zavortink

Diss Abstr Sect B 28(11):4610B

May 1968 Z5055.U49D53

Entomology, Insect morphology, Insect taxonomy, *Orthopodomyia*, Prodrôme, Temperature, Zoogeography.

17776-68

SIPHONA KANGWAGYEI N. SP., A BLOOD SUCKING FLY FROM UGANDA (DIPTERA: MUSCIDAE).

F Zumpt

Novos Taxa Entomol 52:3-4

Jul 1967 421 N853

Diptera, Entomology, Insect identification, Insect taxonomy, *Siphona kangwagyei*, Zoogeography.

PHYSIOLOGY AND BIOCHEMISTRY

17777-68

ACTIVATION OF MALATHION BY THE LOCUST BODYWALL.

H Ahmed B G Gardiner

Nature 217(5130):776-777

24 Feb 1968 472 N21

Insect physiology, Malathion, Mortality, *Schistocerca gregaria*, Toxicology.

17778-68

SOME OBSERVATIONS ON COMPULSORY FEEDING OF SANDFLIES (DIPTERA, PHLEBOTOMINAE) WITH THE CULTURE OF LEPTOMONADS. (RUS)

A N Alexeiev V M Safianova

Zool Zhur 47(1):91-98

Jan 1968 410 R92

Feeding, Insect nutrition, *Phlebotomus*, Psychodidae. English and russian abstract

Abstract

17779-68

INVESTIGATIONS ON THE HELIOTHIS NUCLEAR POLYHEDROSIS VIRUS AND ITS DEVELOPMENT AS A BIOLOGICAL CONTROL AGENT.

G E Allen

Diss Abstr Sect B 29(2):644B

Aug 1968 Z5055.U49D53

Biological control (insects), Cell nucleus, *Heliothis*, Polyhedroses, Research, Virus diseases (animals).

- 17780-68
THE LEAF CUTTING ANT, ATTA
CAPIGUARA, CURSE OF THE PASTURES.
(POR)
E Amante
Biologico 33(6):113-120
Jun 1967 442.8 B529
Atta, Insect behavior, Insect control, Insect
morphology, Social insects, Zoogeography.
- 17781-68
STUDIES ON SELECTION IN NATURAL AND
EXPERIMENTAL POPULATIONS OF DROSOPHILA
PSEUDOOSCURA.
W W Anderson
Diss Abstr Sect B 29(1):55B
Jul 1968 Z5055.U49D53
Antigens, Chromosomes, Drosophila pseudooscura,
Genes, Immunology, Insect evolution, Insect
genetics, Mice, Neoplasms, Population, Research.
- 17782-68
ANALYSIS OF THE DEVELOPMENT OF
OVIDUCTS AND THE DEVELOPMENTAL
RELATIONS BETWEEN OVIDUCTS AND OVARIES
IN DROSOPHILA VIRILIS. PART ONE:
DEVELOPMENT OF OVIDUCTS UNDER NORMAL
AND EXPERIMENTAL CONDITIONS.
PART TWO: ANALYSIS OF ALTERATIONS
OCCURRING IN OVIDUCTS DURING
IMAGINAL LIFE.
M B Babcock
Diss Abstr Sect B 28(11):4799B
May 1968 Z5055.U49D53
Animals, Assay, Drosophila virilis, Insect
morphology, Ovaries, Oviducts, Reproductive organs,
Transplanting.
- 17783-68
BIONOMICS OF THE MOSQUITO
ANOPHELES FRANCISCANUS MCCRACKEN
IN CALIFORNIA.
D C Baerg
Diss Abstr Sect B 28(11):4608B
May 1968 Z5055.U49D53
Algae, Anopheles franciscanus, Breeding, Experimental
insects, Hydrogen-ion concentration, Insect
ecology, Insect physiology, Insect rearing, Temperature,
Water.
- 17784-68
SPIDER POPULATIONS IN GRAIN
SORGHUMS.
C L Bailey H L Chada
Entomol Soc Amer Ann 61(3):567-571
May 1968 420 EN82
Economic plants, Feeding, Insect control, Laboratories,
Population statistics, Research, Sorghum,
Spiders.
- 17785-68
ORGANOTHIOCYANATES AS INSECTICIDES
AND CARBAMATE SYNERGISTS.
N Bakry R L Metcalf T R Fukuto
J Econ Entomol 61(5):1303-1308 REF
15 Oct 1968 421 J822
Biochemistry, Carbamates, Carbaryl, Chemical
control (insects), Insecticides, Musca domestica,
Organic compounds, Tables (data).
- 17786-68
PHOTOINHIBITORY FUNCTION OF THE
DORSAL OCELLI IN THE PHOTOTACTIC
REACTION OF THE MIGRATORY LOCUST
LOCUSTA MIGRATORIA L.
C K Barry R Jander
Nature 217(5129):675-677 REF
17 Feb 1968 472 N21
Experimental insects, Eyes, Insect physiology,
Locusta migratoria, Photoperiodism, Photosensitization,
Phototropism, Research.
- 17787-68
ONCOGENESIS IN THE (TU) Y2V:VG STRAIN
OF DROSOPHILA MELANOGASTER.
M A Benjaminson
Diss Abstr Sect B 29(1):56B
Jul 1968 Z5055.U49D53
Chromosomes, Drosophila melanogaster, Genes,
Hereditary diseases, Insect diseases, Oncogenic
viruses, Temperature.
- 17788-68
EFFECTS OF JUVENILE HORMONE ON
PROTEIN SYNTHESIS DURING THE
METAMORPHOSIS OF THE POLYPHEMUS
SILKMOTH.
M Blumenfeld
Diss Abstr Sect B 29(2):481B-482B
Aug 1968 Z5055.U49D53
Antheraea polyphemus, Hormones, Insect
morphology, Metamorphosis, Proteins.
- 17789-68
SEX RATIO IN PUPAE OF THE YELLOW-
STRIPED ARMYWORM.
D G Bottrell
J Econ Entomol 61(5):1470-1471
15 Oct 1968 421 J822
Experimental insects, Prodenia ornithogalli, Pupae,
Research, Sex.
- 17790-68
FIELD STUDIES OF SEX ATTRACTION IN
THE BOLL WEEVIL.
J R Bradley D F Clower J B Graves
J Econ Entomol 61(5):1457-1458
15 Oct 1968 421 J822
Anthonomus grandis, Experimental insects, Insect
behavior, Insect traps, Pheromones, Research, Sex
attractants.
- 17791-68
STUDIES OF CASTE DIFFERENTIATION IN
MYRMICA RUBRA L. 9. MATERNAL ENVIRONMENT
AND THE CASTE BIAS OF LARVAE.
M V Brian A F Kelly
Insectes Sociaux 14(1):13-24
Mar 1967 421 IN79
Environment, Insect biology, Insect eggs, Larvae,
Metamorphosis, Myrmica rubra, Photoperiodism,
Temperature. Italian and French summaries
- 17792-68
NOTES ON MICROANALYTICAL
TECHNIQUES IN THE ANALYSIS OF FOODS
FOR EXTRANEIOUS MATERIALS.
P M Brickey J S Gecan J J Thrasher W V
Eisenberg
Ass Offic Anal Chem J 51(4):872-876
Jul 1968 381 AS7
Autoclaves, Color, Entomology,
Ethylenediaminetetraacetic acid, Food, Laboratories,
Microbiology, Polyethylene, Sampling
(statistics), Tissues.
- 17793-68
MECHANISM OF LOCUST JUMPING.
R H J Brown
Nature 214(5091):939
27 May 1967 472 N21
Acrididae, Experimental insects, Insect anatomy,
Insect physiology, Locomotion, Motion pictures,
Muscles, Research.
- 17794-68
LABORATORY PROPAGATION OF
MUSCIDIFURAX RAPTOR ON FACE FLY PUPAE.
R P Burton E C Turner
J Econ Entomol 61(5):1380-1383 REF
15 Oct 1968 421 J822
Experimental insects, Insect rearing, Musca autumnalis,
Muscidifurax raptor, Ovulation, Parasitic insects,
Pupae.
- 17795-68
THE INFECTION OF BOOPHILUS
MICROPLUS WITH BABESIA BIGEMINA.
L L Callow
Parasitology 58(3):663-670
Aug 1968 448.8 P21
Babesia bigemina, Biological control (insects),
Boophilus microplus, Helminthiasis, Insect
morphology, Ixodidae, Parasitism, Research.
- 17796-68
SELECTIVE RECOVERY OF VOLATILE
PRODUCTS FROM HOUSE FLIES TREATED
WITH RADIOACTIVE INSECTICIDE CHEMICALS
AND SYNERGISTS.
J E Casida S P Shrivastava E G Esaac
J Econ Entomol 61(5):1339-1344 REF
15 Oct 1968 421 J822
Carbon dioxide, Carbon isotopes, Experimental insects,
Injections, Insecticides, Metabolism, Musca
domestica, Organic compounds, Radioactivity,
Research.
- 17797-68
CHEMICAL STERILIZATION OF THE STABLE
FLY STOMOXYS CALCITRANS (LINNE),
WITH METEPA AND HEMPA.
J J Castro Umama
Diss Abstr Sect B 29(1):225B
Jul 1968 Z5055.U49D53
Biochemistry, Chemical control (insects),
Chemosterilants, Experimental insects, Hempa, Insect
cages, Metepa, Research, Stomoxys calcitrans.
- 17798-68
METABOLISM OF C14-LABELED HEMEL IN
MALE HOUSE FLIES.
S C Chang A B DeMilo C W Woods A B
Borkovec
J Econ Entomol 61(5):1357-1365
15 Oct 1968 421 J822
Biochemistry, Biological control (insects), Carbon
isotopes, Chemosterilants, Hemel, Injections,
Metabolism, Metabolites, Musca domestica.
- 17799-68
CONTENT AND SYNTHESIS OF GAMMA
AMINOBUTYRIC ACID IN THE LARVAL
BRAIN OF DROSOPHILA MELANOGASTER.
P S Chen B Widmer
Experientia 24(5):516-517
15 May 1968 475 EX7
Amino acids, Brain, Drosophila melanogaster, Insect
biochemistry, Nervous system. German abstract
- 17800-68
COMPARATIVE TOXICITY (MAMMALIA,
INSECTA, ACARINA) OF RECENT S,S-
DIMETHYL S-BENZYL DERIVATIVES
SUBSTITUTED FOR TRI- AND
TETRATHIOPHOSPHORIC ACIDS. (FR)
J Chyemol P Chabrier T N Thanh A Thizy D
Demozay D Pillon
Acad Sci Compt Rend Ser D Sci Nat
264(22):2597-2599
29 May 1967 505 P21
Acarina, Insects, Mammals, Phosphoric acid esters,
Toxicology.
- 17801-68
ECOLOGY OF INSECT SWARMS. V. MOVE-
MENT OF INDIVIDUAL MIDGES, ANARETE
PRITCHARDI, WITHIN A SWARM.
H C Chiang
Entomol Soc Amer Ann 61(3):584-587
May 1968 420 EN82
Anarete pritchardi, Cecidomyiidae, Insect flight.
- 17802-68
TEMPERATURE RELATIONSHIPS OF THE
DEVELOPMENT OF NORTHERN CORN
ROOTWORM EGGS.
H C Chiang V Sisson
J Econ Entomol 61(5):1406-1410
15 Oct 1968 421 J822
Diabrotica longicornis, Experimental insects, Insect
eggs, Insect pests, Research, Soil temperature,
Tables (data), Temperature, Time.
- 17803-68
ACCUMULATION OF GLYCINE IN THE FAT
BODY OF THE SILKWORM, BOMBYX MORI
L.
C Chitra M B Shyamala
Nature 216(5113):386-387
28 Oct 1967 472 N21

17804-68

Absorption, Amino acids, *Bombyx mori*, Culture media, Fat body, Glycine, Intestines, Kinetin, Proteins, Radioactivity, Research, Tissues.

17804-68

A COMPARATIVE STUDY OF SALIVARY GLAND CHROMOSOME ASYNAPSIS IN TUMORIGENIC AND CLOSELY RELATED NON-TUMORIGENIC STRAINS OF *DROSOPHILA MELANOGASTER*.

S E Cohen

Diss Abstr Sect B 28(11):4429B

May 1968 Z5055.U49D53

Chromosomes, *Drosophila melanogaster*, Insect cultures, Insect ecology, Insect genetics, Insect physiology, Larvae, Research, Salivary glands (insects).

17805-68

LATEST RESEARCH PLANS ON THE PROBLEM OF COCKROACH RESISTANCE.

W J Collins

Pest Contr 36(6):23,25-26

Jun 1968 449.8 EX8

Blattella germanica, Insect rearing, Insecticide resistant insects.

17806-68

ALATE APHID SPECIES CAPTURED IN YELLOW PANS.

B F Coon J O Pepper

J Econ Entomol 61(5):1472-1473

15 Oct 1968 421 J822

Aphididae, Insect collecting equipment, Insect traps, Population, Research.

17807-68

POLYGENIC CONTROL OF ALDEHYDE OXIDASE AND XANTHINE DEHYDROGENASE IN *DROSOPHILA*.

J B Courtright

Diss Abstr Sect B 29(2):483B

Aug 1968 Z5055.U49D53

Aldehyde oxidase, Biochemistry, *Drosophilidae*, Insect physiology, Xanthine dehydrogenase.

17808-68

ON THE BIOLOGY OF SEVERAL TRECHINAE AND SPHODRINAE. (INSECTA, COLEOPTERA). (FR)

S Deleuranee

Acad Sci Compt Rend Ser D Sci Nat 263(23):1817-1819

06 Dec 1967 505 P21

Coleoptera, Insect morphology, Insect physiology, Ovaries.

17809-68

THE FORMATION OF THE CUTICULAR RIDGES IN THE LARVAL PHARYNX OF THE BLOWFLY (*CALLIPHORA VICINA* R.-D.).

V M Dowding

Parasitology 58(3):683-689

Aug 1968 448.8 P21

Calliphora vicina, Cuticle, Cytoplasm, Electron microscopy, Insect physiology, Insect rearing, Larvae, Methodology, Pharynx.

17810-68

CORRECTION COEFFICIENTS FOR PROGNOSING THE DEVELOPMENT OF INSECTS BY SUMS OF EFFECTIVE TEMPERATURES (*AGROTIS SEGETUM* SCHIFF TAKING OF EXAMPLE). (RUS)

T S Druzhelyubova I. A Makarova

Zool Zhur 47(1):73-78 REF

Jan 1968 410 R92

Agrotis segetum, Insect physiology, Noctuidae, Statistical methods, Temperature. English and russian abstract

Abstract

17811-68

TESTS OF GENETIC SYSTEMS FOR THE STUDY OF THE EFFECTS OF DNA IN *DROSOPHILA MELANOGASTER*.

W F Duggleby

Diss Abstr Sect B 29(1):58B-59B

Jul 1968 Z5055.U49D53

Deoxyribonucleic acid, *Drosophila melanogaster*, Insect genetics, Research.

17812-68

STUDIES ON THE BIOLOGICAL PROPERTIES OF *TOXOPLASMA GONDII* IN THE BODY OF INSECTS, USING *PEDICULUS HUMANUS* L. AS TEST ANIMALS.

J Dutkiewicz

Acta Parasitol Polon 14(15-27):187-200 REF

30 Jun 1966 436.8 AC8

Histology, Insect vectors, *Pediculus humanus*, Toxoplasmosis. Polish and english abstract

Abstract

17813-68

STUDIES ON THE MORPHOLOGY AND BIOLOGY OF *LECANIUM FLETCHERI* CKLL. (HOMOPTERA, COCCOIDEA) AND RELATED SPECIES.

A Dziedzicka

Zool Pol 18(1):125-165 REF

1968 410 Z712

Entomology, Insect biology, Insect identification, Insect morphology, *Lecanium fletcheri*, Parasitism, Research, Zoogeography. Russian and Polish summaries

17814-68

INFLUENCE OF REPELLENCY ON THE EFFICACY OF BLATTICIDES. IV. COMPARISON OF FOUR COCKROACH SPECIES.

W Ebeling D A Reiersen R E Wagner

J Econ Entomol 61(5):1213-1219

15 Oct 1968 421 J822

Biochemistry, *Blatta orientalis*, *Blattella germanica*, Chemical control (insects), Experimental insects, Insect repellents, Insecticides, *Periplaneta americana*, Research, *Supella supellectillum*.

17815-68

ELECTROPHORETIC VARIATION OF PROTEINASE IN THE DIGESTIVE JUICE OF THE SILKWORM, *BOMBYX MORI* L.

M Eguchi N Yoshitake

Nature 214(5090):843-844

20 May 1967 472 N21

Bombyx mori, Breeding, Digestion, Electrophoresis, Enzymes, Genes, Insect genetics, Polymorphism, Proteinases, Secretion.

17816-68

DEFENSE MECHANISMS OF ARTHROPODS. XXI. FORMIC ACID AND N-NONYL ACETATE IN THE DEFENSIVE SPRAY OF TWO SPECIES OF HELLUOMORPHOIDS.

T Eisner Y C Meinwald D W Alsop J E Carrel

Entomol Soc Amer Ann 61(3):610-613 REF

May 1968 420 EN82

Arthropoda, Carabidae, Formic acid, Glands (insects), Nonyl acetate, n-, Secretion, Spraying.

17817-68

ECOLOGICAL CHARACTERISTICS OF THE DIAPAUSE OF THE PHYTONOME OF THE LUZERNE *HYPERA VARIABILIS*. (COL. CURCULIONIDAE). (FR)

K El M'Saddia

Soc Entomol France Ann 4(2):339-348 REF

1968 420 F84

Curculionidae, Diapause, *Hypera postica*, Insect ecology, Photoperiodism, Temperature. French and English summaries

Abstract

17818-68

SOME EFFECTS OF GAMMA RADIATION ON THE TOBACCO GUDWORM *HELIOTHIS VIRESCENS* (FABRICIUS).

E S I El-Sayed

Diss Abstr Sect B 29(2):644B-645B

Aug 1968 Z5055.U49D53

Gamma rays, *Heliothis virescens*, Insect physiology, Irradiation, Tobacco.

17819-68

A SIMPLIFIED FIELD CAGE FOR TRAPPING PINK BULLWORM ADULTS.

J J Ellington J F Norris J Durkin

J Econ Entomol 61(5):1468-1469

15 Oct 1968 421 J822

Cultural control (insects), Insect cages, Insect collecting equipment, Insect traps, *Pectinophora gossypiella*.

17820-68

MECHANICAL AND ELECTRICAL ACTIVITY IN THE INDIRECT FLIGHT MUSCLES OF THE HONEY BEE.

H Esch J Bastian

Z Vergleichende Physiol 58(3):429-440 REF

1968 444.8 Z3

Apis mellifera, Electrodes, Insect dissemination, Insect flight, Insect physiology, Muscles, Potentiometry, Temperature, Wings (insects).

17821-68

NOTES ON DEATHWATCH BEETLES (COLEOPTERA). (SP)

F Espanol

Eos 43(1-2):27-56 REF

15 Nov 1967 421 EO7

Anobiidae, Entomology, Insect adaptation, Insect morphology, Insect taxonomy.

17822-68

PRELIMINARY EVALUATION OF A GRANULOSIS VIRUS FOR CONTROL OF THE CODLING MOTH.

L A Falcon N R Kane R S Bethel

J Econ Entomol 61(5):1208-1213 REF

15 Oct 1968 421 J822

Biological control (insects), *Carpocapsa pomonella*, Granuloses, Insect diseases, Insect pests, Insect rearing, Integrated control (insects), Larvae, Mortality, Research.

17823-68

DIFFERENCE IN RESPONSE OF TWO STRAINS OF SCREW-WORM FLIES TO THE MALE PHEROMONE.

L W Fletcher H V Claborn J P Turner E Lopez

J Econ Entomol 61(5):1386-1388

15 Oct 1968 421 J822

Breeding, *Cochliomyia hominivorax*, Experimental insects, Insect rearing, Pheromones, Tables (data).

17824-68

SPREAD OF THE BOLL WEEVIL BY DRAINAGE WATER AND AIR CURRENTS.

R E Fye

J Econ Entomol 61(5):1418-1424 REF

15 Oct 1968 421 J822

Air flow, *Anthonomus grandis thurberiae*, Cotton, Drainage, Experimental insects, Insect dissemination, Leaves, Research, Velocity, Water.

17825-68

THE PHYLOGENETIC DEVELOPMENT OF FOOD SELECTION IN CERTAIN ORTHOPTEROIDS.

S K Gangwere

Eos 42(0):383-391 REF

28 Feb 1967 421 EO7

Entomology, Feeding, Food habits, Food plants, Food supply, Insect behavior, Insect genetics, Orthoptera.

17826-68

BITING IN ORTHOPTERA AND THEIR ALLIES.

S K Gangwere

Eos 42(0):363-382

28 Feb 1967 421 EO7

Entomology, Feeding, Insect behavior, Insect physiology, Mandibular glands, Orthoptera.

17827-68

STUDIES ON INSECT (PERIPLANETA AMERICANA L.) PHOSPHOFRUCTOKINASE.

A Grasso G M Natalizi

Compar Biochem Physiol 26(3):979-984 REF

Sep 1968 444.8 C73

Biochemistry, Enzymes, Glycolysis, Insect physiology, Kinases, *Periplaneta americana*.

Abstract

- 17828-68**
A SEX PHEROMONE FROM THE CITRUS MEALYBUG.
 N Gravitz C Willson
J Econ Entomol 61(5):1458-1459
 15 Oct 1968 421 J822
 Biological assay, Citrus, Insect pests, Insect physiology, Pheromones, Planococcus citri, Research, Sex.
- 17829-68**
NEW TECHNIQUES TO BIOASSAY THE SEX ATTRACTANT OF PINK BOLLWORMS WITH OLFACTOMETERS.
 A A Guerra
J Econ Entomol 61(5):1252-1254
 15 Oct 1968 421 J822
 Abdomen, Attractants, Baits, Biological assay, Extracts, Methodology, Olfactometers, Pectinophora gossypiella, Sex attractants, Tables (data).
- 17830-68**
THE MOLTING BEHAVIOR OF THE BLACK WIDOW SPIDER, LATRODECTUS MACTANS.
 D W Hagstrum
Entomol Soc Amer Ann 61(3):591-593
 May 1968 420 EN82
 Cuticle, Insect behavior, Insect physiology, Latrodectus mactans, Molting (insects).
- 17831-68**
FIELD TESTS OF CHEMICALS FOR CONTROL OF THE EUROPEAN CORN BORER.
 J A Harding W G Lovely R C Dyar
J Econ Entomol 61(5):1427-1430
 15 Oct 1968 421 J822
 Biochemistry, Chemical control (insects), Experimental insects, Insect pests, Insecticides, Ostrinia nubilalis, Research, Tables (data).
- 17832-68**
METEOROLOGICAL FACTORS AFFECTING THE ACTIVITY OF NIGHT FLYING MACROLEPIDOPTERA.
 J Harling
Entomologist (london) 101(1259):83-93
 Apr 1968 421 EN8
 Arctiidae, Geometridae, Insect collecting equipment, Lepidoptera, Meteorology, Noctuidae, Notodontidae.
- 17833-68**
INFLUENCE OF THE SPECTRAL COMPOSITION OF CERTAIN BANDS OF VISIBLE AND NEAR VISIBLE RADIATION ON DIAPAUSE IN THE BOLL WEEVIL.
 F A Harris
Diss Abstr Sect B 29(2):645B
 Aug 1968 Z5055.U49D53
 Anthonomus grandis, Insect physiology, Radioactivity, Spectroscopy.
- 17834-68**
FIELD AND LABORATORY STUDIES ON THE ECOLOGY AND MORPHOLOGY OF NABIS AMERICOFERUS CARAYON AND ITS PARASITES IN CALIFORNIA.
 R D Hendrick
Diss Abstr Sect B 29(1):227B
 Jul 1968 Z5055.U49D53
 Experimental insects, Humidity, Insect ecology, Insect morphology, Insect physiology, Nabis americoferus, Parasitism, Photoperiodism, Research, Temperature, Parasites mentioned were: Leucostoma simplex, Wesmaelia pendula, and Polynema sp.
- 17835-68**
ORDERED CHROMOSOMAL DNA SYNTHESIS IN DROSOPHILA MELANOGASTER.
 E F Howard
Diss Abstr Sect B 28(11):4431B
 May 1968 Z5055.U49D53
 Autoradiography, Cell nucleus, Chromosomes, Cytology, Deoxyribonucleic acid, Drosophila melanogaster, Metabolism, Salivary glands (insects), Sex.
- 17836-68**
REPRODUCTIVE BEHAVIOR OF THE POTATO TUBERWORM, PHTHORIMAEA OPERCULELLA (ZELLER), (LEPIDOPTERA: GELECHIIDAE) AND THE EFFECT OF THE CHEMOSTERILANT METEPA.
 I W Hughes
Diss Abstr Sect B 29(1):228B
 Jul 1968 Z5055.U49D53
 Biochemistry, Breeding, Chemical control (insects), Chemosterilants, Dosage, Insect anatomy, Insect behavior, Metepa, Pheromones, Phthorimaea operculella, Reproduction.
- 17837-68**
A STUDY OF THE NUCLEAR POLYHEDROSIS VIRUS OF THE BEET ARMYWORM, SPODOPTERA EXIGUA (HUBNER), WITH EMPHASIS ON STABILITY, PATHOGENICITY AND HISTOPATHOLOGY.
 D K Hunter
Diss Abstr Sect B 29(1):229B
 Jul 1968 Z5055.U49D53
 Biological assay, Diet, Electron microscopy, Experimental insects, Inclusion bodies, Insect diseases, Insect pests, Polyhedroses, Research, Spodoptera exigua, Temperature, Viruses.
- 17838-68**
DROSOPHILA ALCOHOL DEHYDROGENASE ISOZYMES: IDENTITY OF MOLECULAR SIZE.
 R B Imberski W H Sofer H Ursprung
Experientia 24(5):504-505
 15 May 1968 475 EX7
 Dehydrogenases, Drosophila, Electrophoresis, Insect biochemistry. German abstract
- 17839-68**
LARCH SAWFLY SURVIVAL IN RELATION TO WATER LEVELS AND MICROTOPOGRAPHY IN TAMARAK BOGS.
 W G H Ives
Can Entomol 100(4):373-385 REF
 Apr 1968 421 C16
 Bogs, Insect ecology, Microscopy, Pristiphora erichsonii, Pupal cases, Surveys, Topography, Zoogeography.
- 17840-68**
PARTHENOGENESIS IN GUM EMPEROR MOTH ANTERHAEA EUCALYPTI (SCOTT).
 C T Jessep
New Zeal Entomol 3(5):30
 Dec 1966 421 N48
 Antheraea eucalypti, Entomology, Experimental insects, Insect identification, Insect rearing, Parthenogenesis, Photography, Research.
- 17841-68**
DATA ON THE ENDOCRINE SYSTEM OF SEVERAL DIPLOPODA, ONISCOMORPHES (MYRIAPODA). (FR)
 L Juberthic-Jupeau
Acad Sci Compt Rend Ser D Sci Nat 265(20):1527-1529
 13 Nov 1967 505 P21
 Diplopoda, Endocrine glands, Esophagus, Glands (insects), Insect physiology, Secretion.
- 17842-68**
RESULTS CONCERNING HUMORAL IMMUNITY OF PYRRHOCORIS APTERUS L. AND GALLERIA MELLONELLA F. (GE)
 H Kamp
Z Vergleichende Physiol 58(3):441-464 REF
 1968 444.8 Z3
 Actinomycins, Bacteria, Biochemistry, Electrophoresis, Escherichia coli, Galleria mellonella, Immunity, Injections, Insect diseases, Muramidase, Proteins, Pseudomonas aeruginosa, Pyrrhocoris apterus, Serratia marcescens, Time, Tyrosine, Vaccines, Viruses. Summary in English
- 17843-68**
MEDIUM AND TECHNIQUES FOR MASS REARING THE RED-BANDED LEAF ROLLER.
 M A Karpel L E Hagmann
J Econ Entomol 61(5):1452-1454
 15 Oct 1968 421 J822
 Argyrotaenia velutinana, Experimental insects, Insect cages, Insect rearing, Methodology, Research.
- 17844-68**
PRELIMINARY OBSERVATIONS ON THE EFFECT OF ALCOHOL AND OIL FILMS ON THE OVIPOSITION OF CULEX PIPIENS QUINQUEFASCIATUS (SAY).
 J E Kcirans A S Pier R W Fay
Mosquito News 28(1):71-74
 Mar 1968 421 M85
 Alcohol, Culex pipiens quinquefasciatus, Insect behavior, Mineral oil, Ovulation.
- 17845-68**
COSTELYTRA ZEALANDICA (WHITE) SEX ATTRACTION.
 J M Kelscy
New Zeal Entomol 3(5):57-59
 Dec 1966 421 N48
 Attractants, Costelytra zealandica, Experimental insects, Insect flight, Insect rearing, Methodology, Rainfall, Research, Sex, Temperature, Wind.
- 17846-68**
ELECTRICAL ACTIVITY IN INSECT NERVE CELL BODIES.
 G A Kerker R M Pitman R J Walker
Life Sci 7(1):605-607 REF
 01 Jun 1968 442.8 L62
 Biochemistry, Cells, Electrophysiology, Insect physiology, Nerves, Periplaneta americana.
- 17847-68**
EFFECTS OF MOLD INHIBITORS IN LARVAL DIET ON THE BIOLOGY OF THE CABBAGE LOOPER.
 A N Kishaba T J Hinneberry R Pangaldan P H Tsao
J Econ Entomol 61(5):1189-1194
 15 Oct 1968 421 J822
 Agar, Biochemistry, Diet, Entomology, Insect biology, Insect physiology, Insect rearing, Larvae, Research, Tables (data), Trichoplusia ni.
- 17848-68**
EFFECT OF THE CHEMOSTERILANT METEPA ON THE HOUSEFLY, MUSCA DOMESTICA L.
 K S Kung
Diss Abstr Sect B 29(1):230B
 Jul 1968 Z5055.U49D53
 Biochemistry, Chemical control (insects), Chemosterilants, Dosage, Drug therapy, Injections, Metepa, Mortality, Musca domestica, Population, Research.
- 17849-68**
ON THE SPHODROMANTIS OF THE SPECIES VIRIDIS FROM NORTHWEST AFRICA. (IT)
 M La Greca
Eos 42(0):493-516)MAP
 28 Feb 1967 421 E07
 Africa, Entomology, Insect identification, Insect morphology, Insect taxonomy, Sphodromantis, Zoogeography. Species given were: S. viridis viridis, S. viridis meridionalis, S. viridis barbara, S. viridis occidentalis, S. royi.
- 17850-68**
THE INFLUENCE OF TEMPERATURE AND HUMIDITY ON THE DEVELOPMENT OF TENEBRIO MOLITOR L.
 R M Lall
Diss Abstr Sect B 29(1):415B
 Jul 1968 Z5055.U49D53
 Feeding, Humidity, Insect eggs, Insect morphology, Research, Temperature, Tenebrio molitor, Tissues.
- 17851-68**
FUNCTIONAL DEGENERATION OF THE VENOMOUS GLAND OF APIS DURING THE SUMMER AND WINTER. (POR)
 C da C Landim S Baldissera D Beig
Rev Brasil Biol 27(4):355-361
 Dec 1967 442.8 R326

17852-68

Bees, Glands (insects), Insect morphology, Insect physiology. English summary

Abstract

17852-68

ENZYMATIC HYDROLYSIS OF THE ENCYSTED PARASPORE OF BACILLUS THURINGIENSIS BY BOMBYX MORI L. PROTEASES. (FR)

M M Lecadet D Martouret

Acad Sci Compt Rend Ser D Sci Nat 265(20):1543-1546 REF

13 Nov 1967 505 P21

Bacillus thuringiensis, *Bombyx mori*, Enzymes, Hydrolysis, Insect physiology, Proteinases.

17853-68

SOME INFORMATION ON TRIATOMA SPINOLAI PORTER 1934, WITH A STUDY OF THE EXTERNAL GENITALIA (HEMIPTERA, REDUVIIDAE). (POR)

H Lent J Jurberg

Rev Brasil Biol 27(3):273-288 REF

Oct 1967 442.8 R326

Insect anatomy, Reduviidae, Reproductive organs.

17854-68

THE FLIGHT RANGE OF SIMULIUM DAMNOSUM.

D J Lewis

Roy Soc Trop Med Hyg Trans 62(3):454

1968 448.9 R813

Breeding, Insect behavior, Insect dissemination, Insect flight, Insect migration, *Simulium damnosum*.

17855-68

EGG AND LARVAL DEVELOPMENT OF CARDIOCHILES NIGRICEPS.

W J Lewis S B Vinson

Entomol Soc Amer Ann 61(3):561-565 REF

May 1968 420 EN82

Cardiochiles nigriceps, Dissection, Eggs, *Heliethis virescens*, Insect morphology, Larvae.

17856-68

A RED DYE TO EVALUATE BAIT FORMULATIONS AND TO MASS MARK FIELD POPULATIONS OF BOLL WEEVILS.

E P Lloyd R J Daum R E McLaughlin F C Tingle G H McKibben E C Burt J R McCoy M R Bell T C Cleveland

J Econ Entomol 61(5):1440-1444

15 Oct 1968 421 J822

Anthonomus grandis, Baits, Dyes, Insect behavior, Labeling, Population, Research.

17857-68

ABOUT LEPIDOPTEROUS IMMATURES.

M R MacKay

Can Entomol 100(4):337-341 REF

Apr 1968 421 C16

Insect biology, Insect control, Insect morphology, Lepidoptera, Metamorphosis.

17858-68

PRE-IMAGINAL CONDITIONING IN DROSOPHILA.

A Manning

Nature 216(5113):338-340

28 Oct 1967 472 N21

Conditioned reflex, *Drosophilidae*, Experimental insects, Geraniol, Insect behavior, Insect rearing, Olfactometers, Peppermint oil, Research, Scent glands.

17859-68

FOOD DISTRIBUTION WITHIN COLONIES OF THE ARGENTINE ANT, IRIDOMYRMEX HUMILIS (MAYR).

G P Markin

Diss Abstr Sect B 29(1):230B

Jul 1968 Z5055.U49D53

Experimental insects, Feeding, Food, Insect behavior, *Iridomyrmex humilis*, Phosphorus isotopes, Radioisotopes, Research, Social insects.

17860-68

INTERCEPTION OF APPLE MAGGOT ADULTS ON COLORED TRAPS IN AN ORCHARD.

C W Maxwell

J Econ Entomol 61(5):1259-1260

15 Oct 1968 421 J822

Attractants, Baits, Color, Experimental insects, Insect collecting equipment, Insect traps, Research, *Rhagoletis pomonella*.

17861-68

INFLUENCE OF POPULATION LEVEL AND TRAP SPACING ON CAPTURE OF TOBACCO HOR-WORM MOTHS IN BLACKLIGHT TRAPS WITH VIRGIN FEMALES.

M W McFadden J J Lam

J Econ Entomol 61(5):1150-1152

15 Oct 1968 421 J822

Baits, Insect traps, Light traps, *Manduca sexta*, Population, Research, Zoogeography.

17862-68

SUB-UNITS OF ACID PHOSPHATASE-1 IN DROSOPHILA MELANOGASTER: REVERSIBLE DISSOCIATION IN VITRO.

R J McIntyre M R Dean

Nature 214(5085):274-275 REF

15 Apr 1967 472 N21

Acids, Culture media, *Drosophila melanogaster*, Electrophoresis, Hydrogen-ion concentration, Insect genetics, Phosphatases, Research.

17863-68

PESTICIDES AND POLLUTION. SB959.0U4.

K Mellanby

422 P. ENGLAND, COLLINS CLEAR-TYPE PRESS

1967

Air pollution, Chemical control (pests), Fungicides, Insecticides, Pesticides, Radiation, Vertebrates, Water pollution.

17864-68

SOME ASPECTS OF MATING BEHAVIOR IN BUTTERFLIES.

L D Miller H K Clench

Lepidopterists Soc J 22(3):125-132

20 Aug 1968 421 L554

Butterflies, Environment, Insect behavior, Reports, Reproduction, Research, Insects that were listed: Pieridae, Danaidae, Satyridae, Nymphalidae, Lycaenidae, Hesperidae

17865-68

THE DIRECTIONS OF THE FLOW OF FOOD IN THE ALIMENTARY TRACT OF THE LEAF-HOPPER EUSCELIDIUS VARIEGATUS KBM. (JASSIDAE). (GE)

R Munk

Z Vergleichende Physiol 58(3):423-428

1968 444.8 Z3

Digestion, *Euscelidius variegatus*, Filters, Food, Gastrointestinal system, Insect physiology. Summary in English

17866-68

COMPARISON OF APPLICATION RATES OF SOME SOIL INSECTICIDES FOR CONTROL OF WESTERN CORN ROOTWORM LARVAE IN MISSOURI.

G J Musick M L Fairchild

J Econ Entomol 61(5):1188-1189

15 Oct 1968 421 J822

Biochemistry, Chemical control (insects), *Diabrotica virgifera*, Environment, Insect pests, Insecticide application, Insecticides, Larvae, Soils, Tables (data).

17867-68

RETRACTION OF THE CLAIM THAT HOST PREGNANCY AFFECTS PUPAL PRODUCTION BY THE TSETSE FLY.

T A M Nash A M Jordan J A Boyle

Nature 216(5111):163-164

14 Oct 1967 472 N21

Blood meal, *Glossina*, Goats, Insect behavior, Insect physiology, Pregnancy, Pupae.

17868-68

ENDOGENOUS DIURNAL RHYTHM OF PUPATION IN A MOSQUITO POPULATION.

J K Nayar

Nature 214(5090):828-829

20 May 1967 472 N21

Aedes taeniorhynchus, Diurnal rhythm, Experimental insects, Insect rearing, Photoperiodism, Population, Pupae, Research.

17869-68

ON COLD RESISTANCE OF THE PEA APHID ACYRTHOSIPHON PISUM HARR (HOMOPTERA, APHIDIDAE). (RUS)

G V Osipov

Zool Zhur 47(1):137-139 REF

Jan 1968 410 R92

Acyrtosiphon pisum, Aphididae, Hibernation, Insect physiology, Temperature. English abstract

Abstract

17870-68

GROWTH OF ARBOVIRUSES IN MONOLAYERS FROM SUBCULTURED MOSQUITO EMBRYO CELLS.

J Peleg

Virology 35(4):617-618

Aug 1968 448.8 V81

Aedes aegypti, Arboviruses, Cells, Culture media, Physiology, Virus diseases (animals).

17871-68

CELLULAR IMMUNE RESPONSES OF INSECTS TO FOREIGN TISSUE IMPLANTS.

L G Peterson

Diss Abstr Sect B 29(2):646B-647B

Aug 1968 Z5055.U49D53

Cells, Immunity, Insect physiology, Tissues, Transplanting.

17872-68

NUCLEOPROTEIN SYNTHESIS DURING METAMORPHOSIS IN DROSOPHILA VIRILIS.

B J Pettit

Diss Abstr Sect B 28(8):3454B

Feb 1968 Z5055.U49D53

Actinomycin d, Biochemistry, Deoxyribonucleic acid, *Drosophila virilis*, Histidine, Metamorphosis, Nucleoproteins, Protein synthesis, Puromycin, Ribonucleic acid, Salivary glands (insects), Uridine.

17873-68

THE DEVELOPMENT OF THEILERIA PARVA IN THE SALIVARY GLANDS OF THE TICK, RHIPICEPHALUS APPENDICULATUS.

R E Purnell L P Joyner

Parasitology 58(3):725-732 REF

Aug 1968 448.8 P21

Cattle, Feeding, Insect behavior, Insect morphology, Insect rearing, Nymphs, Parasitic insects, Rabbits, Research, *Rhipicephalus appendiculatus*, Salivary glands (insects), *Theileria parva*.

17874-68

LET'S TALK ABOUT THE ADVANTAGES OF BAIT.

L P Quattrochi

Pest Contr 36(6):8-10,12,14

Jun 1968 449.8 EX8

Baits, Blattidae, Chemical control (insects), Household insects.

17875-68

BIONOMICS, ENEMIES AND POPULATION DYNAMICS OF JAVESSELLA PELLUCIDA (F.) (HOM., DELPHACIDAE).

M Raatikainen

Ann Agr Fenn 6(28SUP):7-149 MAPS, REF

1967 20 AN7

Biological control (insects), Delphacidae, *Javesella pellucida*, Natural control (insects), Parasitic insects, Predaceous insects.

17876-68

ASPARTATE AMINOTRANSFERASE IN THE PEA APHID, ACYRTHOSIPHON PISUM (HARRIS).

- A Retnakaran S D Beck
Compar Biochem Physiol 26(3):1061-1069 REF
Sep 1968 444.8 C73
Acyrtosiphon pisum, Aminotransferases, Biochemistry, Enzymes, Insect physiology. Abstract
- 17877-68**
ROLE OF PHOTOPERIOD, TEMPERATURE, AND INJURY IN INDUCTION AND TERMINATION OF THE PUPAL DIAPAUSE OF HELIOTHIS ZEA (BODDIE).
S H Roach
Diss Abstr Sect B 29(2):647B
Aug 1968 Z5055.U49D53
Heliiothis zea, Injuries, Insect morphology, Insect physiology, Photoperiodism, Pupae, Temperature.
- 17878-68**
VITAL STAINING OF INSECT EGGS BY INCORPORATION OF TRY PAN BLUE.
K Sander H Vollmar
Nature 216(5111):174-175 REF
14 Oct 1967 472 N21
Acheta domesticus, Dyes, Embryology, Insect eggs, Trypan blue.
- 17879-68**
TYROSINE METABOLISM AND ITS HORMONAL CONTROL AFTER ECLOSION IN THE ADULT FLESHFLY SARCOPHAGA BULLATA PARKER (DIPTERA: SARCOPHAGIDAE).
I M Seligman
Diss Abstr Sect B 29(2):647B
Aug 1968 Z5055.U49D53
Diptera, Hormones, Insect physiology, Metabolism, Sarcophaga bullata, Sarcophagidae, Tyrosine.
- 17880-68**
SENSILLAE ON THE ANTENNAE OF BLOOD-SUCKING BITING MIDGES (DIPTERA, CERATOPOGONIDAE). (RUS)
A K Shevchenko Sh m Djafarov
Zool Zhur 47(1):145-148
Jan 1968 410 R92
Antennae, Ceratopogonidae, Culicoides, Insect morphology, Insect physiology, Sense organs. English abstract
Abstract
- 17881-68**
ETHYLENE OXIDE FOR THE CONTROL OF AMERICAN FOULBROOD IN HONEY BEES.
H Shimanuki T Lehnert
J Econ Entomol 61(5):1456-1457
15 Oct 1968 421 J822
American foulbrood, Apis mellifera, Bacillus larvae, Bacteria, Biochemistry, Ethylene oxide, Insect diseases, Insecticides, Larvae.
- 17882-68**
A POSSIBLE MARKER FOR EUROPEAN CORN BORER MOTHS.
W B Showers L C Lewis G L Reed
J Econ Entomol 61(5):1464-1465
15 Oct 1968 421 J822
Diet, Fluorescent dyes, Insect behavior, Insect migration, Labeling, Population, Trichoplusia ni.
- 17883-68**
CHAMBERS FOR COLLECTING AND OBSERVING SINGLE PUPAE OF THREE STORED-PRODUCT MOTHS.
E L Soderstrom A E Lovitt
J Econ Entomol 61(5):1468
15 Oct 1968 421 J822
Cadra cautella, Ephestia elutella, Experimental insects, Insect collecting equipment, Plodia interpunctella, Pupae, Research.
- 17884-68**
ON THE INNERVATION OF THE PROTHORACIC GLANDS IN PAPILIO DEMOLEUS L. (LEPIDOPTERA).
K P Srivastava H H Singh
Experientia 24(8):838-839
15 Aug 1968 475 EX7
Insect histology, Insect physiology, Larvae, Lepidoptera, Nervous system, Papilio demoleus. German abstract
- 17885-68**
THE EFFECT OF BLOOD-FEEDING ON THE LONGEVITY OF RADIATIONRESISTANT YELLOW-FEVER MOSQUITOES.
N Stahler L A Terzian
J Econ Entomol 61(5):1447
15 Oct 1968 421 J822
Aedes aegypti, Blood, Experimental insects, Feeding, Gamma rays, Immunity, Longevity, Radiation, Research.
- 17886-68**
TECHNIQUES OF MARKING INSECTS WITH MICRONIZED FLUORESCENT DUST WITH ESPECIAL EMPHASIS ON MARKING MILLIONS OF LYGUS HESPERUS FOR DISPERSAL STUDIES.
V M Stern A Mueller
J Econ Entomol 61(5):1232-1237
15 Oct 1968 421 J822
Dusting, Fluorescent substances, Insect dissemination, Insect migration, Labeling, Lygus hesperus, Pigments, Population, Research.
- 17887-68**
REARING STORED PRODUCT INSECTS FOR LABORATORY STUDIES: SIX SPECIES OF MOTHS.
R G Strong Partida D N Warner
J Econ Entomol 61(5):1237-1249
15 Oct 1968 421 J822
Experimental insects, Humidity, Insect biology, Insect rearing, Moths, Research, Tables (data), Temperature. The moths were: Cadra cautella, Vitula edmandae serratilinea, Plodia interpunctella, Anagasta kuehniella, C. figulilella and Ephestia elutella.
- 17888-68**
LABORATORY REARING OF CULEX (MELANOCION) PORTESI SENEVET AND ABONNENC.
M Takahashi
Mosquito News 28(1):82-84 REF
Mar 1968 421 M85
Culex portesi, Insect physiology, Insect rearing.
- 17889-68**
LIFE HISTORY OF THE LOOPER PHIGALIA TITEA IN VIRGINIA.
R L Talerico
Entanol Soc Amer Ann 61(3):557-561
May 1968 420 EN82
Hibernation, Insect histology, Larvae, Ovipositors, Parasitic insects, Phigalia titea, Pupal cases, Soils.
- 17890-68**
SOME COMPARATIVE DATA ON ECOLOGY AND BEHAVIOUR OF STAPHYLINID BEETLES (COLEOPTERA, STAPHYLINIDAE). (RUS)
A L Tichomirova
Zool Zhur 46(12):1785-1798 REF
Dec 1967 410 R92
Insect behavior, Insect ecology, Insect evolution, Staphylinidae.
Abstract
- 17891-68**
SOME ASPECTS OF ISOLEVCINE METABOLISM IN THE YELLOW FEVER MOSQUITO, AEDES AEGYPTI (L.).
W L Tietjen
Diss Abstr Sect B 29(1):418B
Jul 1968 Z5055.U49D53
Aedes aegypti, Biochemistry, Carbon isotopes, Diet, Isoleucine, Lipids, Metabolism, Proteins.
- 17892-68**
ON PERIODICITY OF GAS EXCHANGE IN ONTOGENESIS OF THE COLORADO BEETLE (LEPTINOTARSA DECEMLINEATA SAY.). (RUS)
T Tilavov
Zool Zhur 47(1):143-145
Jan 1968 410 R92
Diurnal rhythm, Insect physiology, Insect respiration, Leptinotarsa decemlineata. English abstract
Abstract
- 17893-68**
INFLUENCE OF A VIRUS DISEASE ON THE HEMOCYTTIC ANTICRYPTOGRAMIC REACTIONS IN INSECTS. (FR)
A Vey C Vago
Acad Sci Compt Rend Ser D Sci Nat 265(20):1568-1570
13 Nov 1967 505 P21
Blood cells, Insect diseases, Insect physiology, Insects, Mycosis, Viruses. French summary
- 17894-68**
IMPROVEMENT OF A METHOD FOR CULTURING THE EGGS OF THE PHASMID CARAUSIUS MOROSUS BR. DEPRIVED OF THE CHORION. (FR)
J Vignau
Acad Sci Compt Rend Ser D Sci Nat 265(20):1504-1507
13 Nov 1967 505 P21
Fetal membranes, Insect eggs, Insect morphology, Insect physiology, Insect respiration, Phasmatidae. French summary
- 17895-68**
ON THE TETRAPYRROLIC PIGMENTS, ESSENTIAL CONSTITUENTS OF HOMOCHROME:COLORATION IN OEDIPODA COERULESCENS L. (ACRIDAE, ORTHOPTERA). (FR)
M Vuillaume B Levita
Acad Sci Compt Rend Ser D Sci Nat 264(22):2591-2593
29 May 1967 505 P21
Biochemistry, Insect physiology, Oedipoda coerulescens, Orthoptera, Pigments (insect).
- 17896-68**
PERMEABILITY AND EXCITATION OF INSECT MUSCLE.
A C Wareham C J Duncan K Bowler
Nature 217(5132):970-972
09 Mar 1968 472 N21
Atpase, Biochemistry, Insects, Ions, Muscles, Nervous system, Periplaneta americana, Permeability, Potassium, Sodium.
- 17897-68**
PYRETHRINS-PIPERONYL BUTOXIDE APPLIED AS A FOG IN AN EMPTY GRAIN BIN.
F L Watters
J Econ Entomol 61(5):1313-1316
15 Oct 1968 421 J822
Biochemistry, Chemical control (insects), Cryptolestes ferrugineus, Humidity, Insecticidal aerosols, Insecticide application, Insecticide residues, Piperonyl butoxide, Pyrethrum, Storage, Temperature.
- 17898-68**
BIOLOGY OF THE ELM LEAF BEETLE IN SOUTHERN ARIZONA.
G P Wene
J Econ Entomol 61(5):1178-1180
15 Oct 1968 421 J822
Entomology, Experimental insects, Insect biology, Insect morphology, Metamorphosis, Pyrrhalta luteola, Research.
- 17899-68**
MECHANISMS OF INHIBITION AND UNCOUPLING OF OXIDATIVE PHOSPHORYLATION IN HOUSEFLY MITOCHONDRIA.
R L Williamson
Diss Abstr Sect B 29(1):235B
Jul 1968 Z5055.U49D53
Absorption, Adenosine triphosphates, Chemical reactions, Manometry, Mitochondria, Musca domestica, Oxygen, Phosphorylation, Temperature.

17900-68

WINTER OVIPOSITION BY THE ALFALFA WEEVIL IN VIRGINIA.

A M Woodside J L Bishop R I. Pienkowski

J Econ Entomol 61(5):1230-1232

15 Oct 1968 421 J822

Alfalfa, *Hypera postica*, Insect eggs, Insect pests, Oviposition, Research, Tables (data), Temperature, Weather.

17901-68

COMPARATIVE LIFE HISTORIES OF CHLORDANE-RESISTANT AND NONRESISTANT GERMAN COCKROACHES.

C C Wright

J Econ Entomol 61(5):1317-1321 REF

15 Oct 1968 421 J822

Biochemistry, *Blattella germanica*, Chemical control (insects), Chlordane, Experimental insects, Humidity, Insect behavior, Insect morphology, Insect rearing, Insecticides, Temperature.**GENETICS**

17902-68

PHYSIOLOGICAL GENETICS OF MELANOTIC TUMORS IN DROSOPHILA MELANOGASTER. V. AMINO ACID METABOLISM AND TUMOR FORMATION IN THE TU BW; ST SU-TU STRAIN.

B Burnet J H Sang

Genetics 59(2):211-235 REF

Jun 1968 442.8 G28

Amino acids, Biochemistry, Diet, *Drosophila melanogaster*, Genes, Insect genetics, Insect metabolism, Insect physiology, Mutation, Phenylalanine, Tryptophan.

17903-68

SALIVARY CHROMOSOME-LIKE STRUCTURE OF A COCCID CHROMOSOME.

T S S Dikshith

Experientia 24(5):513-514

15 May 1968 475 EX7

Chromosomes, Homoptera, *Icerya aegyptiaca*, Insect genetics, French abstract

17904-68

GAMMA-RAY-INDUCED MUTATIONS IN DROSOPHILA MELANOGASTER OOCYTES: THE PHENOMENON OF DOSE RATE.

E Himoe

Diss Abstr Sect B 28(11):4431B

May 1968 Z5055.U49D53

Chromosomes, Dosage, *Drosophila melanogaster*, Gamma rays, Insect genetics, Irradiation, Lethal factor, Mutation, Therapeutics.

17905-68

MITOTIC CHROMOSOMES OF GLOSSINA PALLIDIPES AUSTEN.

P E Hullely

Nature 217(5132):977-978,979

09 Mar 1968 472 N21

Chromosomes, Entomology, *Glossina pallidipes*, Insect genetics, Mitosis, Morphology, Research.

17906-68

TETRAPLOID FEMALES IN THE HYMENOPTERON, MORMONIELLA.

R M Macy

Diss Abstr Sect B 29(1):415B

Jul 1968 Z5055.U49D53

Breeding, Chromosomes, Cytology, Fertility, Insect genetics, Mutation, *Nasonia*, Parasitic insects, Polyploidy, Research.

17907-68

ACTINOMYCIN D-INDUCED PHENOCOPIES IN DROSOPHILA MELANOGASTER AND THEIR RELEVANCE TO DIFFERENTIAL GENE TRANSCRIPTION. THE GENETIC BASIS OF ACTINOMYCIN D-INDUCED PREFERENTIAL KILLING OF DROSOPHILA MELANOGASTER MALES.

L Margulies

Diss Abstr Sect B 29(2):485B-486B

Aug 1968 Z5055.U49D53

Actinomycin d, *Drosophila melanogaster*, Genetics, Insect control.

17908-68

DEVELOPMENTAL CHARACTERISTICS OF FIVE LETHAL MUTANTS OF DROSOPHILA MELANOGASTER.

C P Wright

Diss Abstr Sect B 28(11):4436B

May 1968 Z5055.U49D53

Drosophila melanogaster, Insect genetics, Insect morphology, Lethal factor, Measurement, Mutation, Oxygen. The five lethal mutants were: *gluful-2*, *gluful-1*, *gluful-1*, *phenfultryless-1*, and *tyrprocess-1*.

17909-68

MEIOTIC DRIVE AND VISIBLE POLARITY IN DROSOPHILA SPERMATOCYTES.

A F Yanders J G Brewan W J Peacock D J

Goodchild

Genetics 59(2):245-253 REF

Jun 1968 442.8 G28

Chromosomes, Cytology, Cytoplasm, *Drosophilidae*, Electron microscopy, Insect genetics, Research, Sex, Spermatoocytes, Temperature.**MEDICAL ENTOMOLOGY**

17910-68

STUDIES OF THE EPIDEMIOLOGY OF ARTHROPOD-BORNE VIRUS INFECTIONS AT MITCHELL RIVER MISSION, CAPE YORK PENINSULA, NORTH QUEENSLAND. II. ARBOVIRUS INFECTIONS OF MOSQUITOES, MAN, AND DOMESTIC FOWLS, 1963-1966.

R L Doherty R H Whitehead E J Wetters B M

Gorman

Roy Soc Trop Med Hyg Trans 62(3):430-438 REF

1968 448.9 R813

Arboviruses, Culicidae, Epidemology, Human diseases, Insect ecology, Insect vectors, Light traps, Population, Research, Serological tests, Virus diseases (animals).

17911-68

SPECIAL EQUIPMENT IN THE BOX ELDER COUNTY MOSQUITO AND FLY ABATEMENT DISTRICT.

K L Josephson

Mosquito News 28(1):112-114

Mar 1968 421 M85

Culicidae, Diptera, Drainage ditches, Insect control, Spraying equipment.

17912-68

CULICOIDES CONTROL IN THE CANAL ZONE BY WATER MANAGEMENT.

J P MacLaren J L Hawkins W P Murdoch R G

Bush

Mosquito News 27(4):513-519 REF

Dec 1967 421 M85

Ceratopogonidae, Culicoides, Drainage ditches, Insect control, Panama Canal Zone, Reservoirs.

17913-68

BIOLOGY OF VECTOR-ASSOCIATED DISEASES IN VIETNAM.

H G Scott

Amer Vet Med Ass J 151(12):1741-1750 MAP

15 Dec 1967 41.8 AM3

Filariasis, Helminthiasis, Insect vectors, Malaria, Medical entomology, Plague.

17914-68

STUDIES OF THE EPIDEMIOLOGY OF ARTHROPOD-BORNE VIRUS INFECTIONS AT MITCHELL RIVER MISSION, CAPE YORK PENINSULA, NORTH QUEENSLAND. I. MOSQUITO COLLECTIONS, 1963-1966.

H A Standfast G J Barrow

Roy Soc Trop Med Hyg Trans 62(3):418-429 REF

1968 448.9 R813

Arboviruses, Baits, Epidemiology, Insect dissemination, Insect traps, Insect vectors, Malaria, Population, Rainfall, Research, Temperature, Weather. Insects mentioned were: *Anopheles*, *Culex pullus*, *C. squamosus*, *Mansonia*, *Coquillettidia*, *Uranotaenia*, *Ficalbia*, *Aedcomyia*, *C. annulirostris*.

17915-68

GAMASID MITES (GAMASOIDEA) AS VECTORS OF THE DISEASE CAUSATIVE AGENTS. (RUS)

A A Zemskaya

Zool Zhur 46(12):1771-1785 REF

Dec 1967 410 R92

Epidemiology, Gamasides, Insect vectors, Oribatei, Tularemia.

Abstract

CROP PRODUCTION

17916-68

COMPARATIVE GIBBERELLIN RELATIONSHIPS IN TALL AND DWARF PEAS (PISUM SATIVUM L.).

J D Anderson

Diss Abstr Sect B 28(11):4440B-4441B

May 1968 Z5055.U49D53

Gibberellins, Light, Peas, *Pisum sativum*, Plant metabolism, Plant physiology, Seedlings.

17917-68

METHOD FOR ESTIMATING INTENSITY OF THE LITTLE LEAF DISEASE OF BRINJAL (SOLANUM MELONGENA).

A K Banerjee G K Bajpai I N Tandon

Plant Dis Rep 52(2):118-120

Feb 1968 1.9 P69P

Correlation, Eggplant, Leaves, Plant diseases, Research, Sampling (statistics).

17918-68

EVALUATION OF NEMATOCIDES FOR CONTROLLING RENIFORM NEMATODES ON SWEETPOTATOES.

W Birchfield W J Martin

Plant Dis Rep 52(2):127-131 REF

Feb 1968 1.9 P69P

Crop yields, Fumigants, Nematocides, *Rotylenchulus reniformis*, Sampling (statistics), Soil testing, Sweetpotatoes.

17919-68

DESERT GRASSLAND MESQUITE AND FIRE.

R Claveran Alonso

Diss Abstr Sect B 28(8):3121B

Feb 1968 Z5055.U49D53

Bouteloua curtipendula, *Bouteloua gracilis*, Fire, Plant ecology, Plant temperature, *Prosopis velutina*, *Quercus emoryi*, Ranges.

17920-68

EFFECT OF SEED EXTRACT OF TRIFOLIUM SUBTERRANEUM ON GERMINATION AND SEEDLING GROWTH RATE.

A W Ferguson

Nature 217(5133):1064-1066

16 Mar 1968 472 N21

Plant extracts, Plant growth inhibitors, Plant physiology, Seed germination, Seedlings, Subterranean clover, Temperature, Wheat.

17921-68

THE EFFECT OF CARBON SOURCE, CARBON TO NITROGEN RATIOS, AND ORGANIC AMENDMENTS ON SURVIVAL OF PROPAGULES OF VERTICILLIUM ALBOATRUM IN SOIL.

R J Green G C Papavizas

Phytopathology 58(5):567-570 REF

May 1968 464.8 P56

Carbon, Nitrogen, Physiology, Plant reproduction, Population statistics, Soils, *Verticillium albo-atrum*.

- 17922-68**
MITOTIC RECOMBINATION IN CONIDIOPHORES OF VERTICILLIUM ALBO-ATRUM.
 A C Hastie
Nature 214(5085):249-252
 15 Apr 1967 472 N21
 Cytology, Fungi, Mitosis, Plant genetics, Reproduction, Research, Verticillium albo-atrum.
- 17923-68**
COMMONWEALTH INSTITUTE OF BIOLOGICAL CONTROL-INDIAN STATION.
 V P Kao
Plant Protect Bull 18(1):1-5
 1966 421 P69
 Biological control (pests), Laboratories, Research.
- 17924-68**
THE EFFECT OF DISINFECTION ON CEREAL SEEDS DETERMINED IN LABORATORY EXPERIMENTS AND EMERGENCE TESTS IN SOIL.
 H Kolk G Ljungberg
Swed Stat Vaxtskyddsanst Medd 13(113):471-484
 1967 464.9 SW3M
 Agricultural research, Fungus diseases (plants), Fusarium, Grain, Greenhouses, Helminthosporium, Laboratories, Land, Seed treatment, Septoria.
- 17925-68**
THE RELATION OF RAINFALL, RELATIVE HUMIDITY, AND TEMPERATURE TO LATE BLIGHT OF POTATO IN SEDES, SINDOS-LAHANOKIPI OF NOMOS THESSALONIKI.
 N C Kyrou
Plant Dis Rep 51(11):936-940 REF
 Nov 1967 1.9 P69P
 Fungus diseases (plants), Humidity, Late blight (potatoes), Phytophthora infestans, Plant disease forecasting, Rainfall, Temperature.
- 17926-68**
EASTERN DWARF MISTLETOE ON JACK PINE IN MANITOBA.
 J G Laut
Plant Dis Rep 51(11):899-900 REF
 Nov 1967 1.9 P69P
 Arceuthobium pusillum, Parasitic plants, Pinus banksiana, Witches' broom (coniferae).
- 17927-68**
DEVELOPMENT OF PARTHENO-CARPIC AND NON-PARTHENO-CARPIC SYCONIA OF FICUS CARICA L. CV. KING IN RELATION TO ENDOGENOUS AND EXOGENOUS GROWTH REGULATORS.
 A F Lodhi
Diss Abstr Sect B 28(11):4447B
 May 1968 Z5055.U49D53
 Crops, Culture media, Figs, Fruit, Gibberellins, Parthenocarp, Plant physiology, Plant regulators.
- 17928-68**
RACE BUILDUP OF XANTHOMONAS MALVACEARUM ON COTTON IN SOUTHEAST MISSOURI.
 J W Miller
Plant Dis Rep 52(9):739-740
 Sep 1968 1.9 P69P
 Angular leafspot (cotton), Cotton, Injections, Leaves, Research, Sampling (statistics), Xanthomonas malvacearum.
- 17929-68**
REDUCING SPRING DISCHARGE OF VENTURIA INAEQUALIS ASCOSPORES BY COMPOSTING OVERWINTERING LEAVES.
 P M Miller S Rich
Plant Dis Rep 52(9):728-730
 Sep 1968 1.9 P69P
 Fertilizers, Hibernation, Leaves, Lime, Potassium phosphate, Research, Venturia inaequalis.
- 17930-68**
TWO NEW HARDWOOD HOSTS OF FOMES ANNOSUS.
 D Punter J D Calfey
Plant Dis Rep 52(9):692
 Sep 1968 1.9 P69P
 Fomes annosus, Fraxinus americana, Pinus resinosa, Research, Tree diseases, Ulmus americana.
- 17931-68**
SELECTIVE STAINING OF DEAD CELLS IN BEAN LEAVES INJURED BY OZONE.
 S Rich H Tomlinson
Plant Dis Rep 52(9):732
 Sep 1968 1.9 P69P
 Beans, Cells, Chemicals, Greenhouses, Leaves, Lethal factors, Ozone, Plant diseases, Research.
- 17932-68**
LIST OF PHYTOPATHOLOGICAL TERMS.
 G J Saaltink
Neth J Plant Pathol 74(3):65-84
 1968 464.8 T44
 Nomenclature, Phytopathology, Plant diseases. English summary
- 17933-68**
EXPERIMENTS AND CONSIDERATIONS ON THE ANOMOLIES OF TOMATOES OF THE SUPER MARMANDE TYPE IN HOT HOUSES, CONNECTIONS WITH THE USE OF SOME PLANT HORMONES.
 G Scaramuzzi G Perrotta
Riv Patol Veg (SER.4) 3(3):17 7-205
 Jul 1967 464.8 R52
 Abnormalities, Fertilizer application, Greenhouses, Nutrient solutions (plants), Plant hormones, Plant regulators, Research, Tomatoes. English summary
- 17934-68**
THE IMPACT OF FUNGI ON MAN. QK603.0T3.
 W A Taber R A Taber
 64 P. CHICAGO, RAND MCNALLY AND COMPANY
 1967
 Fungi, Fungus diseases (animals), Fungus diseases (plants), Industry, Man, Plant physiology, Reproduction, Toxins.
- 17935-68**
SUCCESSFUL TISSUE TRANSPLANTATION OF AUXIN-DEPENDENT TUMOURS AND SOME OF ITS PROBLEMS.
 D Torok
Nature 216(5113):376-377 REF
 28 Oct 1967 472 N21
 Chromosomes, Crown galls, Culture media, Diagnosis, Picea glauca, Plant grafting, Plant hormones, Plant physiology, Research, Tissues, Transplanting.
- 17936-68**
PESTICIDES IN THE COMING STRUGGLE FOR FOOD.
 R White-Stevens
Nat Agr Chem Ass News Pesticide Rev 26(5):5-8
 Jun 1968 421 AG8
 Agricultural economics, Food plants, Pest control, Pesticides, Plant protection, Population statistics.
- 17937-68**
GENETICS OF REACTION TO PUCCINIA SORGHII SCHW. IN TEN CORN INBRED LINES OBTAINED FROM AFRICA AND EUROPE.
 D R Wilkinson
Diss Abstr Sect B 28(8):3133B
 Feb 1968 Z5055.U49D53
 Corn, Plant breeding, Plant disease resistance, Plant genetics, Puccinia sorghii.

DISEASES

17948-68

Aug 1968 464.8 P56

Fungus diseases (plants), Pyrenochaeta terrestris, Temperature, Vegetables.

17948-68

CARBOHYDRATE DISTRIBUTION IN GRAFTED POTATO PLANTS REPRESENTING TWO TYPES OF RESISTANCE TO VIRUS X.

A P Benson W J Hooker

Phytopathology 58(5):571-574 REF

May 1968 464.8 P56

Carbohydrates, Plant disease resistance, Plant grafting, Potatoes, Virus diseases (plants), Virus x (potatoes).

17949-68

ANALYSIS OF COMPETITION IN MODEL SYSTEMS. (ABSTRACT).

D M Benson

Phytopathology 58(8):1043

Aug 1968 464.8 P56

Beans, Biological control (pests), Competition, Fungus diseases (plants), Fusarium solani phaseoli.

17950-68

MECHANISM OF INCREASED ROOT ROT IN VIRUS-INFECTED PEAS.

M K Beute

Diss Absr Sect B 29(2):495B

Aug 1968 Z5055.U49D53

Peas, Plant physiology, Root rot (peas), Roots, Virus diseases (plants).

17951-68

NUMBER OF ZOOSPORES OF APHANOMYCES EUTEICHES REQUIRED FOR INFECTION ON PEAS. (ABSTRACT).

H S Bhallia

Phytopathology 58(8):1043

Aug 1968 464.8 P56

Aphanomyces euteiches, Fungus diseases (plants), Peas, Root rot (pcas), Seedlings.

17952-68

EFFECTS OF WATERING FREQUENCY AND SATURATION TIME ON FINE ROOT NECROSIS OF PEACH CAUSED BY PYTHIUM SPP. (ABSTRACT).

J A Biesbrock F F Hendrix

Phytopathology 58(8):1043

Aug 1968 464.8 P56

Fungus diseases (plants), Necrosis, Peaches, Plant water relations, Pythium, Roots, Soil adsorption, Time.

17953-68

ANAEROBIC METABOLISM OF ALBUGO CANDIDA-INFECTED RADISH COTYLEDONS.

L L Black P H Williams G S Pound

Phytopathology 58(5):672-675 REF

May 1968 464.8 P56

Acetaldehyde, Albugo candida, Carbon dioxide, Metabolism, Radishes.

17954-68

RELATION OF BORON TO CHERRY ROSETTE DISEASE IN OREGON, AND THE POSSIBLE IMPLICATION OF A VIRUS.

B Bolwyn

Diss Absr Sect B 28(8):3128B

Feb 1968 Z5055.U49D53

Boron, Mazzard cherries, Plant nutritional deficiencies, Rosette (cherries), Virus diseases (plants).

17955-68

THE ROLE OF IAA IN HOST REACTION TO DIFFERENT ISOLATES OF PHYTOPHTHORA CACTORUM. (ABSTRACT).

Z Borecki D F Millikan

Phytopathology 58(8):1044

Aug 1968 464.8 P56

Apples, Collar rot (apples), Fungus diseases (plants), Indoleacetic acid, Phytophthora cactorum.

17956-68

A MECHANISM OF ENHANCED RESISTANCE TO CERATOCYSTIS ULMI IN AMERICAN ELMS TREATED WITH SODIUM TRICHLOROPHENYLACETATE.

W D Brener C H Beckman

Phytopathology 58(5):555-561 REF

May 1968 464.8 P56

Ceratocystis ulmi, Fenac, Fungus diseases (plants), Plant disease resistance, Plant regulators, Tylose, Ulmus.

17957-68

MORPHOLOGY AND LONGEVITY OF VERTICILLIUM ALBO-ATRUM IN COTTON LEAVES. (ABSTRACT).

L A Brinkerhoff D Sarojak N Hormchong N C Rogers

Phytopathology 58(8):1044

Aug 1968 464.8 P56

Cotton, Fungus diseases (plants), Leaves, Longevity, Morphology, Verticillium albo-atrum.

17958-68

HELICOPTER APPLICATION OF PHYTOACTIN TO WHITEBARK PINE. (ABSTRACT).

D H Brown O J Dooling

Phytopathology 58(8):1045

Aug 1968 464.8 P56

Aerial spraying, Antibiotics, Cronartium ribicola, Fungus diseases (plants), Helicopters, Pesticide application, Phytoactin, Pinus albicaulis.

17959-68

CHEMICAL TREATMENT OF HYPOXYLON CANKERS ON ASPEN. (ABSTRACT).

D H Brown S B Silverborg

Phytopathology 58(8):1045

Aug 1968 464.8 P56

Chemicals, Fungus diseases (plants), Hypoxylon, Populus, Therapeutics.

17960-68

GERMINATION OF IMMATURE AND MATURE SPORES OF DIPLODIA NATALENSIS. (ABSTRACT).

G E Brown

Phytopathology 58(8):1044

Aug 1968 464.8 P56

Citrus, Diplodia natalensis, Fungus diseases (plants), Seed germination, Spores.

17961-68

PERMEABILITY CHANGES IN PEAR FRUITS ASSOCIATED WITH PATHOGENESIS BY ERWINIA AMYLOVORA. (ABSTRACT).

A Burkowicz R N Goodman

Phytopathology 58(8):1045-1046

Aug 1968 464.8 P56

Absorption, Bacterial diseases (plants), Erwinia amylovora, Fruit, Pears, Plant translocation. Abstract of American Phytopathological Society meeting

17962-68

RELATION OF UREDIAL AND UREDIOSPORE COUNTS TO EPIPHYTOTIC DEVELOPMENT OF WHEAT RUSTS AND THE VALUE OF THE COUNTS IN PREDICTING DISEASE. (ABSTRACT).

J R Burleigh R W Romig A P Roelofs

Phytopathology 58(8):1045

Aug 1968 464.8 P56

Fungus diseases (plants), Physiology, Puccinia graminis, Rust (wheat), Wheat.

17963-68

DISTRIBUTION IN ONTARIO OF VERTICILLIUM STRAINS CAUSING WILT OF POTATOES.

L V Busch

Can Plant Dis Surv 47(3):76-78

Sep 1967 464.9 C165

Fungus diseases (plants), Potatoes, Verticillium albo-atrum, Wilt (potatoes).

17964-68

PREMATURE DEATH OF ADULT RUSTED WHEAT PLANTS IN RELATION TO CARBON DIOXIDE EVOLUTION BY ROOT SYSTEMS.

W R Bushnell J B Rowell

Phytopathology 58(5):651-658 REF

May 1968 464.8 P56

Carbon dioxide, Mortality, Plant diseases, Puccinia graminis tritici, Roots, Rust (wheat), Wheat.

17965-68

PECTIN METHYL-TRANS-ELIMINASE AS THE MACERATION FACTOR OF SCLEROTINIA FRUCTIGENA AND ITS SIGNIFICANCE IN BROWN ROT OF APPLE.

R J W Byrde A H Fielding

J Gen Microbiol 52(2):287-297 REF

Jul 1968 448.3 J823

Apples, Brown rot (apples), Fungus diseases (plants), Plant biochemistry, Sclerotinia fructigena.

Abstract

17966-68

INFLUENCE OF NITROGEN FORM ON THE INCIDENCE AND SEVERITY OF APHANOMYCES ROOT ROT OF PEAS. (ABSTRACT).

H E Carley T H King

Phytopathology 58(8):1046

Aug 1968 464.8 P56

Aphanomyces euteiches, Fungus diseases (plants), Nitrogen, Peas, Root rot (peas).

17967-68

PATCH CANKER OF HEVEA BRASILIENSIS CAUSED BY PHYTOPHTHORA PALMIVORA.

K H Chee

Plant Dis Rep 52(2):132-133

Feb 1968 1.9 P69P

Artificial insemination, Culture media, Environment, Fungus diseases (plants), Hevea brasiliensis, Petrolatum, Phytophthora palmivora, Pythium, Spraying, Tissues, Wood decay.

17968-68

SUSCEPTIBILITY OF TOMATO VARIETIES TO SCLEROTIUM ROLFSSII.

G C Clerk J T Dakwa

Plant Dis Rep 51(11):941

Nov 1967 1.9 P69P

Fungus diseases (plants), Plant disease resistance, Rot (tomatoes), Sclerotium rolfsii, Tomatoes.

17969-68

CARBON DIOXIDE-POWERED PLOT SPRAYER FOR TURFGRASS DISEASE CONTROL FUNGICIDE APPLICATION.

H Cole P M Anderson

Plant Dis Rep 52(9):678-682

Sep 1968 1.9 P69P

Carbon dioxide, Equipment, Fungicides, Grasses, Spraying, Turf.

17970-68

EFFECT OF XANTHOMONAS VESICATORIA ON LOSS OF ELECTROLYTES FROM LEAVES OF CAPSICUM ANNUM.

A A Cook R E Stall

Phytopathology 58(5):617-619 REF

May 1968 464.8 P56

Bacteria, Bush redpeppers (vegetable), Electrolytes, Leaves, Plant diseases, Plant physiology, Pseudomonadaceae, Xanthomonas vesicatoria.

17971-68

ECOLOGY AND POSSIBLE SIGNIFICANCE OF PERITHECIA OF CALONECTRIA NIVALIS IN THE PACIFIC NORTHWEST.

R J Cook G W Bruehl

Phytopathology 58(5):702-703

May 1968 464.8 P56

Calonectria nivalis, Ecology, Fusarium nivale, Grain, Perithecia.

- 17972-68**
THE RELATIONSHIPS OF OZONE, LOPHODERMUM PINASTRI AND PULLULARIA PULLULANS TO NEEDLE BLIGHT OF EASTERN WHITE PINE.
 A C Costonis
Diss Abstr Sect B 29(2):436B-437B
 Aug 1968 Z5055.U49D53
 Fungus diseases (plants), Lophodermium pinastri, Needle blight (pinus), Ozone, Pinus strobus, Pullularia pullulans.
- 17973-68**
SOIL FUMIGANTS TESTED FOR CONTROL OF CROWN GALL.
 I W Deep R A McNeilan I C MacSwan
Plant Dis Rep 52(2):102-105
 Feb 1968 1.9 P69P
 Chemical control (plant diseases), Cherries, Crown galls, Fumigants, Greenhouse culture, Methyl bromide, Seedlings, Soil temperature, Soil testing.
- 17974-68**
POTATO SPINDLE TUBER VIRUS: IN SITU SENSITIVITY OF THE INFECTIOUS AGENT TO RIBONUCLEASE. (ABSTRACT).
 T O Diener
Phytopathology 58(8):1048
 Aug 1968 464.8 P56
 Allergies, Potatoes, Ribonucleic acid, Spindle tuber (potatoes), Virus diseases (plants).
- 17975-68**
OCCURRENCE OF POPLAR CANKERS CAUSED BY FUSARIUM SOLANI IN IOWA.
 L S Dochinger
Plant Dis Rep 51(11):900-903 REF
 Nov 1967 1.9 P69P
 Canker (populus), Fungus diseases (plants), Fusarium solani, Populus alba, Populus deltoides, Populus grandidentata.
- 17976-68**
EFFECT OF SOIL STERILIZATION AND SOIL TYPE ON APPARENT SUSCEPTIBILITY OF TWO MUSKMELON VARIETIES TO FUSARIUM OXYSPORUM F. SP. MELONIS. (ABSTRACT).
 D R Douglas C J Eide
Phytopathology 58(8):1048
 Aug 1968 464.8 P56
 Fungus diseases (plants), Fusarium oxysporum, Muskmelons, Plant disease resistance, Soil analysis, Soil sterilization.
- 17977-68**
EFFECT OF UROMYCES PHASEOLI ON THE WATER RELATIONS OF PRIMARY BEAN LEAVES. (ABSTRACT).
 J M Duniway R D Durbin
Phytopathology 58(8):1049
 Aug 1968 464.8 P56
 Beans, Leaves, Plant physiology, Plant water relations, Uromyces phaseoli.
- 17978-68**
EFFECTIVENESS OF SPECIFIC GENES AND GENE COMBINATIONS IN CONFERRING RESISTANCE TO RACES OF XANTHOMONAS MALVACEARUM IN UPLAND COTTON. (ABSTRACT).
 K M El-Zik L S Bird
Phytopathology 58(8):1049
 Aug 1968 464.8 P56
 Bacterial diseases (plants), Cotton, Genes, Genetics, Plant disease resistance, Xanthomonas malvacearum.
- 17979-68**
MYCELIAL GROWTH AND PRODUCTION OF OOSPORES AS AFFECTED BY BETA-SITOSTEROL, AND THE GERMINATION OF OOSPORES OF PHYTOPHTHORA MEGASPERMA VAR. SOJAE. (ABSTRACT).
 D C Erwin J E Partridge W H McCormick
Phytopathology 58(8):1049
 Aug 1968 464.8 P56
- Agar, Beta-sitosterol, Fungus diseases (plants), Phytophthora megasperma, Plant physiology, Reproduction, Seed germination, Spores.
- 17980-68**
THE SUPPRESSION OF ACTINOMYCETES BY PCNB IN CULTURE MEDIA USED FOR ENUMERATING SOIL BACTERIA.
 J D Farley J L Lockwood
Phytopathology 58(5):714-715
 May 1968 464.8 P56
 Actinomycetes, Biochemistry, Culture media, Pentachloronitrobenzene, Soil bacteria, Soil microbiology.
- 17981-68**
CHEMICAL CONTROL OF SCAB AND ANTHRACNOSE ON SUSCEPTIBLE VARIETIES OF CITRUS IN FLORIDA. (ABSTRACT).
 F E Fisher
Phytopathology 58(5):553
 May 1968 464.8 P56
 Anthracnose (citrus), Chemical control (plant diseases), Citrus, Colletotrichum gloeosporioides, Elsinore fawcetti, Plant diseases, Scab (citrus). Abstract of meeting of Caribbean Division of American Phytopathological Society, 1967
- 17982-68**
RELATIONSHIP BETWEEN FREE AMINO ACIDS AND SYMPTOM EXPRESSION IN CORN INFECTED WITH MAIZE DWARF MOSAIC VIRUS OR SUGARCANE MOSAIC VIRUS. (ABSTRACT).
 R E Ford J C Tu
Phytopathology 58(8):1050
 Aug 1968 464.8 P56
 Amino acids, Corn, Dwarf mosaic (corn), Mosaic (sugarcane).
- 17983-68**
LOCAL LESION DEVELOPMENT IN TURKISH TOBACCO LEAVES HEATED AFTER INOCULATION WITH TOBACCO MOSAIC VIRUS. (ABSTRACT).
 J A Foster A F Ross
Phytopathology 58(8):1050
 Aug 1968 464.8 P56
 Injections, Leaves, Mosaic (tobacco), Temperature, Tobacco, Virus diseases (plants).
- 17984-68**
INCIDENCE AND PATHOGENICITY OF FUNGI FOUND ON CRANBERRY IN WISCONSIN.
 R J Friend
Diss Abstr Sect B 29(2):438B
 Aug 1968 Z5055.U49D53
 Cranberries, Fungi, Fungus diseases (plants).
- 17985-68**
INVESTIGATIONS OF THE MECHANISM OF THE NECROTIC RESPONSE OF NICOTIANA TABACUM L. VAR. SAMSUN NN TO INFECTION WITH TOBACCO MOSAIC VIRUS.
 H Gaona-Rodriguez
Diss Abstr Sect B 29(2):438B-439B
 Aug 1968 Z5055.U49D53
 Mosaic (tobacco), Necrosis, Plant physiology, Research, Tobacco, Virus diseases (plants).
- 17986-68**
ULTRASTRUCTURE OF ZEA MAYS LEAF CELLS INFECTED WITH JOHNSON GRASS STRAIN OF SUGARCANE MOSAIC VIRUS. (ABSTRACT).
 W S Gardner
Phytopathology 58(8):1050-1051
 Aug 1968 464.8 P56
 Anatomy, Cells, Corn, Leaves, Mosaic (sugarcane), Sorghum halepense, Virus diseases (plants).
- 17987-68**
SEEDLING RESISTANCE TO POWDERY MILDEW OF PURDUE 5752CL-7-5-I WHEAT DERIVED FROM TRITICUM TIMOPHEEVI. (ABSTRACT).
 M S Ghemawat C B Kenaga J F Schafer
Phytopathology 58(8):1051
- Aug 1968 464.8 P56
 Fungus diseases (plants), Plant disease resistance, Powdery mildew (wheat), Seedlings, Timopheevi wheat, Wheat.
- 17988-68**
RELATIONSHIP OF ETHYLENE TO CURLY TOP SYMPTOMS. (ABSTRACT).
 A H Gold G Faccioli
Phytopathology 58(8):1052
 Aug 1968 464.8 P56
 Biochemistry, Curly top (sugar beets), Ethylene, Sugar beets, Virus diseases (plants).
- 17989-68**
ULTRASTRUCTURAL CHANGES IN APPLE LEAF CELLS INDUCED BY VIRULENT AND AVIRULENT STRAINS OF ERWINIA AMYLOVORA. (ABSTRACT).
 R N Goodman A Burkowicz
Phytopathology 58(8):1052
 Aug 1968 464.8 P56
 Anatomy, Apples, Bacterial diseases (plants), Cells, Erwinia amylovora, Leaves.
- 17990-68**
EFFECTS OF BARLEY STRIPE MOSAIC VIRUS INFECTION ON THE RESPIRATION OF BARLEY LEAVES. (ABSTRACT).
 D T Gordon D C Arny
Phytopathology 58(8):1052
 Aug 1968 464.8 P56
 Barley, Leaves, Plant physiology, Respiration, Stripe mosaic (barley), Virus diseases (plants).
- 17991-68**
THE EFFECT OF POLYPLOIDY ON PLANT VIRUS REPLICATION AND CONTROL.
 D E Harder
Diss Abstr Sect B 29(2):439B-440B
 Aug 1968 Z5055.U49D53
 Pest control, Polyploidy, Reproduction, Virus diseases (plants).
- 17992-68**
THE DEVELOPMENT OF ALBUGO CANDIDA-INDUCED 'GREEN ISLANDS' ON BRASSICA JUNCEA COTYLEDONS.
 H Harding
Diss Abstr Sect B 29(2):440B
 Aug 1968 Z5055.U49D53
 Albugo, Brassica juncea, Fungus diseases (plants), Plant physiology.
- 17993-68**
HIGH-TEMPERATURE-INDUCED INSOLUBLE COAT PROTEIN IN TOBACCO MOSAIC VIRUS (TMV)-INFECTED PLANTS. (ABSTRACT).
 V Hariharasubramanian M Zaitlin
Phytopathology 58(8):1052-1053
 Aug 1968 464.8 P56
 Mosaic (tobacco), Proteins, Temperature, Tobacco, Virus diseases (plants).
- 17994-68**
THE ROLE OF COTTON AND BEAN SEED EXUDATE IN PRE-EMERGENCE INFECTION BY RHIZOCTONIA SOLANI.
 D S Hayman
Diss Abstr Sect B 29(1):10B
 Jul 1968 Z5055.U49D53
 Amino acids, Beans, Cotton, Fungus diseases (plants), Peas, Plant physiology, Research, Rhizoctonia solani, Seed germination, Seedlings, Temperature, Tissues.
- 17995-68**
EFFECT OF MODERATE ADULT RESISTANCE ON PENETRATION, HYPHAL GROWTH RATES, AND UREDIOSPORE PRODUCTION BY CROWN RUST OF OATS. (ABSTRACT).
 A S Heagle M B Moore
Phytopathology 58(8):1053
 Aug 1968 464.8 P56
 Crown rust (oats), Fungus diseases (plants), Oats, Plant disease resistance, Plant physiology, Puccinia coronata, Reproduction.

17996-68

17996-68
SYSTEMIC-CHEMICAL PAINTS FOR THE CONTROL OF CYTOSPORA CANKER DISEASE IN PRUNE TREES.

A W Helton W J Kochan
Plant Dis Rep 52(2):154-157
Feb 1968 1.9 P69P

Canker (plums), Cycloheximide thiosemicarbazone, Cytospora cincta, Dimethyl sulfoxide, Fungicides, Linseed oil, Plant diseases, Plums, Water.

17997-68

PREVALENCE OF THIELAVIOPSIS BASICOLA IN NATURALLY INFESTED SOIL AFTER CULTIVATION OF VARIOUS CROPS FOR FIVE CONSECUTIVE YEARS. (ABSTRACT).

L Henson C C Litton G W Stokes

Phytopathology 58(8):1053
Aug 1968 464.8 P56

Field crops, Population, Soil fungi, Thielaviopsis basicola, Tillage, Time.

17998-68

AN INVESTIGATION OF THE TOBACCO MOSAIC VIRUS MULTIPLICATION PROCESS AND ITS EFFECT ON THE METABOLISM OF THE HOST.

A Hirai

Diss Abstr Sect B 29(2):497B-648B

Aug 1968 Z5055.U49D53

Metabolism, Mosaic (tobacco), Reproduction, Research, Tobacco, Virus diseases (plants).

17999-68

ASCOSPORE PRODUCTION, DISCHARGE AND INFECTION BY GLOMERELLA CINGULATA CAUSING COFFEE BERRY DISEASE.

D Hocking J C Johannis H Vermeulen

Nature 214(5093):1144-1145 REF

10 Jun 1967 472 N21

Ascospores, Coffee berry disease, Economics, Fungus diseases (plants), Glomerella cingulata, Plant disease transmission, Plant morphology, Rainfall, Reproduction, Research.

18000-68

COMPARATIVE PHYSIOLOGY OF PINUS MONTICOLA DOUGL. RESISTANT AND SUSCEPTIBLE TO CRONARTIUM RIBICOLA J. C. FISCH. EX. RABENH.

R J Hoff

Diss Abstr Sect B 29(2):441B

Aug 1968 Z5055.U49D53

Cronartium ribicola, Fungus diseases (plants), Pinus monticola, Plant disease resistance, Plant physiology.

18001-68

EXOCORTIS IN ORTANIQUE ORANGE.

I Hosen

Plant Dis Rep 52(9):741

Sep 1968 1.9 P69P

Exocortis (oranges), Oranges, Research, Roots, Virus diseases (plants).

18002-68

SEROLOGICAL DIAGNOSTIC METHOD WITHOUT ISOLATION OF ERWINIA AMYLOVORA CULTURE FROM A DISEASED PLANT. (RUS)

V P Izrail'sky S N Schkljar G I Orlova

Microbiol Espn 36(3):497-502

May 1967 448.3 M583

Antibiotics, Erwinia amylovora, Fire blight (fruit), Physiology, Taxonomy. English and russian abstract

Abstract

18003-68

EFFECT OF SOIL FUNGICIDES ON DEVELOPMENT OF FUNGI IN SOIL AND ON KERNELS OF GROUNDNUT.

A Z Joffe N Lisker

Plant Dis Rep 52(9):718-721

Sep 1968 1.9 P69P

Aspergillus flavus, Chemicals, Crop yields, Fungicides, Fusarium solani, Injections, Peanuts, Seedlings, Soil fungi, Soils.

18004-68

A PHYTOPHTHORA FROM SUBTERRANEAN CLOVER ROOTS THAT ATTACKS SOYBEAN AND OTHER LEGUMES. (ABSTRACT).

H W Johnson B L Keeling

Phytopathology 58(8):1054

Aug 1968 464.8 P56

Fungus diseases (plants), Legumes, Phytophthora, Roots, Soybeans, Subterranean clover.

18005-68

PROTEIN AND ENZYME CHANGES IN WHEAT LEAVES FOLLOWING INFECTION WITH PUCCINIA RECONDITA.

L B Johnson B L Brannaman F P Zscheile

Phytopathology 58(5):578-583 REF

May 1968 464.8 P56

Enzymes, Fungus diseases (plants), Leaves, Proteins, Puccinia recondita, Rust (wheat), Wheat.

18006-68

POTENTIAL OF THE RHIZOBIUM-FUSARIUM INTERACTIONS ON THE INCIDENCE OF ALFALFA ROOT ROT.

H W Johnston

Diss Abstr Sect B 29(2):441B-442B

Aug 1968 Z5055.U49D53

Alfalfa, Fusarium, Rhizobium, Root rot (alfalfa).

18007-68

TOBACCO NECROSIS VIRUS AND ITS SATELLITE VIRUS.

B Kassanis

Nature 214(5084):178

08 Apr 1967 472 N21

Culture media, Necrosis, Research, Tobacco, Viruses.

18008-68

ISOLATION AND PROPERTIES OF PLASMIDIOPHORA BRASSICAE PLASMODIA FROM INFECTED CRUCIFER TISSUES AND TISSUE CULTURE CALLUS. (ABSTRACT).

N T Keen M N Reddy P H Williams

Phytopathology 58(8):1054

Aug 1968 464.8 P56

Callus (plants), Cruciferae, Fungus diseases (plants), Plasmodiophora brassicae, Properties, Tissue culture, Tissues.

18009-68

THE RESPONSE OF BEAN TO OZONE AS RELATED TO INFECTION BY PSEUDOMONAS PHASEOLICOLA. (ABSTRACT).

E D Kerr R A Reinert

Phytopathology 58(8):1055

Aug 1968 464.8 P56

Beans, Biochemistry, Fungus diseases (plants), Ozone, Pseudomonas phaseolicola.

18010-68

GENETIC VARIATION IN SUSCEPTIBILITY TO FUSIFORM RUST IN A WILD POPULATION OF LOBLOLLY PINE. (ABSTRACT).

B B Jr. Kinloch

Phytopathology 58(8):1055

Aug 1968 464.8 P56

Cronartium fusiforme, Fungus diseases (plants), Genetics, Pinus taeda, Plant disease resistance, Rust (pinus taeda).

18011-68

STUDIES ON THE EFFECTS OF IIG(II) AND SUCROSE ON THE MECHANICAL TRANSMISSION OF TOBACCO MOSAIC VIRUS RIBONUCLEIC ACID TO PINTO BEAN (PHASEOLUS VULGARIS L.).

J R Kongsvik

Diss Abstr Sect B 29(2):442B-443B

Aug 1968 Z5055.U49D53

Injections, Kidney beans, Mercury, Mosaic (tobacco), Research, Ribonucleic acid, Sucrose, Virus diseases (plants).

18012-68

BIOLOGICAL AND ECOLOGICAL RELATIONSHIPS OF THE FUNGUS, ENTOMOPHTHORA CORONATA (COSTANTINI) KEVORKIAN AND THE GARDEN SYMPHYLAN, SCUTIGERELLA IMMACULATA (NEWPORT).

R F Koontz

Diss Abstr Sect B 29(2):646B

Aug 1968 Z5055.U49D53

Biology, Ecology, Entomophthora coronata, Fungi, Scutigera immaculata.

18013-68

EFFECT OF VARIETY ON THE CONTROL OF POTATO LATE BLIGHT WITH FUNGICIDES. (ABSTRACT).

R E Kroll C J Eide

Phytopathology 58(8):1056

Aug 1968 464.8 P56

Chemical control (pests), Fungicides, Fungus diseases (plants), Late blight (potatoes), Potatoes.

18014-68

INTERCEPTIONS OF PLANT DISEASES THROUGH THE PORT OF BOMBAY.

T B Lal

Plant Protect Bull 18(2):9-13

1966 421 P69

Airports, Foreign trade, Import control, Plant diseases, Plant quarantine.

18015-68

RACES OF PUCCINIA POLYSORA IN NIGERIA.

G M Lallmahomed J Craig

Plant Dis Rep 52(2):136-138

Feb 1968 1.9 P69P

Corn, Fungus diseases (plants), Greenhouse culture, Humidity, Plant physiology, Puccinia polysora, Puccinia sorghi, Rust (corn), Seedlings.

18016-68

RELATIONSHIPS AMONG RACES OF PYRICULARIA ORYZAE. (ABSTRACT).

F M Latterell M A Marchetti

Phytopathology 58(8):1057

Aug 1968 464.8 P56

Blast (rice), Fungus diseases (plants), Immunity, Plant disease resistance, Pyricularia oryzae, Rice.

18017-68

MULTIPLICATION OF PSEUDOMONAS GLYCINEA IN BUDS OF SOYBEAN SEEDLINGS. (ABSTRACT).

C Leben V Rusch A F Schmittenner

Phytopathology 58(8):1057

Aug 1968 464.8 P56

Fungus diseases (plants), Pseudomonas glycinea, Reproduction, Seedlings, Soybeans.

18018-68

ROLE OF NITROGEN IN WOOD DETERIORATION. VI. MYCELIAL FRACTIONS AND MODEL NITROGEN COMPOUNDS AS SUBSTRATES FOR GROWTH OF POLYPORUS VERSICOLOR AND OTHER WOOD-DESTROYING AND WOOD-INHABITING FUNGI.

M P Levi W Merrill E B Cowling

Phytopathology 58(5):626-634 REF

May 1968 464.8 P56

Basidiomycetes, Fungi, Nitrogen compounds, Plant diseases, Polyporus versicolor, Tree injuries, Wood decay, Wood destroying fungi.

18019-68

EFFECT OF RUTIN AND ITS DEGRADATION PRODUCTS ON FUSARIUM ROOT ROT OF BEAN. (ABSTRACT).

J A Lewis

Phytopathology 58(8):1057

Aug 1968 464.8 P56

Degradation, Fungus diseases (plants), Fusarium solani phaseoli, Root rot (beans), Rutin.

18020-68

PHYTOALEXIN PRODUCTION IN CORN RESISTANT TO HELMINTHOSPORIUM TURCICUM.

S M Lim J D Paxton A L Hooker

- Phytopathology* 58(5):720-721
May 1968 464.8 P56
Corn, Fungus diseases (plants), Genes, Helminthosporium turcicum, Phytoalexin, Plant genetics, Plant pest resistance.
- 18021-68**
STIMULATION OF SCLEROTIUM ROLFII AND ITS ANTAGONISTS BY VOLATILE COMPONENTS OF ALFALFA HAY. (ABSTRACT).
R G Linderman R G Gilbert
Phytopathology 58(8):1057
Aug 1968 464.8 P56
Alfalfa, Competition, Fungus diseases (plants), Hay, Sclerotium rolfii.
- 18022-68**
STEM RUST INFECTION AND DEVELOPMENT IN ARTIFICIALLY INOCULATED FIELDS OF WHEAT AT HAYS, KANS., AND ITS EFFECT ON YIELD, 1960 TO 1965. (ABSTRACT).
R F Line C E Peet C H Kingsolver
Phytopathology 58(8):1057-1058
Aug 1968 464.8 P56
Fungus diseases (plants), Puccinia graminis, Stem rust (wheat), Wheat.
- 18023-68**
AUXIN AND CROWN GALL TUMOR INITIATION. (ABSTRACT).
J A Lippincott B B Lippincott
Phytopathology 58(8):1058
Aug 1968 464.8 P56
Agrobacterium tumefaciens, Bacterial diseases (plants), Beans, Crown galls (beans), Indoleacetic acid, Plant hormones.
- 18024-68**
A SECOND GENE FOR RESISTANCE TO PUCCINIA GRAMINIS F SP TRITICI IN THE RED EGYPTIAN 2D WHEAT SUBSTITUTION LINE.
W O Loegering
Phytopathology 58(5):584-586
May 1968 464.8 P56
Plant breeding, Plant disease resistance, Plant genetics, Poulard wheat, Puccinia graminis tritici. Spanish summary
- 18025-68**
DIFFERENTIATION OF RACES OF PSEUDOMONAS SOLANACEARUM BY A HYPERSENSITIVE REACTION OF TOBACCO LEAVES. (ABSTRACT).
J C Lozano L Sequeira
Phytopathology 58(8):1058
Aug 1968 464.8 P56
Allergies, Bacterial diseases (plants), Leaves, Pseudomonas solanacearum, Tobacco.
- 18026-68**
LOW LIGHT INTENSITY PROMOTES MELTING OUT OF BLUEGRASS. (ABSTRACT).
R J Lukens
Phytopathology 58(8):1058
Aug 1968 464.8 P56
Epidemiology, Fungus diseases (plants), Helminthosporium vagans, Lighting, Melting out (poa), Poa.
- 18027-68**
RESISTANCE BREAKDOWN IN MAIZE TO MAIZE DWARF MOSAIC VIRUS AFTER TREATMENT WITH ATRAZINE. (ABSTRACT).
D R MacKenzie H Cole C D Ercegovich
Phytopathology 58(8):1058
Aug 1968 464.8 P56
Atrazine, Biochemistry, Corn, Dwarf mosaic (corn), Plant disease resistance, Therapeutics, Virus diseases (plants).
- 18028-68**
INFLUENCE OF NITROGEN NUTRITION ON FUSARIUM ROOT ROT OF PINTO BEAN AND ON ITS SUPPRESSION BY BARLEY STRAW.
C R Maier
Phytopathology 58(5):620-625 REF
May 1968 464.8 P56
Barley straw, Fusarium, Kidney beans, Nitrogen, Nutrition, Plant diseases, Root rot (beans).
- 18029-68**
INDUCED RESISTANCE TO BACTERIAL WILT IN SUSCEPTIBLE TOBACCO CUTTINGS PRETREATED WITH AVIRULENT MUTANTS OF PSEUDOMONAS. (ABSTRACT).
C E Main
Phytopathology 58(8):1058-1059
Aug 1968 464.8 P56
Bacterial diseases (plants), Mutation, Plant cuttings, Plant disease resistance, Pseudomonas, Tobacco, Wilt (tobacco).
- 18030-68**
CONCENTRATIONS OF SOLUTES IN BLISTER RUST INFECTIONS OF WESTERN WHITE PINE. (ABSTRACT).
N E Martin
Phytopathology 58(8):1059
Aug 1968 464.8 P56
Blister rust (pinus monticola), Cronartium ribicola, Fungus diseases (plants), Pinus monticola, Solute.
- 18031-68**
RELATION OF INVASION OF CEREAL GRAINS AND OIL SEEDS BY STORAGE FUNGI TO INCREASE IN TOTAL AND MAJOR INDIVIDUAL FATTY ACIDS. (ABSTRACT).
D C McGee C M Christensen
Phytopathology 58(8):1059-1060
Aug 1968 464.8 P56
Fatty acids, Fungus diseases (plants), Grain, Oil-seeds, Storage.
- 18032-68**
A STUDY ON AUXIN AND CHLOROGENIC ACID IN LEAF-ROLL RESISTANT AND SUSCEPTIBLE POTATO VARIETIES.
R T McMillan
Diss Abstr Sect B 29(2):443B
Aug 1968 Z5055.U49D53
Chlorogenic acid, Leaf roll (potatoes), Plant disease resistance, Plant hormones, Potatoes, Research, Virus diseases (plants).
- 18033-68**
ALTERNARIA TENUIS ON ANTIRRHINUM.
S C Melville T E Chalk
Plant Pathol 17(2):95
Jun 1968 464.8 P692
Alternaria tenuis, Antirrhinum majus, Fungus diseases (plants), Injections, Nurseries, Seedlings, Spraying.
- 18034-68**
EFFECT OF CONTROL PROGRAMS ON DEVELOPMENT OF EPIDEMICS OF DUTCH ELM DISEASE. (ABSTRACT).
W Merrill
Phytopathology 58(8):1060
Aug 1968 464.8 P56
Dieback (ulmus), Epidemiology, Plant diseases, Plant protection, Ulmus.
- 18035-68**
AN ARYLSULFATASE IN THE WOOD ROTTING BASIDIOMYCETE, FOMES GEOTROPUS.
F H Millazzo G J Loughceid
Can J Bot 45(4):532-534
Apr 1967 470 C16C
Arylsulfatase, Basidiomycetes, Fomes geotropus, Plant metabolism, Wood destroying fungi.
- 18036-68**
INTERACTION OF MELOIDOGYNE JAVANICA AND PHYTOPHTHORA PARASITICA VAR NICOTIANAE ON NICOTIANA TABACUM (N. C. 95.) (ABSTRACT).
C R Miller
Phytopathology 58(5):553
May 1968 464.8 P56
Black shank (tobacco), Fungus diseases (plants), Meloidogyne incognita, Meloidogyne javanica, Nematodes, Phytophthora parasitica nicotianae, Tobacco. Abstract of meeting of Caribbean Division of American Phytopathological Society, 1967
- 18037-68**
IDENTIFICATION OF STRAINS OF WATERMELON MOSAIC VIRUS BY SEROLOGY AND OTHER CHARACTERISTICS. (ABSTRACT).
K S Milne R G Grogan
Phytopathology 58(8):1060
Aug 1968 464.8 P56
Mosaic (watermelons), Properties, Serological tests, Virus diseases (plants), Watermelons.
- 18038-68**
ENVIRONMENTAL EFFECTS AND TRANSFER EVENTS DURING PRIMARY INFECTION OF WHEAT BY ERYSIPIHE GRAMINIS.
M S Mount
Diss Abstr Sect B 29(2):444B
Aug 1968 Z5055.U49D53
Environment, Erysiphe graminis, Fungus diseases (plants), Wheat.
- 18039-68**
TRANSMISSION OF A LEAFHOPPER-BORNE VIRUS FROM NATURALLY INFECTED POA ANNUA IN CZECHOSLOVAKIA.
A Murtomaa V Valenta
Biologia (bratislava) 23(5):389-392
1968 442.8 B5265
Barley, Cicadellidae, Insect vectors, Poa annua, Virus diseases (plants), Czechoslovakian, russian, german and english abstract
Abstract
- 18040-68**
SOME ADDITIONS TO THE SPECIES OF CERCOSPORA FROM WEST PAKISTAN.
M A Nasir Z Ullah
Pakistan J Sci 19(1-2):45-46
Jan 1967 475 P172
Cercospora alhagi, Cercospora convolvuli, Cercospora medicaginis, Cercospora premnae, Fungus diseases (plants), Plant diseases.
- 18041-68**
INCREASING THE EFFICACY OF FUNGICIDAL CONTROL OF BLACK POD ROT OF CACAO INCITED BY PHYTOPHTHORA PALMIVORA. (ABSTRACT).
A G Newhall
Phytopathology 58(5):553
May 1968 464.8 P56
Black pod (cacao), Cacao, Fungus diseases (plants), Pesticides, Phytophthora palmivora, Spraying. Abstract of meeting of Caribbean Division of American Phytopathological Society, 1967
- 18042-68**
THE PRESENCE OF TRISTEZA VIRUS IN CERTAIN SPECIES OF CITRUS IN CYPRUS.
A Papisolomontos C V Economides
Fao Plant Protect Bull 16(1):8-9 REF
Feb 1968 421 P692
Aphis gossypii, Citrus, Host indexing (plants), Plant disease transmission, Toxoptera aurantii, Tristeza (citrus), Virus diseases (plants).
Abstract: Through an extensive indexing program designed for detecting carriers of tristeza in Cyprus, 4 species of citrus were found to be infected. In spite of the rather wide distribution of infected trees, there appears to have been very little natural spread. This suggests that Aphis gossypii and Toxoptera aurantii are inefficient vectors.
- 18043-68**
FACTORS INFLUENCING AFLATOXIN ACCUMULATION IN PEANUT KERNELS AND THE ASSOCIATED MYCOFLORA.
R E Pettit R A Tabcr
Appl Microbiol 16(8):1230-1234 REF
Aug 1968 448.3 AP5
Aflatoxin, Aspergillus flavus, Chromatography, Equipment, Fungus diseases (plants), Humidity, Peanuts, Temperature, Weather.
- 18044-68**
ANNALS OF THE PHYTOPATHOLOGICAL SOCIETY OF JAPAN.
Phytopathol Soc Jap Ann 34(3):210 P

18045-68

May 1968 464.9 P562

Bacterial diseases (plants), Fungicides, Fungus diseases (plants), Phytopathology, Virus diseases (plants).

18045-68

CYTOCHROME OXIDASE AND MITOCHONDRIAL PROTEIN IN EXTRACTS OF LEAVES OF NICOTIANA GLUTINOSA L. INFECTED WITH TOBACCO MOSAIC VIRUS.

W S Pierpoint

J Expt Bot 19(59):264-275 REF

May 1968 450 J8224

Culture media, Cytochrome oxidase, Extracts, Leaves, Mitochondria, Nicotiana glutinosa, Proteins, Virus diseases (plants).

18046-68

FUNGISTATIC CONSTITUENTS IN CITRUS VARIETIES RESISTANT TO THE MAL-SECCO DISEASE.

J Pinkas D Lavie M Chorin

Phytochemistry 7(2):169-174

Feb 1968 450 P5622

Biological assay, Deuterophoma tracheiphila, Flavones, Fungicides, Mal secco (citrus), Plant analysis, Plant biochemistry, Plant disease resistance.

18047-68

TOMATO BUSHY STUNT VIRUS ON TOMATO CROPS IN ARGENTINA.

R E Pontis O Gracia J M Feldman

Plant Dis Rep 52(9):676-677

Sep 1968 1.9 P69P

Bushy stunt (tomatoes), Culture media, Electron microscopy, Research, Serological tests, Tomatoes, Virus diseases (plants).

18048-68

CYTOKININ EFFECT OF BENZYLADENINE: INCREASE OF NUCLEIC ACID AND PROTEIN SYNTHESIS IN BEAN LEAVES.

B I Pozsar M El Hammady Z Kiraly

Nature 214(5085):273-274 REF

15 Apr 1967 472 N21

Beans, Benzyladenine, Kinetin, Leaves, Mosaic (tobacco), Nucleic acids, Plant disease resistance, Plant metabolism, Plant physiology, Proteins, Virus diseases (plants).

18049-68

REPRODUCTION OF THE COCONUT LETHAL YELLOWING SYNDROME BY MECHANICAL INOCULATION OF YOUNG SEEDLINGS.

W C Price A P Martinez D A Roberts

Phytopathology 58(5):593-596 REF

May 1968 464.8 P56

Coconuts, Lethal yellowing (coconuts), Plant diseases, Seedlings.

18050-68

TOLERANCE TO BARLEY YELLOW DWARF IN WINTER OATS.

C O Qualset

Plant Dis Rep 51(11):908-910 REF

Nov 1967 1.9 P69P

Oats, Plant disease resistance, Plant hardiness, Virus diseases (plants), Yellow dwarf (barley), Yellow dwarf (oats).

18051-68

STUDIES ON THE PATHOGEN AND VECTOR OF DUTCH ELM DISEASE. A. MORPHOGENESIS IN CERATOCYSTIS ULMI. B. CHEMICALS STIMULATING FEEDING BY SCOLYTUS MULTISTRIATUS. II. AN IMPROVED METHOD FOR THE ISOLATION OF A TOXIC METABOLITE FROM RHIZOCTONIA LEGUMINICOLA.

D P Rainey

Diss Abstr Sect B 28(11):4419B

May 1968 Z5055.U49D53

Biochemistry, Ceratocystis ulmi, Feed, Fungus diseases (plants), Insect vectors, Metabolites, Rhizoctonia leguminicola, Scolytus multistriatus, Stimulants.

18052-68

THE PATHOGENICITY OF SECONDARY AND TERTIARY BASIDIOSPORES OF CRONARTIUM FUSIFORME.

R W Roncadori

Phytopathology 58(5):712-713 REF

May 1968 464.8 P56

Basidiospores, Cronartium fusiforme, Microorganisms, Pinus, Reproduction, Spore germination.

18053-68

A LEAF BLIGHT OF CORN (ZEA MAYS) INCITED BY FUSARIUM MONILIFORME. (ABSTRACT).

E Schieber A S Muller

Phytopathology 58(5):554

May 1968 464.8 P56

Corn, Fusarium moniliforme, Leaf blight (corn), Leaves, Plant diseases. Abstract of meeting of Caribbean Division of American Phytopathological Society, 1967

18054-68

PRELIMINARY STUDIES ON PHYLLACHORA MAYDIS AFFECTING CORN IN CENTRAL AMERICA. (ABSTRACT).

E Schieber

Phytopathology 58(5):554

May 1968 464.8 P56

Corn, Phyllachora maydis, Plant disease resistance, Tar spot (corn). Abstract of meeting of Caribbean Division of American Phytopathological Society.

18055-68

SUSCEPTIBILITY OF WEAKENED COTTONWOOD STEMS TO FUNGI ASSOCIATED WITH BLACKSTEM.

D F Schoeneweiss

Plant Dis Rep 51(11):933-935

Nov 1967 1.9 P69P

Agricultural research, Canker (populus deltoides), Canker (populus trichocarpa), Cytospora chrysosperma, Fungus diseases (plants), Populus deltoides, Populus trichocarpa, Tree diseases.

18056-68

FACTORS AFFECTING THE INFECTION OF BLACK SPRUCE (PICEA MARIANA MILL.) TRANSPLANTS BY CYLINDROCLADIUM SCOPARIUM.

H Scholten

Diss Abstr Sect B 28(8):3131B

Feb 1968 Z5055.U49D53

Cylindrocladium scoparium, Fungus diseases (plants), Loam, Picea mariana, Transplanting, Trizone.

18057-68

STAND LOSS OF SMALL GRAINS IN FLORIDA.

D Sechler H H Luke

Plant Dis Rep 51(11):919-922

Nov 1967 1.9 P69P

Barley, Helminthosporium sorokinianum, Oats, Plant disease control, Pythium aphanidermatum, Rye, Seed treatment, Soil temperature, Wheat.

18058-68

OCCURRENCE OF AGROPHRON MOSAIC VIRUS IN MONTANA.

J F Shepard

Plant Dis Rep 52(2):139-141 REF

Feb 1968 1.9 P69P

Cytoplasm, Leaves, Morphology, Serological tests, Tissues, Virus diseases (plants), Wheat.

Abstract: Susceptible hosts were Agropyron repens, agropyron elongatum, and Triticum aestivum 'cheyenne'. hosts of low susceptibility were Agropyron trachycaulum and elymus canadensis.

18059-68

CONDITIONS FOR INFECTION OF CELERY BY SEPTORIA APICOLA.

J E Sheridan

J Econ Entomol 61(5):142-145

Feb 1968 1.9 P69P

Celery, Distilled water, Environment, Fungus diseases (plants), Greenhouses, Laboratories, Leaves, Septoria apiicola, Spraying.

18060-68

THE FREQUENCY OF PENETRATION OF EPIDERMAL STRIPS AND INTACT WHEAT LEAVES BY PUCCINIA GRAMINIS F. SP. TRITICI.

W A Shipton J F Brown

Phytopathology 58(5):704-705

May 1968 464.8 P56

Frequency distribution, Leaves, Plant diseases, Puccinia graminis tritici, Uredospores, Wheat.

18061-68

THE EFFECT OF DECOMPOSING ORGANIC MATTER ON ZINC LEVEL IN SOIL AND PLANTS.

K S M Shoukry

Diss Abstr Sect B 28(8):3127B

Feb 1968 Z5055.U49D53

Beans, Biological assay, Decomposition, Plant nutritional deficiencies, Soil chemistry, Zinc.

18062-68

CHEMICAL CONTROL OF CORN HEAD SMUT.

W R Simpson H S Fenwick

Plant Dis Rep 52(9):726-727

Sep 1968 1.9 P69P

Chemical control (plant diseases), Crop yields, Head smut (corn), Research, Seeds, Sphaeclothea reiliana, Spraying.

18063-68

CYTOMORPHOLOGICAL FEATURES OF TMV-INFECTED TOBACCO CALLUS CELLS IN TISSUE CULTURE.

M Singh A C Hildebrandt

Phyton (vicente Lopez) 24(1):31-33

May 1967 450 P567

Callus (plants), Mitochondria, Mosaic (tobacco), Plant morphology, Tissue culture, Virus diseases (plants).

18064-68

PATHOGENIC AND CULTURAL VARIATION IN PHYTOPHTHORA NICOTIANAE VAR PARASITICA FROM GREENHOUSE PLANTS.

B S Siradhana C W Ellett A F Schmitthenner

Phytopathology 58(5):718-719

May 1968 464.8 P56

Antirrhinum, Greenhouse culture, Parasitism, Peperomia obtusifolia, Phytophthora parasitica nicotianae, Plant diseases, Saintpaulia, Sinningia, Tomatoes.

18065-68

ADDITIONAL INFORMATION ON THE PATHOGENICITY OF SCLERODERRIS LAGERBERGII.

E Smerlis

Plant Dis Rep 52(9):738-739

Sep 1968 1.9 P69P

Fungus diseases (plants), Injections, Mortality, Research, Scleroderris lagerbergii, Tree diseases, Trees.

18066-68

ALTERATIONS IN THE AUXIN LEVELS OF RESISTANT AND SUSCEPTIBLE HOSTS INCUCED BY THE CURLY TOP VIRUS.

S H Smith S R McCall J H Harris

Phytopathology 58(5):575-577

May 1968 464.8 P56

Beets, Curly top (beets), Curly top (tomatoes), Kidney beans, Plant disease resistance, Plant hormones, Plant regulators, Tomatoes, Virus diseases (plants).

18067-68

CROSS PROTECTION BETWEEN A PLANT VIRUS AND POTATO PSYLLID YELLOWS.

R Staples

J Econ Entomol 61(5):1378-1380 REF

15 Oct 1968 421 J822

Feeding, Insect vectors, Nymphs, Paratrypan cockerelli, Potatoes, Psylla, Temperature, Virus diseases (plants).

18068-68

THE INFLUENCE OF CROP-ROTATION ON THE ATTACK OF CARROTS BY MELDIDOGYNE HAPLA CHITW. AND SYMPTOM FORMATION. (GE)

V W Stein E Richter

Z Pflanzenkrankh (pflanzenpathol) Pflanzenschutz 75(2):93-98

Feb 1968 464.8 Z3

Carrots, Crop rotation, Meloidogyne hapla, Plant nematodes, Potatoes, Roots. English summary

18069-68

A COMPARATIVE NUTRITIONAL STUDY OF ALTERNARIA RAPHANI, A. BRASSICAE, AND A. BRASSICOLA WITH SPECIAL REFERENCE TO A. RAPHANI.

R A Taber T C Vanterpool W A Taber

Phytopathology 58(5):609-616 REF

May 1968 464.8 P56

Alternaria brassicae, Alternaria brassicicola, Alternaria raphani, Culture media, Nutrition.

18070-68

EFFECTS OF NEMATODE EXTRACTION METHOD, SOIL MIXTURE, AND NEMATODE NUMBERS ON THE TRANSMISSION OF TOBACCO RINGSPOT VIRUS BY XIPHINEMA AMERICANUM.

D. Teliz

Nematologica 13(2):177-185 REF

1967 436.8 N342

Epidemiology, Plant nematodes, Ring spot (tobacco), Soil properties, Virus diseases (plants), Xiphinema americanum. English, german and spanish abstract

Abstract

18071-68

BACTERIAL CANKER OF TOMATO; INOCULUM LEVEL NEEDED FOR INFECTION.

B D Thyrt

Plant Dis Rep 52(9):741-743

Sep 1968 1.9 P69P

Bacterial canker (tomatoes), Cells, Corynebacterium michiganense, Mortality, Research, Seedlings, Tissues, Tomatoes.

18072-68

THE SUMMER BIOLOGY OF PUCCINIA STRIIFORMIS IN SOUTHEASTERN WASHINGTON. I. INDUCTION OF INFECTION DURING THE SUMMER.

J C Tu W Hendrix

Plant Dis Rep 51(11):911-914

Nov 1967 1.9 P69P

Infectious diseases, Parasitism, Plant temperature, Puccinia striiformis, Stripe rust (wheat), Urediospores.

18073-68

STUDIES OF THE RESISTANCE OF LOCAL APPLE VARIETIES TO SCAB (VENTURIA INAEQUALIS (CKE.) WINT.) UNDER CLIMATIC CONDITIONS OF CENTRAL ANATOLIA. (TU)

K Turkoglu U Erkal

Bitki Koruma Bulteni 7(2):78-89

1967 464.8 B542

Apples, Climate, Fungus diseases (plants), Scab (apples), Venturia inaequalis. French summary.

18074-68

ULTRASTRUCTURE OF HOST AND PARASITE IN COMPATIBLE AND INCOMPATIBLE INTERACTIONS OF ZEA MAYS L. WITH PUCCINIA SORGHII SCHW.

C G Van Dyke

Diss Abstr Sect B 29(2):444B

Aug 1968 Z5055.U49D53

Anatomy, Corn, Fungus diseases (plants), Parasitism, Puccinia sorghi.

18075-68

EFFECT OF MCPA ON LETTUCE PRE-INOCULATED WITH LETTUCE MOSAIC VIRUS.

J M Way

Plant Pathol 17(2):75-77

Jun 1968 464.8 P692

Injections, Mosaic (lettuce), Plant physiology, Research, Spraying, Virus diseases (plants).

18076-68

GENETICS OF REACTION TO PUCCINIA SORGHII IN TEN CORN INBRED LINES FROM AFRICA AND EUROPE.

D R Wilkinson A L Hooker

Phytopathology 58(5):605-608

May 1968 464.8 P56

Corn, Genes, Plant breeding, Plant disease resistance, Plant genetics, Puccinia sorghi.

18077-68

NEW FUNGICIDES EFFECTIVE FOR PECAN SCAB CONTROL IN GEORGIA.

R E Worley S A Harmon

Plant Dis Rep 52(2):108-109

Feb 1968 1.9 P69P

Chemical control (plant diseases), Fungicides, Fungus diseases (plants), Fusicladium effusum, Scab (pecans), Spraying, Tree diseases.

18078-68

CULTURAL AND PATHOGENICITY STUDIES OF INDUCED VARIANTS OF BEAN AND PEA ROOT ROT FUSARIUM SPECIES.

S M Yang D J Hagedorn

Phytopathology 58(5):639-643 REF

May 1968 464.8 P56

Beans, Culture media, Fusarium, Fusarium solani, Peas, Plant diseases, Root rot (beans), Root rot (peas).

18079-68

ROOT ROT AS A CAUSE OF RED CLOVER DECLINE IN LEYS IN FINLAND.

A Ylimaki

Ann Agr Fenn 6(1, SUP):7-59 MAP, REF

1967 20 AN7

Fungus diseases (plants), Red clover, Root rot (red clover).

Abstract

18080-68

ON LIGHT-SENSITIVITY IN GERMINATING UREDOSPORES OF WHEAT BROWN RUST.

J C Zadoks L J M Groenewegen

Neth J Plant Pathol 73(3):83-102

1967 464.8 T44

Brown rust (wheat), Fungus diseases (plants), Light, Plant physiology, Puccinia recondita, Spore germination, Temperature, Wheat.

Abstract: Experiments consisted of 3 phases: Spore production, spore storage, spore germination. The light-inhibited spores germinate rapidly after being placed in darkness with germination rate little affected by duration of light exposure. After a few hours of light exposure a gradually increasing proportion of light-inhibited spores is killed, which means that the reversability of the light-inhibition is limited.

18081-68

RECENT SPREAD AND PRESENT DISTRIBUTION OF FIRE BLIGHT IN THE WORLD.

T Van Der Zwet

Plant Dis Rep 52(9):698-699

Sep 1968 1.9 P69P

Erwinia amylovora, Geography, Pseudomonas syringae, Reports, Research.

ARTHROPODS

18082-68

SYSTEMATIC INSECTICIDE SEED TREATMENT TESTS ON SOYBEANS. BOWLING, C. C.

J Econ Entomol 61(5):1224-1227

15 Oct 1968 421 J822

Biochemistry, Chemical control (insects), Diabrotica undecimpunctata howardi, Insect pests, Insecticide application, Insecticides, Plant physiology, Seed germination, Seedlings, Soybeans.

18083-68

ALUMINUM FOIL AND WHITE POLYETHYLENE MULCHES TO REPEL APHIDS AND CONTROL WATERMELON MOSAIC.

W C Adlerz P H Everett

J Econ Entomol 61(5):1276-1279 REF

15 Oct 1968 421 J822

Aluminum foil, Aphididae, Chemical control (insects), Insect pests, Insect repellents, Insect traps, Insect vectors, Mosaic (watermelons), Mulches, Polyethylene, Virus diseases (plants).

18084-68

SURVIVAL OF THE BALSAM WOOLLY APHID ON ABIES LOGS.

M D Atkins T A D Woods

Can Entomol 100(4):412-420 MAP

Apr 1968 421 C16

Abies grandis, Chermes piceae, Insect biology, Insect dissemination, Insect pests, Logs, Parasitism, Saline water.

18085-68

NATURAL ACQUISITION COMPARED WITH MECHANICAL INOCULATION OF SIX-SPOTTED LEAFHOPPERS FOR TRANSMISSION OF THE OAT BLUE DWARF VIRUS. (ABSTRACT).

E E Bantari R J Zeyen

Phytopathology 58(8):1042

Aug 1968 464.8 P56

Blue dwarf (oats), Cicadellidae, Injections, Insect vectors, Oats, Virus diseases (plants).

18086-68

CONTROL OF THE BIRCH LEAF MINOR WITH DISULFOTON.

H H Cheng E J LeRoux

Can Entomol 100(4):350-357 REF

Apr 1968 421 C16

Betula, Biochemistry, Chemical control (insects), Disulfoton, Dosage, Fenusa pusilla, Insecticide application, Insecticides, Leaves, Population.

18087-68

EFFECTS ON POPULATIONS OF CORN ROOT-WORMS OF ALDRIN RESIDUES IN SOIL FOUR YEARS AFTER APPLICATION.

H C Chiang R S Raros

J Econ Entomol 61(5):1204-1208

15 Oct 1968 421 J822

Aldrin, Biochemistry, Corn, Crop yields, Diabrotica lineolaris, Diabrotica virgifera, Insecticide residues, Parathion, Population, Soils.

18088-68

BLACK VINE WEEVIL LARVAL DAMAGE TO CONCORD GRAPE ROOTS AT DIFFERENT POPULATION DENSITIES.

W W Cone

J Econ Entomol 61(5):1220-1224

15 Oct 1968 421 J822

Brachyrhinus sulcatus, Grapes, Insect cages, Insect eggs, Insect pests, Larvae, Plant injuries, Population, Roots.

18089-68

APHID VECTORS OF BARLEY YELLOW DWARF VIRUS IN BLACKLIGHT TRAPS IN EASTERN UNITED STATES.

B F Coon

J Econ Entomol 61(5):1279-1282

15 Oct 1968 421 J822

Aphididae, Insect flight, Insect vectors, Light traps, Macrosiphum avenae, Rhopalosiphum maidis, Rhopalosiphum padi, Schizaphis graminum, Tables (data), Virus diseases (plants), Yellow dwarf (barley).

18090-68

STUDIES ON A BIOLOGICAL AND A CHEMICAL METHOD OF CONTROLLING THE DARK RICE FIELD MOSQUITO IN LOUISIANA.

18091-68

B R Craven C D Steelman

J Econ Entomol 61(5):1333-1336 REF

15 Oct 1968 421 J822

Biochemistry, Biological control (insects), *Gambusia affinis*, Insect pests, Insecticides, Population, *Phorophora confinis*, Rice, Tables (data).

18091-68

FURTHER EVALUATION OF ACARICIDES FOR BROWN WHEAT MITE CONTROL ON WINTER WHEAT IN KANSAS, 1963-65.

L J DePew

J Econ Entomol 61(5):1171-1174

15 Oct 1968 421 J822

Acaricides, Biochemistry, Chemical control (insects), Crop yields, Pesticide application, *Petrobia latens*, Population, Research, Seedlings, Spraying, Tables (data), Wheat.

18092-68

CEREAL LEAF MINER IN THE SOUTH-EAST REGION.

C M G Duthoit

Plant Pathol 17(2):61-65

Jun 1968 464.8 P692

Agromyzidae, Parasitic insects, Plant injuries, Research, Surveys.

18093-68

RESIDUES OF DIAZINON IN CARROTS AFTER TREATMENT AGAINST CYCLODIENE-RESISTANT CARROT RUST FLY.

D G Finlayson I H Williams H G Fulton

J Econ Entomol 61(5):1174-1176 REF

15 Oct 1968 421 J822

Assay, Carrots, Chemical control (insects), Cycloidiene, Diazinon, Dosage, Insecticide application, Insecticide residues, Plant hardiness, *Psila rosae*.

18094-68

EFFECTS OF EARLY-, MID-, AND LATE-SEASON INFESTATIONS OF TWO-SPOTTED SPIDER MITES ON THE YIELD OF COTTON.

R E Furr T R Perimner

J Econ Entomol 61(5):1446-1447

15 Oct 1968 421 J822

Cotton, Crop yields, Insect control, Insect pests, Leaves, Plant injuries, Temperature, *Tetranychus*, Weather.

18095-68

TESTS WITH INSECTICIDES FOR THE CONTROL OF RESISTANT MYZUS PERSICAE (SULZER) ON YEAR-ROUND CHRYSANTHEMUMS.

H J Gould

Plant Pathol 17(2):88-94

Jun 1968 464.8 P692

Carbamates, Chemicals, Chrysanthemum, Insecticides, *Myzus persicae*, Organic compounds, Pesticides, Phosphorus, Research, Spraying, Toxicology.

18096-68

A BIOASSAY TECHNIQUE FOR SCREENING FEEDING STIMULANTS FOR LARVAE OF TOBACCO BUDWORM.

A A Guerra T N Shaver

J Econ Entomol 61(5):1398-1399

15 Oct 1968 421 J822

Attractants, Biological assay, Corn, Cotton, Feeding, *Heliothis virescens*, Insect pests, Larvae, Plant extracts, Research, Water.

18097-68

SURVIVAL OF RHOPALOSIPHUM PADI IN STORED GRAIN DURING COLD WEATHER.

A M Harper P E Blakeley

J Econ Entomol 61(5):1455

15 Oct 1968 421 J822

Cold, Grain, Research, *Rhopalosiphum padi*, Storage, Temperature, Weather.

18098-68

THE USE OF MENAZON SEED DRESSING TO DECREASE SPREAD OF VIRUS YELLOWS IN SUGAR-BEET ROOT CROPS.

G D Heathcote

Ann Appl Biol 62(1):113-118

Aug 1968 442.8 AN72

Aphididae, Insect vectors, Insecticides, Menazon, Roots, Seed treatment, Sugar beets, Virus diseases (plants), Yellows (sugar beets).

18099-68

LACK OF CYTOPLASMIC INHERITANCE OF ALFALFA RESISTANCE TO THE SPOTTED ALFALFA APHID.

S D Kindler R Staples

J Econ Entomol 61(5):1455-1456

15 Oct 1968 421 J822

Alfalfa, Breeding, Cytoplasm, Immunity, Insect pests, Plant genetics, Plant hardiness, Research, *Therioaphis maculata*.

18100-68

OVIPOSITION PREFERENCES OF WESTERN CORN ROOTWORMS FOR VARIOUS SOIL SURFACE CONDITIONS.

V M Kirk C O Calkins F J Post

J Econ Entomol 61(5):1322-1324

15 Oct 1968 421 J822

Diabrotica virgifera, Experimental insects, Insect pests, Ovulation, Plant injuries, Research, Soils.

18101-68

STUDIES OF THE INSECT COMPLEX AFFECTING SEED PRODUCTION OF PONDROSA PINE IN CALIFORNIA.

T W Koerber

Diss Abstr Sect B 29(1):229B

Jul 1968 Z5055.U49D53

Insect control, Insect pests, *Pinus ponderosa*, Research, Seedlings, Tree injuries.

18102-68

ISOLATION AND ELECTRON MICROSCOPY OF POTATO LEAFROLL VIRUS FROM PLANTS.

M Kojima E Shikata M Sugawara D Murayama

Virology 35(4):612-615 REF

Aug 1968 448.8 V81

Electron microscopes, Insect vectors, Leaf roll (potatoes), *Myzus persicae*, Potatoes, Virus diseases (plants).

18103-68

INTRODUCTION TO BACILLUS THURINGIENSIS AND ITS USES. (GE)

A Krieg

Berlin Biol Bundesanst Land-forstwirtschaft Mitt 125,87P REF

Nov 1967 410.9 G31M

Bacillus anthracis, *Bacillus cereus*, *Bacillus thuringiensis*, Biochemistry, Morphology, Pest control, Taxonomy.

18104-68

RESISTANCE IN BERMUDAGRASS TO THE FALL ARMYWORM.

D B Leuck C M Taliaferro G W Burton R L

Burton M C Bowman

J Econ Entomol 61(5):1321-1322

15 Oct 1968 421 J822

Benzoxazolinone, *Cynodon dactylon*, Insect pests, Larvae, Plant extracts, Plant hardiness, *Spodoptera frugiperda*.

18105-68

INSECT PESTS OF NIGERIAN CROPS.

J L Libby

Wis Agr Exp Sta Bull 269,69P.

Feb 1968 100 W75 (1)

Crop yields, Insect pests, Plant protection.

18106-68

IMPROVED TECHNIQUE TO CONTROL SHOT HOLE BORERS AND BARK BEETLES.

R A Malik

Plant Protect Bull 18(1):29-30

1966 421 P69

Insect control, Insect pests, Plant protection, Preventive medicine, Scolytidae, *Scolytus rugulosus*, Trees.

18107-68

REINFESTATION OF FOREST SITES BY THE TEXAS LEAF-CUTTING ANT.

W F Mann

J Econ Entomol 61(5):1460-1461

15 Oct 1968 421 J822

Atta texana, Biochemistry, Chemical control (insects), Forests, Fumigation, Insect pests, Methyl bromide, Research, Tree injuries.

18108-68

OCCURRENCE OF FIBER CONTAINING FLUORESCENT SPOTS ASSOCIATED WITH ASPERGILLUS FLAVUS BOLL ROT IN THE U. S. COTTON CROP OF 1967.

P B Marsh M E Simpson

Plant Dis Rep 52(9):671-674

Sep 1968 1.9 P69P

Aspergillus flavus, Cotton, Geography, Insect dissemination, Research, Surveys.

18109-68

ATTEMPTS AT COMBATTING OYSTERSHELL SCALE, LEPIDOSAPHES ULMI (L.), ON APPLE TREES IN ORCHARDS OF QUEBEC. (FR)

B Parent D Pitre

Phytoprotection 49(1):26-37 REF

Feb 1968 464.8 P566

Apples, Ethion, Insecticides, *Lepidosaphes ulmi*, Oils, Plant injuries, Plant protection, Trees, English summary

18110-68

LOSS OF PHORATE FROM A GRANULAR FORMULATION APPLIED IN THE SOIL.

R S Patterson W A Rawlins

Fla Entomol 51(3):143-150

Sep 1968 420 F662

Humidity, Insecticide residues, Phorate, Plant translocation, Plants, Research, Soils, Toxicology, Weather.

18111-68

WESTERN CORN ROOTWORM EGG DISTRIBUTION AND ADULT EMERGENCE UNDER TWO CORN TILLAGE SYSTEMS.

K P Pruess G T Weekman B R Somerhalder

J Econ Entomol 61(5):1424-1427

15 Oct 1968 421 J822

Corn, *Diabrotica virgifera*, Insect dissemination, Insect eggs, Planting, Seedlings, Soils, Tillage, Zoogeography.

18112-68

THE TOLERANCE OF IMPORTED COMMODITIES TO FUMIGATION WITH METHYL BROMIDE.

H Roth H H Richardson

J Econ Entomol 61(5):1435-1437

15 Oct 1968 421 J822

Biochemistry, Broadbeans, Chemical control (insects), Dosage, Foreign trade, Fumigation, Insecticides, Methyl bromide, Muskmelons, Research, Temperature, *Tribolium confusum*.

18113-68

STUDIES ON HYDROGEN PHOSPHIDE AGAINST THE RED FLOUR BEETLE IN A COLUMN OF PADDY.

G Rout S C Parida

J Econ Entomol 61(5):1145-1147

15 Oct 1968 421 J822

Aluminum, Biochemistry, Cotton, Dosage, Fumigants, Insect pests, Phosphine, Rice, Tables (data), *Tribolium castaneum*.

18114-68

A MEDIUM FOR LABORATORY REARING OF THE PEACH TREE AND LESSER PEACH TREE BORERS.

W G Russell

J Econ Entomol 61(5):1450-1451

15 Oct 1968 421 J822

Experimental insects, Feeding, Insect pests, Insect rearing, Larvae, Plant injuries, *Sanninoidea exitiosa*, *Synanthedon pictipes*.

18115-68

CONTROL OF MUSTARD APHID (*LIPAPHIS ERSYMI* KALT.) BY SYSTEMIC INSECTICIDES.

M L Saini K S Chhabra
Plant Protect Bull 18(2):4-8
1966 421 P69

Aphididae, Brassica, Crop yields, Insecticides, *Lipaphis erysimi*, Plant protection.

18116-68

A NEW MOSAIC DISEASE OF BRINJAL (*SOLANUM MELONGENA* L.).

M L Seth S P Raychaudhuri R Nath
Phytopathol Z 59(4):385-389 REF
Aug 1967 464.8 P562

Aphis craccivora, Aphis gossypii, Eggplant, Insect vectors, Mosaic (eggplant), Myzus persicae, Virus diseases (plants). German summary

18117-68

INTRODUCING AND ESTABLISHING THE NONINCLUSION VIRUS OF THE CITRUS RED MITE IN CITRUS GROVES.

J G Shaw D L Chambers H Tashiro
J Econ Entomol 61(5):1352-1355
15 Oct 1968 421 J822

Citrus, Epizootic diseases, Experimental insects, Greenhouse culture, Insect diseases, Insect rearing, Panonychus citri, Spraying, Viruses, Zoogeography.

18118-68

ATTACK OF THE BLACK TURPENTINE BEE-TLE ON ROOTS OF SLASH PINES.

R H Smith R J Kowal
J Econ Entomol 61(5):1430-1432
15 Oct 1968 421 J822

Dendroctonus terebrans, Insect control, Insect pests, Mortality, Pinus elliottii, Research, Roots, Tree injuries.

18119-68

PECULIARITIES OF DEVELOPMENT AND HARMFUL ACTIVITY OF THE HESSIAN FLY (*MAYETIOLA DESTRUCTOR* SAY.) UNDER CONDITIONS OF IRRIGATION. (RUS)

P I Susidko
Zool Zhur 46(12):1810-1814
Dec 1967 410 R92

Insect pests, Mayetiola destructor, Plant pest control, Wheat.

Abstract

18120-68

ROLE OF HOST PLANT IN PRODUCTION OF WINGED FORMS BY A GREEN STRAIN OF PEA APHID *ACYRTHOSIPHON PISUM*.

O R W Sutherland
Nature 216(5113):387-388
28 Oct 1967 472 N21

Acyrtosiphon pisum, Aphididae, Breeding, Broadbeans, Experimental insects, Insect rearing, Research, Seedlings, Wings (insects).

18121-68

ANTHOCORIS MELANOCERUS AS A PREDATOR OF THE GREEN PEACH APHID ON SUGAR BEETS AND BROCCOLI.

G Tamaki R E Weeks
Entomol Soc Amer Ann 61(3):579-584
May 1968 420 EN82

Anthocoris melanocerus, Broccoli, Insect control, Laboratories, Mortality, Myzus persicae, Ovipositors, Population statistics, Predaceous insects, Sugar beets.

18122-68

EGG DISTRIBUTION AS A FACTOR IN SUPPRESSING THE GREEN PEACH APHID BY PRUNING.

G Tamaki D M Powell
J Econ Entomol 61(5):1437-1439
15 Oct 1968 421 J822

Insect control, Insect eggs, Insect pests, Myzus persicae, Population, Pruning, Research, Zoogeography.

18123-68

CHEMICAL CONTROL OF THE SUNFLOWER MOTIL ON SUNFLOWERS.

G L Teetes N M Randolf
J Econ Entomol 61(5):1344-1347
15 Oct 1968 421 J822

Biochemistry, Chemical control (insects), Chemicals, Homococosa electellum, Insecticide application, Insecticides, Larvae, Sunflowers, Tables (data).

18124-68

CONSTITUENTS OF THE COTTON BUD. XIII. FURTHER STUDIES ON A NONPOLAR FEEDING STIMULANT FOR THE BOLL WEEVIL.

C Temple E C Roberts J Frye R F Struck Y F Shealy A C Thompson J P Minyard P A Hedin
J Econ Entomol 61(5):1388-1393 REF
15 Oct 1968 421 J822

Anthonomus grandis, Chromatography, Cotton, Feeding, Lipids, Pheophytins, Plant budding, Plant extracts, Research.

18125-68

RESISTANCE OF SOUTHERN PEAS TO THE COWPEA CURCULIO.

J W Todd T D Canerday
J Econ Entomol 61(5):1327-1329
15 Oct 1968 421 J822

Breeding, Chalcomermus aeneus, Economic plants, Insect pests, Peas, Plant hardiness, Plant injuries.

18126-68

WITH PESTS IN THE LUGGAGE. (SW)

B Tunblad
Swed Stat Vaxtskyddsanst Vaxtskyddsnotiser 31(5-6):91
1967 464.9 SW3V

Diaspis echinocacti, Opuntia.

18127-68

MORTALITY STAGING OF DOMINANT LETHALS INDUCED IN THE F1 GENERATION OF SUGARCANE BORER; DIATRAEA SACCHARALIS (F.).

D W Walker V Quintana-Muniz
Radiat Res 36(1):138-143
Oct 1968 334.8 R11

Diatraea saccharalis, Embryology, Irradiation, Mortality, Sugarcane.

18128-68

CONTROL OF THE ELM LEAF BEETLE IN ARIZONA.

G P Wene J N Roney S Stedman
J Econ Entomol 61(5):1180-1182
15 Oct 1968 421 J822

Bidrin, Biochemistry, Chemical control (insects), Dosage, Foliar application, Injections, Insect pests, Insecticides, Oxydemetonmethyl, Pyrrhalta luteola, Tree injuries, Ulmus.

18129-68

THE COLUMBIAN TIMBER BEETLE, CORTHYLUS COLUMBIANUS (COLEOPTERA: SCOLYTIDAE). VIII. ARTIFACTS AND CHARACTERISTICS OF THE HOST TREE.

W B White R L Giese
J Econ Entomol 61(5):1400-1406 REF
15 Oct 1968 421 J822

Acer rubrum, Acer saccharinum, Corthylus columbianus, Insect behavior, Insect outbreaks, Insect pests, Plant physiology, Population, Research, Statistical analysis.

18130-68

PHYSIOLOGIC RACE CHANGES IN BARLEY MILDEW 1964-67.

M S Wolfe
Plant Pathol 17(2):82-87
Jun 1968 464.8 P692

Erysiphe graminis, Mildew (barley), Physiology, Plant diseases, Research, Sampling (statistics), Surveys.

NEMATODES

18131-68

EFFECT OF TEMPERATURE AND VARIETY ON NEMATODE DEVELOPMENT AND GALL PRODUCTION ON SOYBEANS INFECTED WITH MELOIDOGYNE INCOGNITA ACRITA. (ABSTRACT).

W E Bryant T D Wyllie
Phytopathology 58(8):1045
Aug 1968 464.8 P56

Meloidogyne incognita, Morphology, Nematodes, Plant galls, Soybeans, Temperature.

18132-68

THE INCREASED ATTACK OF DITYLENCHUS DIPSACI ON ONION CAUSED BY SOME FUNGICIDES.

M W Brzeski W Macias
Nematologica 13(2):322
1967 436.8 N342

Ditylenchus dipsaci, Fungicides, Onions, Plant nematodes.

18133-68

ATTEMPTED CULTIVATION OF NEMATODE CELLS. (ABSTRACT).

T Chen H Hirumi K Maramorosch
Phytopathology 58(8):1046-1047
Aug 1968 464.8 P56

Alfalfa, Cells, Nematodes, Plant protection, Pratylenchus penetrans.

18134-68

INTERACTIONS OF APHELENCHUS AVENAE AND SOME NEMATODETRAPPING FUNGI IN DUAL CULTURE.

R C Cooke D Pramer
Phytopathology 58(5):659-661
May 1968 464.8 P56

Aphelenchus avenae, Balance of nature, Competition, Culture media, Fungi, Nematode-trapping fungi, Nematodes.

18135-68

THE BARLEY ROOT-KNOT NEMATODE IN ILLINOIS.

A M Golden D P Taylor
Plant Dis Rep 51(11):974-975
Nov 1967 1.9 P69P

Agrostis palustris, Barley, Poa pratensis, Taxonomy, Zoogeography.

18136-68

THE EFFECT OF ULTRA-VIOLET RADIATION ON THE INVASION, SURVIVAL AND FERTILITY OF LARVAE OF HETERODERA ROSTOCHIENSIS.

C D Green S Plumb
Nematologica 13(2):186-190
1967 436.8 N342

Heterodera rostochiensis, Heterodera schactii, Larvae, Physiology, Potatoes, Ultraviolet rays. English and german abstract

Abstract

18137-68

CHEMICAL CONTROL OF THE STEM NEMATODE DITYLENCHUS DIPSACI.

G D Griffin
Plant Dis Rep 51(11):973-974
Nov 1967 1.9 P69P

Alfalfa, Captan, Ditylenchus dipsaci, Nematocides, Seed treatment, Soil sterilization.

18138-68

QUANTITATIVE CHANGES IN ORGANIC ACIDS IN ROOTS AND LEAVES FROM GRAPEFRUIT SEEDLINGS INFECTED WITH RHADOPHOLUS SIMILIS.

R W Hanks A W Feldman
Phytopathology 58(5):706-707
May 1968 464.8 P56

Carboxylic acids, Citrus, Grapefruit, Leaves, Nematodes, Rhadopholus similis, Roots, Seedlings.

18139-68

CONTROL OF ENDO- AND ECTO-PARASITIC NEMATODES IN TURF BY HOT-WATER TREATMENTS.

18140-68

C M Heald H D Wells
Plant Dis Rep 51(11):905-907
Nov 1967 1 9 P69P

Criconemoides, Hot water treatment (plants), Hypsoperine, Nematodes, Parasitism, Plant hardness, Trichodorus, Tylenchorhynchus.

18140-68

THE YIELD OF POTATOES RESISTANT TO HETERODERA ROSTOCHIENSIS ON INFESTED LAND.

F G W Jones D M Parrott T D Williams
Nematologica 13(2):301-310 REF
1967 436.8 N342

Crop yields, Heterodera rostochiensis, Plant disease resistance, Plant nematodes, Potatoes. English and german abstract

Abstract

18141-68

STUDIES OF THE SUITABILITY OF CERTAIN HELIOTHIS SPP. AS A HOST FOR CARDIOCHILES NIGRICEPS VIERICK.

W J Lewis
Diss Abstr Sect B 29(2):646B
Aug 1968 Z5055.U49D53

Cardiochiles nigriceps, Heliothis, Parasitism, Research.

18142-68

ELECTRON MICROSCOPE STUDIES OF SOME CEPHALIC STRUCTURES OF XIPHINEMA AMERICANUM.

D Lopez-Abella F Jimenez-Millan F Garcia-Hidalgo
Nematologica 13(2):283-286 REF
1967 436.8 N342

Anatomy, Electron microscopes, Head, Morphology, Plant nematodes, Xiphinema americanum. English and german abstract

Abstract

18143-68

INJURY TO HETERODERA TABACUM BY HIGH SOIL TEMPERATURES. (ABSTRACT).

P M Miller
Phytopathology 58(8):1060
Aug 1968 464.8 P56

Eggplant, Heterodera tabacum, Nematodes, Plant injuries, Soil temperature, Tomatoes.

18144-68

THE INFLUENCE OF AN ORGANIC SOIL AMENDMENT ON INFECTIVITY AND REPRODUCTION OF TYLENCHULUS SEMIPENETRANS ON TWO CITRUS ROOT-STOCKS.

J H O'Bannon
Phytopathology 58(5):597-601 REF
May 1968 464.8 P56

Citrus, Lemons, Nematodes, Oranges, Parasitism, Peat, Roots, Seedlings, Soils, Tylenchulus semipenetrans.

18145-68

THE HOST-PARASITE RELATIONS AND ECOLOGY OF TRICHODORUS VIRULIFERUS ON APPLE ROOTS, AS OBSERVED FROM AN UNDERGROUND LABORATORY.

R S Pitcher
Nematologica 13(4):547-557 REF
1967 436.8 N342

Apples, Ecology, Plant injuries, Plant nematodes, Roots, Trichodorus viruliferus. English and german abstract

Abstract

18146-68

THE EFFECT OF AMINO ACID ANTIMETABOLITES ON FOUR NEMATODE SPECIES AND THEIR HOST PLANTS.

S K Prasad J M Webster
Nematologica 13(2):318-320
1967 436.8 N342

Amino acids, Antimetabolites, Physiology, Plant nematodes, Soil microorganisms, Tomatoes.

18147-68

EFFECT OF VARIETY AND FUMIGATION ON NEMATODE POPULATIONS IN OATS, WHEAT, AND RYE.

D T Sechler W B Tappan H H Luke
Plant Dis Rep 51(11):915-919 REF
Nov 1967 1 9 P69P

Nematocides, Nematodes, Oats, Plant pest control, Rye, Soil fumigation, Wheat.

18148-68

THE RELATIONSHIPS BETWEEN POPULATION INCREASE AND POPULATION DENSITY IN PLANT PARASITIC NEMATODES.

J W Seinhorst
Nematologica 13(4):481-492 REF
1967 436.8 N342

Ecology, Plant injuries, Plant nematodes, Population. English and german abstract

Abstract

18149-68

THREAD WORMS IN THE RHIZOSPHERE OF THE NORMAL COTTON AND OF THAT INFECTED WITH THE VERTICILLOUS COTTON WILT. (RUS)

I M Sudakova A V Stoyakov R V Mikulina
Zool Zhur 46(12):1758-1763
Dec 1967 410 R92

Cotton, Nematodes, Plant diseases, Plant ecology, Rhizosphere, Verticillium dahliae, Wilt (cotton).

Thread worms in the rhizosphere of non-wilt infected cotton are predominately of only two ecological groups, phytohelminths and devysaprobiont.

18150-68

PARASITISM OF TYLENCHUS EMARGINATUS ON CONIFER SEEDLING ROOTS AND SOME OBSERVATIONS ON THE BIOLOGY OF THE NEMATODE.

J R Sutherland
Nematologica 13(2):191-196
1967 436.8 N342

Coniferae, Plant nematodes, Roots, Seedlings, Tylenchus emarginatus. English and french abstract

Abstract

18151-68

EVALUATION OF SOME TAXONOMIC INDICES IN THE POTATO ROT NEMATODE DITYLENCHUS DESTRUCTOR THORNE, 1945. (RUS)

T N Teploukhova
Zool Zhur 47(1):42-48 REF
Jan 1968 410 R92

Ditylenchus destructor, Ditylenchus dipsaci, Plant nematodes, Statistical analysis, Taxonomy. English abstract

Abstract

18152-68

GAMMA IRRADIATION OF HETERODERA SCHACHTII.

J L Townshend
Nematologica 13(4):586-592 REF
1967 436.8 N342

Gamma rays, Heterodera schachtii, Physiology, Plant nematodes, Soil microorganisms. English and german abstract

Abstract

18153-68

PLANT-PARASITIC NEMATODES IN GRAPE AND RASPBERRY SOILS OF ONTARIO AND A COMPARISON OF EXTRACTION TECHNIQUES.

T L Townshend
Can Plant Dis Surv 47(3):83-86 REF
Sep 1967 464.9 C165

Grapes, Parasitism, Plant nematodes, Pratylenchus penetrans, Raspberries, Soil microorganisms, Xiphinema americanum.

Abstract: Of 8 species, only P. penetrans was harmful to raspberries.

18154-68

THE EFFECT OF ENVIRONMENT ON SEX DETERMINATION IN HETERODERA ROSTOCHIENSIS.

D L Trudgill
Nematologica 13(2):263-272
1967 436.8 N342

Heterodera rostochiensis, Larvae, Physiology, Plant nematodes, Potatoes, Sex determination. English and german abstract

Abstract

18155-68

THE INFLUENCE OF PLANT-GROWTH SUBSTANCES AND THEIR INHIBITORS ON THE HOST-PARASITE RELATIONSHIPS OF APHELENCHOIDES RITZEMABOSI IN CULTURE.

J M Webster
Nematologica 13(2):256-262 REF
1967 436.8 N342

Alfalfa, Aphelenchoides ritze-ma-bosi, Biochemistry, Plant growth inhibitors, Plant nematodes, Plant physiology. English and german abstract

Abstract

18156-68

FACTORS INFLUENCING THE POPULATION FLUCTUATION OF PRATYLENCHUS PENETRANS IN SOIL. III. HOST PLANT SPECIES.

K Wong J M Ferris
Phytopathology 58(5):662-665 REF
May 1968 464.8 P56

Nematodes, Onions, Population statistics, Potatoes, Pratylenchus penetrans, Roots, Soils.

WEEDS

18157-68

PREPLANTING TREATMENTS FOR WEED CONTROL IN CONNECTICUT SHADEGROWN TOBACCO.

J F Ahrens
Northeast Weed Contr Conf Proc 22:41
Jan 1968 79.9 N814

Benflin, Crop yields, Plant injuries, Spraying, Tobacco, Transplanting, Trifluralin, Weed control.

18158-68

EVALUATION OF WEED CONTROL TREATMENTS IN FIELD-GROWN TOBACCO.

W E Chappell
Northeast Weed Contr Conf Proc 22:41
Jan 1968 79.9 N814

Chemical control (weeds), Herbicides, Plant injuries, Soils, Spraying equipment, Tobacco, Weed control, Weeds.

18159-68

WEEDS IN AGRONOMIC CROPS. FIELD CORN, SOYBEANS.

R H Cole
Northeast Weed Contr Conf Proc 22:28-36
Jan 1968 79.9 N814

Chemical control (weeds), Corn, Crop yields, Fertilization (plants), Field crops, Herbicides, Plant injuries, Soybeans, Weeds.

18160-68

THE GROWTH, DEVELOPMENT AND CONTROL OF COMMON RAGWEED.

C T Dickerson R D Sweet
Northeast Weed Contr Conf Proc 22:48
Jan 1968 79.9 N814

Ambrosia artemisifolia, Greenhouses, Growth factors, Photoperiodism, Research, Temperature, Weed control.

18161-68

LIGHT QUALITY EFFECTS ON GROWTH AND DEVELOPMENT RAGWEED.

S Dunn F S Adams A S Thomas E L Stevenson
Northeast Weed Contr Conf Proc 22:47

Jan 1968 79.9 N814

Ambrosia artemisifolia, Growth factors, Light, Research, Seedlings.

18162-68

GROWTH, DEVELOPMENT AND CONTROL OF WILD RADISH.

R L Feulner E M Rahn

Northeast Weed Contr Conf Proc 22:48

Jan 1968 79.9 N814

Growth factors, Herbicides, Photoperiodism, Raphanus raphanistrum, Temperature, Weed control.

18163-68

ON THE DISPERSAL OF THE BULBS OF OXALIS CERNUA THUNB. BY MOLE-RATS (SPALAX EHRENBERGI NEHRING).

J Galil

J Ecol 4(2):787-792

Nov 1967 450 J829

Bulbs, Oxalis cernua, Plant dissemination, Rodents, Spalax ehrenbergi, Weeds.

Abstract: Bulbs are dispersed by mole-rats, whose neglected caches later sprout. However caches in nest chambers are usually tended by the female mole-rats, which repeatedly bite off the young shoots, thus hindering development of the bulbs.

18164-68

ORNAMENTALS.

C Haramaki

Northeast Weed Contr Conf Proc 22:22-27

Jan 1968 79.9 N814

Chemical control (weeds), Herbicides, Nurseries, Ornamental plants, Plant injuries, Plant physiology, Soils, Transplanting, Weeds.

18165-68

FENCEROW WEED CONTROL MADE EASY.

E L Knake

Down Earth 23(4):2,32 SPRING

1968 381 D75

Biochemistry, Chemical control (weeds), Crops, D, 2,4-, Herbicides, Soils, Spraying, Weed control.

18166-68

EXTERMINATION OF EICHHORNIA AZUREA KUNTH, AGUAPE DE CORDAO, ON THE RIBEIRA RIVER BY MEANS OF HERBICIDE APPLICATIONS. (POR)

L Leiderman P Figueiredo

Biologico 33(6):121-125

Jun 1967 442.8 B529

Amitrole, D, 2,4-, Eichhornia, Herbicides, Paraquat, Weed control.

18167-68

FORAGE CROPS, SMALL GRAINS.

D L Linscott

Northeast Weed Contr Conf Proc 22(0):37-40

Jan 1968 79.9 N814

Crops, Herbicides, Legumes, Seedlings, Spraying, Weed control.

18168-68

VEGETABLE CROPS III. CUCUMBERS, WATERMELONS, CANTALOUPE, SQUASH.

E M Rahn

Northeast Weed Contr Conf Proc 22:9-11

Jan 1968 79.9 N814

Cantaloupes, Chemicals, Cucumbers, Greenhouses, Squash, Vegetables, Watermelons, Weed control, Weeds.

18169-68

CHEMICAL CONTROL OF NUTSEDGE (CYPERUS ROTUNDUS L.) AND THE METABOLISM OF 3,6-DICHLORO-O-ANISIC ACID (DICAMBA).

B R Ray

Diss Abstr Sect B 29(1):20B

Jul 1968 Z5055.U49D53

Biochemistry, Chemical control (weeds), Chemicals, Chromatography, Cyperus rotundus, Dicamba, Herbicides, Metabolites, Plant metabolism.

18170-68

AQUATIC WEEDS.

D N Riemer

Northeast Weed Contr Conf Proc 22:44-45

Jan 1968 79.9 N814

Aquatic weeds, Herbicides, Research, Weed control.

18171-68

TOBACCO.

O E Rud

Northeast Weed Contr Conf Proc 22:41

Jan 1968 79.9 N814

Field crops, Tobacco, Weed control, Weeds.

18172-68

FORESTRY.

R D Shipman

Northeast Weed Contr Conf Proc 22:42

Jan 1968 79.9 N814

Abies balsamea, Forestry, Herbicides, Weed control.

18173-68

VEGETABLE CROPS. IV. BEANS, SWEET CORN, TOMATOES, RHUBARB.

R D Sweet

Northeast Weed Contr Conf Proc 22:12-15

Jan 1968 79.9 N814

Beans, Chemical control (weeds), Corn, Herbicides, Rhubarb, Tomatoes, Weed control.

18174-68

HERBACEOUS ANNUAL AND PERENNIAL WEEDS.

J Vengris

Northeast Weed Contr Conf Proc 22:48

Jan 1968 79.9 N814

Ambrosia artemisifolia, Growth factors, Herbicides, Perennial plants, Portulaca oleracea, Raphanus raphanistrum, Weeds.

OTHER PESTS

18175-68

ALBERTA, 255,000 SQUARE MILES, FREE OF RATS.

Anonymous

Pest Contr 36(8):16

Aug 1968 449.8 EX8

Baits, Feed, Pest control, Public health, Rats, Waste disposal.

18176-68

FUMIGATION-AN EFFECTIVE METHOD OF RAT CONTROL IN KUTTANAD IN ALLEPPEY DISTRICT (KERALA).

S A Ebrahim

Plant Protect Bull 18(1):31-32

1966 421 P69

Fumigation, Pest control, Rats, Rice.

18177-68

ORGANISATION OF ANTI-RAT CAMPAIGNS.

S Singh

Plant Protect Bull 18(4):1-13

1968 421 P69

Crop yields, Dusting equipment, Environment, Organizations, Pest control, Population statistics, Rats, Research, Rodenticides.

18178-68

HYPERGLYCEAMIA INDUCED BY 5-HYDROXYTRYPTAMIN IN ACHATINA FULICA (GASTROPOD MOLLUSCA). (FR)

Y Tiffon

Paris Soc Biol Compt Rend 161(7):1547-1548

31 Jan 1968 442.9 P21

Achatina fulica, Amines, Biochemistry, Hyperglycemia, Physiology, Snails.

LIVESTOCK PROTECTION

18179-68

EFFECTS OF HIGH GOSSYPOL COTTONSEED MEAL ON THE ELECTROCARDIOGRAM OF SWINE.

J E Albrecht A J Clawson L C Ulberg D H Smith

J Anim Sci 27(4):976-980 REF

Jul 1968 49 J82

Cottonseed meal, Electrocardiograms, Feeding, Gossypol, Swine.

18180-68

DISTRIBUTION OF MERCURY COMPOUNDS IN FISH AND BIRDS.

J Backstrom

Oikos (SUP.9):30

1967 410 O14

Absorption (biological), Agriculture, Antiseptics, Autoradiography, Birds, Feeding, Fish, Industry, Injections, Mercury compounds, Research.

18181-68

CORRECTION: HEMOPHILIA-LIKE DISEASE OF SWINE: CYTOGENETIC STUDIES.

R C Brown K W Cole C N Cornell K M

Brinkhous

Amer J Vet Res 29(9):1732

Sep 1968 41.8 AM3A

Cytogenetics, Hemophilia, Swine.

18182-68

EFFECTS OF UREASE INHIBITORS ON SHEEP FED DIETS CONTAINING UREA.

A J Clifford J R Bourdette A D Tillman

J Anim Sci 27(4):1073-1080 REF

Jul 1968 49 J82

Chemurgy, Feeding, Research, Sheep, Urea, Urease.

18183-68

INFLUENCE OF NITRITE AND HYDROXYLAMINE ON PERFORMANCE AND VITAMIN A AND CAROTENE METABOLISM OF RUMINANTS.

G N Cunningham M B Wise E R Barrick

J Anim Sci 27(4):1067-1072 REF

Jul 1968 49 J82

Animal metabolism, Hydroxylamine, Methemoglobin, Nitrites, Rumen, Ruminants, Vitamin a.

18184-68

MYCOTIC ABORTION IN EWES PRODUCED BY ASPERGILLUS FUMIGATUS: PATHOLOGIC CHANGES.

S J Cyswski A C Pier

Amer J Vet Res 29(6):1135-1151 REF

Jun 1968 41.8 AM3A

Abortion, Animal diseases, Animal morphology, Aspergillus fumigatus, Histopathology, Injections, Mycology, Sheep, Tissues.

18185-68

INFLUENCE OF DIETARY VITAMIN A ON CHOLESTEROL METABOLISM OF CHICKENS.

P M Dua

Diss Abstr Sect B 28(8):3117B

Feb 1968 Z5055.U49D53

Animal metabolism, Blood serum, Carotenoids, Chickens, Cholesterol, Diet, Eggs, Liver, Retinoic acid, Thiouracil, Vitamin a.

18186-68

OLIGOSACCHARIDASES FROM MACRACANTHORHYNCHUS HIRUDINACEUS (ACANTHOCEPHALA) FROM SWINE.

T T Dunagan T M Yau

Compar Biochem Physiol 26(1):281

Jul 1968 444.8 C73

Chemicals, Extracts, Macracanthorhynchus hirudinaceus, Oligosaccharides, Research, Swine.

18187-68

TREATMENT FOR POISONING BY SLUG BAIT.

J D Hawkins

Vet Rec 83(10):258

07 Sep 1968 41.8 V641

Baits, Dogs, Mortality, Poisoning, Research, Slugs, Toxicology.

18188-68

OXALATE METABOLISM IN SHEEP AND ITS EFFECT ON THE ANION-CATION BALANCE.

L F James

Diss Abstr Sect B 28(8):3118B

Feb 1968 Z5055.U49D53

Alkalosis, Animal metabolism, Carbonates, Hydrogen-ion concentration, Ions, Nitrogen, Oxalates, Rumen.

18189-68

LEVELS OF 5 BETA-PREGNAN-3 ALPHA, 6 ALPHA-DIOL-20-ONE IN URINE AND ITS RELATIONSHIP TO OTHER METABOLITES OF PROGESTERONE IN URINE OF THE NON-PREGNANT DOMESTIC SOW.

P H Jones R E Erb

J Anim Sci 27(4):1054-1058 REF

Jul 1968 49 J82

Blood plasma, Chromatography, Extracts, Glucuronidase, Metabolites, Progesterone, Swine, Urine.

18190-68

COMPARISON OF METABOLITES OF PROGESTERONE-4-14C IN URINE FROM A NONPREGNANT DOMESTIC SOW.

P H Jones R E Erb

J Anim Sci 27(4):1049-1053 REF

Jul 1968 49 J82

Chromatography, Extracts, Glucuronidase, Hydrolysis, Metabolites, Progesterone Radioactivity, Swine.

18191-68

EFFECT OF AFLATOXIN ON SERUM PROTEIN FRACTIONS OF DAY-OLD DUCKLINGS.

I Nemeth S Juhasz

Acta Vet (budapest) 18(1):95-105

1968 41.8 AC83

Aflatoxin, Blood proteins, Ducklings, Electrophoresis, Gamma globulins, Immunology.

18192-68

RESPONSE OF BEEF COWS TO EXOGENOUS PROGESTERONE AND ESTRADIOL AT VARIOUS STAGES POSTPARTUM.

S Saiduddin M M Quevedo W D Foote

J Anim Sci 27(4):1015-1020

Jul 1968 49 J82

Cattle, Estradiol, Injections, Ovulation, Progesterone, Research.

18193-68

EFFECT OF ORGANO-PHOSPHORUS INSECTICIDES ON THE WARM BLOODED ANIMALS AND CURE THEREOF.

H Singh

Plant Protect Bull 18(4):27-35 REF

1966 421 P69

Biology, Diagnosis, Insecticides, Lethal factors, Mammals, Metabolism, Phosphorus, Research, Toxicology.

18194-68

THE EFFECT OF INTRAMAMMARY INFECTION DURING THE DRY PERIOD ON THE MILK PRODUCTION OF THE AFFECTED QUARTER AT THE START OF THE SUCCEEDING LACTATION.

A Smith F H Dodd F K Neave

J Dairy Res 35(2):287-290 REF

Jun 1968 44.8 J823

Animal physiology, Dairy cattle, Lactation, Mammary glands, Milk, Parturition.

18195-68

AVIRULENT MUTANT OF A STRAIN OF ORNITHOSIS AGENT OBTAINED BY GAMMA IRRADIATION.

J Strauss J Seeman

Amer J Vet Res 29(9):1837-1842 REF

Sep 1968 41.8 AM3A

Culture media, Gamma rays, Immunization, Injections, Irradiation, Lethal factors, Lyophilization, Mice, Ornithosis, Research.

18196-68

THE EFFECT OF EXPOSURE TO DIELDRIN ON AVOIDANCE RESPONSE EXTINCTION AND CONDITIONED HEART RATE IN SHEEP.

D E Sussman

Diss Abstr Sect B 28(11):4786B

May 1968 Z5055.U49D53

Biochemistry, Chlorine, Dieldrin, Heart, Heart rate, Hydrocarbons, Pesticides, Sheep.

18197-68

DETERMINATION OF CESIUM-137 AND RELATED SAMPLING PROBLEMS OF DAIRY CATTLE FEEDS, 1962-1967.

G M Ward J E Johnson D L Whelan

Ass Offic Anal Chem J 51(4):792-795 REF

Jul 1968 381 AS7

Cesium, Crops, Dairy cattle, Feed, Pastures, Radioactivity, Sampling (statistics), Spectrometry.

18198-68

MERCURY CONTENT IN FEATHERS OF SWEDISH BIRDS FROM THE PAST 100 YEARS.

T Westermark

*Oikos (SUP.9):*39-40

1967 410 O14

Absorption, Assay, Biochemistry, Birds, Feathers, Mercury compounds, Time, Viscera.

18199-68

METHYL MERCURY COMPOUNDS IN FISH.

G Westoo

*Oikos (SUP.9):*11-12

1967 410 O14

Chromatography, Fish, Immunity, Mercury compounds, Methyl, Organic compounds.

DISEASES

18200-68

CYSTIC OVARIAN DISEASE IN DAIRY CATTLE: WITH SPECIAL REFERENCE TO ITS TREATMENT USING A COMBINATION OF CHORIONIC GONADOTROPHIN AND PROGESTERONE.

Vet Rec 83(10):231-238

07 Sep 1968 41.8 V641

Animal diseases, Dairy cattle, Injections, Ovarian cysts, Progesterone.

18201-68

FURTHER STUDIES ON THE USE OF ERA RABIES VACCINE IN DOMESTIC ANIMALS.

M K Abelseth

Can Vet J 8(10):221-227

Oct 1967 41.8 R3224

Immunization, Livestock, Rabies virus, Research, Virus diseases (animals). French summary

18202-68

EXPERIMENTAL TREATMENT OF SUBCLINICAL PORCINE CASE OF TOXOPLASMA WITH SULFAMONOMETHOXINE AND PYRIMETHAMINE AND ITS INFLUENCE UPON HEMAGGLUTININATING ANTIBODY. (JA)

M Akita

Jap Vet Med Ass J 20(9):386-389

1967 41.9 J275

Animal diseases, Antibodies, Drugs, Pyrimethamine, Sulfameter, Swine, Therapeutics, Toxoplasmosis.

18203-68

BACTERIOLOGICAL STUDIES OF POULTRY LITTER FED TO LIVESTOCK.

D C Alexander J A J Carriere K A McKay

Can Vet J 9(6):127-131 REF

Jun 1968 41.8 R3224

Bacteria, Bedding (livestock), Feeding, Livestock diseases, Poultry, Research. French summary

18204-68

A SURVEY TO DETERMINE THE SALMONELLA CONTAMINATION RATE IN LIVESTOCK AND POULTRY FEEDS.

J N Allred J W Walker V C Baig F W Germaine

Amer Vet Med Ass J 151(12):1857-1860 REF

15 Dec 1967 41.8 AM3

Food contamination, Livestock, Salmonella, Salmonellosis.

Abstract

18205-68

DOES THE AGENT OF SCRAPIE REPLICATE WITHOUT NUCLEIC ACID.

T Alper W A Cramp D A Haig M C Clarke

Nature 214(5090):764-766 REF

20 May 1967 472 N21

Animal diseases, Irradiation, Mice, Nervous system, Nucleic acids, Proteins, Reproduction, Scrapie, Ultraviolet rays.

18206-68

EXPERIMENTAL COLIBACILLOSIS AND THE DEVELOPMENT OF CARRIES IN LAYING HEENS.

W B Ardrey C F Peterson M Haggart

Avian Dis 12(3):505

Aug 1968 41.8 AV5

Animal diseases, Chickens, Escherichia coli, Injections, Oviducts, Research, Tissues.

18207-68

MICROFLORA ASSOCIATED WITH AGALACTIA SYNDROME OF SOWS.

C H Armstrong B E Hooper C E Martin

Amer J Vet Res 29(7):1401-1407 REF

Jul 1968 41.8 AM3A

Agalactia, Animal diseases, Flora, Microbiology, Microorganisms, Research, Swine.

18208-68

SEMINAL VESICULITIS SYNDROME: LESIONS IN GENITAL ORGANS OF YOUNG BULLS.

L Ball S Young E J Carroll

Amer J Vet Res 29(6):1173-1184 REF

Jun 1968 41.8 AM3A

Abnormalities, Cells, Correlation, Epididymis, Epithelial tumors, Inflammation, Reproductive organs, Seminal vesicles.

18209-68

SALMONELLA TYPHISIS INFECTION IN MINNESOTA SWINE.

D M Barnes M E Bergeland

Amer Vet Med Ass J 152(12):1766-1770 REF

15 Jun 1968 41.8 AM3

Autopsies, Epizootic diseases, Salmonella, Swine.

Abstract: Epizootics of Salmonella typhisis infection in swine were investigated on 5 Minnesota premises. It seemed to be a primary pathogen and produced a progressive disease characterized clinically by emaciation, intermittent diarrhea, and on occasion by massive enlargement of the ventral cervical region.

18210-68

ANAPLASMA MARGINALE-INFECTIVITY IN SPLENECTOMIZED AND RADIATED RABBITS.

L B Belli

Diss Abstr Sect B 29(2):696B-697B

Aug 1968 Z5055.U49D53

Anaplasmosis, Animal diseases, Irradiation, Rabbits, Spleen.

18211-68

MYCOPLASMA MELEAGRIDIS ('N' STRAIN MYCOPLASMA - PLO): RELATIONSHIP OF AIR SAC LESIONS AND ISOLATIONS IN DAY OLD TURKEYS (MELEAGRIDIS GALLOPAVO).

C H Bigland M L Benson

Can Vet J 9(6):138-141 REF

Jun 1968 41.8 R3224

Air sacs, Animal breeding, Infectious diseases, Livestock diseases, Mycoplasma meleagridis, Turkeys. French summary

- 18212-68**
NEMATODIASIS IN LOUISIANA DAIRY CATTLE. IMPACT OF HOST NUTRITION UPON EXPERIMENTAL OSTERTAGIASIS IN THE BOVINE.
 F R Bilkovich
Diss Abstr Sect B 28(8):3119B
 Feb 1968 Z5055.U49D53
 Animal nutrition, Cattle, Cooperia, Haemonchus, Livestock diseases, Nematodiasis, Ostertagia, Ostertagiasis, Trichostrongylus.
- 18213-68**
ATYPICAL GLOBIDIOSIS IN A LAMB.
 C E Binnering T C McGuire
Amer Vet Med Ass J 151(5):606-608 REF
 01 Sep 1967 41.8 AM3
 Autopsies, Globidiosis, Globidium gilruthi, Lambs.
 Abstract: In a lamb with fibrinous enteritis and lymphadenitis that died suddenly, enteritis was caused by a protozoan, Globidium gilruthi, which had invaded the mesenteric lymph nodes.
- 18214-68**
ECOLOGIC ASPECTS OF LISTERIOSIS.
 D C Blenden F T Szatalowicz
Amer Vet Med Ass J 151(12):1761-1766 REF
 15 Dec 1967 41.8 AM3
 Diagnosis, Epizootic diseases, Listeria grayi, Listeria monocytogenes, Listeriosis.
 Abstract
- 18215-68**
PROPERTIES OF AUJESZKY'S DISEASE VIRUS STRAINS ISOLATED FROM SWINE PNEUMONIA CASES.
 L Bodon J Meszaros G Papp-Vid J Romuany
Acta Vet (budapest) 18(1):107-109
 1968 41.8 AC83
 Animal diseases, Pneumonia, Pseudorabies, Research, Swine, Tissue culture, Vaccines.
- 18216-68**
ECOLOGY OF CLOSTRIDIUM BOTULINUM TYPE E.
 T L Bott
Diss Abstr Sect B 29(2):464B
 Aug 1968 Z5055.U49D53
 Clostridium botulinum, Ecology, Fish, Water.
- 18217-68**
BLUETONGUE OF SHEEP AND CATTLE: PAST, PRESENT, AND FUTURE.
 J G Bowne A J Luedke M M Jochim
Amer Vet Med Ass J 151(12):1801-1803 REF
 15 Dec 1967 41.8 AM3
 Bluetongue, Cattle, Culicoides, Epizootic diseases, Insect vectors, Sheep.
- 18218-68**
FACTORS AFFECTING THE STORAGE, EXCRETION, AND PLACENTAL TRANSFER OF DIELDRIN IN DAIRY CATTLE.
 D G Braund
Diss Abstr Sect B 29(2):423B-424B
 Aug 1968 Z5055.U49D53
 Animal physiology, Biochemistry, Dairy cattle, Dieldrin, Placenta, Storage.
- 18219-68**
SOME PHYSIOLOGICAL RESPONSES OF RUMINANTS TO 2,2-DICHLOROVINYLDIMETHYL PHOSPHATE.
 E J Bris
Diss Abstr Sect B 29(2):421B
 Aug 1968 Z5055.U49D53
 Animal physiology, Biochemistry, Dichlorvos, Dosage, Ruminants, Sheep.
- 18220-68**
RELATIONSHIPS BETWEEN ZINC NUTRITION AND ALKALINE PHOSPHATASE ACTIVITY IN THE CHICK.
 W M Britton
Diss Abstr Sect B 29(1):256B
 Jul 1968 Z5055.U49D53
 Alkaline phosphatase, Animal nutrition, Cadmium, Chicks, Deficiency diseases, Diet, Enzymes, Metabolism, Zinc.
- 18221-68**
MYCETOMA IN A DOG.
 R S Brodey H F Schryver M J Deubler W Kaplan L Asello
Amer Vet Med Ass J 151(4):442-451 REF
 15 Aug 1967 41.8 AM3
 Curvularia geniculata, Dogs, Mycetoma, Mycosis.
 Abstract: Eumycotic (maduromycotic) mycetoma caused by Curvularia geniculata occurred in dog which had intermittent lameness and a progressively enlarging swelling in the right shoulder. Radiographically, there was considerable destruction of the scapula, along with deposition of new bone. Within the affected tissue, the organism appeared in the form of dark brown or black granules. At least 12 cases in lower animals have been reported. Those in man differ in geographic distribution, specific etiologic agent, and character of granules
- 18222-68**
ONE-YEAR IMMUNITY IN DOGS VACCINATED WITH HIGH EGG-PASSAGE RABIES VIRUS GROWN ON ESTABLISHED DOG KIDNEY CELL LINE.
 A L Brown D L Merry W H Beckenhauer
Amer Vet Med Ass J 153(2):174-179 REF
 15 Jul 1968 41.8 AM3
 Dogs, Immunity, Rabies virus, Vaccines.
 Abstract
- 18223-68**
HEMOPHILIA-LIKE DISEASE OF SWINE: CYTOGENETIC STUDIES.
 R C Brown K W Cole C N Cornell K M Brinkhouse
Amer J Vet Res 29(7):1491-1493 REF
 Jul 1968 41.8 AM3A
 Animal diseases, Animal genetics, Bone marrow, Cytology, Hemophilia, Leukocytes, Swine.
- 18224-68**
AVIAN ADENO-LIKE VIRUSES- CHARACTERIZATION AND COMPARISON OF SEVEN ISOLATES.
 C N Burke R E Luginbuhl L F Williams
Avian Dis 12(3):483-505 REF
 Aug 1968 41.8 AV5
 Animal diseases, Biology, Chicken embryo lethal orphan virus, Cytology, Enteric cytopathogenic porcine orphan virus, Hemagglutination, Serological tests, Virus diseases (animals).
- 18225-68**
CORYNEBACTERIUM EQUI INFECTION IN TWO FOALS.
 G E Burrows
Amer Vet Med Ass J 152(8):1119-1124 REF
 15 Apr 1968 41.8 AM3
 Abscesses, Arthritis, Corynebacterium equi, Culture media, Enteritis, Feeds, Foals, Livestock diseases, Pneumonia, Respiration.
- 18226-68**
ACTIONS OF VITAMIN D3 AND SEX HORMONES ON CALCIUM METABOLISM OF BONE IN BIRDS, PARTICULARLY IN HENS.
 S I Chang
Diss Abstr Sect B 29(2):667B-668B
 Aug 1968 Z5055.U49D53
 Animal physiology, Birds, Bones, Calcium, Chickens, Hormones, Metabolism, Sex, Vitamin d3.
- 18227-68**
SOME NUTRITIONAL ASPECTS OF DIETARY MAGNESIUM IN RUMINANTS AND POULTRY.
 C F Chicco
Diss Abstr Sect B 29(1):1B
 Jul 1968 Z5055.U49D53
 Animal nutrition, Diet, Feed, Magnesium, Measurement, Poultry, Research, Ruminants, Sheep.
- 18228-68**
SOME CHARACTERISTICS OF THREE PORCINE ADENOVIRUSES.
 M C Clarke H B A Sharpe J B Derbyshire
Arch Gesamte Virusforsch 21(1):91-97 REF
 Jul 1967 44.8 AR23
 Adenoviruses, Antibodies, Serodiagnosis, Serological tests, Swine, Taxonomy.
 Abstract
- 18229-68**
CLINICAL ASPECTS OF TOXIC INFECTIONS BY ANAEROBIC GERM SPORES IN RUMINANTS. (FR)
 P H Cottreau
Soc Vet Prat France Bull Mens 52(4):205-224 REF
 Apr 1968 41.9 SO12
 Anaerobic bacteria, Animal diseases, Gastrointestinal system, Laboratories, Research, Ruminants, Spores.
- 18230-68**
EFFECTS OF ATTENUATED HOG CHOLERA VIRUS IN PREGNANT SWINE AT VARIOUS STAGES OF GESTATION.
 W O Cowart L G Morehouse
Amer Vet Med Ass J 151(12):1788-1794 REF
 15 Dec 1967 41.8 AM3
 Hog cholera virus, Pregnancy, Swine, Virus diseases (animals).
 Abstract
- 18231-68**
HOG CHOLERA: REPLICATION OF HOG CHOLERA VIRUS IN TISSUE CULTURE WITH CYTOPATHIC EFFECT.
 J G Crawford T R Dayhuff M J Gallian
Amer J Vet Res (9):1733-1739 REF
 Sep 1968 41.8 AM3A
 Arginine, Buffer substances, Hog cholera virus, Research, Tissue culture.
- 18232-68**
HOG CHOLERA: SAFETY AND PROTECTION STUDIES WITH PHOTODYNAMICALLY INACTIVATED HOG CHOLERA VIRUS.
 J G Crawford T R Dayhuff E A White
Amer J Vet Res 29(9):1749-1759 REF
 Sep 1968 41.8 AM3A
 Antibodies, Hog cholera virus, Immunization, Injections, Light, Research, Virus diseases (animals).
- 18233-68**
CHARACTERIZATION STUDIES ON FELINE PANLEUCOPENIA VIRUS. (WITH) II. PATHOGENESIS IN THE HOST.
 D L Croghan
Diss Abstr Sect B 29(1):287B-288B
 Jul 1968 Z5055.U49D53
 Cats, Cells, Culture media, Feline infectious enteritis, Kidneys, Morphology, Mortality, Research, Temperature, Tissues, Virus diseases (animals).
- 18234-68**
GROWTH AND DEVELOPMENT OF THE BOVINE AS RELATED TO CERTAIN ENDOCRINE FACTORS.
 S E Curl M A Fennell D W Zinn R C Albin
J Anim Sci 27(4):1011-1014 REF
 Jul 1968 49 J82
 Animal anatomy, Animal diseases, Blood analysis, Calves, Correlation, Endocrine glands, Feedlots.
- 18235-68**
ISOLATION AND CHARACTERIZATION OF THREE PLAQUE-TYPE CLONES OF THE HICKMAN STRAIN OF NEWCASTLE DISEASE VIRUS.
 M D Daniel R P Hanson
Avian Dis 12(3):434-440
 Aug 1968 41.8 AV5
 Culture media, Erythrocytes, Newcastle disease virus, Population statistics, Research, Virus diseases (animals).

18236-68

ELECTRON MICROSCOPIC STUDIES ON THE DEVELOPMENT OF VESICULAR STOMATITIS VIRUS.

T S David-West N A Labzoffsky
Arch Gesamte Virusforsch 23(1-2):105-125 REF
Feb 1968 448 3 AR23

Electron microscopy, Morphology, Physiology, Rabies virus, Tissue culture, Vesicular stomatitis virus.

Abstract

18237-68

HISTOPATHOLOGIC CHANGES IN MALE SWINE WITH EXPERIMENTAL BRUCELLOSIS.

B L Deyoe
Amer J Vet Res 29(6):1215-1220 REF
Jun 1968 41.8 AM3A

Animal anatomy, Animal diseases, Animal histology, Brucella suis, Brucellosis, Granuloma, Lymph nodes, Swine.

18238-68

IMMUNOCHEMICAL AND BIOCHEMICAL INTERRELATIONSHIP OF STREPTOCOCCUS AGALACTIAE TO THE BOVINE.

K Dodd
Diss Abstr Sect B 29(2):697B
Aug 1968 Z5055.U49D53

Animal diseases, Biochemistry, Cattle, Chemistry, Immunity, Streptococcus agalactiae.

18239-68

ESTABLISHMENT OF THE PATHOLOGICAL RELATIONSHIP BETWEEN PLANT AND ANIMAL ISOLATES OF GEOTRICHUM CANDIDUM, IN EMBRYONATED CHICKEN EGGS.

Z M El-Tobshy
Diss Abstr Sect B 29(2):496B
Aug 1968 Z5055.U49D53

Chickens, Eggs, Embryology, Fungus diseases (animals), Fungus diseases (plants), Geotrichum candidum.

18240-68

BEHAVIOR OF EQUINE INFECTIOUS ANEMIA VIRUS IN CELL CULTURE AND DEVELOPMENT OF A DIAGNOSTIC TEST FOR THE DISEASE.

A El-Zein
Diss Abstr Sect B 29(2):697B-698B
Aug 1968 Z5055.U49D53

Culture media, Diagnosis, Equine infectious anemia, Horses, Research, Virus diseases (animals).

18241-68

A COLLECTIVE OUTBREAK OF TRANSMISSIBLE GASTROENTERITIS IN SWINE. III. ISOLATION OF A VIRUS WITH CYTOPATHOGENIC EFFECT AND ITS PROPERTIES. (JA)

M Eto K Uno M Mishima T Tunoda H Taneno S Watanabe T Ichihara
Jap Vet Med Ass J 21(2):73-76
1968 41.9 J275

Diagnosis, Gastroenteritis, Swine, Viruses. English abstract

Abstract

18242-68

EFFECTS OF SELENIUM AND VITAMIN E ON NUTRITIONAL MUSCULAR DYSTROPHY IN LAMBS.

R C Ewan C A Baumann A L Pope
J Anim Sci 27(3):751-756 REF
26 Jun 1968 49 J82

Animal diseases, Animal nutrition, Animal physiology, Biochemistry, Lambs, Muscular dystrophy, Selenium, Vitamin e.

18243-68

CHARACTERIZATION OF BOVINE VIRAL DIARRHEA VIRUSES BY THEIR INTERACTIONS WITH SUSCEPTIBLE HOST CELLS.

A L Fernclius

Diss Abstr Sect B 28(11):4674B

May 1968 Z5055.U49D53

Bovine virus diarrhoea virus, Cells, Cytology, Electron microscopy, Immunodiagnosis, Phenols, Rabbits, Ribonucleic acid, Virus diseases (animals).

18244-68

WATER, ELECTROLYTE, AND ACID-BASE ALTERATIONS IN EXPERIMENTAL CANINE LEPTOSPIROSIS.

D R Finco D G Low
Amer J Vet Res 29(9):1799-1807
Sep 1968 41.8 AM3A

Acids, Animal diseases, Blood serum, Calcium, Dogs, Electrolytes, Injections, Leptospira canicola, Thiocyanates, Water.

18245-68

NEWCASTLE DISEASE: A LEGAL INTERPRETATION.

J Francis
Vet Rec 83(8):205
24 Aug 1968 41.8 V641

Animal diseases, Antibodies, Laboratories, Newcastle disease virus, Research, Swine, Tissue culture.

18246-68

ARTIFICIALLY INDUCED IMMUNITY TO ENZOOTIC ABORTION IN EWES.

F W Frank L H Scrivner L Thomas D G Waldhalm W A Meinershagen
Amer J Vet Res 29(7):1441-1447 REF
Jul 1968 41.8 AM3A

Abortion, Animal diseases, Complement fixation, Immunization, Research, Sheep.

18247-68

A COMPARATIVE STUDY OF CELL WALL GLYCOPEPTIDE STRUCTURE OF SOME BOVINE VIBRIOS.

P H Fung
Diss Abstr Sect B 29(1):289B
Jul 1968 Z5055.U49D53

Assay, Cattle, Cell wall, Chromatography, Glycine, Glycopeptides, Ion exchange, Penicillin, Toxins, Vibrio bubulus, Vibrio fetus.

18248-68

A CASE OF PORCINE ENDOCARDITIS ASSOCIATED WITH STAPHYLOCOCCUS AUREUS.

H D Geisinger C E Andress
Can Vet J 8(10):236-238
Oct 1968 41.8 R3224

Endocarditis, Injections, Microscopy, Morphology, Research, Staphylococcus aureus, Swine.

18249-68

THE EXPERIMENTAL USE OF BULL SEMEN CONTAMINATED WITH PSEUDOMONAS AERUGINOSA ORGANISMS.

S M Getty D J Ellis
Amer Vet Med Ass J 151(12):1688-1691 REF
15 Dec 1967 41.8 AM3

Cattle, Fertility, Pseudomonas aeruginosa, Semen.

Abstract

18250-68

MYOGLOBIN IN CONTROL AND DYSTROPHIC CHICKENS.

D E Goldbloom
Diss Abstr Sect B 29(1):43B
Jul 1968 Z5055.U49D53

Amino acids, Animal diseases, Chickens, Chromatography, Electrophoresis, Extracts, Muscles, Muscular dystrophy, Myoglobin, Sedimentation.

18251-68

THE RESPONSE OF VARIOUS TISSUES IN NEONATE CALVES TO BOVINE PAPILLOMA VIRUS (BPV).

D E Gordon
Diss Abstr Sect B 29(1):5B
Jul 1968 Z5055.U49D53

Bovine papilloma virus, Cattle, Centrifugation, Electron microscopy, Homogenization, Papilloma, Research, Tissues, Virus diseases (animals).

18252-68

AN OUTBREAK OF RINGWORM AMONG CATTLE IN SHIMANE. (JA)

F Hara A Iwata K Iwasaki H Ueno
Jap Vet Med Ass J 21(2):69-72
1968 41.9 J275

Cattle, Epizootic diseases, Ringworm, Trycophyton. English abstract

18253-68

SURVIVAL OF SALMONELLA, VIABLE BACTERIAL COUNT AND APPEARANCE OF CONTAMINATION-INDICATING ORGANISMS IN SALMONELLA-POSITIVE FEEDSTUFF. (JA)

H Hashimoto
Jap Vet Med Ass J 21(3):109-112, 118
1968 41.9 J275

Diagnosis, Feed, Fish meal, Food contamination, Salmonella. English summary

Abstract

18254-68

STRYCHNINE LEVELS IN TISSUES AND STOMACH CONTENTS OF POISONED DOGS: AN ELEVEN YEAR SURVEY.

R C Hatch H S Funnell
Can Vet J 9(7):161-164
Jul 1968 41.8 R3224

Dogs, Liver, Poisoning, Stomach, Strychnine, Surveys, Tissues. French summary

18255-68

CLOSTRIDIUM PERFRINGENS TYPE A INFECTION OF LIGATED INTESTINAL LOOPS IN LAMBS.

A H W Hauschild L Niild W J Dorward
Appl Microbiol 16(8):1235-1239 REF
Aug 1968 448.3 AP5

Animal diseases, Assay, Clostridium perfringens, Culture media, Enteritis, Injections, Intestines, Laboratory animals, Lambs, Research.

18256-68

LIPIDS OF VENEZUELAN EQUINE ENCEPHALOMYELITIS VIRUS AND THEIR RELATIONSHIP TO THE LIPIDS OF THE HOST.

F P Heydrick
Diss Abstr Sect A 29(1):289B
Jul 1968 Z5055.U49D5

Animal diseases, Chick embryos, Lipids, Phospholipids, Poultry, Venezuelan equine encephalomyelitis, Virus diseases (animals).

18257-68

AN ENZOOTIC OF PSEUDORABIES IN SWINE IN CALIFORNIA.

J A Howarth
Amer Vet Med Ass J 152(8):1114-1118 REF
15 Apr 1968 41.8 AM3

Blindness, Garbage (feed), Mortality, Nervous system diseases, Pseudorabies, Retina, Swine, Temperature, Virus diseases (animals).

18258-68

DEGRADATION OF CELLULAR RIBONUCLEIC ACID IN NEWCASTLE DISEASE VIRUS INFECTED CELLS.

W H Huo
Diss Abstr Sect B 29(1):289B-290B
Jul 1968 Z5055.U49D53

Cells, Chick embryos, Deoxyribonucleic acid, Metabolism, Newcastle disease, Nucleic acids, Radioactivity, Research, Ribonucleic acid, Virus diseases (animals).

18259-68

FIELD EXPERIMENT WITH THE ANTICOCIDIAL DIMETHYLIUM. (JA)

I Inoue
Jap Vet Med Ass J 21(1):27-32
1968 41.9 J275

Coccidiosis, Dimethylalium, Eimeria acervulina, Eimeria brunetti, Eimeria mitis, Therapeutics.

- 18260-68**
THE EXPERIMENTAL PRODUCTION OF A FORMALIN-KILLED JAPANESE ENCEPHALITIS VIRUS VACCINE FROM PORCINE KIDNEY CELL CULTURES.
Y K Inoue Y Nishibe
Arch Gesamte Virusforsch 21(2):192-199 REF
Sep 1967 448.3 AR23
Japanese b encephalitis virus, Productivity, Tissue culture, Vaccines.
Abstract
- 18261-68**
A FERN POISONING-LIKE DISEASE OBSERVED IN AN IMPROVED PASTURE. (JA)
F Ito
Jap Vet Med Ass J 20(9):389-394
1967 41.9 J275
Livestock, Pasture management, Poisonous plants, Peridophyta.
- 18262-68**
OXALATE METABOLISM IN SHEEP II. EFFECT OF LOW LEVEL HALOGETON GLOMERATUS INTAKE ON ELECTROLYTE METABOLISM.
L F James J C Street J E Butcher J L Shupe
J Anim Sci 27(3):724-729 REF
May 1968 49 J82
Animal physiology, Electrolytes, Halogeton glomeratus, Metabolism, Oxalates, Sheep.
- 18263-68**
DUCK PLAGUE.
J Jansen
Amer Vet Med Ass J 152(7):1009-1016 REF
01 Apr 1968 41.8 AM3
Biological transport, Cloaca, Ducks, Esophagus, Immunity, Mortality, Mucosal disease, Plague, Purpura hemorrhagica, Virus diseases (animals).
- 18264-68**
MYCOPLASMAS: THEIR ROLE IN BOVINE DISEASE.
D E Jasper
Amer Vet Med Ass J 151(12):1650-1655 REF
15 Dec 1967 41.8 AM3
Arthritis, Cattle, Mastitis, Mycoplasma, Pleuropneumonia, Reproductive organs.
Abstract
- 18265-68**
CALIFORNIA-ENCEPHALITIS-GROUP VIRUSES IN FLORIDA RABBITS: REPORT OF EXPERIMENTAL AND SENTINEL STUDIES.
W L Jennings A L Lewis G E Sather W M Hammon J O Bond
Amer J Trop Med Hyg 17(5):781-787 REF
Sep 1968 448.8 AM326
Antibodies, Antigens, California encephalitis virus, Hemagglutination-inhibition test, Injections, Laboratory animals, Measurement, Rabbits, Research, Serological tests, Virus diseases (animals).
- 18266-68**
SEROLOGICAL TESTS FOR THE DETECTION OF ANTIBODIES TO MYCOPLASMA GALISEPTICUM IN CHICKENS AND TURKEYS.
F T W Jordan P Kulasegaram
J Hyg 66(2):249-267 REF
Jun 1968 449.8 J82
Antibodies, Mycoplasma gallisepticum, Poultry, Serological tests.
Abstract
- 18267-68**
PATHOLOGY A-D IMMUNOFLOURESCENCE STUDIES OF BOVINE MYCOPLASMA MASTITIS.
E Karbe
Diss Abstr Sect B 28(8):3120B
Feb 1968 Z5055.U49D53
Animal diseases, Antibodies, Cattle, Immunofluorescence, Mastitis, Milk, Mycoplasma agalactiae, Rabbits.
- 18268-68**
PATHOLOGICAL CHANGES OF ACUTE NEWCASTLE DISEASE IN AN OUTBREAK IN MIYAZAKI PREFECTURE WITH SPECIAL REFERENCE TO THOSE OF THE CLOACA. (JA)
M Kawasaki
Jap Vet Med Ass J 21(3):113-118
1968 41.9 J275
Chickens, Cloaca, Epizootic diseases, Histology, Newcastle disease.
- 18269-68**
ANTIBODY RESPONSE TO IMMUNIZATION IN EXPERIMENTAL SALMONELLOSIS.
K V Kenny
Diss Abstr Sect B 29(1):290B
Jul 1968 Z5055.U49D53
Agglutination, Animal diseases, Antibodies, Assay, Bacteria, Enterobacteriaceae, Escherichia coli, Immunology, Mice, Salmonella typhimurium, Salmonellosis, Serological tests.
- 18270-68**
MEDICATED FEEDS; APPROVAL OF NEW DRUG APPLICATIONS.
J K Kirk
Fed Regist 33(128):9609
02 Jul 1968 L1.451
Drug therapy, Drugs, Feed, Feed additives, Therapeutics.
- 18271-68**
FOOD INTAKE AND GROWTH OF BURRO FOALS AFTER 250 ROENTGENS OF COBALT-60 WHOLE-BODY GAMMA IRRADIATION.
J J Knapka D G Brown K M Barth
Radiat Res 36(1):158-165 REF
Oct 1968 334.8 R11
Animal physiology, Asses, Cobalt, Food, Gamma rays, Irradiation, Isotopes, Metabolism, X-rays.
- 18272-68**
THE EQUINE RESPIRATORY DISEASE SYNDROME IN THE PACIFIC NORTHWEST.
L M Koger
Amer Vet Med Ass J 151(12):1611-1614
15 Dec 1967 41.8 AM3
Horses, Pacific Northwest, Respiratory diseases.
- 18273-68**
SEROLOGIC RESPONSE OF SWINE TO ESCHERICHIA COLI ANTIGENS.
E M Kohler R B Moore S Smith
Amer J Vet Res 29(7):1419-1428 REF
Jul 1968 41.8 AM3A
Antigens, Blood serum, Colibacillosis, Escherichia coli, Immunization, Swine.
- 18274-68**
EFFECTS OF A LOW MANGANESE DIET ON CERTAIN OVINE CHARACTERISTICS.
J W Lassiter J D Morton
J Anim Sci 27(3):776-779
May 1968 49 J82
Anatomy, Animal nutrition, Animal physiology, Diet, Lambs, Manganese.
- 18275-68**
TREATMENT OF STRONGYLOIDES RANSOMI INFECTION OF PIGS WITH THIABENDAZOLE AND DICHLORVOS.
S E Leland F C Neal C B Plummer
Amer J Vet Res 29(6):1235-1240
Jun 1968 41.8 AM3A
Dichlorvos, Eggs, Epizootic diseases, Feeding, Strongyloides ransomi, Swine, Thiazolylbenzimidazole, 2-(4-.
- 18276-68**
CONTAGIOUS BOVINE PLEUROPNEUMONIA AND THE PROBLEMS ASSOCIATED WITH ITS CONTROL.
E P Lindley
Amer Vet Med Ass J 151(12):1810-1815 REF
15 Dec 1967 41.8 AM3
Cattle, Epizootic diseases, Goats, Mycoplasma mycoides, Therapeutics.
- 18277-68**
BASIC BIOLOGICAL CHARACTERISTICS OF MYCOPLASMA.
D L Madden N B McCullough
Amer Vet Med Ass J 151(12):1638-1649 REF
15 Dec 1967 41.8 AM3
Biochemistry, Biology, Classification, Morphology, Mycoplasma, Physiology.
Abstract
- 18278-68**
THE USE OF POLYVALENT INACTIVATED VACCINE THERAPEUTICALLY AGAINST EQUINE INFLUENZA.
C I Manners
Amer Vet Med Ass J 151(12):1609-1610.
15 Dec 1967 41.8 AM3
Equine influenza, Horses, Therapeutics, Vaccines.
- 18279-68**
GASTROINTESTINAL PARASITISM IN FEEDER CALVES OF SOUTHERN ILLINOIS.
M E Mansfield J R Pickard G W Meyrholz H N Becker
Amer J Vet Res 29(7):1479-1487
Jul 1968 41.8 AM3A
Calves, Gastrointestinal system, Nematodes, Parasitism, Strongyloides.
- 18280-68**
INCREASED INCIDENCE OF AVIAN LEUKOSIS IN RESPONSE TO EXCESS VITAMIN A.
B E March J Bicy
Nature 214(5085):287-288 REF
15 Apr 1967 472 N21
Animal nutrition, Avian leukosis complex, Birds, Diagnosis, Mortality, Research, Virus diseases (animals), Vitamin a.
- 18281-68**
THE UTILIZATION OF VITAMIN A AND CAROTENE BY RUMINANTS. I. VITAMIN A POTENCY OF CAROTENES IN CORN SILAGE FED TO LAMBS. 2. THE EFFECT OF TIME AND ROUTE OF ADMINISTRATION OF VITAMIN A ON LIVER VITAMIN A STORAGE BY STEERS. 3. THE EFFECT OF ROUTE OF ADMINISTRATION OF VITAMIN A ON BLOOD SERUM AND LIVER VITAMIN A CONCENTRATIONS IN STEERS AT SUBSEQUENT TIME INTERVALS.
F H Martin
Diss Abstr Sect B 29(1):256B
Jul 1968 Z5055.U49D53
Animal nutrition, Blood serum, Carotenes, Cattle, Corn, Diet, Feed, Lambs, Liver, Research, Ruminants, Vitamin a.
- 18282-68**
PREVALENCE OF TRICHINELLA SPIRALIS IN WILD ANIMALS ON TWO ILLINOIS SWINE FARMS.
R J Martin P R Schnurrenberger F L Andersen C K Hsu
J Parasitol 54(1):108-111
Feb 1968 448.8 J824
Mice, Rats, Swine, Trichinella spiralis, Wildlife diseases.
Abstract: On one farm only grain and commercial supplements were utilized as swine feed. Of 239 wild animals only one r. norvegicus and one P. leucopus were found infected with T. spiralis. This is the 1st. report of natural T. spiralis in P. leucopus. Cooked garbage was fed to swine on the 2nd farm. Of 250 animals only two R. norvegicus were found infected with T. spiralis.
- 18283-68**
THE SIGNIFICANCE OF THE STAY OF NECATOR AMERICANUS LARVAE IN THE PUPPY LUNG ON THEIR FURTHER DEVELOPMENT. (JAP)
K Matsuno I Nose M Ishikawa S Okada Y Takahashi
Jap J Parasitol 16(5):313-318 REF
Oct 1967 436.8 J27

18284-68

Dogs, Lungs, *Necator americanus*, Necatoriasis, Respiratory system English abstract

Abstract

18284-68

HISTOPATHOLOGICAL AIDS TO THE DIAGNOSIS OF CERTAIN POULTRY DISEASES.

O Y Mayor

Vet Bull 38(5):273-285 REF

May 1968 41.8 T752

Deficiency diseases, Diagnosis, Histology, Livestock diseases, Lymphomatosis, Neoplasms, Nervous system, Poultry, Respiration.

18285-68

ELECTRON OPTICAL AND BUOYANT DENSITY STUDIES OF HOG CHOLERA VIRUS.

A Mayr P A Bachmann B E Sheffy G Siegl

Arch Gesamte Virusforsch 21(1):113-119 REF

Jul 1967 448.3 AR23

Biophysics, Density, Electron microscopy, Hog cholera virus, Swine.

Abstract

18286-68

PSITTACOSIS-LYMPHOGRANULOMA VENEREUM AGENT ISOLATED DURING AN ABORTION EPIZOOTIC IN GOATS.

E H McCauley E L Ticken

Amer Vet Med Ass J 152(12):1758-1765 REF

15 Jun 1968 41.8 AM3

Abortion, Antibiotics, Cattle, Epizootic diseases, Goats, Miyagawanella group viruses, Penicillin, Sheep.

Abstract: The agent was isolated from tissue of an aborted goat fetus during an abortion epizootic in a herd of 216 milk goats. The herd had a 12 per cent abortion rate during the 1967 parturition season and a 38 per cent rate during one month. A marked decrease in incidence was observed after penicillin therapy was given to pregnant goats. The isolate caused abortion in 2 susceptible cows and 1 ewe. Evidence indicates the probable introduction of the agent into this herd by male and female goats from another source which had a history of high abortion rates in primiparous goats. Females bred to males from this source had a higher incidence of abortion than those bred to other males.

18287-68

SALMONELLA DUBLIN MENINGITIS IN PIGLETS.

B A McErlean

Vet Rec 82(9):257-258

02 Mar 1968 41.8 V641

Baby pigs, Brain, Livestock diseases, Meningitis, Salmonella dublin.

18288-68

FOOT-AND-MOUTH DISEASE IN SWINE. I. THE IMMUNE RESPONSE OF SWINE TO CHEMICALLY-TREATED AND NON-TREATED FOOT-AND-MOUTH DISEASE VIRUS.

P D McKercher A R Giordano

Arch Gesamte Virusforsch 20(1):39-53 REF

Feb 1967 448.3 AR23

Antibodies, Foot-and-mouth disease virus, Immunization, Serological tests, Swine.

Abstract

18289-68

FOOT-AND-MOUTH DISEASE IN SWINE. II. SOME PHYSICAL-CHEMICAL CHARACTERISTICS OF ANTIBODIES PRODUCED BY CHEMICALLY-TREATED AND NON-TREATED FOOT-AND-MOUTH DISEASE VIRUS.

P D McKercher A R Giordano

Arch Gesamte Virusforsch 20(1):54-70 REF

Feb 1967 448.3 AR23

Antibodies, Biochemistry, Biophysics, Foot-and-mouth disease virus, Swine.

Abstract

18290-68

COPPER AND ASCORBIC ACID IN GUINEA PIG TISSUES AS EFFECTED BY DIETARY INTAKE.

V R McMasters

Diss Abstr Sect B 29(1):257B

Jul 1968 Z5055.U49D53

Animal histology, Animal nutrition, Animal physiology, Ascorbic acid, Copper, Cytoplasm, Deficiency diseases, Diet, Guinea pigs, Metabolism, Tissues, Toxicology.

18291-68

A FLUORESCENT MICRO-PLAQUE ASSAY FOR HOG CHOLERA VIRUS. LOCALIZATION OF INFECTION WITH HOMOLOGOUS ANTISERUM.

W L Mengeling

Arch Gesamte Virusforsch 23(1-2):27-39 REF

Feb 1968 448.3 AR23

Diagnosis, Fluorescent antibody technic, Hog cholera virus, Physiology.

Abstract

18292-68

MINERAL AND ENDOCRINE INTERRELATIONSHIPS IN RENAL CALCIFICATION.

D L Meyer

Diss Abstr Sect B 28(8):3120B-3121B

Feb 1968 Z5055.U49D53

Biological assay, Blood serum, Calcification (physiological), Kidneys, Magnesium, Parathyroid glands, Phosphorus, Rats, Thyroxine.

18293-68

RESPONSE OF LYMPHOCYTE-DEPLETED CALVES TO FLUID TETANUS TOXOID.

H W Moon R D Stoner D D Joel A D Chanana E P Cronkite

Amer J Vet Res 29(6):1211-1214

Jun 1968 41.8 AM3A

Antibodies, Blood, Calves, Irradiation, Lymph, Tetanus toxoid.

18294-68

LIVER GRANULOMAS OF TURKEYS CAUSTIVE AGENTS AND MECHANISM OF INFECTION.

W E C Moore W B Gross

Avian Dis 12(3):417-422

Aug 1968 41.8 AV5

Animal diseases, Bacteria, Culture media, Germ-free life, Granuloma, Liver, Morphology, *Streptococcus fecalis*, Turkeys.

18295-68

EFFECTS OF GENETIC CELLULAR RESISTANCE ON CELL TRANSFORMATION AND VIRUS REPLICATION IN CHICKEN HEMATOPOIETIC CELL CULTURES INFECTED WITH AVIAN MYELOBLASTOSIS VIRUS (BAI-0A).

C Moscovici P K Vogt

Virology 35(4):487-497 REF

Aug 1968 448.8 V81

Avian myeloblastosis virus, Cells, Chickens, Culture media, Genetics, Hematopoietic system, Neoplastic diseases, Virus diseases (animals).

18296-68

THE ROLE OF THE EPIDEMIOLOGIST IN THE CONTROL AND ERADICATION PROGRAMS OF POULTRY DISEASES.

J I Moulthrop E E Grass B S Pomeroy

Amer Vet Med Ass J 151(12):1853-1856

15 Dec 1967 41.8 AM3

Epidemiology, Epizootic diseases, Poultry.

18297-68

LONGEVITY OF AN EXPERIMENTAL INFECTION WITH DIROFILARIA IMMITIS IN A DOG.

W L Newton

J Parasitol 54(1):187-188

Feb 1968 448.8 J824

Animal diseases, Anopheles quadrimaculatus, *Dirofilaria immitis*, Dogs, Longevity.

18298-68

ANIMAL SENTINELS IN A STATEWIDE ARTHROPOD-BORNE ENCEPHALITIS SURVEILLANCE PROGRAM.

J B Nichols W J Bigler

Amer Vet Med Ass J 151(12):1767-1771 REF

15 Dec 1967 41.8 AM3

Epidemiology, Equine encephalomyelitis, Horses, Insect vectors, Surveys.

Abstract

18299-68

UTILIZATION OF THE CARD TEST IN BRUCELLOSIS ERADICATION.

P Nicoletti

Amer Vet Med Ass J 151(12):1778-1783 REF

15 Dec 1967 41.8 AM3

Agglutination test, Brucellosis, Cattle, Serodiagnosis.

Abstract

18300-68

PLACENTAL PATHOLOGY OF EXPERIMENTALLY-INDUCED ENZOOTIC ABORTION IN EWES.

M N Novilla

Diss Abstr Sect B 28(8):3121B

Feb 1968 Z5055.U49D53

Agricultural research, Enzootic abortion, Fetal membranes, Livestock diseases, Microorganisms, Placenta, Sheep.

18301-68

TRANSMISSION OF SALMON POISONING DISEASE TO DOGS BY NANOPHYETUS SALMINCOLA EGGS.

P A Nyberg

Diss Abstr Sect B 28(11):4805B

May 1968 Z5055.U49D53

Animal diseases, Dogs, Inclusion bodies, Injections, *Nanophyetus salmincola*, *Neorickettsia helminthoeca*, Trematoda.

18302-68

A COMPARISON OF METHODS OF MEASURING THE PERSISTENCE OF NEUTRALIZING AND HAEMAGGLUTININ-INHIBITING ANTIBODIES TO LOUPING ILL VIRUS IN EXPERIMENTALLY INFECTED SHEEP.

K J O'Reilly C E G Smith D A McMahon E T W Bowen G White

J Hyg 66(2):217-227 REF

Jun 1968 449.8 J82

Antibodies, Livestock diseases, Louping ill virus, Serological tests, Serum neutralization test, Sheep.

Abstract

18303-68

RABIES CONTROL IN PUBLIC HEALTH ADMINISTRATION. (JA)

H Otani

Jap Vet Med Ass J 20(9):382-385

1967 41.9 J275

Animal diseases, Epidemiology, Public health administration, Rabies.

18304-68

STUDIES ON THE REPLICATION OF AFRICAN HORSE-SICKNESS VIRUS IN TWO DIFFERENT CELL LINE CULTURES.

Y Ozawa

Arch Gesamte Virusforsch 21(2):155-169 REF

Sep 1967 448.3 AR23

Acridine orange, African horse sickness virus, Nucleic acids, Physiology, Tissue culture.

Abstract

18305-68

MITOCHONDRIAL INVOLVEMENT IN THE HOST-PARASITE RELATIONSHIP.

S G Pal

Arkiv Zool 20(1):79-83

1967 410.9 SV22

Cytology, Electron microscopy, Mice, Mitochondria, *Toxoplasma gondii*, Toxoplasmosis.

Abstract

- 18306-68**
BIOCHEMICAL AND BIOPHYSICAL PROPERTIES OF CANINE DISTEMPER VIRUS.
 L A Phillips
Diss Abstr Sect B 28(11):4679B
 May 1968 Z5055.U49D53
 Biochemistry, Canine distemper virus, Density, Physiology, Ribonucleic acid, Taxonomy, Virus diseases (animals).
- 18307-68**
HISTIDINE DECARBOXYLASE IN STRAINS OF ESCHERICHIA COLI ISOLATED FROM NORMAL SWINE AND SWINE WITH EDEMA DISEASE AND ENTERIC DISORDERS.
 J A Pickrell H E Rhoades J Gossling
Amer J Vet Res 29(7):1397-1399
 Jul 1968 41.8 AM3A
 Animal abnormalities, Clostridium, Edema, Enteritis, Escherichia coli, Histamine, Histidine decarboxylase, Pseudomonas fluorescens, Research, Swine.
- 18308-68**
CHANGES IN PROTEIN AND NUCLEIC ACID METABOLISM IN BABY HAMSTER KIDNEY CELLS INFECTED WITH FOOT-AND-MOUTH DISEASE VIRUS.
 J Polatnick G F V Woude R B Arlinghaus
Arch Gesamte Virusforsch 23(3):218-226 REF
 Mar 1968 448.3 AR23
 Deoxyribonucleic acid, Foot-and-mouth disease virus, Hamsters, Kidneys, Metabolism, Physiology, Ribonucleic acid, Tissue culture.
 Abstract
- 18309-68**
IONIZING IRRADIATION OF FOOT-AND-MOUTH DISEASE VIRUS AND ITS RIBONUCLEIC ACID.
 J Polatnick H L Bachrach
Arch Gesamte Virusforsch 23(1-2):96-104 REF
 Feb 1968 448.3 AR23
 Biochemistry, Foot-and-mouth disease virus, Ionizing radiation, Ribonucleic acid, Tissue culture.
 Abstract
- 18310-68**
EXPERIMENTAL TRANSMISSION OF TWO CANINE NEOPLASMS: LYMPHOSARCOMA AND MAST CELL LEUKEMIA.
 J E Post
Diss Abstr Sect B 29(1):259B-260B
 Jul 1968 Z5055.U49D53
 Animal diseases, Cells, Dogs, Electron microscopy, Immunology, Leukemia, Lymphosarcoma, Neoplasms, Research, Transplanting.
- 18311-68**
EFFECT OF BURSECTOMY ON THE ROUS VIRUS TUMOUR INDUCTION IN CHICKENS.
 R Radzichovskaja
Nature 213(5082):1259-1260 REF
 25 Mar 1967 472 N21
 Animal diseases, Antibodies, Bursectomy, Chickens, Research, Rous sarcoma, Rous sarcoma virus.
- 18312-68**
AGE SUSCEPTIBILITY AND EXCRETION OF SALMONELLA TYPHIMURIUM IN CALVES.
 R A Robinson K I Loken
J Hyg 66(2):207-216 REF
 Jun 1968 449.8 J82
 Calves, Diagnosis, Livestock diseases, Salmonella typhimurium, Salmonellosis.
 Abstract
- 18313-68**
SUCCESSFUL TREATMENT OF COCCIDIOSIS IN LAMBS.
 D B Ross
Vet Rec 83(8):189-190
 24 Aug 1968 41.8 V641
 Amprolium, Coccidiosis, Eimeria, Ethopabate, Lambs, Research.
- 18314-68**
ALTERATIONS IN THE RESPONSE AND FUNCTIONS OF THE CHICKEN PANCREAS INDUCED BY FEEDING UNHEATED AND AUTOCLAVED SOYBEAN MEAL.
 A J Salmon
Diss Abstr Sect B 29(2):669B
 Aug 1968 Z5055.U49D53
 Animal physiology, Chickens, Feeding, Pancreas, Soybean meal.
- 18315-68**
IMMUNIZATION OF FOXES WITH INACTIVATED VIRUS RABIES VACCINE.
 R C Schmidt R K Sikes
Amer Vet Med Ass J 29(9):1843-1847
 Sep 1968 41.8 AM3
 Animal diseases, Antibodies, Foxes, Immunization, Injections, Rabies virus, Research, Serum neutralization test, Vaccines.
- 18316-68**
SOME FACTORS AFFECTING INTERFERON PRODUCTION BY FOOT-AND-MOUTH DISEASE VIRUS IN BOVINE TISSUE CULTURES.
 R F Sellers J H Bennett G N Mowat W A Snowdon
Arch Gesamte Virusforsch 23(1-2):1-11 REF
 Feb 1968 448.3 AR23
 Cattle, Cytopathology, Foot-and-mouth disease virus, Interferon, Physiology, Tissue culture.
 Abstract
- 18317-68**
INTERFERENCE BETWEEN MODIFIED AND VIRULENT STRAINS OF FOOT-AND-MOUTH DISEASE VIRUS.
 R F Sellers G N Mowat
Arch Gesamte Virusforsch 23(1-2):20-26 REF
 1968 448.3 AR23
 Cattle, Cytopathology, Foot-and-mouth disease virus, Interferon, Physiology, Tissue culture.
 Abstract
- 18318-68**
AN OUTBREAK OF ORNITHOSIS IN FOWLS.
 S A Sheikh M A Mahmood N A Khan
Pakistan J Sci 19(1-2)64-66
 Jan 1967 475 P172
 Autopsies, Ornithosis, Poultry, Therapeutics.
 Abstract
- 18319-68**
EXPERIMENTAL PRODUCTION OF RHEUMATOID ARTHRITIS OF SWINE: PHYSIOPATHOLOGIC CHANGES OF TISSUES.
 D Sikes
Amer J Vet Res 29(9):1719-1731 REF
 Sep 1968 41.8 AM3A
 Animal diseases, Arthritis, Blood serum, Erysipelothrix insidiosus, Histology, Hypergammaglobulinemia, Serological tests, Swine, Tissues.
 Abstract
- 18320-68**
ENZOOTIC RABIES IN RODENTS IN THAILAND.
 P C Smith K Lawhaswasdi W E Vick J S Stanton
Nature 217(5132):954-955
 09 Mar 1968 472 N21
 Animal vectors, Diagnosis, Fluorescent antibody technic, Rabies, Rabies virus, Rodents, Virus diseases (animals).
- 18321-68**
WHAT VETERINARIANS CAN DO ABOUT THE SALMONELLA PROBLEM.
 G H Snoeyenbos
Amer Vet Med Ass J 151(12):1795-1800 REF
 15 Dec 1967 41.8 AM3
 Diagnosis, Epidemiology, Epizootic diseases, Food sanitation, Salmonellosis.
- 18322-68**
INFLUENCE OF STATOLON-INDUCED INTERFERON ON RABIES VIRUS INFECTION IN MICE.
 O A Soave
Amer J Vet Res 29(7):1507-1508
 Jul 1968 41.8 AM3A
 Interferon, Mice, Rabies virus, Statolon, Veterinary medicine.
- 18323-68**
SEROLOGIC SURVEY FOR TOXOPLASMA ANTIBODIES IN A COLONY OF RESEARCH DOGS AND CATS IN CALIFORNIA.
 O A Soave
Amer J Vet Res 29(7):1505-1506
 Jul 1968 41.8 AM3A
 Antibodies, Cats, Dogs, Research, Serological tests, Toxoplasma gondii.
- 18324-68**
EIGHT FELINE VIRUSES: AN ELECTRON MICROSCOPIC STUDY.
 J D Strandberg
Diss Abstr Sect B 29(1):292B
 Jul 1968 Z5055.U49D53
 Cats, Cells, Electron microscopy, Kidneys, Morphology, Research, Virus diseases (animals).
- 18325-68**
IMPROVED TECHNIQUES FOR THE DETECTION OF FOOT-AND-MOUTH DISEASE VIRUS IN CARRIER CATTLE.
 P Suttmoller G E Cottral
Arch Gesamte Virusforsch 21(2):170-177 REF
 Sep 1967 448.3 AR23
 Biological assay, Cattle, Diagnosis, Foot-and-mouth disease virus.
 Abstract
- 18326-68**
THE EPIZOOTIOLOGICAL IMPORTANCE OF FOOT-AND-MOUTH DISEASE CARRIERS. I. EXPERIMENTALLY PRODUCED FOOT-AND-MOUTH DISEASE CARRIERS IN SUSCEPTIBLE AND IMMUNE CATTLE.
 P Suttmoller J W McVicar G E Cottral
Arch Gesamte Virusforsch 23(3):227-235 REF
 Mar 1968 448.3 AR23
 Animal vectors, Cattle, Epidemiology, Epizootic diseases, Foot-and-mouth disease, Immunity.
 Abstract
- 18327-68**
THE CONNECTION BETWEEN SUNSPOT CYCLES AND MASS MORTALITY AMONG VERTEBRATES AND NON-VERTEBRATES DUE TO PARASITIC ACTIVITY. (GE)
 L Szidat
Z Parasitenk 30(1):1-17 REF
 1968 442.8 Z33F
 Animal ecology, Epidemiology, Parasitism, Solar disturbances, Trematoda, Weather. English and german abstract
 Abstract
- 18328-68**
ELECTRON MICROSCOPY OF BOVINE PAPILLOMA AND DEER FIBROMA VIRUSES.
 M Tajima D E Gordon C Olson
Amer J Vet Res 29(6):1185-1194 REF
 Jun 1968 41.8 AM3A
 Bovine papilloma virus, Cattle, Cells, Deer, Electron microscopy, Fibroma, Tissues, Virus diseases (animals).
- 18329-68**
RELATIONSHIP BETWEEN INFECTING DOSE, MUSCLE PARASITISM, AND ANTIBODY RESPONSE IN EXPERIMENTAL TRICHINOSIS IN RABBITS.
 C E Tanner
J Parasitol 54(1):98-107 REF
 Feb 1968 448.8 J824
 Antibodies, Dosage, Larvae, Parasitism, Rabbits, Trichinella spiralis, Trichinosis.
 Abstract: The number of parasites obtained in the muscle and the serum antibody titer of the experimental animals were determined. It was found that the degree of muscle parasitism was independent of

the size of the infecting dose with one exception, all doses produced same level of parasitism.

18330-68
EPIZOOTIOLOGIC OBSERVATIONS OF CANINE FILARIASIS IN GEORGIA.
J P Thrasher J R Clanton
Amer Vet Med Ass J 152(10):1517-1520 REF
15 May 1968 41.8 AM3

Animal diseases, Animal ecology, Dipetalonema reconditum, Dirofilaria immitis, Dogs, Filariasis, Insect vectors, Nematodes, Siphonaptera.

18331-68
THE EFFECT OF TRAUMA ON PRODUCTION OF HERPES INTERFERON IN GUINEA PIGS.
T Tokumaru
Arch Gesamte Virusforsch 21(1):61-70 REF
Jul 1967 448.3 AR23

Animal physiology, Guinea pigs, Herpes simplex, Injuries, Interferon.

Abstract

18332-68
COMMON DISEASE PROBLEMS IN LABORATORY ANIMALS.
B F Trum J K Routledge
Amer Vet Med Ass J 151(12):1886-1896 REF
15 Dec 1967 41.8 AM3
Epizootic diseases, Laboratory animals, Therapeutics.

18333-68
ADMINISTRATION OF GLYCURONIC ACID AND ITS EXCRETION IN DAIRY COWS. (JA)
J Ushijima R Yuasa
Jap Vet Med Ass J 21(2):79-81 REF
1968 41.9 J275

Cattle, Glycuronic acids, Metabolism, Urine. English abstract

Abstract

18334-68
THE EFFECT OF DIET ON THE UTILIZATION OF STABLE AND RADIOACTIVE COPPER IN RUMINANTS.
P A Van Walleghem
Diss Abstr Sect B 29(2):425B-426B
Aug 1968 Z5055.U49D53

Animal physiology, Biochemistry, Copper, Diet, Metabolism, Radioactivity, Ruminants.

18335-68
THE OCCURRENCE OF BACTERIA IN CHRONIC PURULENT EYE DISCHARGE.
M A J Verner J W Gunnink
J Small Anim Pract 9(1):33-36 REF
Jan 1968 41.8 J8292

Bacteria, Cats, Conjunctivitis, Dogs, Eyes. English, french and german abstract

Abstract

18336-68
EXPERIMENTAL BLUETONGUE DISEASE IN WHITE-TAILED DEER.
R A Vosdingh O O Trainer B C Easterday
Can J Comp Med Vet Sci 32(1):382-387 REF
Jan 1968 41.8 C162

Animal physiology, Antibodies, Bluetongue virus, Deer, Immunity, Sheep, Virus diseases (animals).

Abstract: Clinical signs and lesions of BTV in deer were described. The incubation period, signs and lesions of Bt and epizootic hemorrhagic disease of deer appear to be similar. Neutralizing antibodies were detected in all of the convalescent sera.

18337-68
BIOCHEMICAL AND SEROLOGIC CHARACTERISTICS OF VIBRIO ISOLANTS FROM CATTLE.
A T Walsh F H White
Amer J Vet Res 29(7):1376-1383
Jul 1968 41.8 AM3A

Antigens, Biochemistry, Cattle, Flagella, Serological tests, Vibrio bhululus, Vibrio fetus.

18338-68
PNEUMONIA OF SHEEP IN KENYA. II. PATHOLOGY OF CHRONIC PROGRESSIVE PNEUMONIA.

J G Wandera
Bull Epizoot Dis Afr 15(4):393-407 REF
Dec 1967 41.8 B872

Jaagzichte, Livestock diseases, Pneumonia, Sheep.

18339-68
BIOPHYSICAL STUDIES OF TESCHEN DISEASE VIRUS (TALFAN STRAIN).

R E Warrington
Arch Gesamte Virusforsch 21(1):78-90 REF
Jul 1967 448.3 AR23

Biophysics, Electron microscopy, Properties, Teschen disease virus.

Abstract

18340-68
SOME STUDIES ON THE PATHOGENESIS AND EPIZOOTIOLOGY OF EPIZOOTIC HEMORRHAGIC DISEASE OF DEER.

A R Wilhelm
Diss Abstr Sect B 28(11):4681B
May 1968 Z5055.U49D53

Antibodies, Antigens, Deer, Epizootic diseases, Hematology, Research, Serological tests, Serum, Virus diseases (animals).

18341-68
THE PENETRATION PATTERNS OF SALMONELLA TYPHIMURIUM THROUGH THE OUTER STRUCTURES OF CHICKEN EGGS.

J E Williams L H Dillard G O Hall
Avian Dis 12(3):445-466 REF
Aug 1968 41.8 AV5

Animal diseases, Chickens, Cuticle, Eggs, Salmonella typhimurium, Temperature.

18342-68
SOURCES OF SALMONELLAS IN MARKET SWINE.

L P Williams K W Newell
J Hyg 66(2):281-293 REFS
Jun 1968 449.8 J82

Environment, Salmonella, Swine.

Abstract

18343-68
STAINED MONOLAYER TEST: A COLOR TEST IN DISPOSABLE PLASTIC TRAYS FOR TITRATING TRANSMISSIBLE GASTROENTERITIS VIRUS AND NEUTRALIZING ANTIBODIES.

K H Witte B C Easterday
Amer J Vet Res 29(7):1409-1417
Jul 1968 41.8 AM3A

Antibodies, Equipment, Gastroenteritis, Immunity, Infectious diseases, Swine, Viruses, Volumetric analysis.

18344-68
ACUTE INFECTIOUS BOVINE RHINOTRACHEITIS AND SALMONELLOSIS IN A DAIRY HERD.

G T Woods L E Hanson G A Swenson H E Rhoades
Amer Vet Med Ass J 152(10):1530-1535 REF
15 May 1968 41.8 AM3

Abortion, Animal diseases, Dairy cattle, Infectious bovine rhinotracheitis virus, Milk, Mortality, Salmonella typhimurium.

Abstract: Necropsy findings in a cow consisted primarily of ulcerations of the omasum and abomasum.

18345-68
THE INFLUENCE OF THE HOST CELL, IONIC STRENGTH AND CHYMOTRYPSIN ON FOOT-AND-MOUTH DISEASE VIRUS ELECTROPHORETIC MOBILITY.

G F V Woude R Trautman H L Bachrach
Arch Gesamte Virusforsch 20(1):71-80 REF
Feb 1967 448.3 AR23

Biochemistry, Biophysics, Chymotrypsin, Electrophoresis, Foot-and-mouth disease virus.

Abstract

18346-68
DETECTION OF ANTIBIOTIC-FAST STAPHYLOCOCCI IN OTITIS EXTERNA IN DOGS. (JA)

H Yagi
Jap Vet Med Ass J 21(3):102-106
1968 41.9 J275

Antibiotics, Diagnosis, Dogs, Otitis, Staphylococcus, Therapeutics.

ARTHROPODS

18347-68
FURTHER EVALUATION OF ANIMAL SYSTEMIC INSECTICIDES, 1967.

R O Drummond
J Econ Entomol 61(5):1261-1264 REF
15 Oct 1968 421 J822

Animals, Biochemistry, Cattle, Chemical control (insects), Feed, Hypoderma, Insecticides, Spraying, Tables (data).

18348-68
TICK RESISTANCE IN CATTLE: ITS STABILITY AND CORRELATION WITH VARIOUS GENETIC CHARACTERISTICS.

J Francis G C Ashton
Australian J Exp Biol Med Sci 45(2):131-140 REF
Apr 1967 442.8 AU7

Boophilus microplus, Cattle, Genetics, Ixodides, Surveys.

Abstract

18349-68
HORN FLY CONTROL WITH COUMAPHOS.

M J Janes B W Hayes D W Beardsley
J Econ Entomol 61(5):1176-1178
15 Oct 1968 421 J822

Biochemistry, Cattle, Chemical control (insects), Coumaphos, Haematobia irritans, Insect pests, Insecticide application, Insecticides, Population.

18350-68
NORTHERN FOWL MITE CONTROL ON MATURE TURKEYS ON RANGE.

J L Lancaster J S Simco
J Econ Entomol 61(5):1471-1472
15 Oct 1968 421 J822

Biochemistry, Chemical control (insects), Insecticide application, Mites, Ornithonyssus sylvarium, Research, Spraying, Turkeys.

18351-68
RESISTANCE OF CATTLE TO THE TICK BOOPHILUS MICROPLUS (CANESTRINI). II. STAGES OF THE LIFE CYCLE OF THE PARASITE AGAINST WHICH RESISTANCE IS MANIFEST.

J A Roberts
J Parasitol 54(4):667-673
Aug 1968 448.8 J824

Boophilus microplus, Cattle, Immunity, Injections, Insect morphology, Ixodides, Larvae, Parasitic insects, Population, Time.

18352-68
CATTLE-MOSQUITO STUDY BEGINS IN SOUTH TEXAS.

D P Sanders
Pest Contr 36(6):32,34,46,48
Jun 1968 449.8 EX8

Aedes sollicitans, Cattle, Culicidae, Insect control.

PARASITES

18353-68
EFFECT OF DESICCATION ON SURVIVAL OF

THE FREE-LIVING STAGES OF TRICHOSTRONGYLUS COLUBRIFORMIS.

F L Andersen N D Levine
J Parasitol 54(1):117-128 REF
Feb 1968 448.8 J824

Cattle, Defoliants, Larvae, Nematodes, Parasitism, Sheep, Temperature, Trichostrongylus colubriformis.

Abstract: Desiccation of the 3rd stage larvae of *T. colubriformis* was beneficial to their survival at temperatures below freezing and at 35 and 50 C, but was indifferent effect at intermediate temperatures of 20 and 25C.

18354-68**A NEW TECHNIQUE FOR THE RECOVERY OF FASCIOLA GIGANTICA EGGS FROM CATTLE FAECES.**

P K Bitakaramire
Bull Epizoot Dis Afr 15(4):389-391
Dec 1967 41.8 B872

Cattle, Equipment, Fasciola gigantica, Faeces, Trematoda.

18355-68**AN ELECTRON MICROSCOPE STUDY OF THE TEGUMENT AND ASSOCIATED STRUCTURES OF THE PROCERCROID OF DIPHYLLOBOTHRUM LATUM (L.).**

T Braten
Z Parasitenk 30(1):95-103
1968 442.8 Z33F

Cestoda, Cytology, Diphyllbothrium latum, Electron microscopes, Epithelium, Morphology. English and german abstract

Abstract

18356-68**THE FINE STRUCTURE OF THE TEGUMENT OF DIPHYLLOBOTHRUM LATUM (L.). A COMPARISON OF THE PLEROCERCROID AND ADULT STAGES.**

T Braten
Z Parasitenk 30(1):104-112
1968 442.8 Z33F

Cytology, Diphyllbothrium latum, Electron microscopy, Epithelium, Histology. English and german abstract

Abstract

18357-68**CHANGES IN THE EFFICACY OF THREE ANTHELMINTICS DURING THE MATURATION OF A NEMATODE (TRICHINELLA SPIRALIS).**

W C Campbell R K Hartman
J Parasitol 54(1):112-116
Feb 1968 448.8 J824

Anthelmintics, Drugs, Metamorphosis, Methylidone, Nematodes, Pyrantel tartrate, Stomach, Tetramisole, Thiazolyl-henzimidazole, 2-(4-, Trichinella spiralis.

Abstract: The results suggest that the mode of action of thiabendazole against trichinella is fundamentally different from that of the other two compounds, or that the relationship between efficacy and the route of administration of a given drug changes during the maturation phase of trichinella.

18358-68**PATHOLOGICAL CHANGES OF BLOOD DEPENDING ON SEX AND AGE OF RABBITS EXPERIMENTALLY INFECTED WITH A SHEEP STRAIN OF STRONGYLOIDES PAPILLOSUS.**

L Chomicz
Acta Parasitol Polon 14(15-27):251-263 REF
1966 436.8 AC8

Aging, Blood analysis, Blood cells, Rabbits, Sex, Strongyloides. English and polish abstract

Abstract

18359-68**OBSERVATIONS ON THE EFFECTS OF PYRVINUM PAMOATE ON STRONGYLOIDES STERCORALIS. (JAP)**

R Doi
Jap J Parasitol 16(1):36-42
Feb 1967 436.8 J27

Ancylostoma caninum, Anthelmintics, Pyrvinium pamoate, Strongyloides. English abstract
Abstract

18360-68**HYDATID LATEX AGGLUTINATION WITH SCOLEX AND CRUDE POLYSACCHARIDE ANTIGENS.**

A Fischman J L Allen
Australian J Exp Biol Med Sci 45(2):221-223
Apr 1967 442.8 AU7

Antigens, Cestoda, Echinococcosis, Serodiagnosis.
Abstract

18361-68**DIAGNOSIS, TREATMENT, AND PREVENTIVE THERAPY FOR HEARTWORMS.**

J W Henderson
Amer Vet Med Ass J 151(12):1737-1739
15 Dec 1967 41.8 AM3

Diagnosis, Dirofilaria immitis, Dogs, Therapeutics.

18362-68**DIROFILARIA IMMITIS PARASITIC IN THE SPINAL CAVITY OF A DOG. (JA)**

K Hongo
Jap Vet Med Ass J 20(9):381
1967 41.9 J275

Animal diseases, Dirofilaria immitis, Dogs, Nematodes.

18363-68**EXPERIMENTAL INFECTION OF GNOTOBIOTIC TENEBRIO MOLITOR AND WHITE RATS WITH HYMENOLEPIS DIMINUTA (CESTODA: CYCLOPHYLLIDEA).**

B B Houser W C Burns
J Parasitol 54(1):69-73
Feb 1968 448.8 J824

Autopsies, Benzalkonium chloride, Germ-free life, Hymenolepis diminuta, Parasitism, Rats, Tenebrio molitor, Tribolium confusum.

Abstract: *T. molitor* eggs were sterilized with zephiran chloride, hatched, and the larvae and adults reared under germ-free conditions.

18364-68**QUANTITATIVE STUDIES ON THE KINETICS OF ESTABLISHMENT AND EXPULSION OF INTESTINAL NEMATODE POPULATIONS IN SUSCEPTIBLE AND IMMUNE HOSTS. NIPPOSTRONGYLUS BRASILIENSIS IN THE RAT.**

E E E Jarrett W F H Jarrett G M Urquhart
Parasitology 58(3):625-639 REF
Aug 1968 448.8 P21

Helminthiasis, Immunity, Kinetics, Measurement, Nematodes, Nippostrongylus brasiliensis, Population, Quantitative analysis, Rats, Research.

18365-68**STUDIES ON PARASITIC GRANULOMA IN THE DOG. (JAP)**

H Kitayama M Ohbayashi H Satoh Y Kitamura
Jap J Parasitol 16(1):28-35
Feb 1967 436.8 J27

Dogs, Granuloma, Histology, Nematodes, Toxocara canis. English abstract

Abstract

18366-68**EXPERIMENTAL STUDIES IN MICE ON THE THERAPY OF TRICHINELLOSIS (THIABENDAZOLE, NEGUUVON, CORTISONE, AZULEN, SERA). (POL)**

Z Kozar M Kozar
Acta Parasitol Polon 14(15-27):133-161 REF
1966 436.8 AC8

Drug therapy, Mice, Therapy, Trichinosis. English and polish abstracts

Abstract

18367-68**THE BLOOD OF RABBITS INFECTED WITH STRONGYLOIDES PAPILLOSUS AFTER 20 SERIAL PASSAGES THROUGH RABBITS.**

I Lewandowska
Acta Parasitol Polon 14(15-27):239-250 REF
1966 436.8 AC8

Biochemistry, Blood analysis, Blood cells, Rabbits, Strongyloides. English and polish abstract
Abstract

18368-68**REARING LAMBS FREE OF GASTROINTESTINAL NEMATODES.**

M E Mansfield J M Lewis G E McKihhen
Amer Vet Med Ass J 151(9):1182-1185 REF
01 Nov 1967 41.8 AM3

Animal husbandry, Lambs, Sheep, Strongyloidiasis.

Abstract: Lambs free of gastrointestinal nematodes were produced from infected-parent stock. Ewes were shorn, and udders washed before lambs nursed. The day-old lambs and their mothers were confined in pens with elevated, slotted floors. The lambs were allowed on pasture at approximately 12 weeks of age. Strongyloid eggs were first observed in lambs when they were approximately 14 months old.

18369-68**LESIONS CAUSED BY THE HEPATIC TREMATODE, METORCHIS CONJUNCTUS, COBOLD, 1860; A COMPARATIVE STUDY IN CARNIVORA.**

J H L Mills R S Hirth
J Small Anim Pract 9(1):1-6 REF
Jan 1968 41.8 J8292

Autopsies, Cats, Dogs, Liver, Meteorchis conjunctus, Parasitism, Trematoda, Wildlife. English, german and french abstract

Abstract

18370-68**ON THE METACERCARIA OF PROSTHOGONIMUS PUTSCHKOWSKII IN SYMPETRUM DECOLORATUM (ODONATA: INSECTA) WITH OBSERVATIONS ON ITS DEVELOPMENT IN CHICKS.**

G S Mishra B P Pande
Indian J Vet Sci Anim Hasb 37(3):156-164 REF
Sep 1967 41.8 IN22

Autopsies, Chicks, Metacercaria, Odonata, Prosthogonimus putschkowskii, Sympetrum decoloratum, Trematoda.

Abstract

18371-68**HELMINTHIC INFESTATIONS OF PIGLETS WITH REFERENCE TO LESIONS ENCOUNTERED.**

G S Mishra B P Pande
Indian J Vet Sci Anim Hasb 37(3):143-149 REF
Sep 1967 41.8 IN22

Asearis lumbricoides, Asearops strongylina, Autopsies, Baby pigs, Cysticereus, Oesophagostomum dentatum, Opisthorchis, Swine.

18372-68**STUDIES ON THE SPRING PHENOMENON IN OVINE HELMINTHIASIS. I. SPRING RISE IN STABLED SHEEP.**

B G Procter H C Gibbs
Can J Comp Med Vet Sci 32(1):359-365
Jan 1968 41.8 C162

Haemonchus contortus, Helminthiasis, Larvae, Nematodes, Ova, Parasitism, Sheep.

Abstract: Preparturient treatment of ewes with thiabendazole suppressed spring rise but failed to arrest completely the faecal shedding of nematode ova. Larval studies revealed that *H. contortus* was the major contribution to the spring rise of faecal on a output.

18373-68**A TEMPERATURE STUDY OF THE OVERWINTERING SITE OF THE SHEEP BOT FLY OESTRUS OVIS L.**

C E Rogers F W Knapp D Cook M V Crowe

J Parasitol 54(1):164-165

Feb 1968 448.8 J824

Hibernation, Oestrus ovis, Parasitism, Sheep, Temperature

Abstract. Investigations of the overwintering habits of the sheep bot fly necessitated obtaining data on temp of the nasal passages and sinuses. Temperatures of the nasal passage varied directly with the depth at which the readings were taken and with the atmospheric temperatures.

18374-68

ANTHELMINTHIC ACTIVITY OF SOME CARBAMATE DERIVATIVES. (SP)

F Sanz R Jurado A Moral A Relimpio

Rev Iberica Parasitol 26(4):353-359 REF

Oct 1966 436.8 R32

Anthelmintics, Carbamates, Drug therapy, Guinea pigs, Helminths, Mice, Rats. English and Spanish abstract

Abstract

18375-68

PARASITIC DEVELOPMENT OF OBELISCOIDES CUNICULI IN RABBITS.

A E Sollod T J Hayes E J L Soulsby

J Parasitol 54(1):129-132 REF

Feb 1968 448.8 J824

Larvae, Metamorphosis, Nematodes, Obeliscoides cuniculi, Parasitism, Rabbits, Stomach, Trichostrongylosis.

Abstract. Studies on development of *O. cuniculi* infections in New Zealand white rabbits showed that the 2nd ecdysis was complete within 1 hr. of infection and the parasitic 3rd stage larvae penetrated into the gastric mucosa within 24 hours. Similarities between the parasitic development of other trichostrongyles and *O. cuniculi* are discussed.

18376-68

HELMINTHS AS VEHICLES AND SYNERGISTS OF MICROBIAL INFECTIONS.

A W Woodruff

Roy Soc Trop Med Hyg Trans 62(3):446-452 REF

1968 448.9 R813

Ascariasis, Encephalomyocarditis, Epidemiology, Escherichia coli, Helminthiasis, Hog cholera, Human diseases, Infectious diseases, Medicine, Parasitism, Poliomyelitis, Rats, Strongyloides stercoralis, Swine influenza virus, Toxocara canis, Trichinella spiralis.

COMMODITY PROTECTION**STORAGE DISEASES**

18377-68

FUNGI IN STORED PRODUCTS.

J H Clarke

Trop Stored Prod Inform 15:3-14 REF

1968 421 T752

Aflatoxin, Agricultural products, Aspergillus, Fungi, Grain, Methodology, Microorganisms, Mycology, Mycotoxicosis, Penicillium, Storage diseases, Temperature.

ARTHROPODS

18378-68

PROPOSED FEDERAL FORMOSAN TERMITE QUARANTINE SAFEGUARDS. BUYER, SELLER.

G G Rohwer

Pest Contr 36(2):29,31

Feb 1968 449.8 EX8

Coptotermes formosanus, Household insects, Insect control, Lumber, Quarantine, Soils, Termites, Timber.

RODENTS AND OTHER PESTS

18379-68

ISOLATION AND PURIFICATION OF METABOLITES FOUND IN THE URINE OF MALE RATS FED ALDRIN AND DIELDRIN.

A K Klein J D Link N F Ives

Ass Offic Anal Chem J 51(4):895-898

Jul 1968 381 A57

Aldrin, Dieldrin, Metabolites, Rats, Research, Sterilization, Urine.

18380-68

A METHOD FOR EVALUATION OF VACCINES CONTAINING PASTEURILLA MULTOCIDA.

E E Ose O A Muenster

Amer J Vet Res 29(9):1863-1866

Sep 1968 41.8 AM3A

Animal diseases, Antibodies, Antigens, Cattle, Immunity, Immunization, Lethal factors, Mice, Pasteurella multocida, Vaccines.

18381-68

ON THE DEVELOPMENT OF CYSTICERCUS FASCIOLARIS IN ALBINO RAT LIVER AND ITS REACTION ON THE HOST TISSUE.

B B Singh B V Rao

Ceylon Vet J 15(4):121-129 REF

Dec 1968 41.8 C33

Animal diseases, Animal histology, Blood, Cells, Cysts, Cytoplasm, Larvae, Morphology, Research.

18382-68

EFFECT OF RATION MODIFICATIONS ON AFLATOXICOSIS IN THE RAT.

G C Todd W T Shalkop K L Dooley H G Wiseman

Amer J Vet Res 29(9):1855-1861 REF

Sep 1968 41.8 AM3A

Aflatoxicosis, Animal physiology, Antibiotics, Carbohydrates, Cells, Cytoplasm, Histology, Rats, Vitamins.

MICROBIAL CONTAMINATION

18383-68

ESTIMATION OF RADIATION RESISTANCE VALUES OF MICROORGANISMS IN FOOD PRODUCTS.

A Anellis S Werkowski

Appl Microbiol 16(9):1300-1308 REF

Sep 1968 448.3 AP5

Clostridium botulinum, Dosage, Food, Immunity, Kinetics, Microbiology, Microorganisms, Radiation, Statistical methods.

18384-68

DEGRADATION OF DIAZINON BY SYNERGISTIC MICROBIAL ACTION.

H B Gunner B M Zuckerman

Nature 217(5134):1183-1184

23 Mar 1968 472 N21

Arthrobacter, Biochemistry, Carbon isotopes, Chemical reactions, Diazinon, Insecticides, Metabolism, Microbiology, Microorganisms, Streptomyces.

ENVIRONMENTAL CONTAMINATION

18385-68

PREVENTING FISH AND WILDLIFE LOSSES.

E G Hunt

Aerial Appl 5(11):4-6

Nov 1967 333.8 AE8

Fish conservation, Pesticide application, Pesticide residues, Wildlife conservation.

RESIDUES

18386-68

THE EFFECT OF ENVIRONMENTAL AND BIOLOGICAL FACTORS ON THE PERSISTENCE OF MALATHION APPLIED IN LOW VOLUME TECHNICAL AND EMULSIFIABLE CONCENTRATE FORMS TO COTTON PLANTS.

T M Awad

Diss Abstr Sect B 29(2):644B

Aug 1968 Z5055.U49D53

Biology, Cotton, Environment, Insecticides, Malathion, Pesticide residues.

18387-68

DETERGENTS.

S K Banerji

Water Pollut Contr Fed J 40(6):939-948 REF

Jun 1968 293.8 SE8

Algae, Detergents, Fish, Rats, Water pollution, Water treatment.

18388-68

NOTICE OF FILING OF PETITION REGARDING PESTICIDE CHEMICALS.

R E Duggan

Fed Regist 33(173):12588

05 Sep 1968 L1.451

Agricultural chemistry, Alfalfa, Hay, Insecticide residues, Phorate.

18389-68

COMPARATIVE CS-137 CONTENT OF AGRICULTURAL CROPS GROWN IN A CONTAMINATED SOIL.

E D Evans A J Dekker

Can J Plant Sci 48(2):183-188

Mar 1968 450 C16

Cesium isotopes, Field crops, Forage plants, Grain, Grasses, Plant contamination, Radioactive contamination, Soil contamination, Sugar beets, Vegetables.

18390-68

EFFECTS ON GROUNDWATER, MUNICIPAL SOURCES.

B B Ewing L S Lau

Water Pollut Contr Fed J 40(6):1075-1081 REF

Jun 1968 293.8 SE8

Detergents, Industry, Insecticides, Saline water, Water analysis, Water pollution, Water supply.

18391-68

RESPONSE OF EARLY-WEANED PIGS TO AMINO ACID SUPPLEMENTATION OF CORN DIETS.

J T Gallo W G Pond J V Logomarsino

J Anim Sci 27(4):1000-1005 REF

Jul 1968 49 J82

Acids, Amino acids, Biology, Corn, Swine, Weaning.

18392-68

MICROBIOLOGY, GASTROINTESTINAL OUTBREAKS.

E E Geldreich

Water Pollut Contr Fed J 40(6):1052-1068 REF

Jun 1968 293.8 SE8

Bacteria, Epidemiology, Gastroenteritis, Gastrointestinal system, Human diseases, Microbiology, Viruses, Water pollution.

18393-68

DETOXIFICATION OF PESTICIDAL RESIDUES IN FISH AND SHELLFISH.

A B Hallab

Diss Abstr Sect B 29(2):649B

Aug 1968 Z5055.U49D53

Fish, Pesticide residues, Shellfish, Toxicology.

18394-68

EFFECTS ON MICROFAUNA - FRESHWATER.

L D Jensen

Water Pollut Contr Fed J 40(6):1042-1047

Jun 1968 293.8 SE8

Aquatic animals, Ecology, Streams, Water, Water pollution.

18395-68

WATER POLLUTION, EFFECTS OF POLLUTION ON FISH LIFE. GENERAL ASPECTS OF WATER POLLUTION BIOLOGY.

M Katz A K Sparks G I Pederson C E Woelke J Wooley

Water Pollut Contr Fed J 40(6):1007-1033 REF Jun 1968 293.8 SE8

Biology, Detergents, Fish, Metals, Pesticides, Temperature, Water analysis, Water pollution.

18396-68

TOLERANCES AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE CHEMICALS IN OR ON RAW AGRICULTURAL COMMODITIES. DIURON.

J K Kirk

Fed Regist 33(128):9609

02 Jul 1968 L1.451

Chemicals, Diuron, Food plants, Herbicides, Pesticide residues.

18397-68

TOLERANCES AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE CHEMICALS IN OR ON RAW AGRICULTURAL COMMODITIES. ALPHANAPHTHALENEACETIC ACID.

J K Kirk

Fed Regist 33(128):9609-9610

02 Jul 1968 L1.451

Chemicals, Food plants, Naphthaleneacetic acid, Pesticide residues, Pesticides, Plant regulators.

18398-68

TOLERANCES AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE CHEMICALS IN OR ON RAW AGRICULTURAL COMMODITIES. TRIFLURALIN.

J K Kirk

Fed Regist 33(128):9610

02 Jul 1968 L1.451

Chemicals, Food plants, Herbicides, Pesticide residues, Trifluralin.

18399-68

TOLERANCES AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE CHEMICALS IN OR ON RAW AGRICULTURAL COMMODITIES. ETHYL 4,4'-DICHLOROBENZILATE.

J K Kirk

Fed Regist 33(130,PT.1):9707-9708

04 Jul 1968 L1.451

Chemicals, Chlorobenzilate, Food plants, Pesticide residues, Pesticides.

18400-68

NIAGARA NIA-10242 INSECTICIDE RESIDUES: THEIR PERSISTENCE IN COASTAL BERMUDAGRASS, CORN, AND SILAGES, AND THEIR EFFECT, FED IN SILAGE, ON LACTATING COWS.

D B Leuck M C Bowman J C Johnson E W Beck R S Lowery

J Econ Entomol 61(5):1349-1352 REF

15 Oct 1968 421 J822

Biochemistry, Cattle, Corn, Cynodon dactylon, Dihydro-2,2-dimethyl-7-benzofuranil methylcarbamate, 2,3-, Feed, Insecticide residues, Milk analysis, Silage, Tables (data).

18401-68

INSECTICIDE RESIDUES IN PEST CONTROL.

L Lykken

Agr Chem 23(8):18-20,22

Aug 1968 381 AG8

Accident prevention, Animals, Biochemistry, Chemical control (pests), Decomposition, Immunity, Insecticide residues, Insecticides, Plant hardness, Plants, Public health, Time.

18402-68

MACROINVERTEBRATES. FRESH WATER.

K M Mackenthun L E Keup

Water Pollut Contr Fed J 40(6):1033-1042 REF

Jun 1968 293.8 SE8

Environment, Invertebrates, Pesticides, Radioactivity, Water, Water pollution.

18403-68

RESIDUES OF DIAZINON, COUMAPHOS, CIODRIN, METHOXYCHLOR, AND ROTENONE IN COW'S MILK FROM TREATMENTS SIMILAR TO THOSE USED FOR EC-TOPARASITE AND FLY CONTROL ON DAIRY CATTLE, WITH NOTES ON SAFETY OF DIAZINON AND CIODRIN TO CALVES.

J G Matthyse D Lisk

J Econ Entomol 61(5):1394-1398 REF

15 Oct 1968 421 J822

Accident prevention, Biochemistry, Chemical control (insects), Ciodrin, Coumaphos, Dairy cattle, Diazinon, Insecticide application, Insecticide residues, Methoxychlor, Milk analysis, Research, Rotenone.

18404-68

AGRICULTURAL (LIVESTOCK) WASTES.

J R Miner

Water Pollut Contr Fed J 40(6):1150-1158 REF

Jun 1968 293.8 SE8

Bacteria, Cattle, Fertilizers, Laboratories, Livestock, Poultry, Water pollution.

18405-68

ANAEROBIC PROCESSES. MICROBIOLOGY AND MECHANISM.

F G Pohland

Water Pollut Contr Fed J 40(6):948-955 REF

Jun 1968 293.8 SE8

Anaerobic bacteria, Kinetics, Mechanics, Microbiology, Water, Water pollution.

18406-68

NOTE ON THE DETERMINATION OF CARBARYL RESIDUES IN HEN SKIN.

E W Pol

Ass Offic Anal Chem J 51(4):901

Jul 1968 381 AS7

Anoplura, Carbaryl, Chickens, Dimethyl sulfoxide, Extracts, Hexane, Insecticides, Methylene chloride, Skin.

18407-68

OXYGEN SAG AND STREAM SELF-PURIFICATION.

E C Tsvoglov R E DeLoach

Water Pollut Contr Fed J 40(6):1068-1071 REF

Jun 1968 293.8 SE8

Streams, Temperature, Water pollution, Water treatment.

18408-68

ANALYTICAL PROBLEMS: MERCURY IN THE GENERAL ENVIRONMENT.

G Widmark

Oikos (SUP.9):9-10

1967 410 O14

Assay, Chromatography, Environment, Fungicides, Inorganic compounds, Mercury, Metabolites, Pesticide residues, Research.

TOXICOLOGY

18409-68

STUDIES ON THE LABORATORY SOILING OF MILKING EQUIPMENT.

B Bacic C M Cousins L F L Clegg

J Dairy Res 35(2):247-256

Jun 1968 44.8 J823

Antiseptics, Bacteria, Equipment, Laboratories, Milk.

18410-68

THE TOXICITY AND DISTRIBUTION OF MERCURY.

H Berlin

Oikos (SUP.9):25-26

1967 410 O14

Absorption, Autoradiography, Food, Hygiene, Mercury, Mercury compounds, Methodology, Mice, Research, Surveys, Toxicology.

18411-68

SWEDISH STUDIES OF GAME THAT HAD BEEN FOUND DEAD AS WELL AS SPECIMENS THAT HAD BEEN SHOT.

K Borg

Oikos (SUP.9):38

1967 410 O14

Agriculture, Biochemistry, Forestry, Game animals, Mercury compounds, Poisoning, Research, Seeds, Wildlife diseases.

18412-68

PYRROLIZIDINE ALKALOID POISONING IN CALVES.

M E Fowler

Amer Vet Med Ass J 152(8):1131-1137 REF

15 Apr 1968 41.8 AM3

Alfalfa, Alkaloids, Amsinekia intermedia, Dairy cattle, Feed, Fibrosis, Liver, Mortality, Pyrrolizidine, Senecio vulgaris, Toxicology.

18413-68

MANGANESE TOXICITY IN CELERY.

P A Gallagher

Nature 216(5113):391-392

28 Oct 1967 472 N21

Aluminum, Celery, Hydrogen-ion concentration, Leaves, Manganese, Plant growth inhibitors, Plant physiology, Soil series, Toxicology.

18414-68

TOXIC BLUE-GREEN ALGAE IN SASKATCHEWAN.

U T Hammer

Can Vet J 9(10):221-229 REF

Oct 1968 41.8 R3224

Algae, Aquatic birds, Cyanophyta, Fish, Poisoning, Wildlife. French summary

18415-68

ON THE PRINCIPAL WAY OF ATTACK OF ROTENONE IN FISH.

K-e Oberg

Arkiv Zool 18(3-4):217-220 REF

1967 410.9 SV22

Animal physiology, Biochemistry, Fish, Rotenone, Toxicology.

18416-68

ISOLATION OF A NEW TOXIN FROM CULTURES OF ASPERGILLUS FLAVUS.

J V Rodricks A D Campbell M J Verrett K R

Henry-Logan

Nature 217(5129):668

17 Feb 1968 472 N21

Aflatoxin, Aspergillus flavus, Chick embryos, Culture media, Infrared spectra, Injections, Metabolites, Research, Toxins.

18417-68

TOXIC EFFECTS OF ODOROUS TRACE ORGANICS.

J W Smith S G Grigoropoulos

Amer Water Works Ass J 60(8):969-979 REF

Aug 1968 292.9 AM32J

Fish, Odors, Organic compounds, Pesticides, Toxicology, Water analysis, Water pollution.

Abstract

18418-68

THE TOXICOLOGY OF DIFFERENT ORGANOMERCURIALS USED AS FUNGICIDES.

A Swensson

Oikos (SUP.9):27-29

1967 410 O14

Adsorption, Biochemistry, Fungicides, Mammals, Mercury compounds, Poisoning, Toxicology.

18419-68

MORPHOLOGICAL AND PHYSIOLOGICAL ASPECTS OF SPOROGONY AND OOCYST VIABILITY IN THE PROTOZOAN PARASITES EIMERIA TENELLA AND EIMERIA STIEDAE (COCCIDIA).

G F Wagenbach

Diss Abstr Sect B 28(11):4809B

May 1968 Z5055.U49D53

Chickens, Deoxyribonucleic acid, Eimeria stuedae, Eimeria tenella, Insect physiology, Rabbits, Ribonucleic acid, Sodium hypochlorite

18420-68

A REVIEW OF DRUG TOXICITY IN THE CAT.

G T Wilkinson

J Small Anim Pract 9(1):21-32 REF

Jan 1968 41.8 J8292

Benzyl benzoate, Cats, Chlorinated hydrocarbons, Drug therapy, Organophosphorus compounds, Rotenone, Toxicology. English, German and French abstract

Abstract

18421-68

EFFECTS OF PLANT GROWTH REGULATORS AND OTHER COMPOUNDS ON FLOW OF LATEX IN HEVEA BRASILIENSIS.

P D Abraham S G Boatman G E Blackman R G Powell

Ann Appl Biol 62(1):159-173 REF

Aug 1968 442.8 AN72

Biochemistry, Chemicals, Hevea brasiliensis, Latex, Plant physiology, Plant regulators.

18422-68

EFFECT OF CULTURE FILTRATES OF PSEUDOMONAS PHASEOLICOLA ON THE GROWTH OF EXCISED ROOTS AND CALLUS TISSUE CULTURES OF BEAN. (ABSTRACT).

Y P S Bajaj A W Saettler

Phytopathology 58(8):1041-1042

Aug 1968 464.8 P56

Beans, Biochemistry, Culture media, Filters, Plant physiology, Pseudomonas phaseolicola, Roots, Tissues.

18423-68

THE SELECTIVITY AND ACTIVITY OF STRIAZINE HERBICIDES IN BANANA PLANTS.

R C Barba

Diss Abstr Sect B 29(2):431B-432B

Aug 1968 Z5055.U49D53

Bananas, Biochemistry, Plant physiology, Plant translocation, S-triazine.

18424-68

INFLUENCE OF MICRO-ORGANISMS ON THE DISTRIBUTION IN ROOTS OF PHOSPHATE LABELLED WITH PHOSPHORUS-32.

D A Barber J Sanderson R S Russell

Nature 217(5129):644

17 Feb 1968 472 N21

Autoradiography, Biochemistry, Ions, Microorganisms, Phosphates, Phosphorus isotopes, Plant diseases, Plant translocation, Roots.

18425-68

EFFECT OF THIRAM UPON GLUCOSE CATABOLISM BY FUSARIUM OXYSPORUM. (ABSTRACT).

J J Bates B G Twcedy

Phytopathology 58(8):1042

Aug 1968 464.8 P56

Biochemistry, Fungi, Fusarium oxysporum, Glucose, Metabolism, Plant physiology, Thiram.

18426-68

INTERACTION OF GROWTH REGULATORS IN THE SENESCENCE OF NASTURTIUM LEAF DISKS.

L Beevers F S Guernsey

Nature 214(5091):941-942

27 May 1967 472 N21

Biochemistry, Gibberellic acid, Kinetin, Leaves, Plant hormones, Plant physiology, Plant regulators, Research, Ribonucleic acid, Trapaeolum majus.

18427-68

PECTOLYTIC ENZYME PRODUCTION BY PHYMATOTRICHUM OMNIVORUM. (ABSTRACT).

H S Black

Phytopathology 58(8):1044

Aug 1968 464.8 P56

Fungi, Phymatotrichum omnivorum, Plant enzymes, Plant physiology.

18428-68

INORGANIC COMPOSITION AND MICROSCOPY OF CITRUS ROOTS GROWN UNDER SEVERAL COPPER AND SOIL AMENDMENT CONDITIONS.

E A Brams

Diss Abstr Sect B 29(1):12B-13B

Jul 1968 Z5055.U49D53

Chemicals, Citrus, Copper, Inorganic compounds, Morphology, Plant translocation, Roots, Soils, Tissues, Xylem.

18429-68

GERMINATION OF FOMES APPLANATUS BASIDIOSPORES. (ABSTRACT).

T S Jr. Brown

Phytopathology 58(8):1044

Aug 1968 464.8 P56

Fomes applanatus, Plant physiology, Seed germination, Spores.

18430-68

AUXIN EFFECTS ON THE ACTIVITY OF PECTINTRANSLEMINASE IN VITRO.

T A Bull

Phytochemistry 7(2):209-211

Feb 1968 450 P5622

Assay, Culture media, Pectin transeliminase, Plant growth inhibitors, Plant hormones, Plant metabolism.

18431-68

EFFECT OF ANAEROBIOSIS ON GERMINATION AND VIABILITY OF RHIZOPUS STOLONIFER SPORANGIOSPORES. (ABSTRACT).

J Bussel P M Buckley N F Sommer

Phytopathology 58(8):1046

Aug 1968 464.8 P56

Anaerobic bacteria, Plant physiology, Rhizopus stolonifer, Seed germination, Spores.

18432-68

AUXOTROPHIC MUTANTS OF PHYTOPHTHORA SPECIES. (ABSTRACT).

J Castro G A Zentmyer W L Belser

Phytopathology 58(8):1046

Aug 1968 464.8 P56

Fungi, Mutations, Phytophthora capsici, Phytophthora drechsleri, Plant physiology.

18433-68

LABORATORY TESTS OF FUNGICIDES AGAINST PERONOSPORA PARASITICA (PERS. EX. FR.) FR.

A G Channon R J Hampson

Ann Appl Biol 62(1):23-33 REF

Aug 1968 442.8 AN72

Biochemistry, Fungicides, Laboratories, Peronospora parasitica, Research.

18434-68

THE EFFECT OF SPECIES OF ALLIUM ON SOIL BACTERIA IN RELATION TO GERMINATION OF SCLEROTIA OF SCLEROTIUM CEPIVORUM BERK.

J R Coley-Smith D J Dickinson J E King R W Holt

Ann Appl Biol 62(1):103-111 REF

Aug 1968 442.8 AN72

Allium, Antibiotics, Bacterial diseases (plants), Plant biochemistry, Plant extracts, Sclerotium cepivorum, Soil bacteria.

18435-68

DISPERSAL PATTERNS OF MONILINIA LAXA SPORES IN PEACH, PRUNE, APRICOT, AND ALMOND TREES DURING EARLY SPRING. (ABSTRACT).

J B Corbin

Phytopathology 58(8):1047

Aug 1968 464.8 P56

Almonds, Apricots, Monilinia laxa, Peaches, Prunes, Seed dissemination, Spores, Temperature, Trees.

18436-68

EFFECT OF TEMPERATURE ON GERMINATION OF PODOSPHAERA LEUCOTRICHA CONIDIA. (ABSTRACT).

D L Coyier

Phytopathology 58(8):1047-1048

Aug 1968 464.8 P56

Fungus diseases (plants), Podospheara leucotricha, Seed germination, Temperature.

18437-68

PLANT GROWTH REGULATIONS IN DITYLENCHUS DIPSACI, DITYLENCHUS TRIFORMIS AND HOST TISSUES.

H G Cutler

Diss Abstr Sect B 28(11):4445B

May 1968 Z5055.U49D53

Biochemistry, Chloroform, Chromatography, Ditylenchus dipsaci, Ditylenchus trififormis, Extracts, Infrared spectra, Methanol, Plant physiology, Plant regulators, Tissues. The hosts were: Pyrenochaeta terrestris and Medicago sativa. No growth promoting substances were detected in turbatrix aceti.

18438-68

CHARACTERISTICS OF A SEASONAL POPULATION OF AIRBORNE FOMES FOMENTARIUS BASIDIOSPORES. (ABSTRACT).

R C DeGroot J L Prentice

Phytopathology 58(8):1048

Aug 1968 464.8 P56

Basidiospores, Fomes fomentarius, Plant physiology, Population statistics, Properties, Reproduction.

18439-68

IDENTIFICATION OF XANTHOMONAS SPECIES BY ACRYLAMIDE-GEL DISC ELECTROPHORESIS OF SOLUBLE BACTERIAL PROTEINS. (ABSTRACT).

T A El-Sharkawy D Huisingh

Phytopathology 58(8):1049

Aug 1968 464.8 P56

Acrylamide, Bacteria, Electrophoresis, Gels, Plant biochemistry, Proteins, Xanthomonas.

18440-68

USE OF FLUORESCENT BRIGHTENER AS AID TO STUDIES OF FUNGISTASIS AND NEMATOPHAGOUS FUNGI IN SOIL.

J Eren D Pramcr

Phytopathology 58(5):644-646 REF

May 1968 464.8 P56

Arthrobotrys conoides, Fluorescent dyes, Nematodes, Soil fungi.

18441-68

SWEDISH RESTRICTIONS CONCERNING THE USE OF MERCURY COMPOUNDS FOR SEED DISINFECTION.

H Esbo

Oikos (SUP.9):18

1968 410 O14

Antiseptics, Biochemistry, Drug therapy, Mercury compounds, Seed-borne plant diseases, Seedlings.

18442-68

EFFECT OF FUNGAL ESTROGEN F-2 ON THE PRODUCTION OF PERITHECIA BY FUSARIUM ROSEUM GRAMINEARUM. (ABSTRACT).

C P Eugenio

Phytopathology 58(8):1049-1050

Aug 1968 464.8 P56

Culture media, Estrogens, Fungi, Fusarium roseum, Perithecia, Plant physiology.

18443-68

THE INTERRELATIONSHIPS OF RHIZOCTONIA SOLANI AND HELMINTHOSPORIUM VAGANS, NITROGEN, AND VARIETY ON ALKALOIDS IN FESTUCA ARUNDINACEA. (ABSTRACT).

C E Gentry L Henson R A Chapman

Phytopathology 58(8):1051

Aug 1968 464.8 P56

Alkaloids, Biochemistry, Festuca arundinacea, Helminthosporium vagans, Nitrogen, Rhizoctonia solani.

- 18444-68**
DISC ELECTROPHORESIS OF SONIC EXTRACTS OF FIVE PHYTOPATHOGENIC BACTERIA. (ABSTRACT).
H S Gill M N Khare
Phytopathology 58(8):1051-1052
Aug 1968 464.8 P56
Bacteria, Biochemistry, Electrophoresis, Erwinia, Plant extracts, Xanthomonas.
- 18445-68**
EXTENT OF ASPERGILLUS FLAVUS AND FUSARIUM OXYSPORUM GERMINATION IN SOIL AND IN THE RHIZOSPHERE OF PEANUT. (ABSTRACT).
G J Griffin
Phytopathology 58(8):1052
Aug 1968 464.8 P56
Aspergillus flavus, Fusarium oxysporum, Peanuts, Plant physiology, Rhizosphere, Seed germination, Spores.
- 18446-68**
INDUCTION OF FLORAL HYPERSEXUALITY IN IBERIS AMARA L. (CRUCIFERES) INFLUENCED BY 2,4-DICHLOROPHENOXYACETIC ACID. (FR)
M-C Guet
Acad Sci Compt Rend Ser D Sci Nat 265(20):1475-1484
13 Nov 1967 505 P21
Cruciferae, D, 2,4-, Plant biochemistry, Plant morphology, Plant reproduction. French summary
- 18447-68**
ELECTRON MICROSCOPIC STUDIES OF THE NERVOUS SYSTEM OF TRICHODORUS CHRISTIEI (ABSTRACT).
H Hirumi T Chen
Phytopathology 58(8):1053
Aug 1968 464.8 P56
Electron microscopes, Nervous system, Plant physiology, Research, Trichodorus christiei.
- 18448-68**
EFFECT OF DEFOLIANTS ON CARBOHYDRATE AND NITROGEN METABOLISM IN COTTEN PLANT LEAVES. (RUS)
A I Imamaliev P K Baretas M I Rizajeva
Fiziol Rast 15(1):74-83 REF
Jan 1968 450 F58
Carbohydrates, Cotton, Decomposition, Defoliants, Leaves, Nitrogen, Plant metabolism. English summary
- 18449-68**
COMPARISON OF THE EFFECTS OF GIBBERELLIC ACID AND AFLATOXIN IN GERMINATING SEEDS.
H C Jones H S Black A M Altschul
Nature 214(5084):171-172 REF
08 Apr 1967 472 N21
Aflatoxin, Cotton, Deoxyribonucleic acid, Gibberellic acid, Ribonucleic acid, Seed germination, Seeds.
- 18450-68**
SURVIVAL AND GROWTH OF FOMES ANNOSUS AT HIGH CONCENTRATIONS OF BORAX. (ABSTRACT).
J W Koening
Phytopathology 58(8):1056
Aug 1968 464.8 P56
Agar, Biochemistry, Borax, Fomes annosus, Plant hardiness, Plant physiology.
- 18451-68**
RED PINE NEEDLE STRUCTURE.
S L Krugman N B Critchfield
Nature 217(5129):685-686
17 Feb 1968 472 N21
Biochemistry, Greenhouse culture, Herbicides, Leaves, Pinus resinosa, Plant anatomy, Plant physiology, Seedlings. In relation to response to herbicides.
- 18452-68**
TELIOSPORE GERMINATION OF PUCCINIA RECONDITA F. SP. TRITICI (ABSTRACT).
T A Kucharek H C Jr. Young
Phytopathology 58(8):1056
Aug 1968 464.8 P56
Fungus diseases (plants), Plant physiology, Puccinia recondita, Seed germination, Teliospores, Wheat.
- 18453-68**
ACTIVE UPTAKE OF HELMINTHOSPORIUM CARBONUM TOXIN AND ITS EFFECT ON CO₂ DARK FIXATION BY CORN. (ABSTRACT).
M S Kuo R P Scheffer
Phytopathology 58(8):1056
Aug 1968 464.8 P56
Absorption, Carbon dioxide, Corn, Helminthosporium carbonum, Metabolism, Plant physiology, Plant translocation, Toxicology.
- 18454-68**
PHOSPHORUS CONTENT DURING DEVELOPMENT OF CLAVICEPS PURPUREA.
J Kybal J Majer I Komersova W D Wani
Phytopathology 58(5):647-650 REF
May 1968 464.8 P56
Claviceps purpurea, Fungi, Phosphorus, Poisonous fungi.
- 18455-68**
SPORULATION OF CEPHALOSPORIUM GREGATUM ON NATURALLY INFESTED SOYBEAN STRAW. (ABSTRACT).
P Y Lai J M Dunleavy
Phytopathology 58(8):1056-1057
Aug 1968 464.8 P56
Cephalosporium gregatum, Plant physiology, Seed germination, Soybeans, Spores, Straw.
- 18456-68**
A BIOCHEMICAL ROLE FOR BORON.
S G Lee
Diss Abstr Sect B 29(1):45B
Jul 1968 Z5055.U49D53
Biochemistry, Boron, Electrophoresis, Enzymes, Leaves, Plant metabolism, Sunflowers.
- 18457-68**
LOCATION OF UNIQUE SEQUENCES IN TOBACCO MOSAIC VIRUS RIBONUCLEIC ACID.
S Mandeles
J Biol Chem 243(13):3671-3674 REF
10 Jul 1968 381 J824
Dodecyl sodium sulfate, Mosaic (tobacco), Plant biochemistry, Proteins, Ribonucleic acid, Tobacco, Virus diseases (plants).
- 18458-68**
ELECTRON MICROGRAPHS OF RHIZOPUS STOLONIFER SPORANGIOSPORES SUBJECTED TO CHILLING. (ABSTRACT).
T T Matsumoto P M Buckley N F Sommer
Phytopathology 58(8):1059
Aug 1968 464.8 P56
Culture media, Electron microscopes, Plant physiology, Rhizopus stolonifer, Temperature.
- 18459-68**
OXALATE BIOSYNTHESIS AND PATHWAYS FOR GLUCOSE CATABOLISM IN SCLEROTIUM ROLFII. (ABSTRACT).
D - Maxwell
Diss Abstr Sect B 29(2):443B
Aug 1968 Z5055.U49D53
Biochemistry, Glucose, Metabolism, Oxalates, Plant physiology, Sclerotium rolfsii.
- 18460-68**
OXALIC ACID BIOSYNTHESIS BY SCLEROTIUM ROLFII. (ABSTRACT).
D P Maxwell D F Bateman
Phytopathology 58(8):1059
Aug 1968 464.8 P56
Biochemistry, Oxalic acid, Plant physiology, Sclerotium rolfsii.
- 18461-68**
TEMPERATURE EFFECTS ON PLEUROTUS OSTREATUS SPORE PRODUCTION (ABSTRACT).
F I McCracken
Phytopathology 58(8):1059
Aug 1968 464.8 P56
Plant physiology, Pleurotus ostreatus, Reproduction, Spores, Temperature.
- 18462-68**
LIGHT STIMULATED BIOSYNTHESIS OF GIBBERELLINS IN FUSARIUM MONILIFORME.
D Mertz W Henson
Nature 214(5090):844-846
20 May 1967 472 N21
Biochemistry, Chromatography, Culture media, Extracts, Fungi, Fusarium moniliforme, Gibberellins, Light, Metabolism, Research, Tables (data).
- 18463-68**
PHYSIOLOGY OF GERMINATION OF CHLAMYDOSPORES OF PHYTOPHTHORA CINNAMOMI.
S M Mircetich G A Zentmyer J B Kendrick
Phytopathology 58(5):666-671 REF
May 1968 464.8 P56
Chlamydospores, Fungi, Nutrition, Phytophthora cinnamomi, Spore germination.
- 18464-68**
EFFECT OF CALCIUM AVAILABILITY ON ALFALFA GROWN IN CALCAREOUS HIGH SODIUM SOILS.
H I Nightingale
Diss Abstr Sect B 29(1):1B-2B
Jul 1968 Z5055.U49D53
Alfalfa, Calcium, Chemicals, Extracts, Leaves, Nutrient solutions (plants), Roots, Sodium, Soils.
- 18465-68**
CHROMOSOMAL ALTERNATIONS IN PEARL MILLET INDUCED BY GAMMARAYS.
J V Pantulu
Nature 213(5071):101-102
07 Jan 1967 472 N21
Chromosomes, Gamma rays, Meiosis, Pearl millet, Plant genetics, Plant mutation, Pollen.
- 18466-68**
A PHYSIOLOGIC-GENETIC STUDY OF THE DIFFERENTIAL RESPONSE OF NAVY BEANS (PHASEOLUS VULGARIS L.) TO ZINC.
D E Polson
Diss Abstr Sect B 29(2):450B-451B
Aug 1968 Z5055.U49D53
Biochemistry, Genetics, Kidney beans, Plant physiology, Research, Zinc.
- 18467-68**
WOUND-INDUCED GIBBERELLINS.
L Rappaport M Sachs
Nature 214(5093):1149-1150
10 Jun 1968 472 N21
Autoradiography, Biochemistry, Biological assay, Deoxyribonucleic acid, Gibberellins, Metabolism, Nucleic acids, Plant injuries, Potatoes, Ribonucleic acid.
- 18468-68**
RED LIGHT INDUCTION OF GIBBERELLIN SYNTHESIS IN LEAVES.
D M Reid J B Clements D J Carr
Nature 217(5128):580-582 REF
10 Feb 1968 472 N21
Barley, Biochemistry, Gibberellic acid, Irradiation, Leaves, Light, Metabolism, Photoperiodism, Time.
- 18469-68**
STUDIES ON THE FUNGITOXICITY OF CAPTAN. VI. DECOMPOSITION OF 35S-LABELLED CAPTAN BY NEUROSPORA CRASSA CONIDIA.
D V Richmond E Somers
Ann Appl Biol 62(1):35-43
Aug 1968 442.8 AN72
Biochemistry, Captan, Decomposition, Fungicides, Isotopes, Neurospora crassa, Research, Sulfur.

TOXICOLOGY

18470-68

18470-68

AUXIN-INDUCED ELIMINATION OF A PROTEIN IN BEAN HYPOCOTYL.

I V Sarkissian I C Spelsberg

Nature 214(5085):319-320

15 Apr 1968 472 N21

Culture media, Electrophoresis, Indoleacetic acid, Kidney beans, Plant extracts, Plant physiology, Plant regulators, Proteins, Research, Seedlings.

18471-68

HERBICIDAL COMPOSITION AND METHOD. PATENT 3,407,056.

H Schwartz

Us Patent Office Offic Gaz 855(4):1021

22 Oct 1968 156.65 OF2

Herbicides, Patents, Plant physiology, Plant regulators.

18472-68

AMINO ACID-(PHENYLAZO)-PHENYL-DERIVATIVES. XXIII. INVESTIGATION OF THE PHYTOTOXIC EFFECT OF THE ANTIPODES OF ALANINE-AND PHENYLALANINE-4-(PHENYLAZO)-PHENYLAMIDES AGAINST VARIOUS PLANT SPECIES. (GE)

P von Schwenk A Barth

Biol Zentralbl 87(1):21-32 REF

Feb 1968 442.8 B523

Amino acids, Herbicides, Plant biochemistry, Plant physiology, Toxicology. English and german abstract

Abstract

18473-68

STOMATAL MOVEMENTS; A YEARLY RHYTHM.

G Seidman W B Riggan

Nature 217(5129):684-685

17 Feb 1968 472 N21

Air pollution, Annual plants, Barometric pressure, Biological clocks, Humidity, Light, Plant physiology, Plants, Stomata, Temperature.

18474-68

METABOLISM OF AMITROLE (3-AMINO-1,2,4-TRIAZOLE) IN RELATION TO THE DIFFERENTIAL SUSCEPTIBILITY OF CIRSIUM ARVENSE (L.) SCOP. ECOTYPES.

L W Smith

Diss Abstr Sect B 28(11):4450B

May 1968 Z5055.U49D53

Amitrole, Biochemistry, Cirsium arvense, Culture media, Kidney beans, Leaves, Light, Metabolites, Plant ecology, Plant hardiness, Plant metabolism, Plant physiology, Plant translocation, Temperature.

18475-68

ON A MECHANISM OF FUNGICIDAL ACTION OF SURFACE-ACTIVE AGENTS. (RUS)

S S Stroeve N P Elinov

Microbiol Espan 36(3):451-455

May 1967 448.3 M583

Candida albicans, Fungicides, Surface-active agents, Toxicology. English and russian abstract

Abstract

18476-68

NOTICE OF FILING OF PETITION REGARDING PESTICIDE CHEMICALS. KIRK, J K.

Fed Regist 33(201):15309

15 Oct 1968 L1.451

Biochemistry, Chemicals, Colorimetry, Cottonseed, Pesticide residues, Pesticides, Sorghum, Soybeans, Spinach, Sugarcane.

18477-68

STROMATAL RIND FORMATION IN THE BROWN ROT FUNGI.

H J Willetts

J Gen Microbiol 52(2):271-273

Jul 1968 448.3 J823

Electron microscopy, Fungus diseases (plants), Plant morphology, Plant physiology, Sclerotinia fructicola.

Abstract

BIBLIOGRAPHY

18478-68

NUTRITIONAL REQUIREMENTS OF A TOMATO TISSUE CULTURE: GROWTH PROMOTING FACTORS FROM PEAS.

S S Witherell

Diss Abstr Sect B 28(11):4453B

May 1968 Z5055.U49D53

Agar, Biochemistry, Extracts, Inositol, Peas, Plant nutrition, Plant physiology, Plant regulators, Tissue culture, Tomatoes, Water.

18479-68

THE STUDY OF THE EFFECT OF AMITROL ON THE RESPIRATION AND ACTIVITY OF SOME ENZYMES IN POPPY PLANTS (PAPAVER SOMNIFERUM L.).

J Zemanek J Ambrozova

Biol Plant 9(4):270-275

1967 450 B52

Amitrole, Biochemistry, Enzymes, Herbicides, Papaver, Papaver somniferum, Respiration. Czechoslovakian and Hebrew summaries

18480-68

THE EFFECT OF HORMONAL HERBICIDES ON THE RADICAL BUDS OF CIRSIUM ARVENSE SCOP. (RUS)

N M Zhirmunskaya

Bot Zhur (moscow) 53(6):841-844 REF

1968 451 R923

Cirsium arvense, Herbicides, Plant hormones, Plant protection.

18481-68

EFFECT OF 3-INDOLEACETIC ACID ON PHOSPHOLIPID MEMBRANE COMPONENTS OF AVENA COLEOPTILES.

R P Zimmerer

Diss Abstr Sect B 29(1):77B

Jul 1968 Z5055.U49D53

Biochemistry, Chromatography, Corn, Indoleacetic acid, Oats, Phospholipids, Pisum sativum, Plant translocation, Tissues.

CHEMISTRY

18482-68

GEL PERMEATION CLEANUP FOR MALATHION IN WHEAT, USING A NON-IONIC, CROSS-LINKED POLYSTYRENE POLYMER.

N L Aker S H Schandler N C Leeling

Ass Offic Anal Chem J 51(4):888-892 REF

Jul 1968 381 AS7

Extracts, Gels, Malathion, Styrene polymers, Wheat.

18483-68

GAS CHROMATOGRAPHIC DETECTOR FOR SIMULTANEOUS SENSING OF PHOSPHORUS AND SULFUR-CONTAINING COMPOUNDS BY FLAME PHOTOMETRY.

M C Bowman M Beroza

Anal Chem 40(10):1448-1455

Aug 1968 381 J825A

Chemistry, Chromatography, Molecules, Phosphorus compounds, Photometry, Sulfur compounds.

18484-68

LOW TEMPERATURE IRRADIATION APPLIED TO NEUTRON ACTIVATION ANALYSIS OF MERCURY IN HUMAN WHOLE BLOOD.

D Brune

*Oikos (SUP.9):*12

1967 410 O14

Blood chemistry, Distillation, Ion exchange, Irradiation, Mercury, Neutron activation analysis, Temperature.

18485-68

PLANT HORMONES-V. THIN-LAYER AND GAS-LIQUID CHROMATOGRAPHY OF THE GIBBERELLINS; DIRECT IDENTIFICATION OF THE GIBBERELLINS IN A CRUDE PLANT

EXTRACT BY GAS-LIQUID CHROMATOGRAPHY.

B D Cavell J MacMillan R J Pryce A C Sheppard

Phytochemistry 6(6):867Q874

Jun 1967 450 P5622

Chromatography, Esters, Extracts, Gibberellins, Plant hormones, Scarlet runner beans.

18486-68

INFRARED STUDIES OF ETHYLENE CHLOROHYDRIN.

J T Chen J H Gould

Ass Offic Anal Chem J 51(4):878-882 REF

Jul 1968 381 AS7

Ethylene chlorohydrin, Hydroponics, Infrared spectra, Vapors.

18487-68

SEASONAL VARIATION IN THE CONCENTRATION OF CAESIUM-137 IN GRASS AND ALFALFA.

S Csupka M Petrasova J Carach

Nature 213(5082):1204-1206 REF

25 Mar 1967 472 N21

Alfalfa, Cesium isotopes, Climate, Grasses, Radioactive contamination, Radiochemistry.

18488-68

THE STATISTICAL DESCRIPTION OF A SPRAY IN TERMS OF DROP VELOCITY, SIZE, AND POSITION.

J F Groeneweg

Diss Abstr Sect B 28(11):4593B-4560B

May 1968 Z5055.U49D53

Assay, Fluorescence, Measurement, Particle size determination, Photography, Spraying, Statistical methods, Temperature, Velocity.

18489-68

ISOLATION, IDENTIFICATION, PURIFICATION, AND BIOLOGICAL PROPERTIES OF THE ANTIBIOTIC PHYTOACTIN.

A E Harvey

Diss Abstr Sect B 29(2):440B-441B

Aug 1968 Z5055.U49D53

Antibiotics, Biology, Chemistry, Phytoactin, Properties, Purification.

18490-68

HETEROCYCLICALLY SUBSTITUTED MONOHALOGENO-1,3,5-TRIAZINES. PATENT 3,407,201.

C Luetthi H R Biland M Scheilenbaum M

Duennenberger

Us Patent Office Offic Gaz 855(4):1045-1046

22 Oct 1968 156.65 OF2

Bactericides, Chemistry, Fungicides, Halogen compounds, Heterocyclic compounds, Patents, Triazines.

18491-68

QUALITATIVE IDENTIFICATION OF CHLORTETRACYCLINE AND OXYTETRACYCLINE IN FEEDS.

C T Smith

Ass Offic Anal Chem J 51(4):750-751

Jul 1968 381 AS7

Antibodies, Chlortetracycline, Color, Feed, Oxytetracycline.

18492-68

CHEMISTRY AND PHYSIOLOGIC ACTION OF THE ANTIBIOTIC PHYTOACTIN.

M F Stoner

Diss Abstr Sect B 28(8):3131B-3132B

Feb 1968 Z5055.U49D53

Biological assay, Fusarium, Glomerella cingulata, Phytoactin, Seed germination.

ENGINEERING

18493-68
ENGINEERING AND BIOLOGICAL ASPECTS OF DESIGNING AND USING A SELECTIVE FLAME WEEDER.

W F Lalor
Diss Abstr Sect B 29(1):152B
Jul 1968 Z5055.U49D53

Equipment, Heat, Measurement, Methodology, Research, Temperature, Weed burners, Weed control.

18494-68
SPEEDOMETER ADAPTED FOR FOG CALCULATIONS.

A G Mac Bain R Suhrbier E Holub
Pest Contr 36(7):22

Jul 1968 449.8 EX8
Equipment, Fog, Insecticide application, Spraying equipment, Tractors.

INDUSTRY

ECONOMICS

18495-68
PESTICIDES, THEIR USE AND MISUSE.
L G K Iverson
Amer Vet Med Ass J 151(12):1806-1809

15 Dec 1967 41.8 AM3
Accident prevention, Agricultural economics, Insect control, Pesticides.

REGULATIONS

18496-68
THE ORGANIZATION AND ACTIVITIES OF THE BUREAU OF VETERINARY MEDICINE, FOOD AND DRUG ADMINISTRATION.
C D Van Houweling
Amer Vet Med Ass J 151(12):1821-1827
15 Dec 1967 41.8 AM3
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