

# PESTICIDES DOCUMENTATION BULLETIN

Volume 5  
November 28, 1969  
Number 24

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

Note: Items subject to proprietary restriction will be suppressed when appropriate.

## AVAILABILITY OF REFERENCES CITED

### Search Requests

Each item appearing on magnetic tapes in the Pesticides Information Center is fully searchable on the computer. Questions submitted to the Center should fully describe all parameters of the desired information in narrative form.

Search requests may be submitted to:

U.S. Department of Agriculture  
National Agricultural Library  
PESTICIDES INFORMATION CENTER  
Beltsville, Maryland 20705

### Loans

Most of the material in the National Agricultural Library collection may be borrowed by employees of the Department of Agriculture and by other libraries. In requesting loans, please include the Library call number found with the citation. Loan of periodicals is restricted to the Washington, D.C. area. Foreign statistical publications and rare books are loaned only by special arrangement.

### Free Distribution

U.S.D.A. publications: Domestic requests for publications of the United States Department of Agriculture will be supplied free to libraries and other qualified agencies and organizations upon application to the United States Department of Agriculture, Office of Information, Washington, D.C. 20250, as long as the supply lasts. Foreign institutions, organizations and agencies which issue publications may obtain U.S.D.A. publications in exchange by writing to the United States Department of Agriculture, National Agricultural Library, Exchange Unit, Washington, D.C. 20250.

State Agricultural Experiment Station and Extension Service publications are available except where noted, and as long as the supply lasts, from the issuing station or service. The National Agricultural Library does not distribute them; however, reproductions are available at regular Library rates.

### Reproduction

All articles listed may be obtained in microfilm or photoprint form from the United States Department of Agriculture, National Agricultural Library, Photoduplication Section, Washington, D.C., 20250. Copying charges for each periodical or book are:

**MICROFILMS:** \$1.00 for each 30 pages or fraction copied from a single article or book.

**PHOTOPRINTS:** \$1.00 for each 4 pages or fraction copied from a single article or book.

**RUSH SERVICE:** Will be furnished upon payment of \$1.00 additional for each order.

Payment must accompany the order. Cash, Library coupons, check or money order drawn to the National Agricultural Library, U.S.D.A., are acceptable. Payment for orders originating outside of the United States should be made by American bank, or by UNESCO book coupons. Superintendent of Documents coupons and requests to furnish photocopy to be paid from Superintendent of Documents Deposit funds cannot be honored. Credit may be extended only to Government agencies and institutions. Billing address should be indicated.

### Magnetic Tape Files

The files of the *Pesticides Documentation Bulletin*, its Vocabulary, the *Herbicides Data*, and *INTREDIS* are available on magnetic tape for the IBM-360 series computer. All tapes are nine-track, 800 bpi.

Tape prices are \$60.00 for the first tape reel on an order plus \$47.50 for each additional reel of magnetic tape. Tape orders may be submitted to:

U.S. Department of Agriculture  
National Agricultural Library  
AUTOMATION STAFF  
Beltsville, Maryland 20705

### Library Coupons

National Agricultural Library coupons, valued at \$1.00 each, may be purchased in any quantity.

---

## 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.

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20402. \$32.00 per year, domestic; \$40.00 per year, foreign. Single copies vary in price.

## TABLE OF CONTENTS

BIBLIOGRAPHY (Citations)	<i>Page</i>
10 ENTOMOLOGY.....	1
Systematics.....	1
Physiology and Biochemistry.....	3
Genetics.....	7
Medical Entomology.....	8
20 CROP PROTECTION.....	8
Diseases.....	10
Arthropods.....	16
Nematodes.....	17
Weeds.....	17
Other Pests.....	18
30 LIVESTOCK PROTECTION.....	19
Diseases.....	19
Arthropods.....	22
Parasites.....	22
40 COMMODITY PROTECTION.....	23
Storage Diseases.....	*
Arthropods.....	23
Rodents and Other Pests.....	23
Microbial Contamination.....	23
50 ENVIRONMENTAL CONTAMINATION.....	23
55 RESIDUES.....	23
60 TOXICOLOGY.....	24
65 PLANT PHYSIOLOGY & BIOCHEMISTRY.....	24
70 CHEMISTRY.....	25
80 ENGINEERING.....	26
90 INDUSTRY.....	26
Economics.....	*
Education.....	*
Regulations.....	26
SUBJECT INDEX.....	27
BIOGRAPHICAL INDEX.....	91
AUTHOR INDEX.....	99
ORGANIZATIONAL INDEX.....	103

\*This issue does not contain citations under this category.

Note: Mention of a company name or a proprietary product does not necessarily imply endorsement by the U.S. Department of Agriculture, NATIONAL AGRICULTURAL LIBRARY, PESTICIDES INFORMATION CENTER.



## BIBLIOGRAPHY

### ENTOMOLOGY

14118-69

STUDIES ON THE BIOLOGY AND CONTROL OF SOGATELLA FURCIFERA HORV. (DELPHACIDAE: HOMOPTERA) IN THE PUNJAB.

A S Atwal J P Chaudhary B S Sohi  
*Punjab Agr Univ J Res* 4(4):547-555 REF  
Dec 1967 S19.P8

Biology, Chemical control (insects), Histology, Insect morphology, Insect rearing, Laboratories, Sogatella.

14119-69

AN APPARATUS FOR DISPENSING HOUSE FLY EGGS MECHANICALLY.

A S Perry  
*J Econ Entomol* 61(4):1112-1113  
15 Aug 1968 421 J822

Autoclaves, Equipment, Illustrations, Insect control, Insect dissemination, Insect eggs, Measurement, Mechanization, Musca domestica, Research.

14120-69

IMPORTANT FOREST INSECTS OF ONTARIO IN 1966.

A H Rose  
*Entomol Soc Ontario Proc* 97:8-10  
1966 420 ON8

Entomology, Forest insects, Insect control, Research, Sampling (statistics), Spraying.

14121-69

EFFECT OF POPULATION DENSITY ON THE LARVAL COLORATION AND DEVELOPMENT OF LARVA AND PUPA IN THE LARGER PELUCID HAWK MOTH, CEPHONODES HYLAS L. (LEPIDOPTERA: SPHINGIDAE). (JA)

M Sasakawa S Yamazaki  
*Jap J Appl Entomol Zool* 11(4):157-163  
Dec 1967 475 J27

Color, Gardenia, Insect morphology, Insect pests, Mortality, Population, Research, SpHINGIDAE. English summary

14122-69

RELATIVE EFFICACY OF DIFFERENT INSECTICIDES, AS CONTACT POISONS, TO THE LARVAE OF THE DIAMOND-BLACK MOTH, PLUTELLA MACULIPENNIS CURTIS (LEPIDOPTERA: PLUTELLIDAE).

A N Verma G S Sandhu  
*Punjab Agr Univ J Res* 4(4):556-559  
Dec 1967 S19.P8

Chemicals, Insecticides, Laboratories, Plutella maculipennis, Tables (data), Toxicology.

### SYSTEMATICS

14123-69

REVISION OF INDO-PAKISTAN PARISOMIAS FAUST (COLEOPTERA, CURCULIONIDAE) WITH SOME NOTES ON LEPTOMIAS FAUST.

N A Aslam  
*Ann Mag Natur Hist* 3(4,OCT-DEC):543-560  
Dec 1969 410 AN77

Collembola, Curculionidae, Insect histology, Insect physiology, Insect taxonomy, Oogenesis, Parthenogenesis, Zoogeography.

14124-69

RAPHIDIIDAE (INSECTA, NEUROPTERA). 154. CONTRIBUTION TO THE SERIES RESULTS OF THE ZOOLOGICAL INVESTIGATIONS OF DR. Z. KAZAB IN MONGOLIA. (DU)

H Aspöck U Aspöck  
*Entomol Ber* 28(6):115-120  
01 Jun 1968 420 N38B

Insect taxonomy, Neuroptera, Zoogeography. English abstract

14125-69

BRUCHID BEETLES (COLEOPTERA, BRUCHIDAE) FROM THE MEGRI DISTRICT OF ARMENIA.

B A Bagdasaryan

*Entomol Rev* 46(4,OCT-DEC):475-477 REF  
Dec 1967 421 R322AE

Bruchidae, Catalogs, Host relationships, Insect taxonomy, Plant taxonomy. Russian journal pp. 805-807

14126-69

A SURVEY OF THE DISTRIBUTION AND PRESENT STATUS OF THE WOOD ANT, FORMICA RUFA L. (HYM., FORMICIDAE) IN ENGLAND AND WALES.

K E J Barrett  
*Soc Brit Entomol Trans* 17(8):218-233,MAP REF  
Mar 1968 420 SO15

Formica rufa, Formicidae, Statistical distributions, Zoogeography.

14127-69

CONTRIBUTION TO THE KNOWLEDGE OF THE NEOTROPICAL ORIBATID FAUNA. 5. ARCHEGOZETES. (ARACH., ACARI). (GE)

L Beck  
*Senckenb Biol* 48(5-6):407-414  
22 Dec 1967 410.9 SE5

Insect taxonomy, Oribatei, Zoogeography.

14128-69

A NEW SPECIES OF ICHNEUMONIDAE FROM RUMANIA. (GE)

M J Constantineanu  
*Deut Entomol Ges Mitt* 20(1):14-16  
15 Feb 1961 420 D482

Ichneumonidae, Taxonomy, Zoogeography.

14129-69

AN INDEX-CATALOGUE OF THE GENUS-GROUP NAMES OF ORIENTAL AND AUSTRALASIAN TACHINIDAE (DIPTERA) AND THEIR TYPE-SPECIES.

R W Crosskey  
*Brit Mus (natur Hist) Entomol Bull Suppl* 20(1):1-39  
1967 420 B773

Catalogs, Insect taxonomy, Tachinidae, Zoogeography.

14130-69

CONTRIBUTION TO THE KNOWLEDGE OF THE GENUS SAPRINUS (COL. HISTERIDAE). II. (GE)

G Dahlgren  
*Opusc Entomol* 33(1-2):82-94  
1968 421 OP7

Catalogs, Histeridac, Insect taxonomy, Zoogeography.

14131-69

SPHECIDAE OF THE CANARY ISLANDS (HYMENOPTERA). (FR)

J De Beaumont  
*Brit Mus (natur Hist) Entomol Bull Suppl* 21(5):247-278 REF  
1968 420 B773

Catalogs, Insect taxonomy, Sphccidae. English abstract

14132-69

THE EXISTENCE OF BARK BORERS IN BERLIN (LEPID.). (GE)

H Dorfmann  
*Deut Entomol Ges Mitt* 19(1):17-19 REF  
15 Feb 1960 420 D482

Bark, Lepidoptera, Surveys, Zoogeography.

14133-69

QUASIHESMA--A NEW GENUS OF AUSTRALIAN BEES (APOIDEA: COLLETIDAE).

E M Exley  
*Australian J Zool* 16(2):227-235  
May 1968 410 AU73

Catalogs, Colletidae, Insect taxonomy.

14134-69

REVISION OF THE GENUS EURYGLOSSELLA COCKERELL (APOIDEA: COLLETIDAE).

E M Exley  
*Australian J Zool* 16(2):219-226

May 1968 410 AU73

Catalogs, Colletidae, Insect taxonomy.

14135-69

REVISION OF THE GENUS EURYGLOSSULA MICHENER (APOIDEA: COLLETIDAE).

E M Exley  
*Australian J Zool* 16(2):203-217  
May 1968 410 AU73

Catalogs, Colletidae, Insect taxonomy.

14136-69

A NOTE ON THE NEW SPECIES OF SPHEGIGASTER SPIN. (CHALCIDOIDAE, PTEROMALIDAE). (FR)

C Ferriere  
*Deut Entomol Ges Mitt* 18(6):97-99  
15 Dec 1959 420 D482

Chalcidoidea, Insect identification, Insect taxonomy, Pteromalidae.

14137-69

GEOTACTIC RESPONSE OF THE TWO-SPOTTED SPIDER MITE. TETRANYCHUS URTICAE KOCH (ACARINA: TETRANYCHIDAE).

W H Foott  
*Entomol Soc Ontario Proc* 95:106-108  
1964 420 ON8

Greenhouses, Habitats, Hibernation, Insect behavior, Research, Tetranychus urticae.

14138-69

ORIBATID MITE FAUNA IN SAROBETSU MOOR IN NORTHERN HOKKAIDO, JAPAN. (JAP)

T Fujikawa  
*Jap J Appl Entomol Zool* 12(1):29-33  
Mar 1968 475 J27

Agricultural research, Insect ecology, Mites, Moors, Oribatei, Population, Soil biology, Statistical distributions, Zoogeography. English summary

14139-69

NOTES ON THE GENUS SCHYZOPS SPINOLA, 1837 (PHYLLOCEPHALINAE, PENTATOMOIDEA, HETEROPTERA). MARITIMA (GUER.).

M S K Ghauri  
*Ann Mag Natur Hist* 3(4,OCT-DEC):597-602  
Dec 1969 410 AN77

Collembola, Head, Insect eggs, Insect histology, Insect physiology, Insect taxonomy, Pentatomidae, Zoogeography.

14140-69

FURTHER NOTES ON ICELANDIC AGROMYZIDAE (DIPT.).

G C D Griffiths  
*Opusc Entomol* 33(1-2):129-138  
1968 421 OP7

Agromyzidae, Catalogs, Insect taxonomy, Liriomyza, Phytomyza.

14141-69

ISOPTERA FROM VIETNAM, CAMBODIA AND THAILAND.

W V Harris  
*Opusc Entomol* 33(1-2):143-154  
1968 421 OP7

Catalogs, Insect taxonomy, Termites.

14142-69

ADVANCES AND PROBLEMS OF APPLIED ENTOMOLOGICAL STUDIES IN AGRICULTURE AND FORESTRY. (JA)

H Ishikura  
*Kontyu* 35(3):259-266 REF  
Sep 1967 421 K833

Agriculture, Economic entomology, Forestry.

14143-69

A NOTE ON THE GENUS PSEUDATHYMA STAUDINGER WITH DESCRIPTION OF A NEW SPECIES (LEPIDOPTERA: NYMPHALIDAE).

T H E Jackson  
*Ann Mag Natur Hist* 3(4,OCT-DEC):493-496  
Dec 1969 410 AN77

14144-69

Biophysics, Foot-and-mouth disease virus, Insect taxonomy, Methodology, Nymphalidae, Polyethylene glycol, Zoogeography.

14144-69

A STUDY OF THE POPULATION OF INSECTS EMERGING AS ADULTS FROM SPETTIGUE'S POND AT LONDON, ONTARIO.

W W Judd

*Entomol Soc Ontario Proc* 97:90-98

1966 420 ON8

Insect names, Insect taxonomy, Larvae, Population, Research, Statistical analysis, Traps.

14145-69

DRAGONFLY CATCHES FROM THE GIFFHORN AREA (A CONTRIBUTION TO THE ODONATA FAUNA OF LOWER SAXONY). (GE)

G Jurzitza

*Entomol Z*

01 Sep 1969 421 EN85

Odonata, Surveys, Zoogeography.

14146-69

THE PRESENT DISTRIBUTION OF HYLOTROPUS BAJULUS L. (COL., CERAMBYCIDAE) IN NORWAY AND ITS ABUNDANCE IN SOME DISTRICTS.

P Knudsen A Bakke

*Norsk Entomol Tidsskr* 14(2):94-102, MAP REF

1967 421 N812

Cerambycidae, Houses, Hylotropus bajulus, Population, Zoogeography.

14147-69

LAMELLAREA, A NEW ORIBATID GENUS (ACARI) FROM SOUTH AFRICA.

O B Kok

*Acarologia* 10(4):711-724

Dec 1968 434.8 AC1

Insect taxonomy, Lamellarea, Oribatei.

14148-69

TWO NEW ORIBATID MITES FROM SOUTH AFRICA (ORIBATEI, ACARI).

O B Kok

*Acarologia* 10(4):696-710

Dec 1968 434.8 AC1

Insect taxonomy, Oribatei.

14149-69

LEAF BEETLE LARVAE OF THE SUBFAMILY EUMOLPINAE AND OF SYNETA BETULAE F. (COLEOPTERA, CHRYSOMELIDAE).

G F Kurcheva

*Entomol Rev* 46(1 JAN-MAR):132-137 REF

Mar 1967 421 R322AE

Catalogs, Chrysomelidae, Insect morphology, Insect taxonomy, Larvae, Zoogeography.

14150-69

A NEW SUB-GENUS OF TETRALOBUS (COLEOPTERA ELATERIDAE). (FR)

L Laurent

*Gembloux Inst Agron Etat Bull* 3(2):328-330

1968 105.1 G285

Elateridae, Insect taxonomy. English abstract

14151-69

THE OCCURENCE OF ECTOEDEMA LIBWERDELLA ZIMM. IN WESTERN GERMANY (LEPIDOPTERA, NEPTICULIDAE). (GE)

E Lindner

*Deut Entomol Ges Mitt* 18(1):7-8

15 Feb 1959 420 D482

Lepidoptera, Nepticulidae, Taxonomy, Zoogeography.

14152-69

THE ICELANDIC FORM OF CARABUS PROBLEMATIUS HBST. (COL. CARABIDAE). A STATISTIC TREATMENT OF SUBSPECIES.

C H Lindroth

*Opusc Entomol* 33(1-2):157-182 REF

1968 421 OP7

Carabidae, Insect taxonomy, Statistics, Zoogeography.

14153-69

CONTRIBUTION TO THE KNOWLEDGE OF COLOMBIAN FAUNA OF THE CICADEL-LIDAE. (SP)

R Linnavuori

*Agr Trop* 24(3):147-156

Mar 1968 26 AG8

Cicadellidae, Insect taxonomy.

14154-69

THE INSECT FAUNA IN THE BURROWS OF THE LONG-CLAWED MOLEVOLE, A CAUCASIAN ENDEMIC SPECIES.

Yu A Lyayster

*Entomol Rev* 46(1 JAN-MAR):111-120 REF

Mar 1967 421 R322AE

Catalogs, Coleoptera, Diptera, Field mice, Hymenoptera, Insect ecology, Siphonaptera, Surveys, Symbiosis.

14155-69

A FURTHER REPRESENTATIVE OF THE SUBSPECIES BETULOXYS MACKAUER (HYMENOPTERA: BRACONIDAE, APHIDIINAE). (GE)

M Mackauer

*Deut Entomol Ges Mitt* 19(6):96-98

15 Dec 1960 420 D482

Braconidae, Hymenoptera, Insect identification, Taxonomy, Trioxyds.

14156-69

ON THE DIAGNOSTICS OF CERTAIN SPECIES OF SPRINGTAILS OF THE GENERA FOLSOMIA WILLEM AND PSEUDOFOLSOMIA GEN. NOV. (COLLEMBOLA, ISOTOMIDAE) RECORDED IN THE MIDDLE VOLGA REGION.

Ye F Martynova

*Entomol Rev* 46(4, OCT-DEC):501-504

Dec 1967 421 R322AE

Catalogs, Insect taxonomy, Isotomidae. Russian journal pp. 845-849

14157-69

CONTRIBUTIONS TO THE KNOWLEDGE OF THE HELEIDE FAUNA (DIPT. NEMAT.) OF BERLIN. (GE)

U V Neindorff

*Deut Entomol Ges Mitt* 18(2):31-35

15 Apr 1959 420 D482

Attractants, Ceratopogonidae, Diptera, Foreponmyia, Light traps, Parasitism, Research, Taxonomy, Zoogeography.

14158-69

A NEW SPECIES OF ACMAEODERA (COLEOPTERA, BUPRESTIDAE).

G H Nelson

*Coleopt Bull* 21(2):57-58

Jun 1967 421 C674

Buprestidae, Ceanothus, Cuticle, Insect identification, Insect taxonomy, Research.

14159-69

THE INDO-AUSTRALIAN SPECIES OF THE ULTOR-GROUP OF APANTELES FORSTER (HYMENOPTERA: BRACONIDAE).

G E J Nixon

*Brit Mus (natur Hist) Entomol Bull Suppl*

21(1):3-34 REF

1967 420 B773

Braconidae, Catalogs, Insect taxonomy, Zoogeography.

14160-69

THE RHAPHIDOPHORIDAE (ORTHOPTERA) OF AUSTRALIA. PART 7. PALLIDOTETTIX, A NEW GENUS FROM THE NULLARBOR PLAIN, SOUTH-WESTERN AUSTRALIA.

A M Richards

*Linnean Soc New South Wales Proc* 93(416, PT 1):46-51 MAP

19 Nov 1968 514 SY2

Insect taxonomy, Orthoptera, Zoogeography.

14161-69

A NEW SPECIES OF TERTIARY WATER BUG FROM THE BECHLEJOVICE DIATOMITES (HETEROPTERA, BELOSTOMATIDAE). (GE)

P Riha J Kukulova

*Acta Ent Bohemoslov* 64(4):259-260

20 Jul 1967 420 C33

Belostomatidae, Insect taxonomy, Paleontology, Tertiary period. English and Czech abstracts

14163-69

PHYCITINAE FROM TURKEY AND GREECE (LEP., PYRALIDAE). (GE)

U Roesler

*Entomol Z* 79(18):197-210

15 Sep 1969 421 EN85

Phyeitidae, Surveys, Zoogeography.

14163-69

IDENTITY OF INSTARS OF APTEROUS VIVIPARAE OF RHOPALOSIPHUM FITCHII (ANDERSON) AND TOXOPTERA GRAMINUM (RONDANI), (APHIDIDAE, HOMOPTERA).

D L Sana J T Schulz

*Pakistan J Sci Res* 19(2-3, APR-JUL):108-112

Jul 1967 475 P173

Aphididae, Insect identification, Insect taxonomy, Larvae, Rhopalosiphum fitchii, Toxoptera graminum, Viviparity.

14164-69

RHYPAROCHROMINAE TYPES IN THE BRITISH MUSEUM (NATURAL HISTORY) (HEMIPTERA: LYGAEIDAE).

G G E Scudder

*Brit Mus (natur Hist) Entomol Bull Suppl*

20(6):253-285

1967 420 B773

Catalogs, Insect taxonomy, Lygaeidae, Museums.

14165-69

IDENTIFICATION LIST. 5. (FR)

*Entomophaga* 8(4):335-373

1963 421 EN835

Diptera, Hymenoptera, Insect pests, Parasitic insects. Host/parasite and parasite host lists.

14166-69

COMMUNICATION REGARDING THE EXISTENCE OF CIDARIA (SUBGEN. CALOSTIGIA) MULTISTRIGARIA HW. ON THE KAISERSTUHL MOUNTAIN IN BADEN. (GE)

L Settele

*Entomol Gesell Basel* 14(6, NOV-DEC):162

Dec 1964 QL461.E58

Breeding, Butterflies, Caterpillars, Food, Galium, Insect taxonomy, Salix caprea.

14167-69

A NEW SPECIES OF THE GENUS HETEROTHOPS STEPH. FROM CZECHOSLOVAKIA (COL., STAPHYLINIDAE). (GE)

A Smetana

*Acta Ent Bohemoslov* 64(6):466-471 REF

20 Nov 1967 420 C33

Insect taxonomy, Staphylinidae, Zoogeography. English and Czech abstracts

14168-69

A SECOND CEPHALOTHrips SPECIE IN GERMANY (INS., THYSANOPTERA, PHLAEOTHripidae). (GE)

R Z Strassen

*Senckenb Biol* 48(5-6):357-359

22 Dec 1967 410.9 SE5

Insect taxonomy, Phlaeothripidae.

14169-69

CONTRIBUTION TO THE FAUNA OF THE CONGO (BRAZZAVILLE). MISSION A. VILLIERS AND A. DESCARPENTRIES. XLVII. HOMOPTERA CERCOPIDAE AND FULGOROIDEA. (FR)

H Synave

*Inst Fondamental Afr Noire Bull Ser A Sci Natur*

9(1):347-369

Jan 1967 515 D14

Catalogs, Cercopidae, Homoptera, Insect taxonomy, Zoogeography.

14170-69

A COMPARATIVE STUDY OF GASTRIC CAECA IN ADULT AND LARVAL STAGES OF BARK BEETLES (COLEOPTERA: SCOLYTIDAE).

J B Thomas

*Entomol Soc Ontario Proc* 97:71-90

1966 420 ON8

Insect anatomy, Insect behavior, Insect histology, Insect names, Larvac, *Metanastes vulgivagus*, Research, Taxonomy.

14171-69

CONIOPTERYX REMOTA BANKS, FURTHER DESCRIPTION AND LECTOTYPE DESIGNATION (NEUROPTERA, CONIOPTERYGIDAE).

B Tjeder

*Opusc Entomol* 33(1-2):155-156

1968 421 OP7

Borneo, Coniopterygidae, Indonesia, Insect taxonomy, Zoogeography.

14172-69

ENDOPHYTUS ANEMONES (HERING) IN FINLAND (HYM., TENTHREDINIDAE).

V Vikberg

*Suomen Hyonteistieteellinen Aikakauskirj Ann*

*Entomol Fenn* 33(4):265-268 REF

20 Dec 1967 421 SU7

Tenthredinidae, Zoogeography.

14173-69

WHAT IS DASYSCTYUS SORDIDUS FIEBER 1864 (HEM. HET. MIRIDAE). (GE)

E Wagner

*Deut Entomol Ges Mitt* 19(6):98-101

15 Dec 1960 420 D482

Hemiptera, Heteroptera, Insect identification, Insect taxonomy, Miridae.

14174-69

REMARKS CONCERNING SOME SPECIES OF SPIDER WASPS (HYM. POMPILOIDAE)(2.). (GE)

H Wolf

*Deut Entomol Ges Mitt* 19(3):46-51 REF

15 Jun 1960 420 D482

Hymenoptera, Insect identification, Pompilidae, Taxonomy.

14175-69

REMARKS CONCERNING SOME SPECIES OF WASPS (HYM. POMPILOIDAE) (3.). (GE)

H Wolf

*Deut Entomol Ges Mitt* 20(2):27-32

15 Apr 1961 420 D482

Hymenoptera, Insect identification, Pompilidae, Taxonomy.

14176-69

CONCERNING SOME WEST GERMAN BEES AND DIGGER WASPS (HYM. APOIDEA, SPHECOIDEA). (GE)

H Wolf

*Deut Entomol Ges Mitt* 18(1):11-16 REF

15 Feb 1959 420 D482

Apoidea, Bees, Hymenoptera, Sphecidae, Taxonomy, Zoogeography.

## PHYSIOLOGY AND BIOCHEMISTRY

14177-69

SLEEP IN MOTHS AND ITS DEPENDENCE ON THE FREQUENCY OF STIMULATION IN ANAGASTA KUEHNIELLA.

F S Andersen

*Opusc Entomol* 33(1-2):15-24

1968 421 OP7

Anagasta kuehniella, Demography, Insect migration, Insect physiology, Sleep.

14178-69

A CHANGE OF FEEDING HABIT IN ARCHIPS CERASIVORANA (FITCH) (LEPIDOPTERA, TORTRICIDAE).

C E Atwood

*Entomol Soc Ontario Proc* 97:115-116

1966 420 ON8

Archips cerasivoranus, Feeding, Food plants, Insect behavior, *Prunus virginiana*, Research.

14179-69

THE EFFECT OF SODIUM REPLACEMENT ON THE ELECTRORETINOGRAM RECORDED FROM THE COCKROACH OCELLUS.

M W Atwood

*J Insect Physiol* 15(10):1887-1896 REF

Oct 1969 421 J825

*Blaberus craniifer*, Choline, Electron microscopy, Electroretinograms, Insect physiology, Leaves, Nerves, Ocelli, Plant cytology, Plastids, Sodium, Sucrose, Tobacco, Tobacco mosaic virus, Virus diseases (plants).

14180-69

USE OF A NON-ABSORBENT BARRIER IN REARING PUPAE.

C R B Baker

*Entomologist (london)* 102(1269):39

Feb 1969 421 EN8

Arctidae, Humidity, Insect rearing equipment, Mortality.

A non-absorbent material is described for use in rearing *Spilosoma lubricipeda* and *S. lutea*. The material decreased the mortality of pupae by maintaining a constant humidity over a six month storage period.

14181-69

ULTRASTRUCTURAL MODIFICATIONS OF THE SECRETION CELLS OF THE PROTHORACIC GLAND TO THEMSELVES DURING THE LAST TWO LARVAL STAGES. I. THE CHONDRIOSOME, AND ITS RELATIONSHIP WITH THE GRANULAR RETICULUM. (FR)

J A Beaulaton

*J Cell Biol* 39(3):501-525 REF

Dec 1968 442.8 J828

*Bombyx mori*, Cytology, Deoxyribonucleic acid, Glands (insects), Insect physiology, Mitochondria. English abstract

14182-69

CONTINUOUS AND RHYTHMIC REPRODUCTIVE CYCLE OBSERVED IN PERIPLANETA AMERICANA (L.).

W J Bell

*Biol Bull* 137(2):239-249 REF

Oct 1969 442.8 B52

Electrophoresis, Insect biochemistry, Insect biology, Oogenesis, *Periplaneta americana*, Proteins, Reproduction.

14183-69

DESIGN AND MAINTENANCE OF BEEHIVES.

F S Beneck

*Agr Gaz New S Wales* 78(PT 4):214-220

Apr 1967 23 N472

Apiaries, Apiculture, Construction materials.

14184-69

ELECTRON MICROSCOPY OF SPINDLE-SHAPED INCLUSION VIRUSES OF COLEOPTERA. (FR)

M Bergoin G Devauchelle J-L Duthoit C Vago

*Acad Sci Compt Rend Ser D Sci Nat* 266(20, 1ST SEMESTER):2126-2128 REF

13 May 1968 505 P21

Coleoptera, Electron microscopy, Insect diseases, Scarabaeidae, Viruses.

14185-69

DNA-MEASUREMENTS IN INSECTS AND A HYPOTHESIS CONCERNING RETARDED EVOLUTION AND ESPECIALLY HIGH DNA CONTENT IN THE ANIMAL KINGDOM. (GER)

K Bier W Muller

*Biol Zentralbl* 88(4 JUL-AUG):425-449 REF

Aug 1969 442.8 B523

Animals, Deoxyribonucleic acid, Disease transmission, Evolution, Insect biochemistry, Insect physiology, Insect vectors, *Onchocerciasis*, Physiology, *Simulium damnosum*, Spectrophotometry.

14186-69

AZIRIDINYL CHEMOSTERILANTS FOR HOUSE FLIES.

A B Borkovec R L Fye G C LaBrecque

*USDA Prod Res Rep* (129):60P REF

Oct 1968 A281.9 AG8

Biological control (insects), Chemical control (insects), Chemical reactions, Chemosterilants, Ethylenimine, *Musca domestica*, Reproduction, Tables (data).

14187-69

SOME PHASE CHARACTERISTICS OF THE SOUTHERN AFRICAN FORM OF THE DESERT LOCUST (SCHISTOCERCA GREGARIA (FORMOSKAL)).

D H Botha

*S Afr J Agr Sci* 10(1):61-76 REF

Mar 1967 24 SU3

Insect behavior, Insect taxonomy, *Schistocerca gregaria*, Zoogeography.

14188-69

THE VIABILITY OF BROWN LOCUST EGGS (LOCUSTANA PARDALINA (WALKER)).

D H Botha

*S Afr J Agr Sci* 10(2):445-460

Jun 1967 24 SU3

Acrididae, Eggs, Environment, Insect ecology, *Locustana pardalina*, Mortality, Population.

14189-69

INSECT VISCERAL MUSCLE: NEURAL RELATIONS OF THE PROCTODEAL MUSCLES OF THE COCKROACH.

B E Brown T Nagai

*J Insect Physiol* 15(10):1767-1783 REF

Oct 1969 421 J825

Bacteriology, Brucellosis, Diagnosis, Electrophysiology, Insect physiology, Methodology, Muscles, Nerves, *Periplaneta americana*, Serological tests. English and Spanish abstracts.

14190-69

PHYSIOLOGICAL GENETICS OF MELANOTIC TUMORS IN DROSOPHILA MELANOGASTER. VI. THE TUMORIGENIC EFFECTS OF JUVENILE HORMONE-LIKE SUBSTANCES.

P J Bryant J H Sang J Kradel

*Genetics* 62(2):321-336 REF

Jun 1969 442.8 G28

Chromatophores, *Drosophila melanogaster*, Hormones, Insect genetics, Insect physiology, Methodology, Pesticide application, Soil fumigation, Tumor cells. English abstract.

14191-69

HISTOCHEMICAL DATA ON THE CARDIAC BODIES OF ANTHERAEA PERNYI GUER. (LEPIDOPTERA, ATTACIDAE) AND OF RHODNIUS PROLIXUS STAL. (HEMIPTERA, REDUVIIDAE). (FR)

M Busselet

*Acad Sci Compt Rend Ser D Sci Nat* 266(24, 1ST SEMESTER):2280-2282 REF

10 Jun 1968 505 P21

*Antheraea pernyi*, Dorsal vessel, Histochemistry, Insect physiology, Reduviidae.

14192-69

THE ULTRASTRUCTURE AND ELECTROPHYSIOLOGY OF THE MEMBRANOUS LOBE OF THE ANTENNA IN SPEOPHYCES LUCIDULUS LARVAE (COLEOPTERA). (FR)

G Corbiere J Gervet

*J Insect Physiol* 15(10):1759-1765 REF

Oct 1969 421 J825

Antennae, Chemoreceptors, Coleoptera, Electron microscopy, Electrophysiology, Insect behavior, Insect nests, Larvae, Reproduction, Sphecidae. English abstract.

14193-69

**A SEROLOGICAL COMPARISON OF SOME IRIDESCENT NON-OCCLUDED INSECT VIRUSES.**

J C Cunningham T W Tinsley  
*J Gen Virol* (3,PT 1):1-8 REF  
 Jul 1968 QR360.A1J6

Agar, Antigens, Galleria mellonella, Insect diseases, Pieris brassicae, Porthetria dispar, Scricesthis iridescent virus, Serological tests, Tipula iridescent virus.

14194-69

**DESIGN OF HONEY HOUSES--CENTRAL AND MOBILE.**

N A Cutts  
*Agr Gaz New S Wales* 78(PT 10):570-575  
 Oct 1967 23 N472

Apiaries, Apiculture, Construction materials, Honey, Processing.

14195-69

**EFFECT OF THE VENOM OF THE BLACK WIDOW SPIDER, LATRODECTUS MACTANS TREDECINGUTTATUS, ON EVOKED ACTION POTENTIALS IN THE ISOLATED NERVE CORD OF PERIPLANETA AMERICANA.**

V D'Ajello A Mauro S Bettini  
*Toxicon* 7(2):139-144  
 Sep 1969 391.8 T66

Bio-electric potential, Insect physiology, Latrodectus mactans, Methodology, Nerves, Periplaneta americana, Pesticide application, Soil fumigation, Venoms. English abstract.

14196-69

**ESSENTIALS IN PEST CONTROL.**

B Y Deshpande  
*Pesticides* 1(9):17-18  
 May 1968 SB951.P43

Agricultural education, Ecology, Insect biology, Insect pests, Insecticides, Livestock, Medical entomology, Plant pest control.

14197-69

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

P E Ellis D B Carlisle  
*Science* 162(3860):1393-1394 REF  
 20 Dec 1968 470 SC12

Acrididae, Cells, Dosage, Hormones, Injections, Insect physiology, Olive oil, Research, Schistocerca gregaria.

14198-69

**STUDIES ON A TREHALASE FROM A SYMBIONT OF THE TROPICAL COCKROACH, BLABERUS CRANIIFER--A SUGGESTED ANALYTICAL ENZYME.**

F M Fisher R O McAlister  
*Biol Bull* 137(2):265-276 REF  
 Oct 1969 442.8 B52

Blaberus craniifer, Enzymes, Insect biochemistry, Proteins, Trehalase.

14199-69

**DEVELOPMENT AND DIAPAUSE IN INSECTS. (JA)**

M Fukaya  
*Kontyu* 35(3):221-230 REF  
 Sep 1967 421 K833

Deoxyribonucleic acid, Hormones, Insect genetics, Insect morphology, Insect physiology, Metamorphosis, Ribonucleic acid.

14200-69

**EXPERIMENTS ON NUCLEAR TRANSPLANTATION IN DROSOPHILA MELANOGASTER. PRELIMINARY REPORT.**

I Geyer-Duszynska  
*Rev Suisse Zool* 74(3):614-615  
 Dec 1967 410 R324

Cell nucleus, Drosophila melanogaster, Insect cytology, Larvae.

14201-69

**QUANTITATIVE ASPECTS OF INSECT NUTRITION.**

H T Gordon  
*Amer Zool* 8(1):131-138 REF  
 Feb 1968 410 AM3

Bioenergetics, Food consumption, Insect metabolism, Insect nutrition, Quantitative analysis.

The small size of insects is correlated with food consumption, growth and metabolic rates. Their high metabolic efficiency, short life cycle, high metabolic potential and rapid genetic adaptation and speciation is discussed.

14202-69

**PLICTRAN MITICIDE-NEW APPROACH TO MITE CONTROL.**

H E Gray  
*Down Earth* 23(4):3-5 SPRING  
 1968 381 D75

Acaricides, Chemical control (insects), Economics, Mites, Pesticide residues, Plants, Soils, Toxicology, Tricyclohexylhydroxytin.

14203-69

**EPIZOIC SYMBIOSIS.**

J L Gressitt  
*Entomol News (philadelphia)* 80(1):1-5  
 Jan 1969 421 EN88

Algae, Forests, Fungi, Habitats, Insect ecology, Lichenes, Rhynchophora, Symbiosis.

Symbiotic associations among cryptographic plants, oribatid mites, rotifers, nematodes and microorganisms living together on the backs of beetles, primarily weevils, from New Guinea are discussed ecologically. The relationship of high altitude and humidity and modifications of the hosts are reviewed.

14204-69

**HILARIA SARTOR BECKER, THE FLY WITH THE LITTLE VEIL AND ITS DANCE (DIPTERA). (GE)**

K Gruhl  
*Deut Entomol Ges Mitt* 21(3):43-46 REF  
 15 Jun 1962 420 D482

Anatomy, Diptera, Hilaria, Insect behavior, Physiology, Second continuation and conclusion from vol. 21 no. 1 and 2.

14205-69

**HILARIA SARTOR BECKER, THE FLY WITH THE LITTLE VEIL AND ITS DANCE (DIPTERA). (GE)**

K Gruhl  
*Deut Entomol Ges Mitt* 21(1):8-12  
 15 Feb 1962 420 D482

Anatomy, Diptera, Hilaria, Insect behavior, Physiology. To be continued

14206-69

**ON THE CROSS-INOCULATION OF CHILO IRIDESCENT VIRUS. CIV. (JAP)**

H Hama  
*Jap J Appl Entomol Zool* 12(1):34-39 REF  
 Mar 1968 475 J27

Chilo iridescent virus, Chilo suppressalis, Dendrolimus spectabilis, Galleria mellonella, Immunization, Insect diseases, Insect histology, Larvae, Pieris rapae crucivora, Viruses. English summary

14207-69

**ULTRASTRUCTURE OF THE ILEUM OF THE EUROPEAN CORN BORER, OSTRINIA NUBILALIS.**

M Hassemer S D Beck M Sugawara D Murayama  
*J Insect Physiol* 15(10):1791-1802  
 Oct 1969 421 J825

Electron microscopy, Gastrointestinal system, Insect physiology, Leaf roll, Ostrinia nubilalis, Potatoes, Virus diseases (plants), Virus purification.

14208-69

**RADIATION SENSITIVITY OF DROSOPHILA EMBRYOS IN RELATION TO AGE, IN AIR AND IN NITROGEN.**

E Havin P Oftedal  
*Int J Radiat Biol* 14(2):149-160 REF  
 16 Oct 1968 444.8 IN8

Aging, Air, Drosophila melanogaster, Eggs, Nitrogen, X-rays.

14209-69

**A STUDY OF FREE AMINO ACIDS IN RICE MOTH LARVAE DURING MYCOTOXICOSIS.**

U C Hedge E R B Shanmugasundaram  
*Can J Comp Med Vet Sci* 32(1):392-394 REF  
 Jan 1968 41.8 C162

Aflatoxicosis, Amino acids, Aspergillus flavus, Insect biochemistry, Insect physiology, Larvae, Moths, Mycotoxicosis.

Abstract: There is an increase in free amino acids in intoxicated larvae and this was directly proportional to the degree of toxicity as indicated by decrease in growth of these larvae. The study of excretory pattern of amino acids show intoxicated larvae excrete less amino acids than normal larvae.

14210-69

**INSECTS VS MAN. (LEP. NOTODONTIDAE).**

G A Helson  
*New Zeal J Agr* 119(3):41-43  
 Sep 1969 23 N48J

Chemical control (insects), Classification, Crop losses, Insect ecology, Insect pests, Insect physiology, Larvae, Notodontidae, Plant geography, Surveys.

14211-69

**A TROGLOBITIC STAPHYLINID FROM MEXICO (COLEOPTERA, STAPHYLINIDAE, PAEDERINAE).**

L J Herman  
*Amer Mus Novitates* (2367):1-9  
 24 Apr 1969 500 N483N

Insect ecology, Insect taxonomy, Staphylinidae.

14212-69

**PROPERTIES OF LEPTINOTARSIN, A TOXIC HEMOLYMPH PROTEIN FROM THE COLORADO POTATO BEETLE.**

T H Hsiao G Fraenkel  
*Toxicon* 7(2):119-130 REF  
 Sep 1969 391.8 T66

Botrytis cinera, Chemical analysis, Copper oxychloride, Grape vineyards, Hemolymph, Insect biochemistry, Leptinotarsa decemlineata, Musca domestica, Proteins, Spraying equipment, Toxicology, Toxins. English abstract.

14213-69

**ADENINE AND RELATED SUBSTANCES AS POTENT FEEDING STIMULANTS FOR THE ALFALFA WEEVIL, HYPERA POSTICA.**

T H Hsiao J Gammel E Jean J Kissel C Royer  
*J Insect Physiol* 15(10):1785-1790 REF  
 Oct 1969 421 J825

Adenine, Alfalfa, Animal physiology, Cattle, Diagnosis, Feeding, Hypera postica, Insect behavior, Plant extracts, Rabies, Stimulants, Virus diseases (animals).

14214-69

**THE PHEROMONE OF THE QUEEN OF THE ORIENTAL HORNET, VESPA ORIENTALIS.**

R Ikan R Gottlieb E D Bergmann J Ishay  
*J Insect Physiol* 15(10):1709-1712 REF  
 Oct 1969 421 J825

Chemical analysis, Chromatography, Hydrolysis, Insect biochemistry, Mass spectra, Myzus ascalonicus, Pheromones, Population, Secretions, Strawberries, Temperature, Vespa orientalis.

14215-69

**DD-136: THE WORM THAT MAKES SHORT WORK OF INSECT PESTS.**

*Indian Farming* 16(8):22-23  
 Nov 1966 22 IN283

Biological control (insects), Nematodes, Rearing.



- 14216-69**  
ISOLATION OF VIRUSES OF THE CALIFORNIA ENCEPHALITIS VIRUS GROUP FROM BOREAL Aedes MOSQUITOES.  
J Iversen R P Hanson O Papadopoulos C V Morris G R DeFoliart 6  
*Amer J Trop Med Hyg* 18(5):735-742 MAP REF 448.8 AM326  
Aedes communis, Aedes stimulans, California encephalitis virus, Insect vectors, Viruses.
- 14217-69**  
THE PHOTOTACTIC PUSH-PULL-COUPPLING BETWEEN DORSAL OCELLI AND COMPOUND EYES IN THE PHOTOTROPOTAXIS OF LOCUSTS AND CRICKETS (SALTATORIA: LUCUSTA MIGRATORIA AND GRYLUS BIMACULATUS). (GER)  
R Jander C K Barry  
*Z Vergleichende Physiol* 57(4):432-458 REF 1968 444.8 Z3  
Eyes, Grasshoppers, Gryllus bimaculatus, Insect physiology, Locusta migratoria, Ocelli, Phototropism. English summary
- 14218-69**  
THE EFFECTS OF LIGATING GALLERIA MELLONELLA LARVAE ON TOTAL HAEMOCYTE COUNTS AND ON MITOTIC INDICES AMONG HAEMOCYTES.  
J C Jones D P Liu  
*J Insect Physiol* 15(10):1703-1708  
Oct 1969 421 J825  
Barley, Blood cells, Erysiphe graminis, Fungus diseases (plants), Galleria mellonella, Genes, Insect physiology, Larvae, Mitosis, Plant disease resistance, Plant physiology, Powdery mildew, Structures.
- 14219-69**  
CYTOLOGY AND CYTOCHEMISTRY OF SPERMATOGENESIS IN TWO MILLIPEDES PHYLLOGONOSTREPTUS NIGROLABIATUS AND GONOPLECTUS MALAYAS.  
N R Kalla J A W Lucas  
*Cytologia* 34(1):80-89 REF  
Mar 1969 44.8 C99  
Diplopoda, Insect biochemistry, Insect taxonomy, Photomicrography, Spermatogenesis, Surveys, Syrphidae.
- 14220-69**  
FIELD STUDIES ON THE LIFE-HISTORIES OF SOME BRITISH STAPHYLINIDAE (COLEOPTERA).  
F K Kasule  
*Soc Brit Entomol Trans* 18(Pt. 4):49-80 REF  
Dec 1968 420 SO15  
Demography, Insect behavior, Life cycle, Seasonal variation, Staphylinidae.
- 14221-69**  
CATERPILLAR POLYMORPHISM OF PERGESA ELPENOR L. (GE)  
K Kernbach  
*Deut Entomol Ges Mitt* 18(3):49-51  
15 Jun 1959 420 D482  
Caterpillars, Environment, Insect morphology, Larvae, Polymorphism, Temperature.
- 14222-69**  
HAWK MOTHS WITH MITES. (LEP. SPHINGIDAE). (GE)  
K Kernbach  
*Deut Entomol Ges Mitt* 21(5-6):68  
15 Nov 1962 420 D482  
Insect behavior, Lepidoptera, Mites, Moths, Parasitism, Sphingidae.
- 14223-69**  
THE ABILITY OF COLOUR DISTINCTION IN THE WOOD-ANT FORMICA POLYCTENA FORSTER. (GER)  
J Kieperheuer  
*Z Vergleichende Physiol* 57(4):409-411  
1968 444.8 Z3  
Color, Formica polyctena, Insect behavior, Insect cultures, Light, Vision. English summary
- 14224-69**  
PARASITIZATION OF SOCIAL HALICTINE BEES IN SOUTHERN ONTARIO.  
G Knerer C E Atwood  
*Entomol Soc Ontario Proc* 97:103-110 REF 1966 420 ON8  
Bees, Insect behavior, Insect names, Parasitism, Population, Research, Statistical analysis.
- 14225-69**  
DAWN AND DUSK ACTIVITY PERIODS AND ORIENTATION TO FOREST AND FIELD OF THE DROSOPHILA SUBOBSCURA AND DROSOPHILA OBSCURA. (GE)  
R Koch  
*Z Vergleichende Physiol* 54(3):353-394 REF 1967 444.8 Z3  
Drosophila obscura, Drosophila subobscura, Forest insects, Insect behavior, Insect cultures, Insect ecology, Land, Photoperiodism. English summary
- 14226-69**  
ARBOVIRUS STUDIES IN THE OHIO-MISSISSIPPI BASIN, 1964-1967. IV. CACHE VALLEY VIRUS.  
R H Kokernot J Hayes C H Tempelis D H M Chan K R Boyd Et Al  
*Amer J Trop Med Hyg* 18(5):768-773 REF  
Sep 1969 448.8 AM326  
Anopheles quadrimaculatus, Antibodies, Arboviruses, Cattle, Surveys.
- 14227-69**  
ARBOVIRUS STUDIES IN THE OHIO-MISSISSIPPI BASIN, 1964-1967. III. FLANDERS VIRUS.  
R H Kokernot J Hayes R L Will B Radivojevic K R Boyd Et Al  
*Amer J Trop Med Hyg* 18(5):762-767  
Sep 1969 448.8 AM326  
Animal disease transmission, Arboviruses, Culex restuans.
- 14228-69**  
MATING AND OVARY STUDIES ON CERAPTERYX GRAMMIS L. (LEP. NOCTUIDAE), COLLECTED FROM A LIGHT TRAP.  
O Kugelberg  
*Opusc Entomol* 33(1-2):107-110 REF  
1968 421 OP7  
Insect behavior, Insect ecology, Noctuidae, Ovaries, Sex behavior.
- 14229-69**  
OBSERVATIONS ON THE OVULATION AND OVIPOSITION WITH REFERENCE TO CORPUS LUTEUM FORMATION IN MUSCA DOMESTICA NEBULO FABR. (MUSCIDAE: DIPTERA).  
S K Kulshrestha  
*Ann Mag Natur Hist* 3(4,OCT-DEC):561-570 REF  
Dec 1969 410 AN77  
Corpus luteum, Cercarionidac, Insect eggs, Insect histology, Insect physiology, Musca domestica, Oviposition, Ovulation.
- 14230-69**  
STRUCTURAL PECULIARITIES OF THE MOUTH PARTS IN CERTAIN GAMASID MITES (PARASITIFORMES, GAMASOIDEA) IN RELATION TO THEIR TRANSITION TO HAEMATOPHAGY.  
Yu P Lagutenko  
*Entomol Rev* 46(4,OCT-DEC):461-466 REF  
Dec 1967 421 R322AE  
Insect evolution, Insect morphology, Mites, Mouth, Russian journal pp. 784-792
- 14231-69**  
KEY TO THE ADULT HYMENOPTEROUS PARASITES OF PULICALVARIA PICEAELLA (KEARFOOT), (LEPIDOPTERA: GELICHIIDAE) OF QUEBEC. (FR)  
J P Laplante  
*Entomol Soc Quebec Ann* 12(3):137-165 REF  
Sep 1967 420 EN822  
Gelichiidae, Hymenoptera, Lepidoptera, Parasitic insects, Pulicalvaria, Zoogeography.
- 14232-69**  
ARTIFICIAL STIMULATIONS IN ENCOUNTER BEHAVIOR OF VESTRIA VIRIDIS (REDT.) (ORTHOPTERA TETTIGONIDAE COIPHORINAE DE LA TRINITE). (FR)  
Y Leroy  
*Acad Sci Compt Rend Ser D Sci Nat* 266(17, 1ST SEMESTER):1761-1763  
22 Apr 1968 505 P21  
Insect behavior, Tettigoniidae.
- 14233-69**  
THE MANDIBLES OF TWO SOUTH AMERICAN GRASSHOPPERS. (SP)  
J Liebermann  
*Rev Invest Agr Ser 5, Patol Veg* 5(5):53-62  
1968 464.8 R322  
Acrididae, Food habits, Insect morphology, Mouth parts, South America. English abstract
- 14234-69**  
PRELIMINARY REPORT ABOUT MY BREEDING ATTEMPTS WITH MICROPTERYX CALTHELLA L. (LEP., MICR.). (GE)  
R E Lorenz  
*Deut Entomol Ges Mitt* 18(3):42-45  
15 Jun 1959 420 D482  
Breeding, Food plants, Insect behavior, Lepidoptera, Micropterygidae, Reports.
- 14235-69**  
OBSERVATIONS ON WOOD-DESTROYING INSECT LIVING IN THE FOOTBRIDGE OVER SIIKANEVA BOG.  
K Loytyniemi  
*Suomen Hyonteistieteellinen Aikakauskir Ann Entomol Fenn* 33(4):260-264  
20 Dec 1967 421 SU7  
Bogs, Crambycidae, Insect ecology, Tragosoma depsarium, Wood-destroying insects.
- 14236-69**  
HORMONAL CONTROL OF IMAGINAL DISC REGENERATION IN GALLERIA MELLONELLA (LEPIDOPTERA).  
K Madhavan H A Schneiderman  
*Biol Bull* 137(2):321-331  
Oct 1959 442.8 B52  
Ecdysone, Galleria mellonella, Hormones, Insect physiology, Metamorphosis, Regeneration.
- 14237-69**  
A NEW METHOD OF ESTIMATING POPULATION SIZE, SURVIVORSHIP, AND BIRTH RATE FROM CAPTURE-RECAPTURE DATA.  
B F J Manly M J Parr  
*Soc Brit Entomol Trans* 18(Pt. 5):81-89  
Dec 1968 420 SO15  
Insect behavior, Longevity, Population, Statistical methods, Zygaenidae.
- 14238-69**  
SOME ASPECTS OF ADAPTATION IN THE LIFE CYCLE OF INSECTS. (JA)  
S Masaki  
*Kontyu* 35(3):205-220  
Sep 1967 421 K833  
Insect adaptation, Insect biology, Metamorphosis.
- 14239-69**  
DOES THE BEATING OF BUTTERFLY WINGS CAUSE ELECTRICAL PHENOMENA. (GE)  
R McIl  
*Deut Entomol Ges Mitt* 18(1):5-6  
15 Feb 1959 420 D482  
Butterflies, Electricity, Frogs, Insect behavior, Sex, Wings (insects).
- 14240-69**  
A THREE DIMENSIONAL SKETCH OF THE TUNNELS OF THE RAPIENTIA NESTS (HYM., SPHECOIDEA).  
A K Merisud  
*Suomen Hyonteistieteellinen Aikakauskir Ann Entomol Fenn* 33(3):176-180  
02 Nov 1967 421 SU7  
Construction materials, Hymenoptera, Illustrations, Insect ecology, Insect nests.

14241-69

14241-69

ON THE LIFE CYCLE OF COELORABRO AMBIGUUS (HYM., SPHECIDAE). (GE)

A K Merisuo

*Suomen Hyonteistieteellinen Aikokouskirj Ann**Entomol Fenn* 33(2):99-101

30 Aug 1967 421 SU7

Insect ecology, Life cycle, Sphecidae.

14242-69

THE ACTION OF X-RAYS ON THE OSMOTIC PRESSURE AND THE PH OF THE HEMOLYMPH OF GALLERIA MELLONELLA L. (INSECTA LEPIDOPTERA). (FR)

G Mestres P Laviolette

*Acad Sci Compt Rend Ser D Sci Nat* 266(20, 1ST SEMESTER):2093-2096

13 May 1968 505 P21

Galleria mellonella, Hemolymph, Hydrogen-ion concentration, Insect physiology, Osmotic pressure, X-rays.

14243-69

HEMIANAX EPHIPPIGER (BURM.) (ODONATA) CARRIED TO ICELAND FROM THE EASTERN MEDITERRANEAN BY AN AIR-CURRENT.

K Mikkola

*Opusc Entomol* 33(1-2):111-113 MAP

1968 421 OP7

Air, Insect dissemination, Odonata.

14244-69

OBSERVATIONS OF THE INSECT PESTS OF THE OLD SHRINE AND THE BUDDHIST TEMPLE WOODEN BUILDINGS AND A FEW TRYPOXYLONID WASPS. (JA)

J Minamikawa

*Jap J Appl Entomol Zool* 12(1):45

Mar 1968 475 J27

Buildings, Hymenoptera, Insect ecology, Insect pests, Trypoxyloninae, Wood-destroying insects.

14245-69

CHARACTERISTIC ORDER OF THE FILIFORM HAIRS OF PERIPLANETA AMERICANA. (GER)

R Nicklaus

*Z Vergleichende Physiol* 54(3):434-437

1967 444.8 Z3

Hair, Insect physiology, Light, Microscopy, Periplaneta americana.

14246-69

FRUIT-PIERCING MOTHS AND THEIR CONTROL IN JAPAN. (JA)

K Nomura I Hattori

*Kontyu* 35(3):312-322

Sep 1967 421 K833

Cave fauna, Insect control, Insect ecology, Lepidoptera, Moths.

14247-69

THE DETAILS OF ENDOMITOSIS IN THE SERICEOUS GLANDS OF GALLERIA MELLONELLA (INSECTA LEPIDOPTERA). (FR)

C G Nordau

*Acad Sci Compt Rend Ser D Sci Nat* 266(17, 1ST SEMESTER):1749-1750

22 Apr 1968 505 P21

Cell nucleus, Cytology, Galleria mellonella, Insect physiology, Mitosis, Silk glands.

14248-69

EFFECT OF LOXOSCELES RECLUSA GERTSCH AND MULAİK VENOM ON HELIOTHIS VIRESCENS (F.) LARVAE. OOSTERHOFF, G.

B R Norment S B Vinson

*Toxicon* 7(2):99-101

Sep 1969 391.8 T66

Dichlobenil, Heliopsis virescens, Hemolymph, Herbicide application, Insect biochemistry, Larvae, Lipids, Loxosceles reclusa, Methodology, Muscles, Proteins, Venoms. English abstract.

14249-69

THE FLIGHT ACTIVITY OF THE PIGMY-MANGOLD CHAFER ATOMARIA LINEARIS STEPH. IN THE COURSE OF 24 HOURS. (COL., CRYPTOPHAGIDAE). (GE)

I Novak

*Acto Ent Bohemoslov* 64(4):294-302 REF

20 Jul 1967 420 C33

Cryptophagidae, Insect behavior, Insect flight. English and Czech abstracts

14250-69

ECDYSONE AND DNA SYNTHESIS IN CULTURED WING DISKS OF THE WAX MOTH, GALLERIA MELLONELLA.

H Oberlander R I B Francki

*J Insect Physiol* 15(10):1803-1806

Oct 1969 421 J825

Deoxyribonucleic acid, Ecdysone, Electron microscopy, Galleria mellonella, Insect biochemistry, Ribonucleic acid, Ring spot, Staining, Synthesis, Tissue culture, Tobacco, Virus diseases (plants).

14251-69

STUDY ON THE DENSITY OF THE ADULT OF THE BROWN PLANTHOPPER NILAPARVATA LUGENS STAL.

N Ohkubo

*Jop J Ecol* 17(6):230-233

Dec 1967 410 J272

Eggs, Imagos, Insect dissemination, Insect physiology, Nilaparvata lugens, Ovipositors, Population, Wings (insects). English summary

14252-69

A CORRELATION BETWEEN THE ABILITY TO WITHSTAND HIGH TEMPERATURES AND RADIORESISTANCE IN DROSOPHILA MELANOGASTER.

P A Parsons

*Experientia* 25(9):1000-1001 REF

15 Sep 1969 475 EX7

Cobalt, Drosophila melanogaster, Insect physiology, Irradiation, Radiobiology, Temperature.

14253-69

OVIPOSITION SITES AND THE VIABILITY OF EGGS OF THYMELICUS LINEOLA (OCHS.) (LEPIDOPTERA: HESPERIIDAE).

D H Pengelly

*Entomol Soc Ontario Proc* 95:102-105

1966 420 ON8

Eggs, Habitats, Insect control, Morphology, Ovipositors, Research, Thymelicus lineola.

14254-69

SPECIAL FORMS OF AMITOTIC NUCLEAR DIVISION IN STRIATED MUSCLE AND OTHER INSECT TISSUES.

T P Pessacq

*Experientia* 25(9):977-978

15 Sep 1969 475 EX7

Amitosis, Cell nucleus, Coleoptera, Diptera, Hymenoptera, Insect physiology, Lepidoptera, Muscles.

14255-69

EXCEPTIONS TO THE PREVAILING PATTERN OF TUBULES (9 PLUS 9 PLUS 2) IN THE SPERM FLAGELLA OF CERTAIN INSECT SPECIES.

D M Phillips

*J Cell Biol* 40(1):28-43 REF

Jan 1969 442.8 J828

Ctenocephalides, Flagella, Insect histology, Psocidae, Spermatozoa.

14256-69

DIAPAUSE IN THE NEUROPTERAN CHRYSOPA OCVLATA. BY ULTRACENTRIFUGATION AND IDENTIFICATION OF N- AND CTERMINAL ENDS.

G D Propp M J Tauber C A Tauber

*J Insect Physiol* 15(10):1749-1757 REF

Oct 1969 421 J825

Bacillus thuringiensis, Bacteriology, Biochemistry, Centrifuges, Chrysopa, Insect physiology, Larvae, Light, Temperature.

14257-69

SPERM ACTIVATION AND MIGRATION IN BED BUGS. SIZE IN HYPERSENSITIVE HOSTS IN THE PRESENCE OF CHLORAMPHENICOL.

H V Rad N T Davis T Van Praagh

*J Insect Physiol* 15(10):1815-1832 REF

Oct 1969 421 J825

Chloramphenicol, Cimex lectularius, Hydrogen-ion concentration, Hypersensitivity, Insect behavior, Insect biochemistry, Reproduction, Spermatozoa, Tobacco, Tobacco mosaic virus, Virus diseases (plants).

14258-69

BRAIN INTERNEURONS IN NOCTUID MOTHS: DIFFERENTIAL SUPPRESSION BY HIGH SOUND INTENSITIES. AND GRASSES.

K D Roeder P A Burgess

*J Insect Physiol* 15(10):1713-1718

Oct 1969 421 J825

Avena fatua, Brain, Bromus, Cephalosporium gramineum, Dactylis glomerata, Fungus diseases (plants), Grain, Grasses, Heliothis zea, Insect physiology, Nerves, Noctuidae, Sound waves, Stripe.

14259-69

OBSERVATIONS ON THE DIAPAUSAL AND POST-DIAPAUSAL, PROTERANDRIC DEVELOPMENTAL EVENTS IN CATERPILARS OF SPARGANOTHIS PILLERIANA SCHIFF. (LEPIDOPTERA: TORTRICIDAE). (GE)

K Russ

*Pflanzenschutzberichte* 38(5/7):57-68

Jul 1968 464.9 P48

Feeding, Insect morphology, Measurement, Metamorphosis, Research, Tortricidae. English summary.

14260-69

PERSISTENT TOXICITY OF SOME SYSTEMIC INSECTICIDES TO LITTLE HONEY BEES.

M L Saini A D Khurana

*Pesticides* 1(7):24-25

Mar 1968 SB951.P43

Apis, Chemical control (insects), Dimethoate, Menazon, Phosphamidon, Poisoning, Systemic insecticides, Toxicology.

14261-69

HYDROLYSIS OF ACETYLTHIOCHOLINE AND BUTYRYLTHIOCHOLINE BY CHOLINESTERASES OF INSECTS AND A MITE.

M Sakai

*Appl Entomol Zool* 2(2):111-112

Jun 1967 SB599.A6

Acetylcholinesterases, Biochemistry, Cholinesterases, Colorimetry, Hydrolysis, Insects, Mites, Research, Substrates, Temperature.

14262-69

TENSION TRIENENTS IN GLYCEROL-EXTRACTED FIBRES OF INSECT FIBRILLAR MUSCLE (LETHOCERUS MAXIMUS).

M Schadler G Steiger J C Ruegg

*Experientia* 25(9):942-943 REF

15 Sep 1969 475 EX7

Insect physiology, Lethocerus maximus, Muscles, Temperature, Tension.

14263-69

BLOSSOM VISITATIONS OF DOMESTIC ALLANTUS SPECIES, AND PLACES WHERE THEY ARE FOUND. (GE)

E Schmidt

*Deut Entomol Ges Mitt* 18(5):72-73

15 Oct 1959 420 D482

Flowers, Insect behavior, Tenthredinidae, Zoogeography.

14264-69

THE MODE OF LIFE OF THE BORER MOTH PARASITE ADELIIUS ERYTHRNOTUS FORST.(HYM., BRAC.). (GE)

J Schoenherr

*Deut Entomol Ges Mitt* 18(6):99-101

15 Dec 1959 420 D482

Braconidae, Food plants, Hymenoptera, Insect behavior, Parasitism.

14265-69

**BODY CONSTRAINT AND DEVELOPMENTAL ARREST IN GALLERIA MELLONELLA L.: FURTHER STUDIES.**

F Sehnal J S Edwards  
*Biol Bull* 137(2):352-358 REF  
Oct 1969 442.8 B52

Galleria mellonella, Glands (insects), Hormones, Insect physiology, Metamorphosis, Neuroendocrines, Restraining table.

14266-69

**NATURAL MORTALITY OF OVERWINTERING EGGS OF LONGIUNGUIS DONACIS (PASS.). (FR)**

M L Sharma  
*Entomol Soc Quebec Ann* 12(3):133-136  
Sep 1967 420 EN822

Aphididae, Aspergillus flavus, Entomogenous fungi, Hibernation, Insect biology, Insect diseases, Insect eggs, Longiunguis donacis, Mortality, Temperature. Abstract in English

14267-69

**BRACHYMERIA FEMORATA PANZER (HYMENOPTERA CHALCIDIDAE). (GE)**

H R Simon  
*Deut Entomol Ges Mitt* 18(5):82-83  
15 Oct 1959 420 D482

Chalcididae, Hymenoptera, Insect behavior, Larvae, Parasitism, Snails, Zoogeography.

14268-69

**ENHANCEMENT OF INFECTIVITY OF A MAMMALIAN VIRUS PREPARATION AFTER INJECTION INTO INSECTS.**

R S Spendlove R F Whitcomb D D Jensen  
*Virology* 34(1):182-184  
Jan 1968 448.8 V81

Agallia constricta, Colladonus montanus, Infections, Insects, Mammals, Physiology, Virus diseases (animals), Wound-tumor virus.

14269-69

**FATTY ACIDS, ALCOHOLS AND HYDROCARBONS IN THE WAXY COVERING OF CEROPLASTES PSEUDOCERIFERUS GREEN, CEROPLASTES JAPONICUS GREEN AND CEROPLASTES RUBENS MASKELL (HOMOPTERA: COCCIDAE). (JAP)**

Y Tamaki S Kawai  
*Jap J Appl Entomol Zool* 12(1):23-28  
Mar 1968 475 J27

Alcohols, Biochemistry, Ceroplastes japonicus, Ceroplastes pseudoceriferus, Ceroplastes rubens, Coccidae, Fatty acids, Glands (insects), Hydrocarbons, Insect biochemistry, Wax glands.

14270-69

**A NEW CONTRIBUTION TO THE STUDY OF LEAFHOPPER FAUNA (HOMOPTERA, AUCHENORRHYNCHA). (CZ)**

N Tanasijevic  
*Zastita Bilja* 12(91-92):205-212, REF  
1966 464.8 Z1

Cicadellidae, Corn, Economic plants, Homoptera, Insect ecology, Potatoes, Psammotettix, Sugar beets, Sunflowers, Weeds. English summary

14271-69

**TRENDS IN STUDIES ON INSECT NATURAL ENEMIES AND THE FUTURE PROBLEMS CONCERNED. (JA)**

T Torii  
*Kontyu* 35(3):278-289  
Sep 1967 421 K833

Chemical control (insects), Insect ecology, Integrated control (insects), Natural control (insects), Pesticides.

14272-69

**DETAILS ON THE CODLING PLUM MOTH (LASPEYRESIA FUNEBRANA TR.) IN LOT-ET-GARONNE ON PLUM-TREE GRAFTS. (FR)**

J Touzeau

*Rev Zool Agr Appl* 66(4-6, 2ND TRIMESTER):49-57

1967 410.9 SO12

Laspeyresia, Life cycle, Olethreutidae, Seasonal variation.

14273-69

**A STUDY OF THE APPEARANCE OF THE CLEONUS OF BEETS, TEMNORRHINUS (CLEONUS) MENDICUS GYLL. (IT)**

V Tullio D Ponis G Svampa  
*Giornate Fitopatol* 333-338  
26 Mar 1967 SB599.G5

Beets, Conorhynchus mendicus, Curculionidae, Insect pests, Insect traps.

14274-69

**DIVERSITY OF FORMS OF PHYSIOLOGICAL REST IN INSECTS AS ONE OF THE CAUSES OF THEIR BIOLOGICAL PROGRESS.**

R S Ushatinskaya  
*Ann Zool* 5(3):19-30 REF  
07 Mar 1966 410 AN78

Diapause, Insect morphology, Insect physiology, Insects.

14275-69

**DEVELOPMENT OF THE VIRUS WITH INCLUSION BODIES, OF THE LEPIDOPTERA LYMANTRIA DISPAR IN CELL CULTURES. (FR)**

C Vago M Bergoin  
*Entomophaga* 8(4):253-261 REF  
1963 421 EN835

Antheraea pernyi, Bombyx mori, Cytoplasm, Inclusion bodies, Insect diseases, Polyhedroses, Porthetria dispar, Tissue culture, Viruses. English summary.

14276-69

**RECORDS OF THE ORTHOPTEROID INSECTS IN ONTARIO.**

V R Vickery D K Kevan  
*Entomol Soc Ontario Proc* 97:13  
1966 420 ON8

Geography, Insect dissemination, Insect names, Orthoptera, Research, Surveys.

14277-69

**THE ULTRASTRUCTURE AND PHYSIOLOGY OF THE ABDOMINAL AIR-GUIDE RETRACTOR MUSCLES IN THE GIANT WATER BUG, LETHOCERUS.**

B Walcott B Burrows R I B Francki G K Owusu  
*J Insect Physiol* 15(10):1855-1872 REF  
Oct 1969 421 J825

Electron microscopy, Electrophysiology, Insect physiology, Lethocerus, Muscles, Pcas, Plant cytology, Plant physiology, Ring spot, Roots, Tobacco, Virus diseases (plants).

14278-69

**THE MECHANISM OF COUPLING OF THE LOCUST LIGHT OSCILLATOR TO OSCILLATORY INPUTS. (GE)**

I Waldron  
*Z Vergleichende Physiol* 57(4):331-337 REF  
1968 444.8 Z3

Acrididae, Insect behavior, Insect dissemination, Insect physiology, Light, Oscillation, Wings (insects). English summary

14279-69

**LYSOZYME ACTION IN THE COCKROACH--BLOOD CHANGES. WHILE PROBING INTERCELLULARLY.**

D R A Wharton J E Lola  
*J Insect Physiol* 15(10):1877-1886 REF  
Oct 1969 421 J825

Amino acids, Blood, Chemical analysis, Cytology, Electron microscopy, Insect biochemistry, Insect vectors, Muramidase, Myzus persicae, Nitrogen, Periplaneta americana, Plant disease transmission, Stylets, Tobacco, Virus diseases (plants).

14280-69

**PRELIMINARY OBSERVATIONS ON MOULTING AND LIMB REGENERATION IN THE MITE CALOGLYPHUS BOHARTI.**

J P Woodring C J Simpson

*J Insect Physiol* 15(10):1719-1728

Oct 1969 421 J825

Caloglyphus, Crop yields, Cucumbers, Fungus diseases (plants), Insect physiology, Lcgs, Phomopsis sclerotioides, Plant disease resistance, Plant physiology, Regeneration, Root rot.

14281-69

**RECENT ADVANCES IN THE STUDIES OF INSECT COMPOUND EYES. (JA)**

N Yagi N Koyama  
*Kontyu* 35(3):175-185  
Sep 1967 421 K833

Cornea, Eyes, Insect physiology, Optic nerve, Retina.

14282-69

**SPARROW MITE DERMANYSSUS PASSERINUS BERL. ET TROUESS, 1885. (RUS)**

A A Zemskaya  
*Med Parazitol Parazitarn Bolezni* 37(3,MAY-JUN):313-319 REF

1968 448.8 M469

Dermanyssus, Insect biology, Insect physiology, Insect taxonomy, Larvae, Mites, Parasitic insects, Sparrows. English summary. Dermanyssus americanus is made a synonym of D. passerinus.

14283-69

**ENTOMOLOGICAL NOTES ON BEPRATA MACULICOLLIS CAM., PERFORATOR OF SEEDS OF SOME ANNONACEAE. (SP)**

I Zenner J  
*Agr Trop* 23(8):528-529  
Aug 1967 26 AG8

Annonaceae, Eurytomidae, Food habits, Insect biology, Seeds.

## GENETICS

14284-69

**PUFF FORMING ABILITY AS A FUNCTION OF CHROMOSOMAL POSITION IN DROSOPHILA MELANOGASTER.**

E G Ellgaard G E Brosseau H Kees  
*Genetics* 62(2):337-341 REF  
Jun 1969 442.8 G28

Chromosomes, Drosophila melanogaster, Genes, Greenhouses, Insect genetics, Methodology, Pesticide application. English abstract

14285-69

**THE SCIENTIFIC NAME FOR THE FRUIT CUP LEAF ROLLER.(LEP. TORTRICIDAE). (A CONTRIBUTION TO ORGANOXENIA). (GE)**

M Hering  
*Deut Entomol Ges Mitt* 21(5-6):72-73  
15 Nov 1962 420 D482

Adoxophyes, Fruit, Genetics, Lepidoptera, Nomenclature, Tortricidae.

14286-69

**THE GENETICS OF DROSOPHILA MATING BEHAVIOR. II. THE GENETIC ARCHITECTURE OF MATING SPEED IN DROSOPHILA PSEUDOBOESURA.**

S Kessler  
*Genetics* 62(2):421-433 REF  
Jun 1969 442.8 G28

Drosophila pseudoobscura, Insect behavior, Insect genetics, Insect rearing, Plant protection, Sex behavior, Spray technique.

14287-69

**GENETICAL STUDIES ON THE RESISTANCE TO PARATHION IN DROSOPHILA MELANOGASTER. III. INDUCTION OF A SUSCEPTIBLE GENE FROM ITS RESISTANCE ALLELE.**

H Kikkawa  
*Botyu-kagaku* 32(4):101-105  
Nov 1967 421 B65

Alleles, Drosophila melanogaster, Genes, Insect genetics, Organophosphorus compounds, Parathion.

## ENTOMOLOGY

14288-69

14288-69

ANALYSIS OF A RECESSIVE MUTATION ON THE Y CHROMOSOME OF THE FLY *CALLIPHORA ERYTHROCEPHALA*. (GE)

H Langer R Schnell D Ribbert F H Ullerich

*Z Vererbungslehre* 105(1):84-86

1969 442.8 Z34

*Calliphora vicina*, Chromosomes, Coconuts, Crop rotation, Cultural control (plant diseases), Hydrogen-ion concentration, Insect genetics, Insect mutation, Sex, Soil chemistry, Soil moisture.

14289-69

A SYSTEM FOR SCREENING OF RARE EVENTS IN GENES OF *DROSOPHILA MELANOGASTER*.

E Lifschytz R Falk

*Genetics* 62(2):343-352 REF

Jun 1969 442.8 G28

Cucumbers, *Drosophila melanogaster*, Genes, Insect genetics, Powdery mildew, Surveys, Systemic fungicides. English abstract

14290-69

GENETICAL RELATIONSHIP AND ISOLATING MECHANISMS IN ANANASSAE SPECIES SUBGROUP (SOPHOPHORA, *DROSOPHILA*). III. CHROMOSOME BEHAVIOUR DURING MEIOSIS IN *D. BIPECTINATA*, *D. MALERKOTLIANA* AND THEIR HYBRID.

R D Narda

*Cytologia* 34(1):126-132 REF

Mar 1969 44.8 C99

Chromosomes, *Drosophila bipunctata*, *Drosophila malerkotliana*, Hybrids, Insect genetics, Insect taxonomy, Meiosis, Neuroptera, Odonata, Surveys.

14291-69

EFFICIENCY OF SELECTION FOR INCREASED OR DECREASED RECOMBINATION.

M Nei Y Imaizumi

*Amer Natur* 102(923.JAN-FEB):90-93

27 Feb 1968 470 AM36

Demography, *Drosophila*, Insect genetics, Mathematical analysis.

14292-69

A THYMIDINE-INDUCED SEX-LINKED, SEX-LIMITED TEMPERATURE-SENSITIVE LETHAL AND THE SIGNIFICANCE OF MODIFIER GENES IN *DROSOPHILA MELANOGASTER*.

O Parkash

*Experientia* 25(9):998

15 Sep 1969 475 EX7

Chromosomes, *Drosophila melanogaster*, Genes, Insect genetics, Lethal factor, Sex, Temperature, Thymidine.

14293-69

THE POSITION OF THE CP, IN AND RI GENES AND THE 3RD CHROMOSOME CENTROMERE IN *DROSOPHILA MELANOGASTER*. EVIDENCE FROM A NEW TRANSLOCATION.

J Puro P Arajärvi

*Hereditas* 62(3):414-418 REF

1969 442.8 H42

Chromosomes, *Drosophila melanogaster*, Genes, Insect genetics.

14294-69

DEVELOPMENTAL GENETIC STUDIES OF AMINOPEPTIDASES IN *DROSOPHILA MELANOGASTER*.

R K Sakai D A Tung J G Scandalios

*Z Vererbungslehre* 105(1):24-29

1969 442.8 Z34

Aminopeptidase, Antibiotics, Cattle, Dipping, *Drosophila melanogaster*, Electrophoresis, Enzymes, Hypochlorites, Insect biochemistry, Insect genetics, Livestock diseases, Mastitis.

14295-69

THE SHEEP BLOWFLY'S TOLERANCE OF INSECTICIDES (*LUCILIA CUPRINA*).

G J Shanahan

*Agr Gaz New S Wales* 78(Pt 8):444-445

## BIBLIOGRAPHY

Aug 1967 23 N472

Calliphoridae, Carbamates, Insect genetics, Insecticide resistant insects, Organophosphorus compounds.

14296-69

GENETIC VARIATION IN NATURAL ISLAND POPULATIONS OF MEMBERS OF THE *DROSOPHILA NASUTA* AND *DROSOPHILA ANANASSAE* SUBGROUPS.

W S Stone M R Wheeler F M Johnson K I

Kojima

*Nat Acad Sci Proc* 59(1):102-109 REF

Jan 1968 500 N21P

Chromosomes, *Drosophila*, Enzymes, Insect genetics, Population.

## MEDICAL ENTOMOLOGY

14297-69

DAMAGE CAUSED BY *LANKESTERIA CULICIS* (ROSS) TO *AEDES AEGYPTI* (L.).

W L Barrett

*Mosquito News* 28(3):441-444

Sep 1968 421 M85

*Aedes aegypti*, Biological control (insects), Insect diseases, Insect physiology, *Lankesteria culicis*, Malpighian tubes, Protozoa.

14298-69

GLOBAL ERADICATION OF MALARIA: CHANGES OF STRATEGY AND FUTURE OUTLOOK.

A Gabaldon

*Amer J Trop Med Hyg* 18(5):641-656 REF

Sep 1969 448.8 AM326

Animal disease transmission, Chemical control (insects), Chlorinated hydrocarbons, DDT, Malaria, *Plasmodium*, Public health entomology.

14299-69

STUDIES ON THE POSSIBILITIES OF USING BLOWFLIES (DIPT.) AS MEDICOLEGAL INDICATORS IN FINLAND. I. REPORT OF FOUR INDOOR CASES FROM THE CITY OF HELSINKI.

P Nuorteva M Isokoski K Laiho

*Suomen Hyönteistieteellinen Aikakauskirj Ann*

*Entomol Fenn* 33(4):217-225 REF

20 Dec 1967 421 SU7

Calliphoridae, Forensic medicine, Insect pests, Jurisprudence, Medicine.

## CROP PROTECTION

14300-69

THE REGULATORY EFFECT OF GIBBERELIC ACID AND CYTOKININS ON FRUIT MATURATION AND RIPENING. (ABSTRACT).

H A Abdel-Gawad R J Romani

*Hortscience* 3(2,SUMMER):121

1968 SB1.H6

Fruit, Gibberellic acid, Harvesting, Mitosis, Morphology, Research, Spraying.

14301-69

THE EUROPEAN CORN BORER; HOW TO CONTROL IT.

*U S D A Farmers Bull* (2190):14P MAP

Jun 1967 1 AG84F

Corn, *Diatraea eramboides*, Dusting, *Heliothis zea*, Insect behavior, Insect physiology, Insecticides, Integrated control (insects), Larvae, *Leaves*, *Ostrinia nubilalis*, Parasites, Plant injuries, Plant pest control, Plant pest resistance, *Pseudaletia unipuncta*, *Pyrausta nainalis*, Spraying, Tillage.

14302-69

THE EFFECT OF ALAR (N-DIMETHYLAMINO SUCCINAMIC ACID) ON YIELD AND QUALITY ATTRIBUTES OF CONCORD GRAPES.

G A Cahdon C W Donoho

*Hortscience* 3(2,SUMMER):125-126

1968 SB1.H6

Crop yields, Grapes, Research, Spraying, Succinic acid, 2,2-dimethylhydrazide.

14303-69

THE INFLUENCE OF N-DIMETHYLAMINO SUCCINAMIC ACID (ALAR) ON GROWTH OF THE SWEET CHERRY, *PRUNUS AVIUM*. (ABSTRACT).

M H Chaplin A L Kenworthy

*Hortscience* 3(2,SUMMER):125

1968 SB1.H6

Color, Hydrogen-ion concentration, Mazzard cherries, Physiology, Research, Spraying, Succinic acid, 2,2-dimethylhydrazide.

14304-69

THE TEA RESEARCH INSTITUTE OF CEYLON. ANNUAL REPORT FOR THE YEAR 1966. PART II.

E M Chenery R L De Silva

*Ceylon, Tea Research Institute (PT II):169P*

1966 68.19 C33A

Agricultural research, Insect pests, Plant biochemistry, Plant diseases, Plant nematodes, Plant physiology, Plant propagation, Reports, Statistical analysis, Tea.

14305-69

EFFECTS OF N-DIMETHYLAMINO SUCCINAMIC ACID (ALAR), (2-CHLOROETHYL TRIMETHYLAMMONIUM CHLORIDE (CCC), GIBBERELIC ACID (GA), AND MALEIC HYDRAZIDE (MH) ON BOLTING IN LETTUCE. (ABSTRACT).

G W Dickerson

*Hortscience* 3(2,SUMMER):97-98

1968 SB1.H6

Chloroethyltrimethylammonium chloride, (2-Chlorosis, Gibberellic acid, Harvesting, Lettuce, Maleic hydrazide, Research, Spraying, Succinic acid, 2,2-dimethylhydrazide.

14306-69

PATHOGENIC VARIABILITY AND THE UNIT REPRESENTING A SINGLE FERTILIZATION IN *PUCCINIA CORONATA* VAR. *AVENAE*.

A Dinour J Khair G Fleischmann

*Can J Bot* 46(4):501-508 REF

Apr 1968 470 C16C

Breeding, Fertilization (plants), Plant genetics, *Puccinia coronata*, Reproduction, Research.

14307-69

COST OF EFFECTIVE PLANT PROTECTION IN THE FIELD, THE GARDEN, AND THE VINEYARD. (GER)

H Drees

*Gesunde Pflanzen* 19(7):144-146

Jul 1967 464.8 G33

Agricultural production economics, Gardens, Grape vineyards, Land, Pesticides, Plant protection.

14308-69

FRUITING RESPONSE OF THE Highbush BLUEBERRY TO APPLIED GIBBERELIC ACID UNDER FIELD CONDITIONS. (ABSTRACT).

P Eek C Mainland

*Hortscience* 3(2,SUMMER):112

1968 SB1.H6

Blueberries, Crop yields, Gibberellic acid, Morphology, Plant disease control, Pollination, Research.

14309-69

REGULATION OF GROWTH, FLOWERING AND FRUIT ABSCISSION OF APPLES AND PEACHES WITH AMICHEM 66-329. (ABSTRACT).

L J Edgerton W J Greenhalg

*Hortscience* 3(2,SUMMER):91

1968 SB1.H6

Abscission, Apples, Harvesting, Morphology, Peaches, Plant hormones, Plant physiology, Reproduction, Research.

- 14310-69**  
RUTSTROEMIA CUNICULI, A COPROPHILOUS SPECIES OF THE SCLEROTINIACEAE.  
M E Elliott  
*Can J Bot* 45(4):521-524  
Apr 1967 470 C16C  
Ascomycetes, Fungi, Taxonomy.
- 14311-69**  
EFFECTS OF N-DIMETHYLAMINO SUC-  
CINAMIC ACID ON THE SIZE OF POTATOES.  
(ABSTRACT).  
R Funt  
*Hortscience* 3(2,SUMMER):98  
1968 SB1.H6  
Morphology, Physiology, Potatoes, Research, Suc-  
cinic acid, 2,2-dimethylhydrazide.
- 14312-69**  
STIMULATION OF FLOWER BUD ABSCIS-  
SION AND CONCENTRATION OF FRUIT SET  
IN TOMATO, (ABSTRACT).  
S A Garrison G A Taylor  
*Hortscience* 3(2,SUMMER):92  
1968 SB1.H6  
Abscission, Greenhouses, Leaves, Research, Spray-  
ing, Stimulants, Tomatoes.
- 14313-69**  
STIMULATION OF TOMATO RIPENING BY  
AMCHEM 66-329. (ABSTRACT).  
S A Garrison  
*Hortscience* 3(2,SUMMER):121  
1968 SB1.H6  
Injections, Plant regulators, Pollination, Research,  
Stimulants, Tomatoes, Water.
- 14314-69**  
VEGETATIVE AND REPRODUCTIVE RESPON-  
SES OF HIGHBUSH BLUEBERRY TO SUC-  
CINIC ACID 2,2-DIMETHYLHYDRAZIDE  
(ALAR).  
J C Hapitan V G Shutak  
*Hortscience* 3(2,SUMMER):125  
1968 SB1.H6  
Blueberries, Reproduction, Research, Spraying,  
Succinic acid, 2,2-dimethylhydrazide, Vegetation.
- 14315-69**  
PROBLEMS OF INTEGRATED PEST CON-  
TROL IN PRACTICAL PLANT PROTECTION.  
(GE)  
W Herfs  
*Z Pflanzenkrankh (pflanzenpathol) Pflanzenschutz*  
75(7):412-423 REF  
Jul 1968 464.8 Z3  
Animal physiology, Integrated control (pests),  
Methodology, Plant protection, Public health,  
Research. French and English summaries
- 14316-69**  
THE EFFECT OF GIBBERELIC ACID ON THE  
HIGHBUSH BLUEBERRY (VACCINIUM  
CORYMBOSUM). (ABSTRACT).  
R F Hooks A L Kenworthy  
*Hortscience* 3(2,SUMMER):112-113  
1968 SB1.H6  
Blueberries, Gibberellic acid, Hydrogen-ion con-  
centration, Research.
- 14317-69**  
EFFECT OF SILVICULTURAL PRACTICES  
UPON ARTHROPOD, ANnelID, AND NE-  
MATODE POPULATIONS IN CONIFEROUS  
FOREST SOIL.  
V Huhta E Karpinen M Nurminen A Valpas  
4(2):87-146 REF  
1967  
Animal adaptation, Annelida, Arthropoda, Chemi-  
cal control (insects), Climate, Coniferae, Dusting,  
Environment, Fertilizers, Forest cutting cycles,  
Forests, Insecticides, Nematodes, Population, Re-  
forestation, Silviculture, Soil analysis, Tables  
(data), Thinning (trees).
- 14318-69**  
ROOTING OF NARROWLEAF EVERGREEN  
CUTTINGS AS INFLUENCED BY VARIOUS  
HORMONE TREATMENTS. (ABSTRACT).  
R M Irving W O Johnson  
*Hortscience* 3(2,SUMMER):121  
1968 SB1.H6  
Chemicals, Juniperus, Juniperus chinensis, Plant  
cuttings, Plant hormones, Roots, Thuja.
- 14319-69**  
MUTATION INDUCTION BY EMS IN AU-  
TOTETRAPLOID BARLEY.  
R Krishnaswami  
*Indian Acad Sci Proc Sect B* 67(3):125-128 REF  
Mar 1968 513 IN25B  
Barley, Ethyl methanesulfonate, Mutagens, Muta-  
tion, Polyploidy, Radiation.
- 14320-69**  
EFFECTS OF CIPC APPLICATIONS TO IN-  
DIVIDUAL EYES OF POTATO TUBERS ON  
TYPE AND PATTERN OF SPROUT DEVELOP-  
MENT.  
M S Lee E E Ewing  
*Hortscience* 3(2,SUMMER):102  
1968 SB1.H6  
Chlorpropham, Morphology, Physiology, Plant dis-  
eases, Potatoes, Research, Seeds.
- 14321-69**  
THE PESTICIDE REVIEW, 1968.  
J N Mahan D L Fowler H H Shepard  
54P.  
Dec 1968 1.956 M343P43  
Agricultural production economics, Agricultural  
research, Attractants, Fumigants, Fungicides, Her-  
bicides, Insect repellents, Insecticides, Pesticides,  
Plant regulators, Reviews, Rodenticides.
- 14322-69**  
EFFECTS OF SUCCINIC ACID 2, 2-DIMETHYL  
HYDRAZIDE (ALAR) ON APPLES. (AB-  
STRACT).  
G E Mattus  
*Hortscience* 3(2,SUMMER):122  
1968 SB1.H6  
Apples, Color, Harvesting, Research, Spraying,  
Storage, Succinic acid, 2,2-dimethylhydrazide.
- 14323-69**  
USE OF HIGH SPEED CENTRIFUGATION TO  
OBTAIN EXTRACTS FROM CUTTINGS  
TREATED BY TERMINAL APPLICATIONS OF  
INDOLEACETIC ACID-3 (IAA-2-14C). (AB-  
STRACT).  
J J Mc Guire L S Albert V G Shutak  
*Hortscience* 3(2,SUMMER):120  
1968 SB1.H6  
Centrifugation, Extracts, Ilex crenata, Isotopes,  
Plant cuttings, Quantitative analysis, Research.
- 14324-69**  
THE EFFECT OF SUCCINIC ACID 2,2-  
DIMETHYL HYDRAZIDE ON STEM AND LEAF  
TISSUES OF CHRYSANTHEMUM MORIFOLI-  
UM BRIGHT GOLDEN ANNE. (ABSTRACT).  
A W Mitlehner  
*Hortscience* 3(2,SUMMER):118  
1968 SB1.H6  
Chrysanthemum morifolium, Histology, Plant  
anatomy, Research, Succinic acid, 2,2-dimethyl-  
hydrazide, Tissues.
- 14325-69**  
EFFECTS OF GAMMA IRRADIATION ON  
PRICKLY PEAR CACTUS.  
C D Monk  
*Florida Acad Sci Quart J* 30(3):168-172  
Sep 1967 500 F66  
Gamma rays, Mortality, Opuntia, Plant injuries,  
Research, Tables (data), Time, Vegetation.
- 14326-69**  
INHERITANCE OF SPLIT COTYLEDONS IN  
SWEDE TURNIPS (BRASSICA NAPUS).  
T P Palmer  
*New Zeal J Bot* 6(2):129-136  
Jun 1968 450 N48  
Breeding, Genes, Heredity, Plant genetics, Plant  
morphology, Rape, Temperature, Turnips.
- 14327-69**  
STIMULATION AND RETARDATION OF AD-  
VENTITIOUS ROOT FORMATION BY APPLI-  
CATION OF B-NINE AND CYCOCEL.  
P E Read V C Hoyscer  
*Hortscience* 3(2,SUMMER):121  
1968 SB1.H6  
Chloroethyltrimethylammonium chloride, (2-  
Geranium, Plant cuttings, Research, Roots, Stimu-  
lants.
- 14328-69**  
IN VIVO AND IN VITRO REACTIONS OF 1,1-  
DIMETHYLAMINO SUCCINAMIC ACID (B-9,  
ALAR) AND RELATED SUBSTANCES.  
R M Sachs K Ryugo  
*Hortscience* 3(2,SUMMER):124-125  
1968 SB1.H6  
Beans, Biology, Culture media, Leaves, Peas,  
Research, Succinic acid, 2,2-dimethylhydrazide.
- 14329-69**  
ECONOMIC EFFECT AND CONTROL OF  
WOOD-BORING INSECTS IN FRUIT TREES.  
L J Saliba  
*Int Pest Contr* 10(6,NOV-DEC):18,21-23 REF  
1968 79.8 P432  
Apples, Bark, Chemical control (pests), Control  
equipment, Economics, Fruit culture, Larvae,  
Pears, Pesticide residues, Spraying, Wood borers.
- 14330-69**  
MOISTURE CORROSION, A NEW CORROSIVE  
METHOD. (GE)  
E Schrader  
*Gesunde Pflanzen* 19(8):165-167  
Aug 1967 464.8 G33  
Barley, Chemical reactions, Corrosion, Oats, Rye,  
Seeds, Soil moisture, Wheat.
- 14331-69**  
IMPORTANCE OF INDUSTRY AND LABOR TO  
PLANT CARE IN FARM MANAGEMENT.  
(GER)  
W Stohr  
*Gesunde Pflanzen* 19(7):133-140  
Jul 1967 464.8 G33  
Agricultural economics, Agricultural industries,  
Agricultural labor, Chemical control (plant dis-  
eases), Chemical control (weeds), Climate, Corn,  
Farm management, Fungus diseases (plants),  
Grain, Plant protection, Potatoes, Rape, Turnips,  
Weeds.
- 14332-69**  
VEGETATIVE AND FRUITING RESPONSES OF  
PECAN (CARYA ILLINOENSIS KOCH) TO  
HEADING BACK AND N-DIMETHYLAMINO  
SUCCINAMIC ACID. (ABSTRACT).  
J B Storcy G Madden G Garza  
*Hortscience* 3(2,SUMMER):126  
1968 SB1.H6  
Carya illinoensis, Crop yields, Harvesting,  
Physiology, Research, Succinic acid, 2,2-dimethyl-  
hydrazide, Vegetation.
- 14333-69**  
DEGRADATION OF PURE AFLATOXIN BY  
TETRAHYMENA PYRIFORMIS.  
D J Teunissen J A Robertson  
*Appl Microbiol* 15(5):1099-1103  
Sep 1967 448.3 AP5  
Aflatoxin, Assay, Cells, Fungi, Microbiology,  
Physiology, Tetrahymena, Time, Ultraviolet rays.
- 14334-69**  
BRUSSELS SPROUTS GROWTH AND  
PRODUCTION AS INFLUENCED BY N-  
DIMETHYLAMINO SUCCINAMIC ACID  
(ALAR). (ABSTRACT).  
D R Tompkins R A Norton  
*Hortscience* 3(2,SUMMER):100  
1968 SB1.H6

Brussels sprouts, Harvesting, Plant regulators, Research, Spraying, Succinic acid, 2,2-dimethylhydrazide.

14335-69

THE EFFECTS OF ALAR ON RED TART CHERRIES (PRUNUS CEREASUS).

C R Unrath A L Kenworthy

*Hortscience* 3(2,SUMMER):125

1968 SB1.H6

Harvesting, Morphology, Physiology, Research, Sour cherries, Succinic acid, 2,2-dimethylhydrazide.

14336-69

THE LOW MAXIMUM TEMPERATURE FOR GROWTH OF THE PSYCHROPHILE SCLEROTINIA BOREALIS; EVIDENCE FOR THE UNCOUPLING OF GROWTH FROM RESPIRATION.

E W B Ward

*Can J Bot* 46(4):385-390

Apr 1968 470 C16C

Cells, Plant physiology, Research, Respiration, Temperature.

14337-69

REPELLING PHEASANTS FROM SPROUTING CORN WITH A CARBAMATE INSECTICIDE.

R R West R B Brunton D J Cunningham

*J Wildlife Manage* 33(1):216-219

Jan 1969 410 J827

Bird control, Carbamates, Chemical control (pests), Corn, Costs, Insect repellents, Insecticides, Methylthio-3,5-xyllyl methylearbamate, 4-(, Pheasants, Production economics, Seed treatment.

14338-69

EFFECT OF N-DIMETHYLAMINO SUCINAMIC ACID (ALAR) ON VEGETABLE GROWTH OF CHILE PEPPER (CAPSICUM FRUTESCENS) PLANTS. (ABSTRACT).

G G Wilbert R M Nakayama

*Hortscience* 3(2,SUMMER):101

1968 SB1.H6

Bush redpeppers (vegetable), Plant anatomy, Plant growth inhibitors, Research, Succinic acid, 2,2-dimethylhydrazide.

## DISEASES

14339-69

THE INTERRELATIONSHIP OF RESISTANCE AND SUSCEPTIBILITY OF COTTON TO VERTICILLIUM ALBO-ATRUM AND FUSARIUM OXYSPORUM F. SP. VASINFECTUM AS INFLUENCED BY SOIL TEMPERATURE. (ABSTRACT).

A Abdel-Raheem L S Bird

*Phytopathology* 58(6):725

Jun 1968 464.8 P56

Cotton, Fungus diseases (plants), Fusarium oxysporum vasinfectum, Plant disease resistance, Soil temperature, Verticillium albo-atrum, Wilt.

14340-69

BACTERIAL RUST ON SOUR CHERRIES AND PEARS. (GE)

Anonymous

*Brunswick Biol Bundesanst Land-forstwirtschaft Merkbl* 1(28).5P.

Feb 1968 464.9 B833M

Bacterial diseases (plants), Diagnosis, Fruit, Illustrations, Plant injuries, Pseudomonas, Rainfall.

14341-69

NARROW LEAVES REDUCE BOLL ROT.

Anonymous

*Cotton* 4(6):24

Jun 1968 72.8 C8225

Boll rot, Cotton, Leaves, Plant breeding, Plant disease resistance, Plant diseases.

14342-69

THE ETIOLOGY, INCLUDING NUTRITIONAL CONSIDERATIONS, OF PASSION FRUIT BROWN SPOT IN HAWAII.

M Aragaki S Nakata C Long

*Plant Dis Rep* 53(10):789-792

Oct 1969 1.9 P69P

Brown spot, Chemical control (plant diseases), Fertilizers, Fungicides, Fungus diseases (plants), Granadilla, Maneb, Plant diseases, Plant nutrition, Triazines.

14343-69

SOIL CONDITION AND THE VIOLET AND WHITE ROOT ROT DISEASES OF FRUIT TREES. (JA)

T Arami

*Tokyo Nat Inst Agr Sci Bull Ser C (plant Pathol Entomol) (SER.C)*(21):1-109 REF

Mar 1967 464.9 C433

Chemical control (plant diseases), Fungus diseases (plants), Helicobasidium mompa, Hydrogen-ion concentration, Morus, Pears, Plant ecology, Plant physiology, Population, Rosellinia necatrix, Soils, Surveys, Temperature, Violet root rot, White root rot. English summary

14344-69

INTERACTIVE EFFECTS OF GIBBERELLIC ACID AND ALAR ON BUSH BEAN GROWTH. (ABSTRACT).

A R Attarian

*Hortscience* 3(2,SUMMER):98

1968 SB1.H6

Chemicals, Gibberellin acid, Greenhouse culture, Leaves, Plant physiology, Research, Spraying, Succinic acid, 2,2-dimethylhydrazide.

14345-69

NATURE AND INHERITANCE OF RESISTANCE TO RED CLOVER VEIN MOSAIC VIRUS IN PISUM SATIVUM. (ABSTRACT).

J R Baggett J D Tsai

*Hortscience* 3(2,SUMMER):107

1968 SB1.H6

Breeding, Environment, Greenhouses, Mosaic, Physiology, Pisum sativum, Virus diseases (plants).

14346-69

VERTICILLIUM SPP. AND ASSOCIATED FUNGI FROM CERTIFIED POTATO SEED TUBERS.

C H Beekman G J Stessel F L Howard

*Plant Dis Rep* 53(10):771-773

Oct 1969 1.9 P69P

Fungus diseases (plants), Potatoes, Surveys, Verticillium.

14347-69

TEN YEARS OF INVESTIGATIONS WITH POTATO VIRUS IN HANNOVER. (GE)

G Borchardt

*Gesunde Pflanzen* 19(8):157-160

Aug 1967 464.8 G33

Gibberellins, Mosaic, Potatoes, Virus diseases (plants), Virus X, Virus Y.

14348-69

ON THE TOLERANCE OF WHEAT AGAINST SEPTORIA NODORUM BERK. (GE)

Broennimann

*Phytopathol Z* 62(4):365-370

Aug 1968 464.8 P562

Plant disease resistance, Plant diseases, Plant physiology, Research, Septoria nodorum, Wheat. English summary.

14349-69

LIVING HAUSTORIA AND HYPHAE OF ERYSPHE GRAMINIS F.SP. HORDEI WITH INTACT AND PARTLY DISSECTED HOST CELLS OF HORDEUM VULGARE.

W R Bushnell J Dueck J B Rowell

*Can J Bot* 45(9):1719-1732 REF

Sep 1967 470 C16C

Barley, Cells, Erysiphe graminis, Fungus diseases (plants), Hyphae, Parasitism.

14350-69

THE CAUSES OF SAPSTAIN IN RED BEECH.

J A Butcher

*New Zeal J Bot* 6(3):376-385 REF

Sep 1968 450 N48

Ceratoeystis, Chemical control (plant diseases), Drying, Fagus, Fungus diseases (plants), Lumber preservatives, Sap stain (wood), Sphaeropsidales.

Control of sapstain in red beech lumber in Australia with chemical dips and forced air drying is discussed. Species of Ceratoeystis, Phialophora and Sphaeropsidales (fungi) were identified as the etiological agents.

14351-69

CULTURAL FACTORS IN RELATION TO COLLAR ROT CONTROL OF GROUNDNUT.

J S Chohan S P Kapoor

*Punjab Agr Univ J Res* 4(4):536-542 REF

Dec 1967 S19.P8

Aspergillus niger, Chemical control (plant diseases), Collar rot (peanuts), Fungicides, Fungus diseases (plants), Peanuts, Research.

14352-69

INTERNAL BROWN SPOT--A CONDITION IN YAMS IN BARBADOS.

D G Coursey

*Agr Soc Trinidad Tobago J* 67(4):473-482

Dec 1967 8 T73

Brown spot, Plant disease control, Plant disease transmission, Virus diseases (plants), Yams.

14353-69

THE IMPORTANCE OF PRECEDING CROP-DEPENDENT SHIFTS IN THE MICRO FLORA OF THE SOIL. I. THE INFLUENCE OF SOIL FUNGI ON THE ROOT DEVELOPMENT OF WHEAT, PEAS, AND RAPE. (GE)

K H Domsch W Gams

*Phytopathol Z* 63(1):64-74 REF

Sep 1968 464.8 P562

Chlorella, Crop rotation, Fungus diseases (plants), Peas, Plant physiology, Rape, Research, Roots, Soil fungi, Soil microorganisms, Wheat. English summary.

14354-69

THE PROBLEM OF SOWBANE MOSAIC VIRUS CONTAMINATION.

D J Engelbrecht M H V Regenmortel

*Phytopathol Z* 63(1):10-14

Sep 1968 464.8 P562

Chenopodium quinoa, Diagnosis, Latent virus (apples), Mosaic, Plant disease transmission, Serological tests, Virus diseases (plants). German summary.

14355-69

STUDIES ON VIRUS DISEASES OF STRAWBERRIES IN THE WESTERN CAPE PROVINCE. I. DEGENERATION OF LOCALLY BRED STRAWBERRY CULTIVARS.

D J Engelbrecht

*S Afr J Agr Sci* 10(2):345-352

Jun 1967 24 SU3

Chaetosiphon fragaefolii, Crinkle (strawberries), Insect vectors, Strawberries, Virus diseases (plants), Yellow edge (strawberries).

14356-69

CHENOPODIUM AS HOST TO VIRUSES TRANSMITTED FROM APPLE, PEAR AND GRAPEVINE.

P J Engelbrecht L D Wolfswinkel

*S Afr J Agr Sci* 10(2):419-428 REF

Jun 1967 24 SU3

Apples, Chenopodium, Grapes, Pears, Sap, Vectors, Virus diseases (plants).

14357-69

VERTICILLIUM WILT OF COTTON--THE SITUATION IN THE NAMOI VALLEY.

G Evans

*Agr Gaz New S Wales* 78(PT 10):580-584

Oct 1967 23 N472

- Air-borne plant diseases, Cotton, Crop losses, Cultural control (plant diseases), Plant disease resistance, Soilborne plant diseases, Verticillium, Wilt (cotton).
- Crop rotation and the development of resistant strains of cotton are discussed as controls of verticillium wilt of cotton in Australia.
- 14358-69**  
EFFECTS OF CERCOSPORA LEAF SPOT AND DATES OF HARVEST ON SUGAR BEET VARIETIES WITH OR WITHOUT MANEB TREATMENT.  
R E Finker D E Farus  
*Amer Soc Sugar Beet Technol J* 14(8):643-663  
Jan 1968 66.9 AM35J
- Cercospora, Chemical control (plant diseases), Crop varieties, Crop yields, Fungicides, Fungus diseases (plants), Harvesting date, Leaf spot, Maneb, Plant biochemistry, Sugar beets, Thiocarbamates.
- 14359-69**  
VIRULENCE OF UREDIAL AND AECIAL ISOLATES OF PUCCINIA CORONATA CORDA F.SP. AVENAE IDENTIFIED IN CANADA FROM 1952 TO 1966.  
G Fleischmann  
*Can J Bot* 45(9):1693-1701  
Sep 1967 470 C16C
- Crown rust (oats), Oats, Plant disease resistance, Puccinia coronata, Time, Virulence.
- 14360-69**  
A TRANSMISSIBLE DISORDER OF GLADIOLUS FLOWERS.  
J L Forsberg W Hartstirn  
*Plant Dis Rep* 53(10):818-819  
Oct 1969 1.9 P69P
- Gladiolus, Plant disease transmission, Plant galls, Virus diseases (plants).
- 14361-69**  
POLYPHENOLS AND DISCOLORATION IN THE ELM DISEASE INVESTIGATED BY HISTOCHEMICAL TECHNIQUES.  
C Gagnon  
*Can J Bot* 45(11):2119-2124 REF  
Nov 1967 470 C16C
- Histochemistry, Phenols, Plant diseases, Research, Ulmus americana.
- 14362-69**  
EFFECTS OF N-DIMETHYLAMINO SUCINAMIC ACID (ALAR) ON YIELD, SIZE, MATURATION, AND QUALITY OF PEACHES WITH REFERENCE TO ITS USE IN ADAPTING FRUIT FOR MECHANICAL HARVESTING. (ABSTRACT).  
C E Gambrell E T Sims W H Rhodes  
*Hortscience* 3(2,SUMMER):125  
1968 SB1.H6
- Color, Crop yields, Equipment, Harvesting, Peaches, Research, Spraying, Succinic acid, 2,2-dimethylhydrazide.
- 14363-69**  
INVESTIGATIONS CONCERNING A ROOT ROT ON PHALAEOPSIS HYBRIDS AND ITS CAUSATIVE AGENT (FUSARIUM OXYSPORUM). (GE)  
W Gerlach G Borchardt  
*Phytopathol Z* 63(1):30-39 REF  
Sep 1968 464.8 P562
- Fungus diseases (plants), Fusarium oxysporum, Morphology, Phalaenopsis, Plant disease control, Research. English summary.
- 14364-69**  
LUCERNE BUD MITE RECORDED FROM NEW SOUTH WALES.  
F A Gibson  
*Agr Gaz New S Wales* 78(PT 10):576-577  
Oct 1967 23 N472
- Aceria, Alfalfa, Insect vectors, Virus diseases (plants).
- The association of the lucerne bud mite, Medicago sativa and the virus disease, witches' broom in Australia is discussed.
- 14365-69**  
IDENTIFICATION OF THE VIRUS CAUSING PAPAWE YELLOW CRINKLE WITH TOMATO BIG BUD VIRUS BY TRANSMISSION TESTS.  
R S Greber  
*Queensland J Agr Anim Sci* 23(2):147-153 REF  
Jun 1966 23 Q37
- Caricaceae, Clover, Cuscuta, Phyllody, Tomatoes, Virus diseases (plants).
- 14366-69**  
FUNGAL FOES THAT MENACE GINGER CROP.  
G K Gupta B R Verma  
*Indian Farming* 16(1):15  
Apr 1966 22 IN283
- Fungicides, Fungus diseases (plants), Fusarium, Phyllosticta, Pythium, Zingiber officinale.
- 14367-69**  
THE EFFECT OF INOCULUM CONCENTRATION ON VIRUS MULTIPLICATION IN CUCUMBER COTYLEDONS. II. CUCUMBER MOSAIC AND TOBACCO MOSAIC VIRUSES.  
P Havranek  
*Acta Virol* 11(6):538-543  
Nov 1967 448.3 AC85
- Cucumbers, Immunization, Inoculum, Mosaic, Tobacco, Tobacco mosaic virus, Virology, Virus diseases (plants).
- 14368-69**  
AN APPARENTLY TWO-FACTOR DOSE-RESPONSE DEPENDENCE IN LUCERNE MOSAIC VIRUS ASSAY.  
P Havranek J Zavada  
*Acta Virol* 11(6):544-550 REF  
Nov 1967 448.3 AC85
- Alfalfa, Biological assay, Culture media, Mosaic, Necrosis, Plant galls, Tobacco, Virus diseases (plants).
- 14369-69**  
REMOVAL OF PSEUDOMONADS FROM PLANT LEAVES AND MEASUREMENT OF THEIR IN VIVO BETA-GLUCOSIDASE SYNTHESIS.  
D C Hildebrand M N Schroth  
*Phytopathology* 58(3):354-358  
Mar 1968 464.8 P56
- Bacterial diseases (plants), Centrifuges, Cowpeas, Glucosidases, Hydrogen-ion concentration, Leaves, Parasitism, Plant biochemistry, Pseudomonas putida, Pseudomonas savastanoi, Pseudomonas syringae, Serratia marcescens, Tobacco.
- 14370-69**  
EVIDENCE FOR THE RELEASE OF 28 S RNA FROM TURNIP YELLOW MOSAIC VIRUS HEATED IN VITRO.  
J H Hitchborn  
*J Gen Virol* (3,PT 1):137-140 REF  
Jul 1968 QR360.A1J6
- Culture media, Heat, Methodology, Mosaic (turnips), Research, Ribonucleic acid, Temperature, Virus diseases (plants).
- 14371-69**  
ALTERNARIA LEAF SPOT OF LOLONDO (OLEA WELWITSCHII (KNOBL.) GILG. AND SCHELLENB.).  
D Hocking  
*Arusha Trop Pesticides Res Inst Misc Rep* 558, 6 P  
May 1966 423.92 G7922
- Alternaria porri, Alternaria tenuis, Black mildew, Cladosporium, Dothidea, Fungus diseases (plants), Glomerella, Leaf spot, Meliola petiolaris, Olea weltwitschii.
- 14372-69**  
LEVELS OF SHIKIMATE AND FOLATE IN PRIMARY LEAVES OF WHEAT AND IN UREDOPORES OF LEAF RUST.  
D W Hollomon A Fuchs R Rohringer  
*Can J Bot* 45(9):1771-1773 REF  
Sep 1967 470 C16C
- Folic acid, Fungus diseases (plants), Leaf rust (wheat), Plant biochemistry, Shikimic acid, Wheat.
- 14373-69**  
STUDIES ON THE PATHOLOGICAL ANATOMY OF RICE PLANTS INFECTED BY HELMINTHOSPORIUM ORYZAE, I. BEHAVIOR OF THE CAUSAL FUNGUS ON THE COLEOPTILE OF RICE SEEDLINGS AND ITS ULTRAFINE STRUCTURE. (JA)  
O Horino S Akai  
*Phytopathol Soc Jap Ann* 34(1):51-55 REF  
Jan 1968 464.9 P562
- Cell wall, Coleoptile, Fungus diseases (plants), Helminthosporium oryzae, Immunity, Microscopy, Mycology, Plant anatomy, Plant cytology, Plant hardness, Rice, Seed germination, Seedlings. English summary.
- 14374-69**  
CRYOPRESERVATION AND PATHOGENICITY OF SELECTED ISOLATES OF COLLETOTRICHUM, RHIZOCTONIA, AND PHYTOPHTHORA.  
S W Hwang A L Anderson G C Papavizas R H Converse  
*Phytopathology* 58(3):362-364 REF  
Mar 1968 464.8 P56
- Beans, Colletotrichum lindemuthianum, Freeze drying, Fungus diseases (plants), Nitrogen, Phytophthora fragariae, Plant morphology, Radishes, Rhizoctonia, Rhizoctonia solani, Soybeans, Sugar beets, Wheat.
- 14375-69**  
PLANT CARE ON THE NORTH SEA COAST. (GE)  
W Ihlemann  
*Gesunde Pflanzen* 19(8):169-171  
Aug 1967 464.8 G33
- Climate, Fungus diseases (plants), Herbicides, Humidity, Plants, Soil moisture, Tillage.
- 14376-69**  
INFLUENCE OF HYDROSTATIC PRESSURE UPON GERMINABILITY OF THE SPORES OF SOME RICE-PARASITIC FUNGI EFFECTS OF PHYSICAL FACTORS UPON PLANT DISEASES. III. (JA)  
H Ikegami I Takagi  
*Phytopathol Soc Jap Ann* 33(3):144-149  
Jan 1967 464.9 P562
- Cochliobolus miyabeanus, Conidia, Fungus diseases (plants), Hydrostatics, Puccinia oryzae, Plant physiology, Rice, Seed germination, Ustilaginoidea virens. Abstract in English.
- 14377-69**  
SOIL-BORNE WHEAT MOSAIC VIRUS FROM POA ANNUA L., A NEW HOST. (JA)  
T Inaba Y Saito  
*Phytopathol Soc Jap Ann* 34(1):40-45  
Jan 1968 464.9 P562
- Electron microscopy, Grain, Leaves, Mosaic, Plant disease transmission, Poa annua, Polymyxa graminis, Sap, Seed germination, Seedlings, Soilborne plant diseases, Virus diseases (plants), Wheat. Abstract in English.
- 14378-69**  
YELLOW DWARF OF PEA AND BROADBEAN CAUSED BY MILK-VETCH DWARF VIRUS. (JA)  
T Inouye K Mitsuhashi  
*Phytopathol Soc Jap Ann* 34(1):28-35 REF  
Jan 1968 464.9 P562
- Aphididae, Astragalus, Broadbeans, Dwarf disease, Epidemiology, Host indexing (plants), Peas, Plant disease transmission, Plant diseases, Temperature, Time, Virus diseases (plants), Yellow dwarf. Abstract in English.
- 14379-69**  
EVIDENCE OF HYPHAL GROWTH OF CRONARTIUM QUERCUM IN THE PINE-HOST CAMBIUM.  
F F Jewell  
*Plant Dis Rep* 53(10):793-794 REF  
Oct 1969 1.9 P69P
- Cambium, Cronartium quercuum, Fungus diseases (plants), Pinus, Plant physiology.

14380-69

14380-69  
VEGETABLE DRY ROT AND PHYTOPROG-  
SERVICE IN NORTH-HANOVER 1968. (GE)

Kabiersch

*Gesunde Pflanzen* 20(11):252-254

Nov 1968 464.8 G33

Biochemistry, Chemical control (plant diseases),  
Fungicides, Fungus diseases (plants),  
Phytophthora, Potatoes, Spraying.

14381-69

PHYTOPHTHORA-PROGNOSIS AND -CON-  
TROL IN THEORY AND PRACTICE. (GE)

Kabiersch

*Gesunde Pflanzen* 19(8):163-165

Aug 1967 464.8 G33

Chemical control (plant diseases), Fungus diseases  
(plants), Phytophthora.

14382-69

ON THE LONGEVITY OF CONIDIA OF CU-  
CUMBER DOWNY MILDEW FUNGUS, WITH  
SPECIAL REFERENCE TO THE INFLUENCE  
OF SUNLIGHT. (JA)

T Kajiwara Y Iwata

*Phytopathol Soc Jap Ann* 34(2):85-91 REF

Mar 1968 464.9 P562

Conidia, Cucumbers, Downy mildew, Fungus dis-  
eases (plants), Irradiation, Light, Mycology, Pscu-  
doperonospora cubensis, Seed germination, Tem-  
perature, Time. Abstract in English

14383-69

A CONTRIBUTION TO STUDIES ON THE  
BIOLOGY AND CONTROL OF APPLE MIL-  
DEW (PODOSPHAERA LEUCOTRICHA (ELL.  
AND EV.) SALM.).

H Kaspers

*Pflanzenschutz Nachr Bayer* 20(4):687-702

1967 464.8 H67AE

Apples, Biology, Environment, Fungus diseases  
(plants), Greenhouse culture, Mildew, Plant dis-  
ease control, Podosphaera leucotricha, Seed ger-  
mination.

14384-69

EPIDEMIOLOGY OF TEA BLISTER BLIGHT  
(EXOBASIDIUM VEXANS), THE GENUS  
GRAPHELYSLIA HAMPSON, 1911 (LEPIDOP-  
TERA -HETEROCERCA).

A Kerr R L De Silva

*Ceylon Tea Res Inst Tea Quart* 40(1):9-18

Mar 1969 68.18 C33

Arctiidae, Epidemiology, Exobasidium vexans,  
Fungus diseases (plants), Insect color, Insect  
physiology, Insect taxonomy, Plant disease trans-  
mission, Reproductive organs, Tea.

14385-69

ECOLOGICAL STUDIES ON THE SOFT-ROT  
BACTERIA OF VEGETABLES. III. APPLI-  
CATION OF IMMUNOFLUORESCENT STAINING  
FOR THE DETECTION AND THE COUNTING  
OF ERWINIA AROIDEAE IN SOIL. (JA)

T Kikumoto M Sakamoto

*Phytopathol Soc Jap Ann* 33(3):181-186 REF

Jun 1967 464.9 P562

Bacterial diseases (plants), Bacterial soft rot,  
Cabbage, Carrots, Cells, Erwinia aroideae,  
Fluorescent dyes, Immunology, Plant ecology, Soil-  
borne plant diseases, Vegetables. Abstract in En-  
glish

14386-69

STUDIES ON THE MONILIA DISEASE OF THE  
APPLE CAUSED BY MONILINIA MALI (TAK.)  
NHETZEL. (JA)

J Kimura

*Phytopathol Soc Jap Ann* 33(3):126-128

Jun 1967 464.9 P562

Apples, Fruit, Fungus diseases (plants), Monilia-  
s, Sclerotinia mali.

14387-69

A VEINBANDING VIRUS OF GROUNDNUTS,  
ARACHIS HYPOGAEA L.

P J Klesser

*S Afr J Agr Sci* 10(2):515-528 REF

Jun 1967 24 SU3

Aphis craccivora, Insect vectors, Peanuts, Vein  
banding, Virus diseases (plants).

14388-69

BEAN YELLOW MOSAIC AND TOBACCO  
RINGSPOOT VIRUS ISOLATED FROM  
CROTALARIA (CROTALARIA SPECTABILIS).  
(JA)

Y Komuro M Iwaki

*Phytopathol Soc Jap Ann* 34(1):9-15 REF

Jan 1968 464.9 P562

Beans, Crotalaria spectabilis, Electron microscopy,  
Host indexing (plants), Ring spot, Taxonomy,  
Tobacco, Virus diseases (plants), Yellow mosaic.  
Abstract in English

Abstract: The host range was: aster, zinnia, Nico-  
tiana tabacum (bright yellow, xanthi), N. glutinosa,  
pectunia, okra, broad bean, crotalaria, bean,  
soybean, turnip, New Zealand spinach, Gomphrena  
globosa, C. amaranticolor.

14389-69

STRAINS OF TOBACCO MOSAIC VIRUS CON-  
TAINED IN CIGARETTES, WITH ESPECIAL  
REFERENCE TO THE INFECTION SOURCE  
FOR MOSAIC DISEASE OF TOMATO. (JA)

Y Komuro M Iwaki

*Phytopathol Soc Jap Ann* 34(2):98-102 REF

Mar 1968 464.9 P562

Cigarette industry, Mosaic, Plant biochemistry,  
Tobacco, Tobacco mosaic virus, Tomatoes, Virus  
diseases (plants). Summary in Japanese

14390-69

MILDEWS THAT MIGHT MAR YOUR OPIUM  
POPPY.

K L Kothari

*Indian Farming* 16(7):23-24

Oct 1966 22 IN283

Chemical control (plant diseases), Cultural control  
(plant diseases), Mildew (plants), Papaver som-  
niferum.

14391-69

EFFECT OF SOIL FUMIGANTS ON CONTROL  
OF PEA ROOT ROT PATHOGENS.

J M Kraft W A Haglund T P Reiling

*Plant Dis Rep* 53(10):776-780 REF

Oct 1969 1.9 P69P

Chemical control (plant diseases), Chlorinated  
hydrocarbons, Chloropicrin, Dichloropropene,  
1,3-, Fungus diseases (plants), Peas, Root rot, Soil  
fumigation, Telone.

14392-69

COMPUTATION OF RESULTS OF CROP PRO-  
TECTION EXPERIMENTS BY THE METHOD  
OF TOWNSEND AND HEUBERGER.

W F Kremer G Unterstenhofer

*Pflanzenschutz Nachr Bayer* 20(4):625-628

1967 464.8 H67AE

Apples, Celery, Cercospora, Chemical control  
(plant diseases), Crop yields, Fungicides, Fungus  
diseases (plants), Leaves, Peronospora, Venturia  
inaequalis. From the Townsend and Heuberger  
method

14393-69

AN ELECTRON MICROSCOPIC OBSERVA-  
TION OF THE SURFACE STRUCTURE OF  
CONIDIA OF ERYSPHE GRAMINIS HORDEL.  
(JA)

H Kunoh S Akai

*Mycol Soc Jap Trans* 8(2):77-79

01 Sep 1967 451 N622

Barley, Conidia, Electron microscopy, Erysiphe  
graminis hordei, Fungus diseases (plants), Mycolo-  
gy, Plant physiology, Powdery mildew.

14394-69

BREEDING FOR DISEASE RESISTANCE AND  
YIELD IMPROVEMENT IN FLUE-CURED  
TOBACCO. (AF)

M P Lamprecht

*S Afr J Agr Sci* 10(1):41-50

Mar 1967 24 SU3

Crop yields, Flue-cured tobacco, Fungus diseases  
(plants), Meloidogyne incognita, Plant breeding,

Plant disease resistance, Plant nematodes, Powdery  
mildew, Tobacco. English and French abstracts

14395-69

WITCHES' BROOM OF BERBERIS. (GE)

K Lohwag

*Pflanzenarzt* 21(5):66-67

01 May 1968 464.9 P482

Berberis, Fungus diseases (plants), Lolium  
perenne, Rust (wheat), Urceinales.

14396-69

IDENTIFICATION OF A BACTERIAL STRAIN  
PSEUDOMONAS SOLANACEARUM E. F. SM.  
OF TOBACCO (NICOTIANA TABACUM L.) IN  
COLOMBIA. (SP)

J C Lozano T H D Thurston

*Agr Trop* 23(5):289-294

May 1967 26 AG8

Bacterial diseases (plants), Biochemistry, Pscu-  
domonas solanacearum, Tobacco. English abstract

14397-69

IS AN EARLY INFECTION BY PERONOSPORA  
TABACINA ADAM CONTROLABLE IN THE  
FIELD. (GE)

W Luders

*Gesunde Pflanzen* 19(5):89-93

May 1967 464.8 G33

Chemical control (plant diseases), Field crops,  
Fungicides, Fungus diseases (plants), Manch,  
Peronospora tabacina, Polyethylene thiuram sul-  
fides, Tobacco, Zinc propylenebis(dithiocarb-  
mate), Zineb.

14398-69

EFFECT OF DIFFERENT MICRONUTRIENT  
SPRAYS ON CHLOROSIS, GRANULATION,  
FRUIT FALL, YIELD AND FRUIT QUALITY OF  
SWEET ORANGES VAR. BLOOD RED.

H R Manchanda

*Punjab Agr Univ J Res* 4(4):508-515

Dec 1967 S19.P8

Chemical control (plant diseases), Chlorosis  
(citrus), Crop yields, Oranges, Research, Spraying.

14399-69

ELECTRON MICROSCOPY OF UREDO-  
SPORES OF MELAMPORA LINI AND OF RUST-IN-  
FECTED FLAX.

M S Manocha M Shaw

*Can J Bot* 45(9):1575-1582 REF

Sep 1967 470 C16C

Electron microscopes, Flax, Fungus diseases  
(plants), Melampora lini, Rust (flax), Uredo-  
spores.

14400-69

THREE YEARS OF TESTS WITH NEW ANTI-  
PERONOSPORIC PREPARATIONS. (IT)

A Martinoli

*Giornate Fitopatol* 173-177

26 Mar 1967 SB599.G5

Botrytis cinerea, Chemical control (plant diseases),  
Folpet, Fungus diseases (plants), Grape vineyards,  
Grapes, Oidium, Peronosporales,  
Tetrachloroethylthio)-4-cyclohexene-1,2-dicar-  
boximide, cisN.

14401-69

PRODUCTION OF TOXINS AND PECTOLYTC  
ENZYMES BY TWO ISOLATES OF SCLEROTI-  
UM BATATICOLA TAUB. AND THEIR ROLE  
IN PATHOGENESIS.

S B Mathur

*Phytopathol Z* 62(4):327-333

Aug 1968 464.8 P562

Enzymes, Fungus diseases (plants), Pectins, Plant  
extracts, Sclerotium bataticola, Sunflowers, Tox-  
ins. German summary

14402-69

CONTROLLING EFFECT OF PHENYL-  
HYDRAZINE DERIVATIVES ON RICE BLAST  
IN RELATION TO THE STRUCTURAL  
MODIFICATIONS. (JA)

K Matsuura I Sumina Y Kitamura Y Usui

*Phytopathol Soc Jap Ann* 33(3):132-137



- Jun 1967 464.9 P562  
Blast, Chemical control (plant diseases), Fungus diseases (plants), Greenhouse culturc, Hydrazine compounds, Injections, Phenylhydrazine, Plant biochemistry, Plant physiology, Rice, Seed germination, Seedlings, Spraying. Abstract in English  
Abstract: Controlling effect in relation to the structural modifications of chlorophenylhydrazine and beta-acylchlorophenylhydrazine derivatives.
- 14403-69**  
**PHYLLACHORA DOMINGENSIS AND PHYLLACHORA SIMPLEX--NEW REPORTS FOR THE CONTINENTAL.**  
F D Matthews  
*Plant Dis Rep* 53(10):820  
Oct 1969 1.9 P69P  
Fungus diseases (plants), Plant geography.
- 14404-69**  
**ON FUSARIUM OXYSPORUM F. SP. LAGENARIAE N. F. CAUSING WILT OF LAGENARIA VULGARIS VAR. HISPIDA. (JA)**  
T Matuo 1 Yamamoto  
*Mycol Soc Jap Trans* 8(2):61-63  
01 Sep 1967 451 N622  
Calabash gourds, Fungus diseases (plants), Fusarium oxysporum lagenariae, Gourds, Plant morphology, Vegetables, Wilt disease (plants).
- 14405-69**  
**A LOW-VOLUME POSTHARVEST SPRAY OF BENOMYL PREVENTS ASCOSPORE PRODUCTION IN APPLE LEAVES INFECTED BY VENTURIA INAEQUALIS.**  
D L McIntosh  
*Plant Dis Rep* 53(10):816-817  
Oct 1969 1.9 P69P  
Apples, Benomyl, Chemical control (plant diseases), Fungicides, Venturia inaequalis.
- 14406-69**  
**A NEW LEAF SPOT DISEASE OF GARDENIA JASMINOIDES FROM INDIA.**  
V G Mhaikar  
*Phytopathol Z* 62(4):390-392  
Aug 1968 464.8 P562  
Gardenia, Leafspot, Phyllosticta, Plant diseases, Research, Taxonomy. German summary
- 14407-69**  
**TOBACCO DISEASES IN VENEZUELA, COSTA RICO AND NICARAGUA.**  
C R Miller  
*Plant Dis Rep* 53(10):823-824  
Oct 1969 1.9 P69P  
Fungus diseases (plants), Plant diseases, Surveys, Tobacco, Virus diseases (plants).
- 14408-69**  
**CONTRIBUTION TO THE INVESTIGATION OF CHEMOENDOTHERAPY OF SUGAR BEET INFECTED BY CERCOSPORA BETICOLA SACC. (CZ)**  
M Miric  
*Zasita Bilja* 12(91-92):267-276  
1966 464.8 Z1  
Cercospora beticola, Fungicides, Fungus diseases (plants), Greenhouse culturc, Mycelia sterilia, Plant biochemistry, Spores, Sugar beets. English summary
- 14409-69**  
**AN EVIDENCE FOR THE MULTIPLICATION OF RICE DWARF VIRUS IN THE VECTOR CELL CULTURES INOCULATED IN VITRO.**  
J Mitsuhashi S Nasu  
*Appl Entomol Zool* 2(2):113-114  
Jun 1967 5B599.A6  
Cells, Culture media, Dwarf disease (rice), Injections, Insect vectors, Nephrotettix cincticeps, Research, Virus diseases (plants).
- 14410-69**  
**A NEW BACTERIAL LEAF SPOT OF ANTIRRHINUM SEEDLINGS CAUSED BY A SUBSPECIES OF PSEUDOMONAS FLUORESCENS MIGULA, 1895.**  
M L Moffett  
*Queensland J Agr Anim Sci* 23(2):121-132 REF  
Jun 1966 23 Q37  
Antirrhinum, Bacterial diseases (plants), Biochemistry, Host relationships, Leaf spot, Pseudomonas, Taxonomy.
- 14411-69**  
**BACTERIAL LEAF SPOT OF CAPE GOOSEBERRY IN QUEENSLAND.**  
M L Moffett D S Teakle  
*Queensland J Agr Anim Sci* 23(2):133-145 REF  
Jun 1966 23 Q37  
Bacterial diseases (plants), Biochemistry, Gooseberries, Leaf spot, Taxonomy, Xanthomonas.
- 14412-69**  
**RUST OF STONE FRUITS.**  
*Agr Gaz New S Wales* 78(PT 12):BACK COVER  
Dec 1967 23 N472  
Bordeaux mixture, Chemical control (plant diseases), Fungicides, Fungus diseases (plants), Rust (trees), Sulfur compounds, Tranzscheliella, Zineb.
- 14413-69**  
**PEACH LEAF CURL (TAPHRINA).**  
*Agr Gaz New S Wales* 78(PT 7):BACK COVER  
Jul 1967 23 N472  
Bordeaux mixture, Chemical control (plant diseases), Fungus diseases (plants), Leaf curl, Peaches, Phytopathology, Taphrina deformans.  
Chemical control of Taphrina deformans, the fungal agent of peach leaf curl in Australia is discussed.
- 14414-69**  
**COMMON SCAB AND RHIZOCTONIA DISEASE OF POTATO.**  
*Agr Gaz New S Wales* 78(PT 5):BACK COVER  
May 1967 23 N472  
Actinomycetes, Chemical control (plant diseases), Cultural control (plant diseases), Fungus diseases (plants), Rhizoctonia, Scab (potatoes).
- 14415-69**  
**LEAFSPOT OF CUCURBITA PEPO CAUSED BY ALTERNARIA CUCUMERINA. (JA)**  
N Nishihara  
*Phytopathol Soc Jap Ann* 34(2):152-155 REF  
Jul 1968 464.9 P562  
Alternaria cucumerina, Fungus diseases (plants), Leaf spot, Pumpkins, Vegetables.
- 14416-69**  
**HELMINTHOSPORIUM LEAFSPOT OF BUF-FALOGRASS IN JAPAN. (JA)**  
N Nishihara  
*Phytopathol Soc Jap Ann* 33(3):197-200  
Jun 1967 464.9 P562  
Buchloe dactyloides, Fungus diseases (plants), Grasses, Helminthosporium buchloes, Leaf spot.
- 14417-69**  
**COMPARISON OF ABSORBED BIPHENYL IN ORANGES AND BIPHENYL VAPOR IN CONTROLLING DECAY, MYCELIAL GROWTH, AND SPORULATION BY PENICILLIUM DIGITATUM.**  
S M Norman D C Fouse C C Craft  
*Plant Dis Rep* 53(10):780-784  
Oct 1969 1.9 P69P  
Biphenyl, Chemical control (plant diseases), Fungus diseases (plants), Oranges, Penicillium digitatum.
- 14418-69**  
**PEROXIDASE ISOZYMES IN VIRUS-INFECTED PLANTS.**  
A Novacky R E Hampton  
*Phytopathology* 58(3):301-305 REF  
Mar 1968 464.8 P56  
Cowpeas, Enzymes, Kidney beans, Mosaic, Mosaic (beans), Mosaic (tobacco), Mung beans, Peroxidases, Ring spot, Streak (tobacco), Tobacco, Virus diseases (plants).
- 14419-69**  
**INVESTIGATIONS ON THE USE OF THE PARASITIC FUNGUS BEAUVERIA BASSIANA IN THE CONTROL OF PESTS ON FIELD AND FOREST CROPS IN CZECHOSLOVAKIA. (FR)**  
V Novak A Samsinakova  
*Entomophaga Mem Hors Ser* (2):133-135  
1964 421 EN835M  
Beauveria bassiana, Biological control (insects), Hylobius abietis, Insect outbreaks, Leptinotarsa decemlineata, Trypodendron lineatum. English summary
- 14420-69**  
**INTERACTION BETWEEN TWO RACES OF PIRICULARIA ORYZAE IN LESION-FORMATION IN RICE PLANTS AND ACCUMULATION OF FLUORESCENT COMPOUNDS ASSOCIATED WITH INFECTION. (JA)**  
K Ohata T Kozaka  
*Tokyo Nat Inst Agr Sci Bull Ser C (plant Pathol Entomol)* (SER.C)(21):111-132 REF  
Mar 1967 464.9 C433  
Chromatography, Fluorescent substances, Leaves, Piricularia oryzae, Plant biochemistry, Plant injuries, Plant physiology, Rice, Seed germination, Ultraviolet rays, Virus diseases (plants).
- 14421-69**  
**PHYSIOLOGICAL STRAINS OF PUCCINIA GRAMINIS TRITICI IN COLOMBIA AND ITS IMPLICATIONS. (SP)**  
N Orjuela J  
*Agr Trop* 23(7):465  
Jul 1967 26 AG8  
Fungus diseases (plants), Puccinia graminis.
- 14422-69**  
**PRELIMINARY REPORT ON THE AMINO ACID COMPOSITION OF TMV-C PROTEIN.**  
N Oshima Y Kanazawa  
*Phytopathol Soc Jap Ann* 34(2):155-157  
Jul 1968 464.9 P562  
Amino acids, Centrifugation, Leaves, Mosaic, Necrosis, Plant physiology, Proteins, Rorippa sylvestris, Tobacco, Tobacco mosaic virus, Virus diseases (plants). Summary in Japanese
- 14423-69**  
**THE INDUCTION OF STELAR REDDENING IN STRAWBERRY ROOTS.**  
A G Otterbacher D Powell C C Zych  
*Plant Dis Rep* 53(10):794-797 REF  
Oct 1969 1.9 P69P  
Fungus diseases (plants), Phytophthora fragariae, Plant disease resistance, Steles, Strawberries.
- 14424-69**  
**PHYSIOLOGICAL AND ECOLOGICAL STUDIES ON THE OVERSUMMERING AND OVER-WINTERING OF THE STRIPE RUST OF WHEAT AND BARLEY, PUCCINIA STRIFORMIS WESTEND. (JA)**  
S Ozo  
*Phytopathol Soc Jap Ann* 33(3):129-131  
Jun 1967 464.9 P562  
Barley, Fungus diseases (plants), Hibernation, Plant ecology, Plant hardiness, Plant physiology, Puccinia glumarum striiformis, Stripe rust, Uredinales, Wheat.
- 14425-69**  
**THE PRESENT STATE OF RICE RESEARCH IN INDIA--DISEASES.**  
S Y Padmanabhan  
*Indian Farming* 16(6):22-25  
Sep 1966 22 IN283  
Blast (rice), Fungicides, Helminthosporium, Piricularia, Plant disease resistance, Rice.
- 14426-69**  
**DAMAGE AND EVOLUTION DISTURBANCE THROUGH WEATHER INFLUENCE. (GER)**  
M Paetzhold  
*Gesunde Pflanzen* 19(7):148-150  
Jul 1967 464.8 G33  
Apples, Climate, Cork rot, Plant injuries, Roots, Seeds, Temperature.

14427-69

14427-69

DISEASES OF ANNUAL OLEACEAE IN COLOMBIA. (SP)

H Patino C

*Agr Trop* 23(8):532-539

Aug 1967 26 AG8

Colombia, Oleaceae, Plant diseases, Surveys.

14428-69

CONTROL OF POWDERY MILDEW OF CURBIBITS WITH SYSTEMIC AND NONSYSTEMIC FUNGICIDES.

A O Paulus F Shibuya J Osgood G W Bohn B J Hall Et Al

*Plant Dis Rep* 53(10):813-816

Oct 1969 1.9 P69P

Carbonates, Chemical control (plant diseases), Curbibits, Fungicides, Powdery mildew, Systemic fungicides.

14429-69

A STUDY OF THE BIOLOGY OF PSEUDOPEZIZA JONESII NANNF (PYRENOPEZIZA MEDICAGINIS FOCK) THE CAUSE OF YELLOW BLOTCHES ON LEAVES OF ALFALFA. (CZ)

M Perisie D Stojanovic

*Zastita Bilja* 12(91-92):183-190

1966 464.8 Z1

Alfalfa, Apothecium, Fungus diseases (plants), Leaves, Plant physiology, Pseudopeziza jonesii, Pseudopeziza medicaginis, Pyrenidia, Seed germination. English summary

14430-69

LIMB RUST OF PINE: THE CAUSAL FUNGI.

R S Peterson

*Phytopathology* 58(3):309-315, MAP REF

Mar 1968 464.8 P56

Cronartium, Fungus diseases (plants), Peridermium, Peridermium filamentosum, Peridermium stalaetiforme, Pinus, Rust.

14431-69

A LEAFSPOT DISEASE OF KENAF IN MARYLAND ASSOCIATED WITH CRISTULARIELLA PYRAMIDALIS.

F G Pollack H E Waterworth

*Plant Dis Rep* 53(10):810-812

Oct 1969 1.9 P69P

Cristulariella pyramidalis, Fungus diseases (plants), Kenaf, Leaf spot.

14432-69

FUNGICIDES CAN CHECK FRUIT-ROT AND DIE-BACK OF CHILLI.

M Ramalingam C S Krishnamurthy

*Indian Farming* 16(5):34-35, 37

Aug 1966 22 IN283

Bordeaux mixture, Bush redpeppers (vegetable), Crop yields, Dieback, Fungicides, Rot (redpeppers).

14433-69

PESTICIDE SPRAYING DURING THE RAINS.

D B Reddy

*Indian Farming* 16(9):34

Dec 1966 22 IN283

Chemical control (insects), Insecticide application, Insecticides, Methodology, Rainfall.

A discussion of pesticide use in India during the rainy season and suggestions for their applications are given.

14434-69

CURRENT STATUS OF IN VITRO SYNTHESIS OF PLANT VIRUSES.

M E Reichmann J M Clark

*Annu Rev Phytopathol* 6:295-316 REF

1968 464.8 AN72

Adenosine triphosphates, Amino acids, Proteins, Ribonucleic acid, Virus diseases (plants), Viruses.

14435-69

SELECTIVE VAPOR PHASE ACTIVITY OF CHLORONITRO- AND CHLOROBENZENES IN SOIL.

L T Richardson

*Phytopathology* 58(3):316-322 REF

Mar 1968 464.8 P56

Chlorinated hydrocarbons, Fungi, Fungicides, Pythium ultimum, Rhizoctonia solani, Soil fumigation, Trichoderma viride, Vapors.

14436-69

EVALUATION AND USE OF FUNGICIDES IN COMMERCIAL CULTIVATION OF BARLEY IN COLOMBIA. (SP)

G Robayo J Orjuela H D Thurston

*Agr Trop* 23(7):455-464 REF

Jul 1967 26 AG8

Barley, Chemical control (plant diseases), Crop yields, Fungicides, Fungus diseases (plants), Maneb, Nickel, Spraying, Zinc. English abstract

14437-69

INHERITANCE OF RESISTANCE IN TOMATO (LYCOPERSICON SPP.) TO THE ANTHRACNOSE PATHOGEN COLLETOTRICHUM COCCODES.

M Robbins F F Angell

*Hortscience* 3(2.SUMMER):110

1968 SB1.H6

Anthracnose (tomatoes), Breeding, Colletotrichum coccodes, Microorganisms, Plant disease resistance, Research, Temperature, Tomatine.

14438-69

PHYTOPHTHORA DISEASES OF RUBBER IN CEYLON AND INDIA.

*Rubber Res Inst Malaya Plant Bull* (95):49-51

Mar 1968 78.9 R825

Chemical control (plant diseases), Fungus diseases (plants), Hevea, Phytophthora.

Leaf fall, pod rot and black stripe of rubber plants in Ceylon and India and the chemical controls of their etiologic agents are discussed.

14439-69

EARLY SOWINGS AND FUNGICIDES HELP ARREST THE ANGULAR LEAFSPOT OF COTTON.

V M Sahni S D Gera

*Indian Farming* 16(10):27

Jan 1967 22 IN283

Angular leafspot, Copper oxychloride, Cotton, Fungicides, Plant disease resistance, Seed planting.

The use of fungicides, early crop sowing and disease resistant varieties of cotton are discussed as controls of angular leaf spot diseases of cotton in India.

14440-69

SUGARCANE DISEASES IN THE PUNJAB--A SURVEY REPORT.

S S Sandhu N S Mann D S Bhatti

*Punjab Agr Univ J Res* 4(4):533-535

Dec 1967 S19.P8

Baeteria, Plant diseases, Reports, Research, Sugarcane, Surveys, Tables (data).

14441-69

EVIDENCE OF PHENOTYPIC MIXING BETWEEN TWO STRAINS OF TOBACCO MOSAIC VIRUS.

S Sarkar

*Z Vererbungslehre* 105(1):87-90

1969 442.8 Z34

Coconuts, Diagnosis, Leaves, Plant diseases, Plant nutrition, Proteins, Ribonucleic acid, Soil moisture, Temperature, Tobacco, Tobacco mosaic virus, Virus diseases (plants).

14442-69

A MILD STRAIN OF TRISTEZA VIRUS IN HASSAKU TREES (CITRUS HASSAKU HORT. ET Y. TANAKA) IN HIROSHIMA PREFECTURE. (JA)

A Sasaki

*Phytopathol Soc Jap Ann* 33(3):162-167 REF

Jun 1967 464.9 P562

Citrus, Greenhouse culture, Limes, Plant disease transmission, Plant grafting, Seedlings, Tree diseases, Tristeza, Virus diseases (plants). Abstract in English

14443-69

ISOLATION OF RISHITIN FROM TUBERS OF INTERSPECIFIC POTATO VARIETIES CONTAINING DIFFERENT LATE-BLIGHT RESISTANCE GENES.

N Sato K Tomiyama N Katsui T Masamune

*Phytopathol Soc Jap Ann* 34(2):140-142

Mar 1968 464.9 P562

Crop varieties, Fungus diseases (plants), Immunity, Late blight, Nodules (plants), Phytoalexin, Phytophthora infestans, Plant biochemistry, Plant disease resistance, Plant genetics, Potatoes, Rishitin, Solanum demissum. Abstract in Japanese

14444-69

EFFECTS OF N-DIMETHYLAMINO SUCINAMIC ACID (ALAR) ON MATURITY AND SIZE OF POCAHONTAS STRAWBERRIES. (ABSTRACT).

R L Schaefer

*Hortscience* 3(2.SUMMER):97

1968 SB1.H6

Greenhouse culture, Harvesting, Plant growth regulator, Research, Sampling (statistics), Strawberries, Succinic acid, 2,2-dimethylhydrazide.

14445-69

NEW TIN COMPLEX COMPOUNDS AS PLANT PROTECTION FUNGICIDES. (GE)

P Schicke K R Appel L Schroder Rhien

Ingelheim

*Pflanzenschutzberichte* 38(12):189-202

Oet 1968 464.9 P48

Biochemistry, Celery, Cercospora beticola, Chemical control (plant diseases), Metals, Phytophthora infestans, Plant protection, Research, Septoria apii, Sugar beets, Tomatoes. English summary

14446-69

GREENHOUSE TESTING OF SUGAR BEETS FOR RESISTANCE TO CURLY TOP.

C L Schneider A M Jafri A M Murphy

*Amer Soc Sugar Beet Technol J* 14(8):727-734

REF

Jan 1968 66.9 AM35J

Circulifer tenellus, Crop varieties, Curly top, Greenhouse culture, Insect vectors, Methodology, Plant breeding, Plant disease resistance, Sugar beets, Virus diseases (plants).

14447-69

ENHANCEMENT OF TOBACCO RATTLE VIRUS STABLE FORM INFECTION BY HETEROLOGOUS SHORT PARTICLES.

J S Semaneik M B Kajiyama

*Virology* 34(1):170-172

Jan 1968 448.8 V81

Particle size determination, Rattle disease (tobacco), Tobacco, Virus diseases (plants).

14448-69

STUDIES ON THE PARASITISM AND CONTROL OF TEA ROOT DISEASE FUNGI IN CEYLON. HETEROPTERA.

N Shanmuganathan A Rei Do Rego Barros

*Ceylon Tea Res Inst Tea Quart* 40(1):19-25

Mar 1969 68.18 C33

Chemical control (plant diseases), Ctenucha, Fungus diseases (plants), Insect color, Insect physiology, Insect taxonomy, Methyl bromide, Nematocides, Parasitism, Reproductive organs, Roots, Soil fumigation, Tea.

14449-69

POWDERY MILDEW OF RUBBER IN PAPUA.

D E Shaw

*Papua New Guinea Agr J* 19(3):140-146 MAP

Dec 1967 23 N453

Fungus diseases (plants), Hevea, Oidium, Powdery mildew, Surveys, Zoogeography.

14450-69

AN APPROACH TO THE ELUCIDATION OF HOST-PARASITE INTERACTION. (JA)

J Shishiyama T Hirai

*Phytopathol Soc Jap Ann* 34(2):158-160

Mar 1968 464.9 P562

Deoxyribonucleic acid, Host indexing (plants), Indoleacetic acid, Plant biochemistry, Plant metabolism, Virology, Virus diseases (plants).

**14451-69**

**ERRATUM 49: A PLEOMORPHIC PARASITE ON CEREAL SEEDS, PYRENOPHORA SEMENIPERDA.**

R A Shoemaker  
*Can J Bot* 45(4):542  
Apr 1967 470 C16C

Grain, Parasitism, Pyrenophora semeniperda, Seeds. On page 1452, the illustration, fig. 1 was inverted. Consequently the caption refers to the wrong spores.

**14452-69**

**SEED DRESSING FORMULATIONS.**

C C Shroff  
*Pesticides* 1(5):27  
Jan 1968 SB951.P43

Formulations, Fungicides, Fungus diseases (plants), Seed treatment.

**14453-69**

**PATHOGENICITY OF SOME SPECIES OF GODRONIA OCCURRING IN QUEBEC.**

E Smerlis  
*Plant Dis Rep* 53(10):807-810  
Oct 1969 1.9 P69P

Alnus, Betula, Fungus diseases (plants), Surveys.

**14454-69**

**TWO IMPORTANT BACTERIAL DISEASES ON BEANS. (TU)**

S Sonmezalp  
*Bitki Koruma Bulteni* 6(3):103-110  
1966 464.8 B542

Bacterial diseases (plants), Beans, Corynebacterium, Methodology, Plant quarantine, Xanthomonas phaseoli. English summary

**14455-69**

**EFFECT OF A VARIETAL MIXTURE ON SUGARCANE ROOT ROT SUSCEPTIBILITY AND ON THE RHIZOSPHERE MICROFLORA.**

K V Srinivasan  
*Indian Acad Sci Proc Sect B* 68(3):150-162 REF  
Sep 1968 513 IN25B

Actinomycetes, Bacteria, Penicillium, Plant ecology, Pythium graminicola, Root rot, Sugarcane, Trichoderma.

**14456-69**

**OCCURRENCE OF PHYLLOSTICTA LEAF SPOT ON FLORIDA CIGAR-WRAPPER TOBACCO.**

J R Stavely R R Kincaid  
*Plant Dis Rep* 53(10):837-839  
Oct 1969 1.9 P69P

Fungus diseases (plants), Leaf spot, Phyllosticta, Plant morphology, Tobacco.

**14457-69**

**THE EFFECT OF BENOMYL ON MYCOSPHAERELLA MUSCICOLA.**

R H Stover  
*Plant Dis Rep* 53(10):830-833  
Oct 1969 1.9 P69P

Bananas, Benomyl, Chemical control (plant diseases), Fungicides, Mycosphaerella muscicola, Plant physiology, Spore germination, Sporulation.

**14458-69**

**UTILIZATION OF VARIOUS FORMS OF NITROGEN BY DRECHSLERA SOROKINIANA, THE PATHOGEN CAUSING FOOT ROT DISEASE IN WHEAT.**

C V Subramanian P D Tyagi  
*Indian Acad Sci Proc Sect B* 68(3):111-130 REF  
Sep 1968 513 IN25B

Foot rot, Fungus diseases (plants), Metabolism, Mycology, Nitrogen, Pyrenophora, Wheat.

**14459-69**

**EFFECT OF BETA-ACYLPHENYLHYDRAZINE DERIVATIVES ON BLAST FUNGUS UPON**

**LEAVES AND IN TISSUES OF RICE PLANTS. (JA)**

I Sumina K Matsuura  
*Phytopathol Soc Jap Ann* 33(3):138-143  
Jun 1968 464.9 P562

Blast, Chemical control (plant diseases), Culture media, Fungus diseases (plants), Hydrazine compounds, Leaves, Plant growth inhibitors, Pyricularia oryzae, Rice, Seed germination, Tissues. Abstract in English

**14460-69**

**ANATOMICAL STUDIES OF RICE PLANT INFECTED WITH BACTERIAL LEAF BLIGHT, WITH SPECIAL REFERENCE TO WILT SYMPTOM. (JA)**

H Tabei  
*Phytopathol Soc Jap Ann* 34(2):137-139 REF  
Mar 1968 464.9 P562

Bacterial diseases (plants), Bacterial leaf blight, Plant anatomy, Plant histology, Rice, Seedlings, Time, Wilt disease (plants). Abstract in English

**14461-69**

**STUDIES ON DWARF DISEASE OF MULBERRY TREE. XVI. ON TWO STRAINS. (JA)**

Y Tahama  
*Phytopathol Soc Jap Ann* 33(3):156-161  
Jun 1967 464.9 P562

Dwarf disease, Leaves, Morus, Plant physiology, Tree diseases, Tree injuries, Virus diseases (plants). Abstract in English.

**14462-69**

**A COLOR TEST FOR CITRUS EXOCORTIS IN JAPAN.**

S Tanaka  
*Phytopathol Soc Jap Ann* 34(2):151-152  
Jul 1968 464.9 P562

Assay, Citrus, Color, Grapefruit, Immunity, Lemons, Mandarin oranges, Sweet oranges, Trifoliolate oranges, Virus diseases (plants). Summary in Japanese

**14463-69**

**THE DEVELOPMENT OF ECHINULATION IN UREDOSPORES OF WHEAT STEM RUST.**

P L Thomas P K Isaac  
*Can J Bot* 45(3):287-289  
Mar 1967 470 C16C

Electron microscopes, Electron microscopy, Fungus diseases (plants), Wheat.

**14464-69**

**MORPHOLOGY OF CAULIFLOWER MOSAIC VIRUS. (JA)**

H Tochihiro  
*Phytopathol Soc Jap Ann* 33(3):195-197  
Jun 1967 464.9 P562

Cauliflower, Centrifugation, Culture media, Electron microscopy, Mosaic, Plant morphology, Virus diseases (plants). Abstract in English

Abstract: The writer corrects his mistake in identification of the virus particles reported in his previous paper (*Ann. Phytopath. Soc. Japan* 25: 187, 1960).

**14465-69**

**RADISH ENATION MOSAIC VIRUS. (JA)**

H Tochihiro  
*Phytopathol Soc Jap Ann* 34(2):129-136 REF  
Mar 1968 464.9 P562

Enation mosaic, Eurydema rugosa, Hyadaphis pseudobrassicacae, Immunity, Injections, Insect vectors, Leaves, Mosaic, Myzus persicae, Phyllotreta striolata, Plant disease transmission, Plant taxonomy, Radishes, Temperature, Virus diseases (plants). Abstract in English.

Abstract: The following plants were not susceptible: tobacco (bright yellow, yanhi, white burley), Nicotiana glutinosa, tomato, pepper, kidney bean, cowpea, broad bean, garden pea, cucumber, pumpkin, Chrysanthemum coronarium, morning-glory, beet, rape, Datura stramonium, and Physalis floridana.

**14466-69**

**CHEMICAL TREATMENT THE ANSWER TO FRUIT SCALD.**

B L Tugwell  
*S Australia J Agr* 71(8):296-298  
Mar 1968 23 SO84

Apples, Carbamates, Chemical control (plant diseases), Dipping, Ethoxyquin, Fruit, Pears, Propanil, Scald, Spraying, Storage diseases, Urea compounds.

**14467-69**

**POST-YEAR RESPONSES OF CONCORD GRAPE VINES TREATED WITH N-DIMETHYLAMINO SUCCINAMIC ACID. (ABSTRACT).**

L D Tukey  
*Hortscience* 3(2,SUMMER):126  
1968 SB1.H6

Crop yields, Pruning, Research, Spraying, Succinic acid, 2,2-dimethylhydrazide.

**14468-69**

**SOME FACTORS AFFECTING INCIDENCE OF LEAF SPOT OF TURMERIC BY TAPHRINA MACULANS BUTLER.**

R Upadhyay M S Pavgi  
*Phytopathol Soc Jap Ann* 33(3):176-180  
Jun 1967 464.9 P562

Curcuma longa, Fungus diseases (plants), Humidity, Leaf spot, Plant ecology, Soil-borne plant diseases, Taphrina maculans, Temperature. Abstract in Japanese

**14469-69**

**VIRUS DISEASES OF CEREALS IN SOUTH AFRICA. II. IDENTIFICATION OF TWO ELONGATED PLANT VIRUSES AS STRAINS OF SUGAR CANE MOSAIC VIRUS.**

M B Von Wechmar J S Hahn  
*S Afr J Agr Sci* 10(1):241-252 REF  
Mar 1967 24 SU3

Grain, Mosaic, Sugarcane, Virus diseases (plants).

**14470-69**

**FUNGAL PATHOGENICITY TO SOUND AND MECHANICALLY DAMAGED BLUE LUPINE SEED IN ANEXIC CULTURE AT TWO TEMPERATURES.**

H D Wells D K Bell  
*Plant Dis Rep* 53(10):774-776  
Oct 1969 1.9 P69P

Fungus diseases (plants), Lupinus angustifolius, Plant injuries, Surveys.

**14471-69**

**VIRUS A AS A CAUSE OF STREAK ON SECONDARY INFECTED EYESTECKLINGS OF THE POTATO. (GE)**

H Wenzl  
*Pflanzenschutzberichte* 37(12):197-202  
Jun 1968 464.9 P48

Diagnosis, Leaves, Potatoes, Research, Streak, Virus a (potatoes), Virus diseases (plants), Virus s. English summary

**14472-69**

**OVERWINTERING OF TUBERCULINA MAXIMA ON WHITE PINE BLISTER RUST CANCKERS.**

E F Wicker J M Wells  
*Phytopathology* 58(3):391  
Mar 1968 464.8 P56

Blister rust, Cold, Cronartium ribicola, Culture media, Fungus diseases (plants), Hibernation, Pinus, Tuberculina.

**14473-69**

**SEVERAL YEARS' RESEARCH ON THE INVESTIGATIONS OF VIRUS IN PEARS. (GE)**

E A Wigger  
*Gesunde Pflanzen* 19(8):160  
Aug 1967 464.8 G33

Pears, Ring spot, Virus diseases (plants).

**14474-69**

**COMATRICHA NODULIFERA, A NEW MYXOMYCETE FROM TEXAS.**

C Wollman C J Alexopoulos  
*Can J Bot* 46(2):157-159  
Feb 1968 470 C16C  
Agar, Bark, Culture media, Myxomycetes, Plant diseases.

14475-69

**NUTRITIONAL EFFECTS CONNECTED WITH SHEEPNOSING, A DISORDER OF GRAPEFRUIT. (ABSTRACT).**

H K Wutschcr

*Hortscience* 3(2,SUMMER):107

1968 SB1.H6

Deficiency diseases, Hydrogen-ion concentration, Leaves, Potassium, Research, Soil structure.

14476-69

**AN ALTERNATIVE WEED HOST FOR XANTHOMONAS CAMPESTRIS.**

J M Young

*Plant Dis Rep* 53(10):820-821

Oct 1969 1.9 P69P

Bacterial diseases (plants), Brassica, Weeds, Xanthomonas.

14477-69

**THE EFFECT OF CYCLOHEXIMIDE ON THE RESISTANCE OF POTATO TUBER DISCS TO INVASION BY A FLUORESCENT PSEUDOMONAS SP.**

M Zucker M M El-Zayat

*Phytopathology* 58(3):339-344 REF

Mar 1968 464.8 P56

Cycloheximide, Enzymes, Fluorescence, Plant biochemistry, Plant disease resistance, Potatoes, Proteins, Pseudomonas.

## ARTHROPODS

14478-69

**PLANT CARE AND BEE CARE GO HAND IN HAND. (GE)**

Anonymous

*Gesunde Pflanzen* 19(7):150-151

Jul 1967 464.8 G33

Bees, Plant odor, Plant protective devices, Pollination, Social insects.

14479-69

**PESTS OF LEGUME COVERS. CHARACTERISTIC COCOON PRODUCTION.**

Anonymous J R Pedro A Borgonovi H Vaz De Arruda

*Rubber Res Inst Malaya Plant Bull* (102):105-112

May 1969 78.9 R825

Chemical control (insects), Clover, Insect pests, Insect physiology, Insect rearing, Legumes, Plant nematodes, Pupal cases, Bombyx mori, Statistical analysis, Surveys.

14480-69

**PROBLEMS REGARDING THE PROTECTION OF FRUIT TREES AGAINST INFESTATIONS BY LEAF MINING MICROLEPIDOPTERA. (IT)**

G Briolini G Celli P Giunchi

*Giornate Fitopatol* 365-372 MAP

26 Mar 1967 SB599.G5

Apples, Biological control (insects), Chemical control (insects), Dichlorvos, Insect outbreaks, Leaf miners, Microlepidoptera, Organophosphorus compounds. Many species of microlepidoptera are discussed.

14481-69

**FACTORS AFFECTING THE INFESTATION OF APHIDS ON POTATO PLANTS. (JA)**

M Enaizumi

*Jap J Appl Entomol Zool* 12(1):10-17 REF

Mar 1968 475 J27

Aphididae, Aphis gossypii, Aulacorthum solani, Insect dissemination, Insect pests, Insect temperature, Macrosiphum euphorbiae, Myzus persicae, Potatoes, Rainfall.

14482-69

**THE FREQUENCY OF SOGATA ORIZICOLA MUIR AND SOGATA CUBANA CRAWF. ON RICE AND ECHINOCHLOA COLONUM IN COLOMBIA. (SP)**

G E Galvez

*Agr Trop* 23(6):384-389

Jun 1967 26 AG8

Chemical control (insects), Cultural control (insects), Echinochloa, Plant pest resistance, Planting date, Rice, Sogata cubana, Sogata orizicola. English abstract

14483-69

**INSECTS OF THE SEASON 1966 RELATED TO FRUIT, VEGETABLES AND ORNAMENTALS.**

H W Goble

*Entomol Soc Ontario Proc* 97:6-7

1966 420 ON8

Fruit, Insect control, Insects, Ornamental plants, Plant injuries, Research, Vegetables.

14484-69

**NOTE ON THE TRANSMISSION OF NORTHERN CEREAL MOSAIC VIRUS BY MUELLERIANELLA FAIRMAIREI (PERRIS). (JA)**

T Ishii

*Jap J Appl Entomol Zool* 11(4):191-192

Dec 1967 475 J27

Insect vectors, Mosaic, Muellerianella fairmairei, Research, Virus diseases (plants).

14485-69

**PESTS OF THE GRAPEVINE.**

E L Jones

*Agr Gaz New S Wales* 78(PT 12):708-714

Dec 1967 23 N472

Acarina, Brevipalpus, Eriophyes vitis, Grapes, Phalaenoides glyciniae, Plant pest control, Pseudococcus maritimus, Rhynchophora, Thysanoptera, Tortrix postvittana.

Control of economically important grapevine pests in Australia are discussed.

14486-69

**LEST WHITE GRUBS VISIT YOUR SUGARCANE...AND FIND YOU UNPREPARED.**

A N Kalra

*Indian Farming* 16(12):36-37

Mar 1967 22 IN283

Chemical control (insects), Crop rotation, Insect ecology, Light traps, Plowing, Scarabaeidae, Sugarcane.

The control of a sugarcane pest, Holotrichia (Lachnosterna) serrata by light traps, cultural and chemical controls is discussed.

14487-69

**INFLUENCE OF PESTICIDES ON RUSSETING OF GOLDEN DELICIOUS APPLES.**

F W Kremer

*Pflanzenschutz Nachr Bayer* 20(4):629-643

1967 464.8 H67AE

Acaricides, Apples, Chemical control (insects), Crop varieties, Fungicides, Insect ecology, Insect pests, Insecticides, Mites, Orchidaceae, Panonychus ulmi, Russeting, Spraying.

14488-69

**HARD-TO-KILL PESTS OF FRUIT TREES; THE MITES.**

H F Lower

*S Australia J Agr* 71(8):273-278

Mar 1968 23 SO84

Bryobia, Chemical control (insects), Equipment, Fruit, Insect control, Insect eggs, Insect pests, Insecticide resistant insects, Insecticides, Mites, Oils, Spraying, Temperature, Tree injuries.

14489-69

**ON THE APPEARANCE AND THE CONTROL OF THE RED-CURRENT LEAF-GALL FLY. (GE)**

H G Michel

*Gesunde Pflanzen* 20(3):50-52

Mar 1968 464.8 G33

Biochemistry, Cecidomyiidae, Chemical control (insects), Chlorinated hydrocarbons, Currants, Dasineura tetensi, Demeton, Endosulfan, Insect pests, Insecticides, Organophosphorus compounds, Plant injuries.

14490-69

**BIONOMICS OF THE RICE GUNDHY BUG, LEPTOCORISA VARICORNIS FABR. (HEMIPTERA, HETEROPTERA; COREIDAE).**

S S Misra

*Allahabad Farmer* 42(2):75-77

Mar 1968 22 AL5

Biometry, Crop losses, Leptocorisa varicornis, Life cycle, Rice.

14491-69

**THE DEVELOPMENT OF THE CITRUS PSYLLA, TRIOZA ERYTREA (DEL GUERCIO) (HOMOPTERA; PSYLLIDAE), ON CITRUS LIMON AND FOUR INDIGENOUS HOST PLANTS.**

V C Moran

*Entomol Soc Southern Afr J* 31(2):391-402 REF

Sep 1968 420 EN86

Host plants, Insect morphology, Insect rearing, Psyllidae, Rutaceae.

14492-69

**VARIOUS PROBLEMS ON VECTORS OF RICE VIRUSES.**

S Nasu

*Kontyu* 35(3):290-301 REF

Sep 1967 421 K833

Insect vectors, Rice, Virus diseases (plants).

14493-69

**STUDIES ON THE INSECTICIDE RESISTANCE OF THE TEA RED SPIDER MITE, TETRANYCHUS KANZAWAI KISHIDA. II. THE MITE RESISTANCE TO PHENKAPTON, ESTOX, AND KELTHANE IN THE TEA GROWING AREAS IN JAPAN. (JA)**

M Osakabe

*Jap J Appl Entomol Zool* 12(1):18-22

Mar 1968 475 J27

Chemical control (insects), Chlorinated hydrocarbons, Dichlorophenylthio(methyl) O,O-diethyl phosphorodithioate, Dicolof, Dimethyl S-(1-methyl-2-ethylsulfonyl)ethyl phosphorodithioate, Insecticide resistant insects, Insecticides, Mites, Organophosphorus compounds, Tea, Tetranychus kanzawai.

14494-69

**TANYMECUS DILATICOLLIS GYLL. (CURCULIONIDAE, COLEOPTERA) AS A PEST OF CULTIVATED PLANTS AND THE PRE-SOWING TREATMENT OF THE SEED WITH INSECTICIDES AS A CONTROL MEASURE. (GE)**

P A Popov

*Pflanzenschutzberichte* 38(8/9):101-114 MAP

REF

Jul 1968 464.9 P48

Biochemistry, Chemical control (insects), Corn, Curculionidae, Dieldrin, Insect biology, Insect pests, Insecticides, Plant injuries, Seed planting. English summary

14495-69

**TRANSMISSION EXPERIMENTS WITH THE LATENT PRUNUS-VIRUS AND THE GALL MITE VASATES FOCKEUI NAL. (GE)**

G Proescler

*Phytopathol Z* 63(1):1-9 REF

Sep 1968 464.8 P562

Feeding, Insect vectors, Mites, Plant disease transmission, Prunus, Research, Time, Virus diseases (plants). English summary.

14496-69

**OCCURRENCE AND CONTROL OF HAPLODIPLOSIS EQUESTRIS IN HOLLAND.**

E G R Rijssen

*Pflanzenschutz Nachr Bayer* 20(4):674-680

1967 464.8 H67AE

Cecidomyiidae, Chemical control (insects), Chlorinated hydrocarbons, Crop rotation, DDT,

Gall-making insects, Haplodiplois equestris, Insect ecology, Insect pests, Insecticides, Marshes, Sandy soils, Soil sampling, Spraying, Weeds, Zoogeography.

14497-69

**INSECTICIDAL EXPERIMENTS FOR THE CONTROL OF MUSTARD APHID.**

G Rout B Senapati

*Pflanzenschutz Nachr Bayer* 20(4):681-686

1967 464.8 H67AE

Chemical control (insects), Crops, Cruciferae, Insect pests, Insecticide application, Lipaphis erysimi, Myzus persicae, Organophosphorus compounds, Parathion, Seed treatment, Soil analysis, Spraying.

14498-69

**RECOMMENDATIONS FOR CHEMICAL CONTROL OF PESTS OF RUBBER PLANTATIONS.**

*Rubber Res Inst Malaya Plant Bull* (95):67-68

Mar 1968 78.9 R825

Chemical control (insects), Hevea, Insect pests, Insecticide application, Methodology. These recommendations supersede those published in *Planters' Bulletin* 82 (p.17).

14499-69

**FURTHER EXPERIMENTS REGARDING THE CLARIFICATION OF THE CONNECTION BETWEEN THE BEET LACEBUG PIESMA QUADRATUM (FIEB) AND THE BEET CRINKLE VIRUS. (GE)**

H Schmutterer

*Z Pflanzkrankh (pflanzenpathol) Pflanzenschutz* 75(7):387-394 REF

Jul 1968 464.8 Z3

Crinkle (sugar beets), Gastrointestinal system, Insect vectors, Piesma, Plant disease transmission, Plant diseases, Research, Virus diseases (plants). English summary

14500-69

**OBSERVATIONS ON THE TOLERANCE AND SUSCEPTIBILITY OF TEA CLONES TO SHOT-HOLE BORER INVESTIGATION--1969.**

K Thirugnanasantharan D Calnaido

*Ceylon Tea Res Inst Tea Quart* 40(1):47-52

Mar 1969 68.18 C33

Brucellosis, Cattle, Livestock diseases, Plant breeding, Plant disease resistance, Scolytus rugulosus, Surveys, Tea.

14501-69

**NEOTETRANYCHUS RUBICOLA BAGD. ON THE RASPBERRY BUSH IN SERBIA. (SE)**

B Tomasevic

*Zastita Bilja* 18(93/95):207-211

1967 464.8 Z1

Acaricides, Chemical control (insects), Dichlorophenylthio methyl O,O-dichthyl phosphorodithioate, Dicolof, Insect behavior, Insect pests, Neotetranychus rubicola, Phosphamidon, Raspberries. French summary.

14502-69

**A CONTRIBUTION TO THE STUDY OF OLIVE CECIDOMYIIDAE: LASIOPTERA BERLESIANA (PAOLI). (CZ)**

A Tominic

*Zastita Bilja* 12(91-92):221-228 REF

1966 464.8 Z1

Cecidomyiidae, Gall-making insects, Insect biology, Insect pests, Larvae, Lasioptera berlesiana, Olives, Pistacia lentiscus, Pistacia terebinthus. English summary

14503-69

**KNOW YOUR ENEMY: THE SO-CALLED 'CORNFY'. (GE)**

H J Wasserburger

*Mitt Dent Landwirt -ges* 83(24):906-907

13 Jun 1968 18 N39

Chemical control (insects), Corn, Hylemya platura, Insect pests, Plant injuries. Seeds.

## NEMATODES

14504-69

**THE SUGAR BEET NEMATODE.**

J Altman

*Down Earth* 23(4):27-31 SPRING

1968 381 D75

Biochemistry, Chemical control (nematodes), Crop losses, Crop yields, Dichloropropene, 1,3-, Heterodera, Morphology, Plant injuries, Plant nematodes, Soil fumigation, Sugar beets.

14505-69

**A STUDY ON THE CORRELATION OF CITRUS NEMATODE POPULATION WITH DECLINE OF CITRUS.**

O S Bindra H K Chhabra K L Chadha N K Mehrotra

*Punjab Agr Univ J Res* 4(4):543-546

Dec 1967 S19.P8

Correlation, Crop yields, Oranges, Population, Research, Tables (data), Tylenchulus semipenetrans.

14506-69

**IMPORTANCE AND CAUSES OF NEMATODE MOVEMENT IN THE SOIL AND RESEARCH ON THE MIGRATION OF 'DITYLENCHUS MYCELIOPHAGUS'. (FR)**

J C Cayrol M Ritter

*Rev Zool Agr Appl* 66(7-9, 3RD

TRIMESTER):92-102 REF

1967 410.9 S012

Behaviorism, Ditylenchus, Locomotion, Mathematical analysis, Plant nematodes, Soils.

14507-69

**PATHOGENICITY AND IDENTITY OF ROOT-KNOT NEMATODES ON FIVE VARIETIES OF BANANA.**

M Z Claudio R G Davide

*Philippine Agr* 51(3):241-251

Aug 1967 25 P542

Bananas, Immunization, Meloidogyne incognita, Plant nematodes, Root knot nematode.

14508-69

**A NEW NEMATODE-DESTROYING HARPOSPORIUM.**

C Drechsler

*Amer J Bot* 55(10,NOV-DEC):1251-1253

Dec 1968 450 AM36

Biological control (pests), Fungi, Harposporium, Nematode controlling fungi, Nematodes, Plant pests, Taxonomy.

14509-69

**THE OCCURRENCE OF HETERODERA GLYCINES ON TRIFOLIUM ALEXANDRINUM IN UNITED ARABIC REPUBLIC.**

I A Elmilgy

*Nematologica* 14(4):592

1968 436.8 N342

Clover, Heterodera glycines, Plant nematodes.

14510-69

**RING NEMATODE DISEASE OF RICE IN LOUISIANA. (ABSTRACT).**

J P Hollis M S Embabi S A Alhassan

*Phytopathology* 58(6):728-729

Jun 1968 464.8 P56

Agar, Criconeoides, Meloidogyne incognita, Plant nematodes, Soil-borne plant diseases.

14511-69

**INFLUENCE OF ZYGOTYLENCHUS GUEVARAI (TOBAR JIMENEZ, 1963) BRAUN AND LOOF, 1966, ON SOME OF ITS HOSTS. (SP)**

A T Jimenez D G Benitez C M Sierra

*Rev Iberica Parasitol* 28(2,APR-JUN):177-187

Jun 1968 436.8 R32

Alfalfa, Plant nematode resistance, Plant nematodes, Viola, White clover, Zygotylenchus. English abstract

14512-69

**CONTROL OF CITRUS NEMATODE, TYLENCHUS SEMIPENETRANS, WITH DBCP IN ESTABLISHED CYPRUS CITRUS GROVES.**

J Philis

*Plant Dis Rep* 53(10):804-806

Oct 1969 1.9 P69P

Chemical control (nematodes), Citrus, Cyprus, Dibromo-3-chloropropane, 1,2-, Plant nematodes, Tylenchulus semipenetrans.

14513-69

**EFFECT OF HETERODERA SCHACHTII ON SUGAR BEET SEEDLINGS UNDER MONOXENIC CONDITIONS.**

A G Polychronopoulos B F Lownsbey

*Nematologica* 14(4):526-534 REF

1968 436.8 N342

Germ-free life, Heterodera schachtii, Plant nematodes, Plant physiology, Seedlings, Sugar beets.

14514-69

**PRESENT KNOWLEDGE ON PHYTOPHAGOUS NEMATODES AND THEIR RELATIONS WITH VIRUS DISEASES. (FR)**

*Ann Epiphyt* 18(2):249-272 REF

1967 464.9 F84AN

Longidorus, Nematodes, Plant protection, Trichodorus, Virus diseases (plants), Xiphinema. English summary

14515-69

**UNDERPOPULATION IN PLANT PARASITIC NEMATODES.**

J W Seinhorst

*Nematologica* 14(4):549-553

1968 436.8 N342

Fusarium oxysporum, Peas, Plant nematodes, Population, Rotylenchus.

14516-69

**ECONOMICALLY IMPORTANT NEMATODES IN ONTARIO--1966.**

J L Townshend

*Entomol Soc Ontario Proc* 97:5-6

1966 420 ON8

Agricultural economics, Greenhouse culture, Nematodes, Research, Soil analysis, Tobacco.

## WEEDS

14517-69

**SECONDARY EFFECTS OF FUNGICIDES ON BARLEY. (SP)**

L E Chaves E Y Orjuela N

*Agr Trop* 23(5):319-330 REF

May 1967 26 AG8

Barley, Crop yields, Dithane, Fungicides, Maneb, Plant physiology, Triphenyltin acetate. English abstract

14518-69

**ONION WEED CONTROL ON MALLEE SOILS.**

T R Davidson

*S Australia J Agr* 71(8):290-293

Mar 1968 23 S084

Alfalfa, Chemical control (weeds), Cultural control (weeds), Eucalyptus, Herbicides, Onions, Perennial plants, Planting, Soils, Spraying, Superphosphates, Tillage, Weed control, Wind erosion.

14519-69

**EFFECT OF SELECTIVE HERBICIDES TO LIQUORICE PLANT GROWING IN CEREAL FIELDS. (TU)**

N Dinc M Zcl

*Bitki Koruma Bulteni* 6(3):94-102

1966 464.8 B542

Biochemistry, Chemical control (weeds), Crop yields, Field crops, Grain, Herbicides, Methyl-4-chlorophenoxyacetic acid, 2-. English summary

14520-69

**MONOLINURON IN INCREASE OF GRAIN. (GE)**

K Fritzsche

*Gesunde Pflanzen* 19(8):154-156

Aug 1967 464.8 G33

## CROP PROTECTION

14521-69

Chemical control (weeds), Crop yields, Grain, Herbicides, Monolinuron, Simazine, Weed control, Weeds.

14521-69

**COLTSFOOT CONTROL WITH 2,4-DP ON THE STUBBLE.** (GE)

K Fritsch

*Gesunde Pflanzen* 19(5):97-100

May 1967 464.8 G33

Amitrole, Chemical control (weeds), Dichlorprop, Herbicides, Mecoprop, Stubble crops, Tussilago farfara.

14522-69

**WATER HYACINTH AND ITS CONTROL.**

M N Hari

*Pesticides* 1(9):28-29

May 1968 SB951.P43

Chemical control (weeds), Costs, D, 2,4-, Eichhornia crassipes.

14523-69

**DEVELOPMENT OF CORN-GROWING ALONG THE RHEIN THROUGH USE OF GROWTH PRODUCING HERBICIDES.** (GER)

R J Haupt

*Gesunde Pflanzen* 19(7):140-142

Jul 1967 464.8 G33

Chemical control (weeds), Corn, D, 2,4-, Herbicides, Methyl-4-chlorophenoxyacetic acid, 2-, Phenoxy acid compounds, Plant regulators, Weather, Weeds.

14524-69

**POSSIBILITIES OF WEED CONTROL IN CORN WITH ATRAZINE, TAKING SPECIAL NOTE OF THE CONTROL OF COUCH-GRASS, WILD OATS AND OLDER WEEDS.** (GE)

K Hiebel

*Gesunde Pflanzen* 20(4):89-91

Apr 1968 464.8 G33

Atrazine, Biochemistry, Chemical control (weeds), Corn, Dosage, Herbicides, Oats, Spraying, Weeds.

14525-69

**CONTROL OF WEED GRASS.** (GE)

A V Horn

*Gesunde Pflanzen* 19(5):100-106

May 1967 464.8 G33

Avena fatua, Calcium nitrate, Chemical control (weeds), Corn, Crop losses, Crop yields, Grasses, Herbicides, Production economics, Simazine, Triallate.

14526-69

**EXPERIENCES WITH PATORAN (METABROMURON) ON WEED CONTROL IN BEAN SHRUBS.** (GE)

V O Hornig

*Gesunde Pflanzen* 20(3):46-50

Mar 1968 464.8 G33

Arctium, Beans, Centaurea cyanus, Chemical control (weeds), Herbicides, Metabromuron, Plant biochemistry, Shrubs, Toxins.

14527-69

**CORN DAISIES AND THEIR CONTROL.**

V W Ihlmann

*Gesunde Pflanzen* 19(5):107-109

May 1967 464.8 G33

Bis((3,5-dimethylmorpholino)carbonyl)methyl-4,4'-bipyridin i, Chemical control (weeds), Chrysanthemum segetum, Marshes, Methyl-4-chlorophenoxyacetic acid, 2-, Phenoxy acid compounds.

14528-69

**IMPROVED METHOD FOR WEED CONTROL IN POTATOES ON EXTREMELY MARSHY SOIL. (TEST EXPERIENCES IN UPPER BAVARIA 1965-67).** (GE)

H Kees E J Wendland

*Gesunde Pflanzen* 20(5):93-96

May 1968 464.8 G33

Biochemistry, Chemical control (weeds), Herbicides, Marshes, Methodology, Plant physiology, Potatoes, Spraying.

## BIBLIOGRAPHY

14529-69

**SIMULTANEOUS CONTROL OF APERA SPICA VENTI AND BROAD LEAF WEEDS THROUGH SOIL HERBICIDES. (TEST RESULTS IN UPPER BAVARIA 1965-1967).** (GE)

H Kees E J Wendland

*Gesunde Pflanzen* 20(4):80-84

Apr 1968 464.8 G33

Apera spica-venti, Biochemistry, Chemical control (weeds), Crop yields, Herbicides, Statistical analysis, Tables (data), Wheat.

14530-69

**CHEMICALS THAT SHOW--CROPS' CO-EXISTENCE WITH WEEDS IS NOT NECESSARY.**

V S Mani

*Indian Farming* 16(10):30-31

Jan 1967 22 IN283

Chemical control (weeds), Crop yields, Methyl-4-chlorophenoxy)butyric acid, 4-(2-, Propazine, Simazine, Weed control.

Chemical control of weeds in various crops in India are listed.

14531-69

**MITES.**

F Maramoto

*Hawaii Anthurium Conf Proc* 1:15

Feb 1968 S544.3.H3H3

Anthurium, Brevipalpus obovatus, Brevipalpus phoenicis, Hemitarsonemus latus, Larvae, Leaves, Plant injuries, Research, Tetranychus telarius.

14532-69

**WEED CONTROL IN VEGETABLES.**

A D Mears

*Agr Gaz New S Wales* 78(PT 3):160-161

Mar 1967 23 N472

Chemical control (weeds), Crops, Cultural control (weeds), Herbicides, Soil properties.

Selection of herbicides according to soil type, weeds, test crop, seasonal conditions, and residues is discussed.

14533-69

**SOME FACTORS AFFECTING THE DISAPPEARANCE OF TORDON IN SOIL.**

R W Moffat

*Down Earth* 23(4):6-10 REF SPRING

1968 381 D75

Biochemistry, Biological assay, Chemical control (weeds), Degradation, Dosage, Foliar application, Herbicides, New Zealand, Picloram, Rainfall, Soil leaching, Soil series, Spraying.

14534-69

**PRE-EMERGENCE APPLICATION OF 2,4-D-ESTER TO WHEAT (TRITICUM VULGARE).**

P C Nel

*S Afr J Agr Sci* 10(1):283-284

Mar 1967 24 SU3

Chemical control (weeds), D, 2,4-, Herbicides, Insecticide application, Phenoxy acid, Preemergence, Wheat.

14535-69

**GENERAL NON--SELECTIVE WEED CONTROL WITH MONOSODIUM ACID METHANE ARSONATE (MSMA) BASED MIXTURES IN RUBBER PLANTATIONS.**

*Rubber Res Inst Malaya Plant Bull* (95):52-55

Mar 1968 78.9 R825

Arsenic compounds, Catalogs, Chemical control (weeds), Herbicides, Hevea.

14536-69

**DEVELOPMENTAL TRENDS IN THE CHEMICAL CONTROL OF WEEDS IN BEETS.** (GE)

H Schmidt J Meycr

*Gesunde Pflanzen* 20(3):58-60,62-64

Mar 1968 464.8 G33

Beets, Chemical control (weeds), Herbicides, Humus, Methyl m-hydroxycarbanilate, Pesticide application, Propynyl N-phenylcarbamate, Spraying, Triallate.

14537-69

**STAM F-34 CAN KILL THE WEEDS OF GORA PADDIES.**

M S Subba Rao P C Agrawal

*Indian Farming* 16(4):6,37

Jul 1966 22 IN283

Chemical control (weeds), Crop yields, Herbicides, Rice, Stam, Weed control.

14538-69

**SYSTEMATIC WEED CONTROL IN GRAPE CULTURE. RESULTS OF A FIRST FOUR YEAR PERIOD OF EXPERIMENTATION.** (IT)

F Valenza

*Giornate Fitopatol* 551-556 REF

26 Mar 1967 SB599.G5

Chemical control (weeds), Diuron, Grape vineyards, Paraquat.

14539-69

**THE CONTROL OF WILD FOXTAIL GRASS IN WINTER WHEAT AS WELL AS THE PREVENTION OF WEATHER TRODDEN GRAIN.** (GE)

N Weiler

*Gesunde Pflanzen* 19(5):109-110

May 1967 464.8 G33

Alopecurus, Chemical control (weeds), Cycocel, Grain, Herbicides, Plant injuries, Plant protection, Storage, Triazine, Urea, Weather, Wheat.

## OTHER PESTS

14540-69

**THE ECONOMIC INCIDENCE OF FIELD VOLE CONTROL IN FRANCE.**

L Bouyx

*Int Conf Rodents Rodenticides* (SER

A)(41):93,95,97

Jan 1967 QL1.152

Crop losses, Economics, Field mice, Pest control, Plant injuries, Plant protection. Original Fr.- pages 92,94,96.

14541-69

**MUSK, BROWN RATS AND HARVEST MICE AS PESTS IN MAIZE.** (GE)

H Engel

*Gesunde Pflanzen* 20(3):41-46

Mar 1968 464.8 G33

Atrazine, Chemical control (pests), Corn, Digitaria sanguinalis, Economics, Field crops, Grain, Harvest mice, Muskrats, Panicum, Rats, Rodenticides, Simazine, Spraying, Wildlife pests.

14542-69

**RIDDING RICE FIELDS OF RATS.**

C Ramakrishnan V Jayaraman B Velayutham

*Indian Farming* 16(7):25,27,52

Oct 1966 22 IN283

Animal traps, Chemical control (pests), Crop yields, Parathion, Rats, Rice.

14543-69

**THE CAUSES AND DYNAMICS OF POPULATION EXPLOSIONS OF M. ARVALIS: A SURVEY OF CURRENT FRENCH RESEARCH.**

F Spitz

*Int Conf Rodents Rodenticides* (SER

A)(41):97,99,101,103,105

Jan 1967 QL1.152

Population, Research, Surveys. Original Fr.- 96,98,100,102,104.

14544-69

**COMMENTS ON RAT-FREE TOWNS.**

H Wichmand

*Int Conf Rodents Rodenticides* (SER A)(41):89,91

Jan 1967 QL1.152

Pest control, Public health, Rats, Research. Original Fr.- pages 88,90.

## LIVESTOCK PROTECTION

- 14545-69**  
**FIVE YEARS' RESEARCH WITH A HATCHERY SANITATION PROGRAM IN MAINE.**  
 H L Chute M Gershmann E S Barden  
*Maine Agr Exp Sta Bull* (661):25P  
 Jul 1968 100 M28S (1)  
 Bacteria, Chicks, Eggs, Equipment, Fungi, Microbiology, Microorganisms, Poultry hatcheries, Poultry industry, Research, Sanitation.
- 14546-69**  
**TUBERCULOSIS IN THREE HERDS WITH ACCESS TO THE SAME OPEN SEWER.**  
 R Ford  
*State Vet J* 19(57):216-225  
 Sep 1964 SF601.S8  
 Cattle, Dairy farms, Research, Sewage, Tuberculosis, Water pollution.
- 14547-69**  
**PIPERAZINE-CARBON DISULFIDE COMPLEX. DRUGS FOR VETERINARY USE; DRUG EFFICACY STUDY IMPLEMENTATION.**  
 H L Ley  
*Fed Regist* 33(240):18408-18409  
 11 Dec 1968 L1.451  
 Accident prevention, Biochemistry, Carbon disulfide, Dosage, Drug therapy, Piperazine, Research, Veterinary medicine.
- 14548-69**  
**THE INSECT ECOLOGY OF OLD-FIELD RED PINE PLANTATIONS IN CENTRAL ONTARIO. I. DESCRIPTION OF THE STUDY AREA. III. SOIL-SURFACE FAUNA AS INDICATORS OF STAND CHANGE.**  
 J L Martin  
*Entomol Soc Ontario Proc* 95:70-102 REF  
 1966 420 ON8  
 Arthropoda, Histology, Insect ecology, Pinus, Plant physiology, Research, Sampling (statistics), Soil fauna.
- 14549-69**  
**LEBANON.**  
 C N Saunders  
*State Vet J* 19(57):226-229  
 Sep 1964 SF601.S8  
 Geography, Poultry, Research, Veterinary laboratories.
- 14550-69**  
**ARE SCARECROWS USEFUL AGAINST BIRD DAMAGE.**  
 H Schonbeck  
*Pflanzenarzt* 21(4):48  
 01 Apr 1968 464.9 P482  
 Birds, Crows, Harvesting, Phosphorus, Seed planting.
- 14551-69**  
**SPEED THE KEY TO PRESERVING HIDES.**  
 G W Vivian  
*Spur* 1(2):35.37  
 Nov 1967 S544.5.A83S6  
 Agricultural industries, Bacteria, Bactericides, Boric acid, Brining, Calcium phosphates, Curing, Drying, Freeze drying, Hides, Naphthalene, Storage.
- 14552-69**  
**A STUDY OF CONTAGIOUS CAPRINE PLEUROPNEUMONIA.**  
 A E D Abdulla E P Lindley  
*Bull Epizoot Dis Afr* 15(4):313-315  
 Dec 1967 41.8 B872  
 Bacteriology, Cattle, Contagious bovine pleuropneumonia, Etiology, Goats, Infectious diseases, Livestock diseases, Mycoplasma mycoides, Sheep.
- 14553-69**  
**ISOLATION OF BUNYAMWERA-GROUP VIRUSES FROM WISCONSIN MOSQUITOES.**  
 R O Anslow W H Thompson P H Thompson G R Defoliart O Papadopoulos Et Al  
*Amer J Trop Med Hyg* 18(4,PT 1):599-608  
 Jul 1969 448.8 AM326  
 Aedes, Bunyamwera viruses, Hemagglutination-inhibition test, Mansonia, Mice, Neutralization test, Surveys.
- 14554-69**  
**BOVINE VIRUS DIARRHEA IN ITALY. II. REPRODUCTION OF THE DISEASE.**  
 G Avellini G Castrucci B Morettini V Cilli  
*Arch Gesamte Virusforsch* 24(1-2):65-75 REF  
 Jun 1968 448.3 AR23  
 Antigens, Bovine virus diarrhea virus, Cattle, Poxviruses, Virus diseases (animals), Virus production.
- 14555-69**  
**ISOLATION AND CHARACTERIZATION OF MYCOPLASMA ARGININI: SPEC. NOV.**  
 M F Barile R A DelGiudice T R Carski C J Gibbs J A Morris  
*Soc Exp Biol Med Proc* 129(2):489-494 REF  
 Nov 1968 442.9 SO1  
 Bacteria, Culture media, Mycoplasma, Mycoplasma arginini, Physiology, Taxonomy.
- 14556-69**  
**IDENTIFICATION OF HOG-CHOLERA VIRUS IN FROZEN PORK IMPORTED FROM CHINA. (FR)**  
 C Battelli G Caporale F Gramenzi E Nardi  
*Vet Ital* 18(11-12):658-668  
 Nov 1967 41.8 C87  
 Food contamination, Foreign trade, Frozen food, Hog cholera virus, Livestock diseases, Pork, Swine, Virus diseases (animals).
- 14557-69**  
**AN OUTBREAK OF PHOTOSENSITISATION IN KARAMOJONG SHEEP AT ENTEBBE.**  
 O Bwangamoi  
*Bull Epizoot Dis Afr* 15(4):379-388  
 Dec 1967 41.8 B872  
 Animal histology, Buckwheat, Hypericum, Lantana camara, Photosensitization, Sheep.
- 14558-69**  
**ISOLATION OF TOXOPLASMA GONDII FROM SWINE AND CATTLE. FOLLOWING PESTICIDE TREATMENTS.**  
 G Catar L Bergendi R Holkova  
*J Parasitol* 55(5):952-955 REF  
 Oct 1969 448.8 J824  
 Azinphosethyl, Brain, Cattle, Livestock diseases, Muscles, Necrosis, Nitrogen, Peaches, Pesticides, Plant physiology, Sugars, Swine, Thiocarbamates, Toxoplasma gondii, Ziram. English abstract.
- 14559-69**  
**A HISTOLOGICAL STUDY OF THE EFFECTS OF ENZOOTIC ABORTION OF EWES VIRUS IN THE LACTATING BOVINE MAMMARY GLAND.**  
 A H Corner G L Bannister D P Hill  
*Can J Comp Med Vet Sci* 32(1):372-381  
 Jan 1968 41.8 C162  
 Abortion, Animal histology, Cattle, Immunization, Lactation, Livestock diseases, Mammary glands, Mastitis, Necrosis, Sheep, Udders, Virus diseases (animals).
- 14560-69**  
**IDENTIFICATION OF AEROMONADS IN FURRED ANIMALS. (DA)**  
 H K Dahle K Nordstoga  
*Acta Vet Scand* 9(1):65-70  
 1968 41.8 AC87  
 Aeromonas, Agar, Animal diseases, Bacteria, Enzymes, Fur-bearing animals, Infectious diseases, Injections, Serum. Norwegian and German summaries.
- 14561-69**  
**TITRATION OF SALMONELLA ABORTUS-OVIS STRAINS WITH CHICK EMBRYOS AND WHITE MICE.**  
 R Dhawedkar G Kamburov N Mancheva  
*Bulg Akad Nauk Dokl* 21(5):501-503  
 1968 512 SO2  
 Animal diseases, Chicks, Embryology, Listeria monocytogenes, Mice, Salmonella abortusovis, Volumetric analysis.
- 14562-69**  
**AN OUTBREAK OF ANTHRAX IN MINK.**  
 B Dick R Macrae  
*State Vet J* 19(57):214-215  
 Sep 1964 SF601.S8  
 Anthrax, Antibiotics, Diet, Minks, Research.
- 14563-69**  
**RELATIONSHIP OF ELECTROPHORETIC MOBILITY TO THE SIALIC ACID CONCENTRATION OF ERYTHROCYTES IN BOVINE ANAPLASMOSIS.**  
 A R Dommert G T Dimopoulos  
*Amer J Vet Res* 28(125):1173-1177 REF  
 Jul 1967 41.8 AM3A  
 Anaplasmosis, Biochemistry, Cattle, Electrophoresis, Erythrocytes, Sialic acids.
- 14564-69**  
**SEROLOGIC DIAGNOSIS OF COLORADO TICK FEVER. A COMPARISON OF COMPLEMENT-FIXATION, IMMUNOFLOURESCENCE, AND PLaque-REDUCTION METHODS.**  
 R W Emmons D V Dondero V Devlin E H Lennette  
*Amer J Trop Med Hyg* 18(5):796-802  
 Sep 1969 448.8 AM326  
 Colorado tick fever virus, Diagnosis, Immunofluorescence, Plaque, Serological tests.
- 14565-69**  
**OCCURRENCE OF TICK-BORNE ENCEPHALITIS VIRUS NEUTRALIZING ANTIBODY IN AQUATIC BIRDS IN CENTRAL EUROPE.**  
 E Ernek O Kozuch K Hudec S Urban  
*Acta Virol* 11(6):562  
 Nov 1967 448.3 AC85  
 Antibodies, Aquatic birds, Encephalitis, Insect vectors, Ixodides, Virus diseases (animals).
- 14566-69**  
**FIBRINOGEN CONTENT AND FIBRINOLYTIC ACTIVITY OF PLASMA FROM DOGS INFECTED WITH LEPTOSPIRA CANICOLA.**  
 D R Finco D G Low  
*Amer J Vet Res* 29(10):2037-2040 REF  
 Oct 1968 41.8 AM3A  
 Dogs, Fibrinogen, Leptospira canicola, Metabolism, Serological tests.
- 14567-69**  
**EFFECT OF BOVINE COCCIDIOSIS ON BLOOD SERUM SODIUM AND POTASSIUM LEVELS OF CALVES.**  
 P R Fitzgerald  
*Amer J Vet Res* 28(124):667-670  
 May 1967 41.8 AM3A  
 Blood chemistry, Blood serum, Calves, Coccidiosis, Eimeria, Potassium, Sodium.
- 14568-69**  
**THE PREVALENCE OF BABESIA BOVIS (BABESIA ARGENTINA) IN THE BRAINS OF SLAUGHTER CATTLE IN NORTHERN NIGERIA.**  
 C Folkers H Kuil N M Perie  
*Bull Epizoot Dis Afr* 15(4):359-360  
 Dec 1967 41.8 B872  
 Anemia, Animal physiology, Babesia argentina, Babesia bigemina, Babesia bovis, Brain diseases, Cattle, Erythrocytes, Fever, Hemoglobinuria, Insect vectors, Ixodes ricinus, Livestock diseases, Piroplasmiasis, Protozoa, Slaughtering.

## DISEASES

14569-69

TRANSMISSION OF ATTENUATED AND VIRULENT BLUETONGUE VIRUS WITH CULICOIDES VARIIPENNIS INFECTED ORALLY VIA SHEEP.

N M Foster R H Jones A J Lucdke

*Amer J Vet Res* 29(2):275-279

Feb 1968 41.8 AM3A

Bluetongue virus, Culicoides, Disease transmission, Epizootic diseases, Sheep.

14570-69

PLAQUE CHARACTERISTICS OF FOUR CLASSES OF BOVINE VIRUSES.

J B Gratzck R F Roscnbusch G M Buening

*Amer J Vet Res* 28(124):641-646

May 1967 41.8 AM3A

Bovine enteroviruses, Bovine rhinovirus, Bovine virus diarrhoea virus, Methodology, Parainfluenza-3 virus, Plaque assay.

14571-69

SPINY BURR GRASS--A SERIOUS AND INCREASING PROBLEM.

K R Green

*Agr Gaz New S Wales* 78(PT 10):578-579

Oct 1967 23 N472

Cattle, Cenchrus pauciflorus, Injuries, Pastures, Weeds.

Warnings to check for spiny burr grass, Cenchrus pauciflorus an injurious grass of cattle pastures in Australia are given.

14572-69

FURUNCULAR TUMBU FLY MYIASIS OF MAN IN GABON, EQUATORIAL AFRICA.

S Gunther

*J Trap Med Hyg* 70(7):169-174 REF

Jul 1967 448.8 J827

Animal diseases, Cordylobia anthropophaga, Dip-tera, Furunculosis, Immunity, Insect vectors, Myiasis, Tropical medicine.

14573-69

STUDIES ON A NEW INTRAMUSCULAR HAEMATINIC FOR PIGLET ANAEMIA. (DA)

K G Hogberg S Lindvall K Orth B Thafvelin K Uthnc

*Acta Vet Scand* 9(1):10-32 REF

1968 41.8 AC87

Absorption, Anemia, Baby pigs, Citric acid, Deficiency discases, Dextrins, Drug therapy, Erythrocytes, Glucitol, Heme, Hemoglobin, Iron, Lactic acid bacteria, Livestock diseases, Muscles, Serum, Swine. German summary

14574-69

EQUINE PIROPLASMOSIS: INTRAERYTHROCYTIC DEVELOPMENT OF BABESIA CABALLI (NUTTALL) AND BABESIA EQUI (LAVERAN).

A A Holbrook A J Johnson P A Madden

*Amer J Vet Res* 29(2):297-303 REF

Feb 1968 41.8 AM3A

Babesia caballi, Babesia equi, Erythrocytes, Hor-sec, Life cycle, Piroplasmosis.

14575-69

GEOGRAPHICAL DISTRIBUTION MAPS OF ANIMAL DISEASES IN AFRICA, 1966.

*Bull Epizoot Dis Afr* 15(4):411-414 REF MAP

Dec 1967 41.8 B872

Livestock diseases, Lumpy skin discase, Salmonellosis, Tuberculosis, Zoogeography.

14576-69

ATTENUATION OF HOG CHOLERA VIRUS IN THE CARRIER CELL STRAINS ESTABLISHED FROM KIDNEYS OF PIGS EXPERIMENTALLY INFECTED WITH THE VIRULENT VIRUS.

H Izawa M Sockawa

*Amer J Vet Res* 28(127):1661-1669

Nov 1967 41.8 AM3A

Hog cholera virus, Immunization, Kidneys, Swine, Tissue culture.

14577-69

BLOOD CHANGES ASSOCIATED WITH LOCOWEED POISONING.

L F James W Binns

*Amer J Vet Res* 28(125):1107-1110 REF

Jul 1967 41.8 AM3A

Aminotransferases, Astragalus, Blood proteins, Livcr, Poisonous plants, Sheep.

14578-69

BRUCELLOSIS VACCINATION IS NOW COMPULSORY.

S Jamicson

*New Zeal J Agr* 114(1):11-13

Jan 1967 23 N48J

Brucella abortus vaccines, Cattle, Immunization, Legislation.

The author discusses the law requiring all New Zealand farmers to vaccinate their cattle against brucellosis, including equipment and techniques to be employed.

14579-69

SEX DIFFERENCES IN EMBRYONIC RESPONSE TO EIMERIA TENELLA INFECTION.

T K Jeffers G E Wagenbach

*J Parasitol* 55(5):949-951 REF

Oct 1969 448.8 J824

Chicks, Cytoplasm, Eimeria tenella, Embryos, Hemagglutination, Insect biochemistry, Insect diseases, Insect histology, Mortality, Polyhedroses, Poultry diseases, Bombyx mori, Viruses.

14580-69

THE PROTECTION OF A SMALL GROUP OF NIGERIAN TRADE CATTLE FROM TRYPANOSOMIASIS USING SAMORIN.

W J Jones-Davies

*Bull Epizoot Dis Afr* 15(4):323-335

Dec 1967 41.8 B872

Cattle, Drug therapy, Glossina morsitans, Glossina palpalis, Glossina tachinoides, Insect vectors, Isometamidium chloride, Livestock diseases, Microfilariae, Piroplasmosis, Trypanosoma brucei, Trypanosoma congolense, Trypanosoma vivax, Trypanosomiasis.

14581-69

ARBOVIRUS STUDIES IN THE OHIO-MISSISSIPPI BASIN, 1964--1967. I. INTRODUCTION.

R H Kokernot C A Brandy

*Amer J Trap Med Hyg* 18(5):743-749 MAP REF

Sep 1969 448.8 AM326

Arboviruses, Birds, Culicidae, Hemagglutination, Surveys.

14582-69

ARBOVIRUS STUDIES IN THE OHIO-MISSISSIPPI BASIN, 1964--1967. VII. LONE STAR VIRUS, A HITHERTO UNKNOWN AGENT ISOLATED FROM THE TICK AMBLYOMMA AMERICANUM (LINN.).

R H Kokernot C H Calisher L J Stannard J Hayes

*Amer J Trap Med Hyg* 18(5):789-795 REF

Sep 1969 448.8 AM326

Amblyomma americanum, Antibodies, Arboviruses, Sodium deoxycholate, Surveys, Virology.

14583-69

ARBOVIRUS STUDIES IN THE OHIO-MISSISSIPPI BASIN, 1964--1967. V. TRIVITTATUS AND WESTERN EQUINE ENCEPHALOMYELITIS VIRUSES.

R H Kokernot J Hayes D H M Chan K R Boyd

*Amer J Trop Med Hyg* 18(5):774-778 REF

Sep 1969 448.8 AM326

Antibodies, Arboviruses, Surveys, Western equine encephalomyelitis virus.

14584-69

A CASE OF OVINE DERMATOMICOSIS PRODUCED BY TRICHOPHYTON VERRU-COSUM. (SP)

M B V Kolar De P C Bonatto De

*La Plata Univ Nac Fac Cienc Vet Rev* 8(18):35-

38 REF

Jan 1966 41.9 L313

Fungi, Ringworm, Shecp, Trichophyton verrucosum. French summary

14585-69

THE TEMPERATURE REQUIREMENTS FOR INTERFERON PRODUCTION IN CELLS STIMULATED BY NEWCASTLE DISEASE VIRUS OR MICROBIAL AGENTS IN VITRO.

V Lackovic L Borecky D Siki L Masler S Bayer

*Acta Viral* 11(6):500-505 REF

Nov 1967 448.3 AC85

Animal diseases, Antigens, Bacteriology, Candida albicans, Cytology, Escherichia coli, Interferon, Leukocytes, Mice, Microbiology, Newcastle disease virus, Salmonella typhimurium, Temperature, Virology.

14586-69

SOME PHYSICAL PROPERTIES OF PURIFIED NEUROTROPIC FOOT-AND-MOUTH DISEASE VIRUS.

H Liebermann H Grahrcr

*Acta Viral* 12(2):181-182

May 1968 448.3 AC85

Chemical reactions, Foot-and-mouth disease virus, Neurotropic viruses, Physiology, Picornaviruses, Sedimentation, Ultraviolet therapy, Virology, Virus discases (animals).

14587-69

AN IMMUNITY TEST IN CATTLE TO COMPARE TWO CONTAGIOUS BOVINE PLEURO-PNEUMONIA VACCINES.

E P Lindley

*Bull Epizoot Dis Afr* 15(4):307-311 REF

Dec 1967 41.8 B872

Agar, Bacteriology, Cattle, Contagious bovine pleuropneumonia, Fermentation, Immunity, Infectious discases, Livestock diseases, Mycoplasma mycoides, Vaccines.

14588-69

SEROLOGICAL RESPONSE IN CATTLE TO EAST COAST FEVER (THEILERIA PARVA INFECTION) AS MEASURED BY THE INDIRECT FLUORESCENT ANTIBODY TEST.

K F Lohr J P J Ross

*Res Vet Sci* 10(5):453-460 REF

Sep 1969 41.8 R312

Antibodies, Antigens, Cattle, Fluorescent antibody technic, Insect biology, Insect taxonomy, Serological tests, Spodoptera, Theileria parva, Zoogeography.

14589-69

SOME ASPECTS OF THE ETIOLOGY OF ENZOOTIC ICTERUS ( GEELSIEKTE ) AND TRIBULOSIS OVIS ( GEELDIKKOP ).

G N Louw C W P Steenkamp E L Steenkamp

*S Afr J Agr Sci* 10(1):215-228 MAP REF

Mar 1967 24 SU3

Jaundice, Liver, Plants, Selcnium poisoning, Shecp, Toxicology, Tribulosis.

14590-69

ANTIBODIES TO LEPTOSPIRAL SEROTYPES IN SERA OF NORTH QUEENSLAND CATTLE.

M H Lucas

*Queensland J Agr Anim Sci* 23(2):309-315 MAP

Jun 1966 23 Q37

Antibodies, Cattle, Leptospira, Serological tests, Zoogeography.

14591-69

ENTEROTOXAEMIA IN SHEEP ON DRY FEED.

J F Macadam P T Diplock

*Agr Gaz New S Wales* 78(PT 12):733-734

Dec 1967 23 N472

Bacterial discases (animals), Clostridium perfringens, Enterotoxemia, Feed, Immunization, Shecp.

Outbreaks of enterotoxemia in sheep of Australia, the causative agent, Clostridium perfringens, and vaccination procedures are discussed.

14592-69

SKIN DISEASES OF HORSES.

W Marbach

*Agr Gaz New S Wales* 78(PT 12):738-741



Dec 1967 23 N472

Culicoides, Horses, Mange, Photosensitization, Ringworm, Skin diseases, Urticaria.

Treatment of skin diseases of horses in Australia is discussed.

**14593-69**

**IN VIVO DEMONSTRATION OF LABILITY OF HOG CHOLERA VIRUS TO LIPOLYTIC AGENTS.**

G E McKissick D P Gustafson

*Amer J Vet Res* 28(125):909-914 REF

Jul 1967 41.8 AM3A

Chloroform, Ethyl ether, Hog cholera virus, Immunology, Inactivating agents, Lipids.

**14594-69**

**DIAPLACENTARIAN IMMUNITY TO FOOT-AND-MOUTH VIRUS IN NURSING RATS: CORRELATION AND REGRESSION. (SP)**

E S Menchaca A S Sequeira

*La Plata Univ Nac Fac Cienc Vet Rev* 8(18):13-22 REF

Jan 1966 41.9 L313

Biological transport, Foot-and-mouth disease virus, Immunity, Nursing, Picornaviruses, Placenta, Rats, Virus diseases (animals).

**14595-69**

**STUDY OF THE PRACTICABILITY OF VARIOUS DIAGNOSTIC METHODS IN THE DEMONSTRATION OF SWINE FEVER VIRUS OF HIGH AND LOW VIRULENCE IN ORGANS OF EXPERIMENTALLY INFECTED PIGS. (DA)**

A Meyling K Schjerning-Thiesen

*Acta Vet Scand* 9(1):50-64 REF

1968 41.8 AC87

Agar, Animal physiology, Complement fixation, Diagnosis, Fluorescent antibody technic, Hog cholera, Injections, Livestock diseases, Swine, Tissue culture, Virus diseases (animals), Viscera. German summary

**14596-69**

**EVOLUTION OF THE ANTIBODY CURVE IN ANIMALS EXPERIMENTALLY INOCULATED WITH AEQUI/URUGUAY/540/63. (SP)**

R E S Moreira H C Tosi E F Vallone R M Canto

*La Plata Univ Nac Fac Cienc Vet Rev* 8(18):63-67 REF

Jan 1966 41.9 L313

Agglutination test, Antibodies, Equine influenza viruses, Erythrocytes, Influenza, Injections, Virus diseases (animals). French summary

**14597-69**

**NAIROBI SHEEP DISEASE: A STUDY OF ITS PATHOGENESIS IN SHEEP, GOATS AND SUCKLING MICES.**

G M Mugerá S Chema

*Bull Epizoot Dis Afr* 15(4):337-354

Dec 1967 41.8 B872

Animal histology, Animal physiology, Erythrocytes, Gastroenteritis, Goats, Hematology, Hemoglobin, Kidneys, Lesions, Leukocytes, Liver, Livestock diseases, Mice, Nairobi sheep disease virus, Pathogenesis, Sheep, Virus diseases (animals).

Abstract: In sheep and goats, the glomerulo-tubular nephritis (kidney), hyaline degeneration and fragmentation of myocardial fibers, and coagulative necrosis of gall bladder were consistent lesions. In mice, liquefactive necrosis characterised by focal cystic areas with haemorrhag -es and lymphocytic infiltration, especially around blood vessels. all these characteristics are of Nairobi Sheep Diseases in these animals.

**14598-69**

**PSEUDOMONAS INFECTIONS IN MINK WITH SPECIAL REFERENCE TO PSEUDOMONAS VASCULITIS IN PULMONARY LESIONS. (DA)**

K Nordstoga

*Acta Vet Scand* 9(1):33-40

1968 41.8 AC87

Anemia, Animal histology, Bacteria, Exudates, Hemorrhage, Infectious diseases, Laboratory animals, Leukocytes, Minks, Pseudomonas, Tissues. German and Norwegian summaries.

**14599-69**

**EXPERIMENTAL STUDIES ON ASPERGILLOSIS (I). (JA)**

S Ogawa M Kuroda T Nakajima F Ito M

Yamamoto K Tatsuyama

*Mycol Soc Jap Trans* 8(2):87-91

01 Sep 1967 451 N622

Animal diseases, Aspergillosis, Fungi, Mycology, Mycosis.

**14600-69**

**HISTOPATHOLOGIC AND HEMATOLOGIC CHANGES IN MORIBUND STAGES OF CHICKS INFECTED WITH T-VIRUS.**

L D Olson

*Amer J Vet Res* 28(126):1501-1507

Sep 1967 41.8 AM3A

Chicks, Hematology, Histology, Liver, Mortality, Poultry, Spleen, Virus diseases (animals).

**14601-69**

**EXPERIMENTAL INACTIVATED-VIRUS HOG CHOLERA VACCINES: INDUCTION PERIOD OF IMMUNITY.**

E I Pilchard

*Amer J Vet Res* 28(125):915-923 REF

Jul 1967 41.8 AM3A

Bordetella, Hog cholera vaccines, Immunity, Inactivating agents, Swine.

**14602-69**

**VARIABLE RESISTANCE OF COWS TO STREPTOCOCCUS AGALACTIAE MASTITIS.**

W D Pounen N A Frank J V Bateman J

Blydenstein

*Amer J Vet Res* 28(127):1735-1742 REF

Nov 1967 41.8 AM3A

Cattle, Immunity, Mastitis, Streptococcus agalactiae.

**14603-69**

**MULTIPLICATION OF TRIBEC VIRUS IN CHICK EMBRYO CELL CULTURES: CYTOPHATIC CHANGES AND IMMUNOFLOURESCENCE.**

J Rajcani M Gresikova

*Acta Virol* 11(6):527-532

Nov 1967 448.3 AC85

Cells, Chick embryos, Cytology, Fluorescence microscopy, Fluorescent antibody technic, Immunology, Tribec virus, Virology, Virus diseases (animals).

**14604-69**

**LYOPHILIZING FOOT-AND-MOUTH DISEASE VIRUS AT LOW DRYING TEMPERATURE.**

H Ramyar E Traub

*Amer J Vet Res* 28(126):1605-1608 REF

Sep 1967 41.8 AM3A

Drying, Foot-and-mouth disease virus, Lyophilization, Storage, Temperature, Virus diseases (animals).

**14605-69**

**ANTIBODY IN EXPERIMENTALLY INFECTED SHEEP AND ANTIFOOT-AND-MOUTH DISEASE VACCINES. (SP)**

S Rivenson M Segura M M Zakín

*La Plata Univ Nac Fac Cienc Vet Rev* 8(18):53-58

Jan 1966 41.9 L313

Antibodies, Foot-and-mouth disease, Injections, Livestock diseases, Sheep, Vaccines, Virus diseases (animals). French summary

**14606-69**

**IMMUNOLOGICAL RESPONSE IN COWS TO MYCOPLASMA BOVIGENITALIUM, STRAIN 1836.**

D H Roberts

*J Hyg* 66(4):585-593 REF

Dec 1968 449.8 J82

Cattle, Immunization, Mycoplasma, Serological tests.

**14607-69**

**A COMPARISON OF THE HAEMAGGLUTINATION-INHIBITION AND NEUTRALISATION**

**TEST IN THE ASSAY OF RINDERPEST ANTIBODIES IN CATTLE.**

L W Rowe D Zwart B Kouwenhoven

*Bull Epizoot Dis Afr* 15(4):301-305 REF

Dec 1967 41.8 B872

Antibodies, Biological assay, Cattle, Hemagglutination-inhibition test, Immunology, Livestock diseases, Myxoviruses, Neutralization test, Rinderpest, Virus diseases (animals).

**14608-69**

**WARFARIN TREATMENT OF MICE BEARING AUTOCHTHONOUS TUMORS: EFFECT ON SPONTANEOUS METASTASES.**

J J Ryan A S Ketcham H Wexler

*Science* 162(3861):1493-1494 REF

27 Dec 1968 470 SCI2

Drug therapy, Lungs, Metastasis, Mice, Mortality, Neoplasms, Warfarin.

**14609-69**

**VARIATION OF ANTIBODIES OF NEWCASTLE VIRUS IN RATS INOCULATED WITH DIFFERENT TYPES OF EXPERIMENTAL VACCINES. (SP)**

R M Scapin B Epstein

*La Plata Univ Nac Fac Cienc Vet Rev* 8(18):25-27 REF

Jan 1966 41.9 L313

Antibodies, Injections, Newcastle disease vaccines, Newcastle disease virus, Rats, Vaccines, Virus diseases (animals).

**14610-69**

**EFFECTS OF HUMORAL AND CELLULAR PHASES OF ACUTE INFLAMMATION IN THE BOVINE MAMMARY GLAND ON AEROBACTER AEROGENES INTRODUCED EN MASSE AND ON LEUKOCYTES IN MILK.**

O W Schalm J Lasmanis N C Jain

*Amer J Vet Res* 28(126):1251-1256

Sep 1967 41.8 AM3A

Aerobacter aerogenes, Cattle, Immunology, Mammary glands, Mastitis.

**14611-69**

**RELATIONSHIP OF PLAQUE SIZE AND VIRULENCE FOR CHICKENS OF 14 REPRESENTATIVE NEWCASTLE DISEASE VIRUS STAINS.**

G M Sciloyer R P Hanson

*J Virology* 2(1):40-47 REF

Jan 1968 QR360.16

Chickens, Newcastle disease virus, Virus diseases (animals).

**14612-69**

**USE OF SODIUM ALGINATE ADJUVANT IN IMMUNIZATION AGAINST EQUINE INFLUENZA.**

I L Shechmeister T Aeschliman W G Kammlade

*Amer J Vet Res* 28(126):1373-1378 REF

Sep 1967 41.8 AM3A

Equine influenza, Horses, Immunization, Methodology, Sodium alginate, Vaccines.

**14613-69**

**CONTAGIOUS BOVINE PLEUROPNEUMONIA IN WILDLIFE.**

M Shifrine C H Domermuth

*Bull Epizoot Dis Afr* 15(4):319-321

Dec 1967 41.8 B872

Bacteriology, Complement fixation, Contagious bovine pleuropneumonia, Infectious diseases, Mycoplasma mycoides, Wildlife diseases.

**14614-69**

**COMPARATIVE MORPHOLOGIC FEATURES OF BABESIA CABALLI AND BABESIA EQUI.**

C F Simpson W W Kirkham J M Kling

*Amer J Vet Res* 28(127):1693-1697

Nov 1967 41.8 AM3A

Babesia caballi, Babesia equi, Electron microscopy, Erythrocytes, Histology, Horses, Piroplasmosis.

**14615-69**

**HEMAGGLUTINATION AND HEMOLYSIS OF ERYTHROCYTES OF UNRELATED SPECIES**

14616-69

**OF ANIMALS BY THE BLACKSBURG STRAIN OF NEWCASTLE DISEASE VIRUS.**

M Slikin L Thompson

*Amer J Vet Res* 28(124):819-823 REF

May 1967 41.8 AM3A

Erythrocytes, Ferrets, Frogs, Hemagglutination, Newcastle disease virus, Turtles.

14616-69

**MORPHOLOGIC FEATURES OF HAEMOBARTONELLA FELIS.**

E Small M Ristic

*Amer J Vet Res* 28(124):845-851 REF

May 1967 41.8 AM3A

Acridine dyes, Blood parasites, Cats, Electron microscopy, Fluorescent antibody technic, Haemobartonella, Histology.

14617-69

**VACCINATION AGAINST LEPTOSPIROSIS: PROTECTION OF HAMSTERS AND SWINE AGAINST RENAL LEPTOSPIROSIS BY KILLED BUT INTACT GAMMA-IRRADIATED OR DIHYDROSTREPTOMYCIN-EXPOSED LEPTOSPIRA POMONA.**

O H V Stalheim

*Amer J Vet Res* 28(127):1671-1676 REF

Nov 1967 41.8 AM3A

Gamma rays, Hamsters, Immunization, Leptospira pomona, Swine, Vaccines.

14618-69

**VARIATIONS IN ISOLATIONS OF PATHOGENIC BACTERIA FROM THE UDDERS OF COWS DURING A SIX-MONTH PERIOD.**

W H Thompson B A Houston

*Australian Vet J* 44(2):68-71

Feb 1968 41.8 AU72

Livestock diseases, Mastitis, Staphylococcus, Surveys.

14619-69

**VIROLOGICAL, HISTOPATHOLOGICAL AND HISTOCHEMICAL BEHAVIOR OF THE CORIOALANTOIS OF CHICK EMBRYOS INOCULATED WITH AEQUI/URUGUAY/540/1963 VIRUS. (SP)**

E F Vallonc R M Canto R E S Moreira H C Tosi C A Bauza

*La Plata Univ Nac Fac Cienc Vet Rev* 8(18):69-87 REF

Jan 1966 41.9 L313

Chickens, Embryology, Equine influenza viruses, Histochemistry, Histopathology, Influenza, Injections, Virology, Virus diseases (animals). French summary

14620-69

**A STUDY OF THE PHYSICAL PROPERTIES OF THE IMMUNIZING ANTIGEN OF FOOT-AND-MOUTH DISEASE VIRUS AND THE EFFECT OF VARIOUS INACTIVATING AGENTS ON ITS STRUCTURE.**

T F Wild F Brown

*Arch Gesamte Virusforsch* 24(1-2):86-103

Jun 1968 448.3 AR23

Antigens, Biophysics, Foot-and-mouth disease virus, Formaldehyde, Immunization, Inactivating agents, Picornaviruses.

14621-69

**THE PERSISTENCE OF DRUG RESISTANCE IN STRAINS OF EIMERIA SPECIES IN BROILER CHICKENS FOLLOWING A CHANGE OF COCCIDIOSTAT.**

R B Williams

*Res Vet Sci* 10(5):490-492

Sep 1969 41.8 R312

Chickens, Coccidiostats, Decoquinat, Drug resistance, Drug therapy, Eimeria, Ichneumonidae, Insect taxonomy, Lepidoptera, Parasitic insects, Poultry diseases.

14622-69

**INHIBITION OF HOST-CELL PROTEIN AND RIBONUCLEIC ACID SYNTHESIS BY NEWCASTLE DISEASE VIRUS.**

D E Wilson

*J Virology* 2(1):1-6 REF

Jan 1968 QR360.J6

Cells, Newcastle disease virus, Physiology, Proteins, Ribonucleic acid, Virus diseases (animals).

14623-69

**EXPERIMENTAL AEROSOL TRANSMISSION OF YABA VIRUS IN MONKEYS.**

L G Wolfe

*Diss Abstr Sect B* 29(5):1740B

Nov 1968 Z5055.U49D53

Aerosols, Infectious diseases, Monkeys, Neoplasms, Virus diseases (animals), Yaba monkey tumor virus.

## ARTHROPODS

14624-69

**FIRST RECORDS OF EYE-FREQUENTING LEPIDOPTERA FROM INDIA.**

W Buttiker

*Rev Suisse Zool* 74(2):389-398 MAP

Sep 1967 410 R324

Eyes, Insect pests, Livestock, Noctuidae, Pyralidae, Surveys, Zoogeography.

14625-69

**CAN YOU AFFORD CATTLE LICE .**

F W Evans

*Agr Gaz New S Wales* 78(Pt 6):334-335

Jun 1967 23 N472

Anemia, Cattle, Chemical control (insects), Diagnosis, Haematopinus eurysternus, Linognathus vituli.

The life cycle, prevalence, symptoms, diagnosis, and chemical control of lice on Australian cattle are discussed.

14626-69

**ASUNTOL AND NEGUVON IN THE FIGHT AGAINST DOG FLEAS. (SP)**

J Galofre J Boero C Torrado

*La Plata Univ Nac Fac Cienc Vet Rev* 8(18):9-12

Jan 1966 41.9 L313

Chemical control (insects), Coumaphos, Dogs, Insect pests, Insecticides, Organophosphorus compounds, Siphonaptera, Trichlorfon.

14627-69

**BIOLOGY OF HYPHANTRIA CUNEA DRURY (LEPIDOPTERA: ARCTIIDAE IN JAPAN. I. NOTES ON ADULT BIOLOGY WITH REFERENCES TO THE PREDATION BY BIRDS.**

H Hasegawa Y Ito

*Appl Entomol Zool* 2(2):100-110 REF

Jun 1967 SB599.A6

Biological control (insects), Hyphantria cunea, Insect biology, Predatory birds, Research, Weather.

14628-69

**CONTROLLING EXTERNAL PARASITES OF SHEEP.**

E S Millar

*New Zeal J Agr* 114(4):16-21,23,25 REF

Apr 1967 23 N48J

Acarina, Anoplura, Calliphoridae, Chemical control (pests), Life cycle, Melophagus ovinus, Sheep, Sheep-dip.

Ectoparasites of sheep in New Zealand are discussed including notes on their biology and means for control.

14629-69

**ECOLOGY OF LICE ON SHEEP. VI. THE INFLUENCE OF SHEARING AND SOLAR RADIATION ON POPULATIONS AND TRANSMISSION OF DAMALINIA OVIS.**

M D Murray

*Australian J Zool* 16(5):725-738

Nov 1968 410 AU73

Anoplura, Damalinia ovis, Insect ecology, Population, Sheep, Sheep shearing, Solar radiation. Part V. in vol. 11:173-182, 1963

## PARASITES

14630-69

**COMPARATIVE ANTHELMINTIC EFFICIENCIES OF PARBENDAZOLE, THIABENDAZOLE, AND PHENOTHIAZINE IN LAMBS.**

D G Bennett

*Amer J Vet Res* 29(12):2325-2530

Dec 1968 41.8 AM3A

Anthelmintics, Drug therapy, Haemonchus contortus, Lambs, Nematodirus, Phenothiazine, Thiazolyl-benzimidazole, 2-(4-).

14631-69

**WARBLE FLY LARVAE CONTROL STUDY.**

T D Burgess W C Allan J Mozier

*Entomol Soc Ontario Proc* 97:117-120

1966 420 ON8

Cattle, Chemicals, Insect control, Insecticides, Larvac, Oestridae, Research.

14632-69

**EPIZOOTIOLOGIC FACTORS OF FASCIOLOIDES MAGNA (TREMATODA) IN OREGON AND SOUTHERN WASHINGTON.**

V J Dutton J N Shaw S E Knapp

*Amer J Vet Res* 28(124):853-860 MAP REF

May 1967 41.8 AM3A

Epizootic diseases, Fascioloidiasis, Snails, Surveys, Zoogeography.

14633-69

**DEVELOPMENT OF CAENORHABDITIS BRIGGSIAE AND HYMENOLEPIS NANA IN INTERCHANGED MEDIA. FRANCE.**

E L Hansen A K Berntzen

*J Parasitol* 55(5):1012-1017 REF

Oct 1969 448.8 J824

Chemical analysis, Culture media, Helminths, Hymenolepis nana, Insect biology, Insect outbreaks, Macrosiphum avenae, Physiology, Rearing, Wheat. English abstract.

14634-69

**KERATO-CONJUNCTIVITIS IN CATTLE IN THE PLATEAU AREA OF NORTHERN NIGERIA. A STUDY OF THELAZIA RHODESII AS A POSSIBLE AETIOLOGICAL AGENT.**

M M Ikeme

*Bull Epizoot Dis Afr* 15(4):363-367 REF

Dec 1967 41.8 B872

Cattle, Ceratopogonidae, Eyes, Fulani cattle, Haematopota, Helminthiasis, Insect vectors, Keratoconjunctivitis, Livestock diseases, Microbiology, Microorganisms, Moraxella bovis, Musca domestica, Parasitism, Simulium, Stomoxys calcitrans, Thelazia rhodesii, Thelaziasis.

14635-69

**FIELD TRIALS ON THE EFFICACY OF THIABENDAZOLE AGAINST HAEMONCHUS CONTORTUS IN WEST AFRICAN DWARF FOREST SHEEP AND GOATS.**

M Irfan

*Bull Epizoot Dis Afr* 15(4):369-371 REF

Dec 1967 41.8 B872

Anthelmintics, Dosage, Goats, Haemonchus contortus, Helminthiasis, Livestock diseases, Nematodes, Ovulation, Parasitism, Sheep, Thiabendazole.

Abstract: Thiabendazole at a dosage of 66 or 88 milligrams/ kilograms body weight was very effective against natural infestation of Haemonchus contortus in West African dwarf forest sheep and goats.

14636-69

**THE CHROMOSOME NUMBERS OF OESOPHAGOSTOMUM COLUMBIANUM CUTICE AND CHABERTIA OVINA FABRICIUS (NEMATODA, STRONGYLATA).**

L F Le Jambre

*Amer Microscop Soc Trans* 87(1):105-106

Jan 1968 440.9 AM33

Chabertia ovina, Chromosomes, Methodology, Oesophagostomum, Sheep.

14637-69

FINE STRUCTURE OF THE INTESTINAL EPITHELIUM OF DIROFILARIA IMMITIS AND CHANGES OCCURRING AFTER VERMICIDAL TREATMENT WITH CAPARSOLATE SODIUM.

C C Lee J H Miller

*J Parasitol* 55(5):1035-1045 REF

Oct 1969 448.8 J824

Arsenamides, Bacillus thuringiensis, Beauveria bassiana, Biological control (insects), Cytology, Dirofilaria immitis, Electron microscopy, Insect pests.

14638-69

FINE STRUCTURE OF LEUKOCYTES ADHERING TO THE CUTICLE OF ASCARIS SUUM LARVAE. II. POLYMORPHONUCLEAR LEUKOCYTES.

D J Morseth E J L Soulsby

*J Parasitol* 55(5):1025-1034

Oct 1969 448.8 J824

Acarina, Ascaris lumbricoides suum, Brevipalpus, Cell nucleus, Chemical control (insects), Cuticle, Cytology, DDT, Eriophyidae, Insecticide resistant insects, Larvae, Leukocytes, Ornamental plant culture, Polymorphism, Rhizoglyphus echinopus, Tarsonemidae, Tetranychidae.

14639-69

PULMONARY DISEASE IN KENYA SHEEP.

M Murray

*Bull Epizoot Dis Afr* 15(4):355-357

Dec 1967 41.8 B872

Cysts, Dictyocaulus filaria, Echinococcus granulosus, Helminthiasis, Livestock diseases, Lungs, Muellerius capillaris, Parasitic bronchitis, Parasitism, Pneumonia, Protostrongylus, Pulmonary adenomatosis, Sheep.

14640-69

CHARACTERISTICS FOR TWO CLASSES OF EMBRYONIC CELLS IN ONCOSPHERES OF HYMENOLEPIS DIMINUTA STAINED FOR CYTOPLASMIC SUBSTANCES.

R E Ogren

*Amer Microscop Soc Trans* 87(1):82-97 REF

Jan 1968 440.9 AM33

Biochemistry, Cytology, Embryology, Hymenolepis diminuta.

14641-69

THE BASIC CELLULAR PATTERN FOR UNDIFFERENTIATED ONCOSPHERES OF HYMENOLEPIS DIMINUTA.

R E Ogren

*Amer Microscop Soc Trans* 87(4):448-463 REF

Oct 1968 440.9 AM33

Cytology, Hymenolepis diminuta, Physiology.

14642-69

LOCALIZATION OF GLYCOGEN IN THE CESTODE, HYMENOLEPIS DIMINUTA.

M Reissig A V Colucci

*J Cell Biol* 39(3):754-763 REF

Dec 1968 442.8 J828

Cestoda, Electron microscopy, Glycogen, Hymenolepis diminuta, Rats.

14643-69

RESPIRATORY ACTIVITY OF TRYPANOSOMA LEWISI DURING SEVERAL PHASES OF INFECTION IN THE RAT.

G Sanchez D G Dusanic

*Exp Parasitol* 23(3):361-370 REF

Dec 1968 436.8 EX7

Antimetabolites, Biochemistry, Infectious diseases, Metabolism, Rats, Respiration, Trypanosoma lewisi.

14644-69

TRYPANOSOMA LEWISI: CREATINE PHOSPHOKINASE, ORNITHINE CARBAMYL TRANSFERASE, ATPASES, PI, AND GLUCOSE LEVELS IN THE RAT HOST.

G Sanchez D G Dusanic

*Exp Parasitol* 23(3):371-378 REF

Dec 1968 436.8 EX7

Biochemistry, Enzymes, Infectious diseases, Metabolism, Rats, Trypanosoma lewisi.

14645-69

BLOOD CHEMICAL AND CELLULAR CHANGES IN CANINE DIROFILARIASIS.

J W Snyder S K Liu R J Tashjian

*Amer J Vet Res* 28(127):1705-1710

Nov 1967 41.8 AM3A

Biochemistry, Blood proteins, Dirofilaria immitis, Dogs.

14646-69

EFFICACY OF NICLOSAMIDE IN THE TREATMENT OF TAENIA TAENIAEFORMIS INFECTIONS IN CATS.

R B Wescott

*Amer J Vet Res* 28(126):1475-1477

Sep 1967 41.8 AM3A

Cats, Cestoda, Drug therapy, Niclosamide, Taenia taeniaeformis, Taeniasis.

## COMMODITY PROTECTION

### ARTHROPODS

14647-69

SUSCEPTIBILITY OF 'TAPIOCA MACARONI' TO INSECT ATTACK.

H G Khalsa B S Nigam

*Pesticides* 1(9):31-33 REF

May 1968 SB951.P43

Cassava, Insect pests, Macaroni, Starches, Stored products. Tapioca macaroni is a commercial product made of cassava starch, peanut and wheat flours.

### RODENTS AND OTHER PESTS

14648-69

A NEW IDEA FROM CALIFORNIA--LOLLIPOP BAIT CUBE.

Anonymous

*Pest Contr* 36(10):32,32,34,36

Oct 1968 449.8 EX8

Animal traps, Baits, Chemical control (pests), Diphacinone, Paraffin wax, Pindone, Rats, Rodent control.

The use of diphacinone in paraffin wax for rat baits in California is discussed.

### MICROBIAL CONTAMINATION

14649-69

WHAT THE SANITARIAN SHOULD KNOW ABOUT STAPHYLOCOCCI AND SALMONELLAE IN NON-DAIRY PRODUCTS. II. SALMONELLAE.

F L Bryan

*J Milk Food Technol* 31(5):131-140 REF

May 1968 44.8 J824

Agricultural products, Epidemiology, Feed, Food processing, Livestock, Microbiology, Poultry, Salmonella paratyphi, Salmonella typhimurium, Spraying, Staphylococcus.

14650-69

PREPARATION OF DEHYDRATED TOMATO POWDER SAMPLES FOR HOWARD MOLD COUNT.

B Krinitz

*Ass Offic Anal Chem J* 51(1):78-80

Jan 1968 381 AS7

Methodology, Molds, Temperature, Tomatoes.

14651-69

STUDY OF THE ANTIFUNGAL PROPERTIES OF 8-HYDROXYQUINOLINE TARTRATE.

M N Rotmistrov I A Vasilevskaya E M Skrynik Z A Sukhorukova

*Microbiology* 37(3,MAY-JUN):377-380

Jun 1968 448.3 M582AE

Cladosporium, Fungi, Fungicides, Hydroxyquinoline, Penicillium, Tartrates, Wine. Russian journal-vol. 37(3):466-470, May-Jun. 1968

## ENVIRONMENTAL CONTAMINATION

14652-69

GUIDELINES FOR EVALUATING THE PROPERTIES OF PESTICIDES FOR SAFE USE IN THE WILDLIFE ENVIRONMENT.

E E Kenaga

*Down Earth* 23(4):11-18 SPRING

1968 381 D75

Accident prevention, Air pollution, Animal ecology, Biochemistry, Dosage, Environment, Pesticide application, Pesticide residues, Pesticides, Toxicology, Water pollution, Wildlife.

## RESIDUES

14653-69

INFLUENCE OF RESIDUES OF SOME TRIAZINE HERBICIDES UPON WHEAT AND WEEDS IN WHEAT CROPS. (CZ)

T Cincovic B Szinjar

*Zastita Bilja* 12(91-92):293-304 REF

1966 464.8 Z1

Atrazine, Chemical control (weeds), Herbicide residues, Herbicides, Simazine, Soil properties, Triazine, Weed control, Weeds, Wheat. English summary

14654-69

NOTICE OF WITHDRAWAL OF PETITION REGARDING PESTICIDES.

R E Duggan

*Fed Regist* 33(240):18408

11 Dec 1968 L1.451

Agricultural products, Benzo(b)thiophene-4-ol, Benzothienyl N-methylcarbamate, 4-, Biochemistry, Corn, Feed, Forage plants, Insecticides, Pesticide residues.

14655-69

5,6-DICHLORO-1-PHENOXYCARBONYL-2-TRIFLUOROMETHYLBENZIMIDAZOLE. NOTICE OF EXTENSION OF TEMPORARY TOLERANCE.

J K Kirk

*Fed Regist* 34(19):1406

29 Jan 1969 L1.451

Insecticides, Dichloro-1-phenoxy-carbonyl-2-trifluoromethylbenzimidazol, 5.

14656-69

SYSTEMIC ACTIVITY OF ZECTRAN, MATACIL AND BIDRIN INJECTED INTO CONIFER TRUNKS.

J E Larson G R Pieper H C Ratsch

*Pest Mont J* 1(2):49-53

Sep 1967 SB951.A1P41

Abies grandis, Biological assay, Chemicals, Choristoneura fumiferana, Coniferae, Dimethylamino-m-tolyl methylcarbamate, 4-., Dimethylamino-3,5-xyllyl methylcarbamate, 4-, Hydroxy-N,N-dimethyl-cis-crotonamide dimethyl phosphate, 3-, Insecticides, Organophosphorus compounds, Pesticide residues, Pseudotsuga menziesii, Tables (data).

14657-69

ORGANOCHLORINE INSECTICIDE RESIDUES IN COMPLETE PREPARED MEALS: A 12-MONTH SURVEY IN S. E. ENGLAND. GEOMETRICAL ISOMERS OF CHRYSANTHEMIC, PYRETHRIN AND RELATED ACIDS AND OPTICAL ISOMERS OF CINEROLONE AND ALLETHROLONE.

14658-69

A E J McGill J Robinson C Potter  
*Food Cosmet Toxicol* 6(1):45-57 REF  
Jun 1968 391.8 F73

Acids, Allethrin, Chlorinated hydrocarbons, Chromatography, Dieldrin, DDT, *Dysdercus fasciatus*, Esters, Food analysis, Insecticide residues, Insecticides, *Musca domestica*, Pyrethrum, *Tenebrio molitor*, Toxicology.

14658-69

THE DETERMINATION OF SOME SUBSTITUTED UREA HERBICIDE RESIDUES IN SOIL BY ELECTRON-CAPTURE GAS CHROMATOGRAPHY.

C E McKone

*J Chromatography* 44(1):60-66 REF

14 Oct 1969 475 J824

Chromatography, Electron capture, Herbicide residues, Herbicides, Linuron, Urea herbicides.

14659-69

DETERMINATION OF INSECTICIDE RESIDUE IN ANIMAL AND PLANT TISSUES. IV: DETERMINATION OF RESIDUAL AMOUNT OF SUMITHION AND SOME OF ITS METABOLITES IN FRESH MILK.

J Miyamoto Y Sato S Suzuki

*Botyu-kagaku* 32(4):95-100 REF

Nov 1967 421 B65

Animals, Dimethyl O-(4-nitro-m-tolyl) phosphorothioate, O,O-, Insecticide residues, Metabolites, Milk, Organophosphorus compounds, Plants, Tissues.

## TOXICOLOGY

14660-69

EXCRETION OF AFLATOXIN IN A LACTATING COW. *DROSOPHILA MELANOGASTER* TO ANESTHESIA.

R Allcroft B A Roberts M K Lloyd

*Food Cosmet Toxicol* 6(5):619-625

Dec 1968 391.8 F73

Aflatoxin, Anesthesia, Biochemistry, Carbon dioxide, Cattle, *Drosophila melanogaster*, Ethyl ether, Excretion, Insect physiology, Lactation, Milk, Temperature, Urine.

14661-69

TWO CASES OF UREA POISONING IN DAIRY HERDS.

M W Crowe

*Mod Vet Pract* 49(3):40-41

Mar 1968 41.8 N812

Autopsies, Dairy cattle, Feed toxicity, Microorganisms, Nitrogen, Ruminants, Sheep, Toxicology, Urea.

14662-69

EFFECT OF CARBARYL ON THE NEUROENDOCRINE SYSTEM OF RATS. FOODSTUFFS: A MULTI-DETECTION SCHEME FOR GAS CHROMATOGRAPHY OF SOLVENT EXTRACTS.

A I Shtenberg M N Rybakova

*Food Cosmet Toxicol* 6(4):461-467 REF

Dec 1968 391.8 F73

Animal physiology, Carbamates, Carbaryl, Chemical analysis, Chromatography, Fumigants, Grain, Insecticides, Methodology, Neuroendocrines, Rats.

14663-69

METHYL BROMIDE CAN BE DANGEROUS.

G R Simpson

*Agr Gaz New S Wales* 78(PT 2):113-117

Feb 1967 23 N472

Accidents, Fumigants, Insecticides, Methyl bromide, Toxicology.

14664-69

AN INTERACTION OF DIELDRIN WITH THIAMINE.

I J Tinsley

*Soc Exp Biol Med Proc* 129(2):463-465

Nov 1968 442.9 S01

Dieldrin, Nutrition, Physiology, Rats, Thiamine.

14665-69

FUNGITOXIC ACTION OF HIGHER ALKYL COMPOUNDS. I. MECHANISM OF FUNGITOXIC ACTION OF ALKYLPHENOLS.

Y Uesugi K Fukunaga

*Phytopathol Soc Jap Ann* 33(3):168-175 REF

Jun 1967 464.9 P562

Adsorption, Blast, Cells, Fungi, Fungicides, Glucose, Glutamate, Ninhydrin reaction, Organic compounds, Pentachlorophenol, Phenols, *Piricularia oryzae*, Plant physiology, Plant translocation, Rice, Toxicology. Abstract in Japanese

## PLANT PHYSIOLOGY & BIOCHEMISTRY

14666-69

THE RESPIRATION AND FLOWER DEVELOPMENT OF EVERGREEN AZALEAS AS INFLUENCED BY GIBBERELLIN, SCALE REMOVAL, AND 2,4-DINITROPHENOL.

D J Ballantyne

*Can J Bot* 46(2):165-168 REF

Feb 1968 470 C16C

Azalea, Biochemistry, Dinitrophenol, 2,4-, Flowers, Gibberellins, Ornamental trees, Plant morphology, Plant respiration.

14667-69

THE SEPARATION OF THE PROTEINS OF WHEAT BY ACRYLAMIDE GEL ELECTROPHORESIS, WITH SPECIAL REFERENCE TO MOTTLED AND UNMOTTLED WHEAT.

J T Barber H L Wood F C Steward

*Can J Bot* 45(1):5-19 REF

Jan 1967 470 C16C

Acrylamide, Biochemistry, Electrophoresis, Gels, Mottle, Plant physiology, Proteins, Wheat.

14668-69

EFFECT OF PHYTOTOXINS FROM THE DECOMPOSITION OF ORGANIC MATTER UPON PEANUT SEEDLING EMERGENCE. (ABSTRACT).

H W Boyd

*Phytopathology* 58(6):726

Jun 1968 464.8 P56

Corn, Greenhouse culture, Peanuts, Plant physiology, Plant residues, Seedlings, Soil amendments, Toxins.

14669-69

BLUE LIGHT PROMOTES SYMPTOM FORMATION AND VIRUS MULTIPLICATION IN PLANTS.

R Casper

*Virology* 34(1):179-181

Jan 1968 448.8 V81

Lighting, Metabolism, Plant physiology, Tobacco, Virus diseases (plants).

14670-69

RELATIONSHIP BETWEEN THE NUMBER OF SUCKERS (TILLERS) AND THE NUMBER OF ADVENTITIOUS ROOTS DURING THE DEVELOPMENTAL CYCLE OF HARD CORN SENSITIVE TO RADIAL TIPPING AND A REPORT CONCERNING THE TREATMENT WITH AUXIN, GIBBERELLIN, ACTIVATORS AND GROWTH INHIBITORS OF THE CCC TYPE. (FR)

H Chlyah

*Acad Sci Compt Rend Ser D Sci Nat* 266(16, 1ST SEMESTER):1662-1664

17 Apr 1968 505 P21

Chloroethyltrimethylammonium chloride, (2-, Corn, Gibberellins, Plant growth inhibitors, Plant physiology, Plant regulators.

14671-69

MYCOBACTERIUM TUBERCULOSIS IN MACROPHAGES: EFFECT OF CERTAIN SURFACTANTS AND OTHER MEMBRANE-ACTIVE COMPOUNDS.

P D'arcy Hart

*Science* 162(3854):686-689 REF

08 Nov 1968 470 SCI2

Biochemistry, Cells, Culture media, Macrophages, Permeability, Physiology, Surface-active agents, Tuberculosis.

14672-69

EFFECT OF D-GALACTOSE ON THE ULTRASTRUCTURE OF BENTGRASS ROOT APICES.

R M Endo W W Thomson E M Krausman

*Can J Bot* 46(4):391-395 REF

Apr 1968 470 C16C

Agrostis, Biochemistry, Cells, Galactose, Plant anatomy, Plant growth inhibitors, Plant morphology, Research, Roots.

14673-69

HORMONES FROM THE FLY AGARIC (AMANITA). (GE)

C H Eugster

*Naturwissenschaften* 55(7):305-313 REF

Jul 1968 474 N213

*Amanita muscaria*, Choline, Hormones, Muscarine.

14674-69

SOME RESULTS FROM ALLIUM TESTS WITH ORGANIC MERCURY HALOGENIDES.

G Fiskesjo

*Hereditas* 62(3):314-322

1969 442.8 H42

Bromides, Chromosomes, Ethyl chloride, Mercury compounds, Methoxyethylmercury chloride, 2-, Methyl chloride, Onions, Organic compounds, Plant genetics.

14675-69

MICROSOMAL N-DEMETHYLATION, BY A COTTON LEAF OXIDASE SYSTEM, OF 3-(4'-CHLOROPHENYL)-1,1-DIMETHYLUREA (MONURON).

D S Frear

*Science* 162(3854):674-675

08 Nov 1968 470 SCI2

Adenine nucleotides, Biochemistry, Cotton, Enzymes, Herbicides, Leaves, Monuron, Nicotinamide, Oxidases, Plant physiology.

14676-69

METABOLISM OF AROMATIC COMPOUNDS IN HEALTHY AND RUST-INFECTED PRIMARY LEAVES OF WHEAT. II. STUDIES WITH L-PHENYLALANINE-U-14C, L-TYROSINE-U-14C, AND FERULATE-U-14C.

A Fuchs R Rohringer D J Samborski

*Can J Bot* 45(11):2137-2153 REF

Nov 1967 470 C16C

Biochemistry, Cinnamic acid compounds, Metabolism, Phenylalanine, Plant physiology, Radioactive tracers, Research, Rust (wheat), Tyrosine, Wheat.

14677-69

CALCIUM LOCALIZATION IN HYPOMYCES-INFECTED SQUASH HYPOCOTYLS AND EFFECT OF CALCIUM ON PECTASE LYASE AND TISSUE MACERATION.

J G Hancock M E Stanghellini

*Can J Bot* 46(4):405-409 REF

Apr 1968 470 C16C

Biochemistry, Calcium, Hypomyces, Pectase, Plant physiology, Squash, Tissues.

14678-69

IS IT POSSIBLE TO DRAW ANY CONCLUSIONS FROM THE RED EPIDEMIC OF 1967, IN REGARD TO THE APPEARANCE OF THE DISEASE DURING THIS YEAR. (GE)

J Henner

*Pflanzenarzt* 21(5):69

01 May 1968 464.9 P482

Biochemistry, Copper, Epidemiology, Fungi, Fungicides, Peronospora, Pseudopeziza, Rainfall, Spraying, Temperature.

14679-69

THE FINE STRUCTURE OF HYPHAE OF HELMINTHOSPORIUM ORYZAE ITO ET KURIB. AND PYRICULARIA ORYZAE CAVARA. (JA)

O Horino S Akai

*Phytopathol Soc Jap Ann* 34(1):36-39 REF  
Jan 1968 464.9 P562

Cell nucleus, Cell wall, Cytoplasm, Electron microscopy, Fungi, Helminthosporium oryzae, Hyphae, Lipids, Microbiology, Mitochondria, Plant cytology, Plant diseases, Plant physiology, Piricularia oryzae. Abstract in English

14680-69

THE INFLUENCE OF CCC ON LODGING AND DEVELOPMENT OF GRAIN.

H Linser

*Bodenkultur* 19(3):185-212 REF  
19 B635

Barley, Grain, Lodging, Oats, Organophosphorus compounds, Plant biochemistry, Plant disease resistance, Plant physiological diseases, Plant regulators, Rye. English summary.

14681-69

THE CYTOLOGY OF INFECTION STRUCTURE DEVELOPMENT IN UREDIOSPORE GERM TUBES OF UROMYCES PHASEOLI VAR. TYPICA (PERS.) SWINT.

R Maheshwari A C Hildebrandt P J Allen

*Can J Bot* 45(4):447-450 REF

Apr 1967 470 C16C

Cytology, Plant physiology, Uredinales, Uromyces phaseoli typica.

14682-69

THE ERYSIPE CICHORACEARUM CONIDIUM.

W E McKeen N Mitchell R Smith

*Can J Bot* 45(9):1489-1496 REF

Sep 1967 470 C16C

Biochemistry, Cell nucleus, Erysiphe cichoracearum, Plant physiology.

14683-69

CUCUMBER SEX EXPRESSION MODIFIED BY 2-CHLOROETHANEPHOSPHONIC ACID.

A L McMurray C H Miller

*Science* 162(3860):1397-1398

20 Dec 1968 470 SC12

Biochemistry, Breeding, Cucumbers, Halogenated hydrocarbons, Plant physiology, Reproduction, Seeds, Sex determination.

14684-69

METABOLISM OF GLUCOSE-14C, PYRUVATE-14C, AND MANNITOL-14C BY MELAMPORA LINI. II. CONVERSION TO SOLUBLE PRODUCTS.

D Mitchell M Shaw

*Can J Bot* 46(4):453-460 REF

Apr 1968 470 C16C

Biochemistry, Carbon isotopes, Fungi, Glucose compounds, Mannitol, Melampora lini, Metabolism, Plant physiology, Pyruvic acid.

14685-69

NUCLEUS OF FUSION BODY AND INFECTION STRUCTURE PRODUCED BY UREDOSPORES OF THREE RUST FUNGI. (JA)

N Naito T Onoe

*Phytopathol Soc Jap Ann* 34(2):103-108 REF

Mar 1968 464.9 P562

Cell nucleus, Cells, Fungus diseases (plants), Microbiology, Mycology, Plant morphology, Plant physiology, Puccinia coronata, Uredinales, Uromyces. Summary in English

14686-69

BIOLOGICAL ACTIVITY AND DISSIPATION OF IPC AND CIPC. (ABSTRACT).

J V Parochetti G F Warren

*Weed Soc Amer Abstr* 1967 MEETING:73-74

1967 241 W41

Biological assay, Buckwheat, Chlorinated hydrocarbons, Chlorpropham, Diffusion, Herbicides, Plant biochemistry, Protham.

14687-69

ON THE OCCURRENCE OF PERIDERM IN THE LEAVES OF WELWITSCHIA MIRABILIS.

R Salema

*Can J Bot* 45(9):1469-1471

Sep 1967 470 C16C

Fungus diseases (plants), Leaves, Peridermium, Plant physiology.

14688-69

2,4-D, TO RIPEN TOBACCO MAY BE DETRIMENT TO PRODUCER AND INDUSTRY.

H Seltmann G F Pecdin

*Flue Cured Tobacco Farmer* 5(6):8-9

Jun 1968 SB273.A1F58

Biochemistry, D, 2,4-, Flue-cured tobacco, Growth factors, Herbicides, Pesticide residues, Plant physiology, Plant regulators, Tobacco.

14689-69

SOME PHYSIOLOGICAL EFFECTS OF COTRAN ON UNICELLULAR ALGAE. (ABSTRACT).

H C Sikka D Pramer

*Weed Soc Amer Abstr* 1967 MEETING:54

1967 241 W41

Algae, Chlorella, Dimethyl-3-(alpha.alpha.alpha-m-tolyl)urea, 1,1-, Euglena gracilis, Herbicides, Photosynthesis, Plant physiology, Plant respiration.

14690-69

PHYSIOLOGICAL EFFECTS OF PENTACHLOROBENZYLALCOHOL ON RICE PLANTS. (JA)

H Sumi Y Takahi K Nakagami Y Kondo

*Phytopathol Soc Jap Ann* 33(3):150-155 REF

Jun 1967 464.9 P562

Blast, Carbohydrates, Culture media, Fungicides, Nitrogen, Pentachlorobenzyl alcohol, Piricularia oryzae, Plant biochemistry, Plant physiology, Rice, Spraying. Abstract in English

14691-69

INHIBITORY EFFECT OF PENTACHLOROBENZYL ALCOHOL (PCBA) ON SPORULATION OF PIRICULARIA ORYZAE CAVARA. (JA)

H Sumi Y Takahi Y Kondo

*Phytopathol Soc Jap Ann* 34(2):122-128 REF

Mar 1968 464.9 P562

Blast, Chemical control (plant diseases), Fungicides, Greenhouse culture, Leaves, Pentachlorobenzyl alcohol, Piricularia oryzae, Plant biochemistry, Plant growth inhibitors, Plant physiology, Plant reproduction, Rice, Seedlings, Spraying, Temperature. Abstract in English

14692-69

CONTROLLING EFFECT OF PENTACHLOROBENZYL ALCOHOL ON RICE BLAST. (JA)

H Sumi Y Takahi Y Kondo K Nakagami

*Phytopathol Soc Jap Ann* 34(2):114-121

Mar 1968 464.9 P562

Blast, Chemical control (plant diseases), Dosage, Fungicides, Greenhouse culture, Pentachlorobenzyl alcohol, Phenylmercuric acetate, Plant biochemistry, Rice, Spraying, Toxicology. Abstract in English.

14693-69

DISCOLORATION OF CHLORELLA CELLS TREATED WITH SEVERAL PESTICIDES-UTILIZATION OF CHLORELLA CELLS FOR THE STUDY OF PESTICIDES. (JA)

K Tatsuyama

*Phytopathol Soc Jap Ann* 33(3):192-195

Jun 1967 464.9 P562

Algae, Cells, Chemurgy, Chlorella, Color, Dosage, Pesticides, Pigments (plant), Plant biochemistry, Plant physiology.

14694-69

EXOCYLLULAR DEOXYRIBONUCLEASE I OF PENICILLIUM CHRYSOZENUM PART I. PARTIAL PURIFICATION AND PROPERTIES OF THE ENZYME.

V L Vinze G R Ambekar V M Doctor

*Indian J Biochem* 2(4):220-224 REF

Dec 1965 QP501.148

Deoxyribonucleases, Enzymes, Fungi, Penicillium chrysogenum, Plant biochemistry, Properties, Purification.

14695-69

TWO IMPORTANT DISEASES OF WALNUT TREES. (GE)

G Vukovitis

*Pflanzenarzt* 21(5):64-65

01 May 1968 464.9 P482

Bacterial diseases (plants), Biochemistry, Blight, Captan, Chemical control (plant diseases), Dodine, Fungicides, Fungus diseases (plants), Gnomonia leptostyla, Spraying, Tree diseases, Walnuts, Xanthomonas juglandis, Zineb.

14696-69

A MORPHOLOGICAL AND BIOLOGICAL CONCEPT OF THE SPECIES CERATOCYSTIS FIMBRIATA.

R K Webster E E Butler

*Can J Bot* 45(9):1457-1468 REF

Sep 1967 470 C16C

Biology, Ceratocystis, Ceratocystis fimbriata, Morphology, Plant physiology.

## CHEMISTRY

14697-69

STABILITY AND EFFECTS OF SOME PESTICIDES IN SOIL.

R Bartha R P Lanzilotta D Pramer

*Appl Microbiol* 15(1):67-75 REF

Jan 1967 448.3 AP5

Carbon dioxide, Chemicals, Microorganisms, Nitrification, Pesticides, Soils, Toxicology.

14698-69

AFLATOXIN DETOXIFICATION: HYDROXYDIHYDRO-AFLATOXIN BI.

A Ciegler R E Peterson

*Appl Microbiol* 16(4):665-666

Apr 1968 448.3 AP5

Aflatoxin, Chemistry, Toxicology.

14699-69

'REDUCED VOLUME' BY HOW MUCH WHY ACTUAL STATE OF AFFAIRS. (FR)

A Fourcaud

*Phytoma* 19(193):15-19

Dec 1967 464.8 P563

Biochemistry, Chemicals, Economics, Oils, Pesticides, Spraying, Toxicology, Volumetric analysis.

14700-69

KINETIC EVIDENCE OF REVERSIBLE ISOCHOLINESTERASES BASED ON INHIBITION BY ORGANOPHOSPHATES. (ABSTRACT).

A R Main

*Fed Amer Soc Exp Biol Fed Proc* 27(2):590

Mar 1968 442.9 F31P

Acetylcholinesterases, Biochemistry, Blood serum, Diisopropyl fluorophosphate, Diethylaminoethyl) O,O-diethyl phosphorothioate hydrogen o, Electrophoresis, Enzymes, Erythrocytes, Horses, Insecticides, Kinetics, Organophosphorus compounds.

14701-69

SYNTHESIS AND REACTIONS OF A PROPOSED DDT METABOLITE, 2,2-BIS(P-CHLOROPHENYL)ACETALDEHYDE.

J D McKinney E L Boozcr H P Hopkins J E

Suggs

*Experientia* 25(9):897-898 REF

15 Sep 1969 475 EX7

Acetaldehyde, Chemical analysis, Chemical structure, Chlorinated hydrocarbons, Chromatography, DDT, Mass spectra, Metabolites, Synthesis.

14702-69

3-(N-FORMYLAMINO)-SALICYLIC ACID - A NEW METABOLITE OF STREPTOMYCES ANTI-BIOTICUS.

Z Rehacek S Svarc

*Chem Indus* (44):1523

02 Nov 1968 382 M31C

Antibiotics, Chemical reactions, Chromatography, Formylamino-salicylic acid, 3-(N-, Metabolites, Salicylic acid, Spectrochemistry, Streptomycin.

## CHEMISTRY

14703-69

14703-69

### PREPARATION OF THE NEW FUNGICIDE HEXIMIDE.

S D Volodkovich N N Mel'nikov T K Yudovskaya

*J Appl Chem USSR* 41(6):1329-1331

Jun 1968 385 Z64AE

Apples. Chemical reactions, Chlorendic anhydride, Distillation, Fungicides, Fungus diseases (plants), Grapes, Hexachloro-N-o-tolyl-5-norbornene-2,3-dicarboximide, 1, Mildew, Scab, Temperature, Toluene. Translated from Russian.

## INDUSTRY REGULATIONS

14704-69

NEW PLANT PROTECTION LAW IS IN FORCE. (GE)

## BIBLIOGRAPHY

Anonymous

*Gesunde Pflanzen* 20(6):117,118,120

Jun 1968 464.8 G33

Animals, Import control, Legislation, Plant diseases, Plant pest resistance, Plant protection, Public health. Article states that the text of the law appears in number 2/1968 of the same publication.

14705-69

### THE REGULATION OF PESTICIDES IN THE UNITED STATES.

Anonymous

*Nat Agr Chem Ass News Pesticide Rev* 26(5):3-4

Jun 1968 421 AG8

Agricultural regulation, Pesticide residues, Pesticides, Public health.

14706-69

### PLANT PROTECTION CHEMICAL RESIDUES AND FOOD CONSUMPTION. (GE)

H Drees

*Gesunde Pflanzen* 20(3):53-56,58

Mar 1968 464.8 G33

Economic plants, Food contamination, Food plants, Legislation, Pesticide residues.

14707-69

### POTATO WART IN SWEDEN AND NATIONAL MEASURES FOR ITS CONTROL. (SW)

C Holmberg

*Swed Stat Vaxtskyddsanst Medd* 13(109):327-357

REF

1966 464.9 SW3M

Agricultural regulation, Plant disease control, Potatoes, Wart. German summary

## SUBJECT INDEX

- ABIES GRANDIS**  
Systemic activity of zectran, matacil and bidrin injected into conifer trunks. 14656
- ABORTION**  
A histological study of the effects of enzootic abortion of ewes virus in the lactating bovine mammary gland. 14559
- ABSCISSION**  
Regulation of growth, flowering and fruit abscission of apples and peaches with Amchem 66-329. (Abstract). 14309  
Stimulation of flower bud abscission and concentration of fruit set in tomato. (Abstract). 14312
- ABSORPTION**  
Studies on a new intramuscular haematinic for piglet anaemia. 14573
- ACARICIDES**  
Plictran miticide-New approach to mite control. 14202  
Influence of pesticides on russetting of Golden Delicious apples. 14487  
Neotetranychus rubicola Bagd. on the raspberry bush in Serbia. 14501
- ACARINA**  
Pests of the grapevine. 14485  
Controlling external parasites of sheep. 14628  
Fine structure of leukocytes adhering to the cuticle of Ascaris suum larvae. II. Polymorphonuclear leukocytes. 14638
- ACCIDENT PREVENTION**  
Piperazine-carbon disulfide complex. Drugs for veterinary use; drug efficacy study implementation. 14547  
Guidelines for evaluating the properties of pesticides for safe use in the wildlife environment. 14652
- ACCIDENTS**  
Methyl bromide can be dangerous. 14663
- ACERIA**  
Lucerne bud mite recorded from New South Wales. 14364
- ACETALDEHYDE**  
Synthesis and reactions of a proposed DDT metabolite, 2,2-bis(p-chlorophenyl)acetaldehyde. 14701
- ACETYLCHOLINESTERASES**  
Hydrolysis of acetylthiocholine and butyrylthiocholine by cholinesterases of insects and a mite. 14261  
Kinetic evidence of reversible iso-cholinesterases based on inhibition by organophosphates. (Abstract). 14700
- ACIDS**  
Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthemic, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657
- ACRIDIDAE**  
The viability of brown locust eggs (*Locustana pardalina* (Walker)). 14188  
Insect hormones: Olive oil is not an inert vehicle for hormone injection into locusts. 14197  
The mandibles of two South American grasshoppers. 14233
- The mechanism of coupling of the locust Light oscillator to oscillatory inputs. 14278
- ACRIDINE DYES**  
Morphologic features of *Haemobartonella felis*. 14616
- ACRYLAMIDE**  
The separation of the proteins of wheat by acrylamide gel electrophoresis, with special reference to mottled and unmottled wheat. 14667
- ACTINOMYCETES**  
Common scab and Rhizoctonia disease of potato. 14414  
Effect of a varietal mixture on sugarcane root rot susceptibility and on the rhizosphere microflora. 14455
- ADENINE**  
Adenine and related substances as potent feeding stimulants for the alfalfa weevil, *Hypera postica*. 14213
- ADENINE NUCLEOTIDES**  
Microsomal N-demethylation, by a cotton leaf oxidase system, of 3-(4'-chlorophenyl)-1,1-dimethylurea (monuron). 14675
- ADENOSINE TRIPHOSPHATES**  
Current status of in vitro synthesis of plant viruses. 14434
- ADOXOPHYES**  
The scientific name for the fruit cup leaf roller (*Lep. Tortricidae*). (A contribution to *Organoxenia*). 14285
- ADSORPTION**  
Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665
- AEDES**  
Isolation of Bunyamwera-group viruses from Wisconsin mosquitoes. 14553
- AEDES AEGYPTI**  
Damage caused by *Lankesteria culicis* (Ross) to *Aedes aegypti* (L.). 14297
- AEDES COMMUNIS**  
Isolation of viruses of the California encephalitis virus group from boreal *Aedes* mosquitoes. 14216
- AEDES STIMULANS**  
Isolation of viruses of the California encephalitis virus group from boreal *Aedes* mosquitoes. 14216
- AEROBACTER AEROGENES**  
Effects of humoral and cellular phases of acute inflammation in the bovine mammary gland on *Aerobacter aerogenes* introduced en masse and on leukocytes in milk. 14610
- AEROMONAS**  
Identification of aeromonads in furred animals. 14560
- AEROSOLS**  
Experimental aerosol transmission of yaba virus in monkeys. 14623
- AFLATOXICOSIS**  
A study of free amino acids in rice moth larvae during mycotoxicosis. 14209
- AFLATOXIN**  
Degradation of pure aflatoxin by *Tetrahymena pyriformis*. 14333  
Excretion of aflatoxin in a lactating cow. *Drosophila melanogaster* to anaesthesia. 14660  
Aflatoxin detoxification: Hydroxydihydroaflatoxin B1. 14698
- AGALLIA CONSTRICTA**  
Enhancement of infectivity of a mammalian virus preparation after injection into insects. 14268
- AGAR**  
A serological comparison of some iridescent non-occluded insect viruses. 14193  
*Comatricha nodulifera*, a new myxomycete from Texas. 14474  
Ring nematode disease of rice in Louisiana. (Abstract). 14510  
Identification of aeromonads in furred animals. 14560  
An immunity test in cattle to compare two contagious bovine pleuropneumonia vaccines. 14587  
Study of the practicability of various diagnostic methods in the demonstration of swine fever virus of high and low virulence in organs of experimentally infected pigs. 14595
- AGGLUTINATION TEST**  
Evolution of the antibody curve in animals experimentally inoculated with Aequi/Uruguay/540/63. 14596
- AGING**  
Radiation sensitivity of *Drosophila* embryos in relation to age, in air and in nitrogen. 14208
- AGRICULTURAL ECONOMICS**  
Importance of industry and labor to plant care in farm management. 14331  
Economically important nematodes in Ontario-1966. 14516
- AGRICULTURAL EDUCATION**  
Essentials in pest control. 14196
- AGRICULTURAL INDUSTRIES**  
Importance of industry and labor to plant care in farm management. 14331  
Speed the key to preserving hides. 14551
- AGRICULTURAL LABOR**  
Importance of industry and labor to plant care in farm management. 14331
- AGRICULTURAL PRODUCTION ECONOMICS**  
Cost of effective plant protection in the field, the garden, and the vineyard. 14307  
The pesticide review, 1968. 14321
- AGRICULTURAL PRODUCTS**  
What the sanitarian should know about *Staphylococci* and *salmonellae* in non-dairy products. II. *Salmonellae*. 14649  
Notice of withdrawal of petition regarding pesticides. 14654
- AGRICULTURAL REGULATION**  
The Regulation of Pesticides in the United States. 14705  
Potato wart in Sweden and National measures for its control. 14707
- AGRICULTURAL RESEARCH**  
*Oribatid* mite fauna in Sarobetsu Moor in northern Hokkaido, Japan. 14138  
The Tea Research Institute of Ceylon. Annual Report for the year 1966. Part II. 14304  
The pesticide review, 1968. 14321

# SUBJECT INDEX

## AGRICULTURE

### AGRICULTURE

Advances and problems of applied entomological studies in agriculture and forestry. 14142

### AGROMYZIDAE

Further notes on Icelandic Agromyzidae (Dipt.). 14140

### AGROSTIS

Effect of D-galactose on the ultrastructure of bentgrass root apices. 14672

### AIR

Radiation sensitivity of *Drosophila* embryos in relation to age, in air and in nitrogen. 14208

Hemianax ephippiger (Burm.) (Odonata) carried to Iceland from the eastern Mediterranean by an aircurrent. 14243

### AIR POLLUTION

Guidelines for evaluating the properties of pesticides for safe use in the wildlife environment. 14652

### AIR-BORNE PLANT DISEASES

Verticillium wilt of cotton--the situation in the Namoi Valley. 14357

### ALCOHOLS

Fatty acids, alcohols and hydrocarbons in the waxy covering of *Ceroplastes pseudoceriferus* Green, *Ceroplastes japonicus* Green and *Ceroplastes rubens* Maskell (Homoptera: Coecidae). 14269

### ALFALFA

Adenine and related substances as potent feeding stimulants for the alfalfa weevil, *Hypera postica*. 14213

Lucerne bud mite recorded from New South Wales. 14364

An apparently two-factor dose-response dependence in lucerne mosaic virus assay. 14368

A study of the biology of *Pseudopeziza jonesii* nannf. (*Pyrenopeziza medicaginis* Fuck) the cause of yellow blotches on leaves of alfalfa. 14429

Influence of *Zygotylenchus guevarai* (Tobar Jimenez, 1963) Braun and Loof, 1966, on some of its hosts. 14511

Onion weed control on Mallee soils. 14518

### ALGAE

Epizotic symbiosis. 14203

Some physiological effects of cotar on unicellular Algae. (Abstract). 14689

Discoloration of chlorella cells treated with several pesticides--utilization of chlorella cells for the study of pesticides. 14693

### ALLELES

Genetical studies on the resistance to parathion in *Drosophila melanogaster*. III. Induction of a susceptible gene from its resistance allele. 14287

### ALLETHRIN

Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthemic, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657

### ALNUS

Pathogenicity of some species of *Godronia* occurring in Quebec. 14453

### ALOPECURUS

The control of wild foxtail grass in winter wheat as well as the prevention of weather trodden grain. 14539

### ALTERNARIA CUCUMERINA

Leafspot of *Cucurbita pepo* caused by *Alternaria cucumerina*. 14415

### ALTERNARIA PORRI

*Alternaria* leaf spot of loliondo (*Olea welwitschii* (Knobl.) Gilg. and Schellenb.). 14371

### ALTERNARIA TENUIS

*Alternaria* leaf spot of loliondo (*Olea welwitschii* (Knobl.) Gilg. and Schellenb.). 14371

### AMANITA MUSCARIA

Hormones from the fly agaric (*Amanita*). 14673

### AMBLYOMMA AMERICANUM

Arbovirus studies in the Ohio-Mississippi basin, 1964--1967. VII. Lone star virus, a hitherto unknown agent isolated from the tick *Amblyomma americanum* (Linn.). 14582

### AMINO ACIDS

A study of free amino acids in rice moth larvae during mycotoxicosis. 14209

Lysozyme action in the cockroach--blood changes, while probing intercellularly. 14279

Preliminary report on the amino acid composition of TMV-C protein. 14422

Current status of in vitro synthesis of plant viruses. 14434

### AMINOPEPTIDASE

Developmental genetic studies of aminopeptidases in *Drosophila melanogaster*. 14294

### AMINOTRANSFERASES

Blood changes associated with locoweed poisoning. 14577

### AMITOSIS

Special forms of amitotic nuclear division in striated muscle and other insect tissues. 14254

### AMITROLE

Coltsfoot control with 2,4-DP on the stubble. 14521

### ANAGASTA KUEHNIELLA

Sleep in moths and its dependence on the frequency of stimulation in *Anagasta kuehniella*. 14177

### ANAPLASMOSIS

Relationship of electrophoretic mobility to the sialic acid concentration of erythrocytes in bovine anaplasmosis. 14563

### ANATOMY

*Hilaria sartor* Becker, the fly with the little veil and its dance (Diptera). 14204

*Hilaria sartor* Becker, the fly with the little veil and its dance (Diptera). 14205

### ANEMIA

The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568

Studies on a new intramuscular haematinic for piglet anaemia. 14573

*Pseudomonas* infections in mink with special reference to *Pseudomonas vasculitis* in pulmonary lesions. 14598

Can you afford cattle lice. 14625

### ANESTHESIA

Excretion of aflatoxin in a lactating cow. *Drosophila melanogaster* to anesthesia. 14660

### ANGULAR LEAFSPOT

Early sowings and fungicides help arrest the angular leafspot of cotton. 14439

### ANIMAL ADAPTATION

Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317

### ANIMAL DISEASE TRANSMISSION

Arbovirus studies in the Ohio-Mississippi basin, 1964--1967. III. Flanders virus. 14227

Global eradication of malaria: Changes of strategy and future outlook. 14298

### ANIMAL DISEASES

Identification of acromonads in furred animals. 14560

Titration of *Salmonella abortus-ovis* strains with chick embryos and white mice. 14561

Furuncular Tumbu Fly Myiasis of man in Gabon, equatorial Africa. 14572

The temperature requirements for interferon production in cells stimulated by Newcastle disease virus or microbial agents in vitro. 14585

Experimental studies on Aspergillosis (1). 14599

### ANIMAL ECOLOGY

Guidelines for evaluating the properties of pesticides for safe use in the wildlife environment. 14652

### ANIMAL HISTOLOGY

An outbreak of photosensitisation in Karamojong sheep at Entebbe. 14557

A histological study of the effects of enzootic abortion of ewes virus in the lactating bovine mammary gland. 14559

Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597

*Pseudomonas* infections in mink with special reference to *Pseudomonas vasculitis* in pulmonary lesions. 14598

### ANIMAL PHYSIOLOGY

Adenine and related substances as potent feeding stimulants for the alfalfa weevil, *Hypera postica*. 14213

Problems of integrated pest control in practical plant protection. 14315

The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568

Study of the practicability of various diagnostic methods in the demonstration of swine fever virus of high and low virulence in organs of experimentally infected pigs. 14595

Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597

Effect of carbaryl on the neuroendocrine system of rats. foodstuffs: a multi-detection scheme for gas chromatography of solvent extracts. 14662

### ANIMAL TRAPS

Ridding rice fields of rats. 14542

A new idea from California--lollipop bait cuhe. 14648

### ANIMALS

DNA-MEASUREMENTS in insects and a hypothesis concerning retarded evolution and especially high DNA content in the animal kingdom. 14185



- Determination of insecticide residue in animal and plant tissues. iV: Determination of residual amount of Sumithion and some of its metabolites in fresh milk. 14659
- New plant protection law is in force. 14704
- ANNELIDA**  
Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317
- ANNONACEAE**  
Entomological notes on *Beprata maculicollis* Cam., perforator of seeds of some Annonaceae. 14283
- ANOPHELES QUADRIMACULATUS**  
Arbovirus studies in the Ohio-Mississippi basin, 1964-1967. IV. Cache Valley virus. 14226
- ANOPLURA**  
Controlling external parasites of sheep. 14628  
Ecology of lice on sheep. VI. The influence of shearing and solar radiation on populations and transmission of *Damalinia ovis*. 14629
- ANTENNAE**  
The ultrastructure and electrophysiology of the membranous lobe of the antenna in *Speophyes lucidulus* larvae (Coloptera). 14192
- ANTHELMINTICS**  
Comparative anthelmintic efficiencies of parabendazole, thiabendazole, and phenothiazine in lambs. 14630  
Field trials on the efficacy of thiabendazole against *Haemonchus contortus* in West African dwarf forest sheep and goats. 14635
- ANTHERAEA PERNYI**  
Histochemical data on the cardiac bodies of *Antheraea pernyi* Guer. (Lepidoptera, Attacidae) and of *Rhodnius prolixus* Stal. (Hemiptera, Reduviidae). 14191  
Development of the virus with inclusion bodies, of the Lepidoptera *Lymantria dispar* in cell cultures. 14275
- ANTHRACNOSE (TOMATOES)**  
Inheritance of resistance in tomato (*Lycopersicon* spp.) to the anthracnose pathogen *Colletotrichum coccodes*. 14437
- ANTHRAX**  
An outbreak of anthrax in mink. 14562
- ANTHURIUM**  
Mits. 14531
- ANTIBIOTICS**  
Developmental genetic studies of aminopeptidases in *Drosophila melanogaster*. 14294  
An outbreak of anthrax in mink. 14562  
3-(N-formylamino)-salicylic acid - a new metabolite of *Streptomyces antibioticus*. 14702
- ANTIBODIES**  
Arbovirus studies in the Ohio-Mississippi basin, 1964-1967. IV. Cache Valley virus. 14226  
Occurrence of tick-borne encephalitis virus neutralizing antibody in aquatic birds in central Europe. 14565  
Arbovirus studies in the Ohio-Mississippi basin, 1964-1967. VII. Lone star virus, a hitherto unknown agent isolated from the tick *Amblyomma americanum* (Linn.). 14582
- Arbovirus studies in the Ohio-Mississippi basin, 1964-1967. V. Trivittatus and Western equine encephalomyelitis viruses. 14583  
Serological response in cattle to East Coast fever (*Theileria parva* infection) as measured by the indirect fluorescent antibody test. 14588  
Antibodies to Lcptospiral serotypes in sera of North Queensland cattle. 14590  
Evolution of the antibody curve in animals experimentally inoculated with Aequi/Uruguay/540/63. 14596  
Antibody in experimentally infected sheep and antfoot-and-mouth disease vaccines. 14605  
A comparison of the haemagglutination-inhibition and neutralisation test in the assay of rinderpest antibodies in cattle. 14607  
Varification of antibodies of Newcastle virus in rats inoculated with different types of experimental vaccines. 14609
- ANTIGENS**  
A serological comparison of some iridescent non-occluded insect viruses. 14193  
Bovine virus diarrhea in Italy. II. Reproduction of the disease. 14554  
The temperature requirements for interferon production in cells stimulated by Newcastle disease virus or microbial agents in vitro. 14585  
Serological response in cattle to East Coast fever (*Theileria parva* infection) as measured by the indirect fluorescent antibody test. 14588  
A study of the physical properties of the immunizing antigen of foot-and-mouth disease virus and the effect of various inactivating agents on its structure. 14620
- ANTIMETABOLITES**  
Respiratory activity of *Trypanosoma lewisi* during several phases of infection in the rat. 14643
- ANTIRRHINUM**  
A new bacterial leaf spot of *Antirrhinum* seedlings caused by a subspecies of *Pseudomonas fluorescens* Migula, 1895. 14410
- APERA SPICA-VENTI**  
Simultaneous control of *Apera spica venti* and broad leaf weeds through soil herbicides. (Test results in upper bavaria 1965-1967). 14529
- APHIDIDAE**  
Identity of instars of apterous viviparae of *Rhopalosiphum fitchii* (Sanderson) and *Toxoptera graminum* (Rondani), (Aphididae, Homoptera). 14163  
Natural mortality of overwintering eggs of *Longiunguis donacis* (Pass.). 14266  
Yellow dwarf of pea and broadbean caused by milk-vetch dwarf virus. 14378  
Factors affecting the infestation of aphids on potato plants. 14481
- APHIS CRACCIVORA**  
A veinbanding virus of groundnuts, *Arachis hypogaea* L. 14387
- APHIS GOSSYPII**  
Factors affecting the infestation of aphids on potato plants. 14481
- APIARIES**  
Design and maintenance of beehives. 14183  
Design of honey houses--central and mobile. 14194
- APICULTURE**  
Design and maintenance of beehives. 14183  
Design of honey houses--central and mobile. 14194
- APIS**  
Persistent toxicity of some systemic insecticides to little honey bees. 14260
- APOIDEA**  
Concerning some West German bees and digger wasps (Hym. Apoidea, Sphecoidca). 14176
- APOTHECIUM**  
A study of the biology of *Pseudopeziza jonesii* nannf (*Pyrenopeziza medicaginis* Fuck) the cause of yellow blotches on leaves of alfalfa. 14429
- APPLES**  
Regulation of growth, flowering and fruit abscission of apples and peaches with Amchem 66-329. (Abstract). 14309  
Effects of succinic acid 2, 2-dimethyl hydrazide (Alar) on apples. (Abstract). 14322  
Economic effect and control of wood-boring insects in fruit trees. 14329  
Chenopodium as host to viruses transmitted from apple, pear and grapevine. 14356  
A contribution to studies on the biology and control of apple mildew (*Podosphaera leucotricha* (Ell. and Ev.) Salm.). 14383  
Studies on the monilia disease of the apple caused by *Monilinia mali* (Tak.) Nhetzel. 14386  
Computation of results of crop protection experiments by the method of Townsend and Heuberger. 14392  
A low-volume postharvest spray of benomyl prevents ascospore production in apple leaves infected by *Venturia inaequalis*. 14405  
Damage and evolution disturbance through weather influence. 14426  
Chemical treatment the answer to fruit scald. 14466  
Problems regarding the protection of fruit trees against infestations by leaf mining *Microlepidoptera*. 14480  
Influence of pesticides on russetting of Golden Delicious apples. 14487  
Preparation of the new fungicide heximide. 14703
- AQUATIC BIRDS**  
Occurrence of tick-borne encephalitis virus neutralizing antibody in aquatic birds in central Europe. 14565
- ARBOVIRUSES**  
Arbovirus studies in the Ohio-Mississippi basin, 1964-1967. IV. Cache Valley virus. 14226  
Arbovirus studies in the Ohio-Mississippi basin, 1964-1967. III. Flanders virus. 14227  
Arbovirus studies in the Ohio-Mississippi basin, 1964-1967. I. Introduction. 14581  
Arbovirus studies in the Ohio-Mississippi basin, 1964-1967. VII. Lone star virus, a hitherto unknown agent isolated from the tick *Amblyomma americanum* (Linn.). 14582

# SUBJECT INDEX

## ARCHIPS CERASIVORANUS

- known agent isolated from the tick *Amblyomma americanum* (Linn.). 14582
- Arbovirus studies in the Ohio-Mississippi basin, 1964--1967. V. *Trivittatus* and Western equine encephalomyelitis viruses. 14583
- ## ARCHIPS CERASIVORANUS
- A change of feeding habit in *Archips cerasivorana* (Fitch) (Lepidoptera, Tortricidae). 14178
- ## ARCHITHIDAE
- Use of a non-absorbent barrier in rearing pupae. 14180
- Epidemiology of tea blister blight (*Exobasidium vexans*), the genus *Graphelysia* Hampson, 1911 (Lepidoptera-Heterocera). 14384
- ## ARCTIUM
- Experiences with Patoran (metabromuron) on weed control in bean shrubs. 14526
- ## ARSENAMIDE
- Fine structure of the intestinal epithelium of *Dirofilaria immitis* and changes occurring after vermicide treatment with caparsolate sodium. 14637
- ## ARSENIC COMPOUNDS
- General non-selective weed control with monosodium acid methane arsonate (MSMA) based mixtures in rubber plantations. 14535
- ## ARTHROPODA
- Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317
- The insect ecology of old-field red pine plantations in central Ontario, I. Description of the study area. III. Soil-surface fauna as indicators of stand change. 14548
- ## ASCARIS LUMBRICOIDES SUUM
- Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638
- ## ASCOMYCETES
- Rutstroemia euniculi*, a coprophilous species of the Sclerotiniaceae. 14310
- ## ASPERGILLOSIS
- Experimental studies on Aspergillosis (1). 14599
- ## ASPERGILLUS FLAVUS
- A study of free amino acids in rice moth larvae during mycotoxicosis. 14209
- Natural mortality of overwintering eggs of *Longunguis donacis* (Pass.). 14266
- ## ASPERGILLUS NIGER
- Cultural factors in relation to collar rot control of groundnut. 14351
- ## ASSAY
- Degradation of pure aflatoxin by *Tetrahymena pyriformis*. 14333
- A color test for citrus exocortis in Japan. 14462
- ## ASTRAGALUS
- Yellow dwarf of pea and broadbean caused by milk-vetch dwarf virus. 14378
- Blood changes associated with locoweed poisoning. 14577
- ## ATRAZINE
- Possibilities of weed control in corn with atrazine, taking special note of the control of couch-grass, wild oats and older weeds. 14524

- Musk, brown rats and harvest mice as pests in maize. 14541
- Influence of residues of some triazine herbicides upon wheat and weeds in wheat crops. 14653
- ## ATTRACTANTS
- Contributions to the knowledge of the Helicide fauna (Dipt. Nemat.) of Berlin. 14157
- The pesticide review, 1968. 14321
- ## AULACORTHUM SOLANI
- Factors affecting the infestation of aphids on potato plants. 14481
- ## AUTOCLAVES
- An apparatus for dispensing house fly eggs mechanically. 14119
- ## AUTOPSIES
- Two cases of urea poisoning in dairy herds. 14661
- ## AVENA FATUA
- Brain interneurons in noctuid moths: Differential suppression by high sound intensities, and grasses. 14258
- Control of weed grass. 14525
- ## AZALEA
- The respiration and flower development of evergreen azaleas as influenced by gibberellin, scale removal, and 2,4-dinitrophenol. 14666
- ## AZINPHOSETHYL
- Isolation of *Toxoplasma gondii* from swine and cattle, following pesticide treatments. 14558
- ## BABESIA ARGENTINA
- The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568
- ## BABESIA BIGEMINA
- The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568
- ## BABESIA BOVIS
- The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568
- ## BABESIA CABALLI
- Equine piroplasmiasis: Intraerythrocytic development of *Babesia caballi* (Nuttall) and *Babesia equi* (Laveran). 14574
- Comparative morphologic features of *Babesia caballi* and *Babesia equi*. 14614
- ## BABESIA EQUI
- Equine piroplasmiasis: Intraerythrocytic development of *Babesia caballi* (Nuttall) and *Babesia equi* (Laveran). 14574
- Comparative morphologic features of *Babesia caballi* and *Babesia equi*. 14614
- ## BABY PIGS
- Studies on a new intramuscular haematinic for piglet anaemia. 14573
- ## BACILLUS THURINGIENSIS
- Diapause in the neuropteran *Chrysopa oculata*, by ultracentrifugation and identification of N- and C-terminal ends. 14256
- Fine structure of the intestinal epithelium of *Dirofilaria immitis* and changes occurring after vermicide treatment with caparsolate sodium. 14637

- ## BACTERIA
- Sugarcane diseases in the Punjab--A survey report. 14440
- Effect of a varietal mixture on sugarcane root rot susceptibility and on the rhizosphere microflora. 14455
- Five years' research with a hatchery sanitation program in Maine. 14545
- Speed the key to preserving hides. 14551
- Isolation and characterization of *Mycoplasma arginini*: spec. nov. 14555
- Identification of aeromonads in furred animals. 14560
- Pseudomonas* infections in mink with special reference to *Pseudomonas vasculitis* in pulmonary lesions. 14598
- ## BACTERIAL DISEASES (ANIMALS)
- Enterotoxaemia in sheep on dry feed. 14591
- ## BACTERIAL DISEASES (PLANTS)
- Bacterial rust on sour cherries and pears. 14340
- Removal of pseudomonads from plant leaves and measurement of their in vivo beta-glucosidase synthesis. 14369
- Ecological studies on the soft-rot bacteria of vegetables. III. Application of immunofluorescent staining for the detection and the counting of *Erwinia ardoideae* in soil. 14385
- Identification of a bacterial strain *Pseudomonas solanacearum* E. F. Sm. of tobacco (*Nicotiana tabacum* L.) in Colombia. 14396
- A new bacterial leaf spot of *Antirrhinum* seedlings caused by a subspecies of *Pseudomonas fluorescens* Migula, 1895. 14410
- Bacterial leaf spot of cape gooseberry in Queensland. 14411
- Two important bacterial diseases on beans. 14454
- Anatomical studies of rice plant infected with bacterial leaf blight, with special reference to wilt symptom. 14460
- An alternative weed host for *Xanthomonas campestris*. 14476
- Two important diseases of walnut trees. 14695
- ## BACTERIAL LEAF BLIGHT
- Anatomical studies of rice plant infected with bacterial leaf blight, with special reference to wilt symptom. 14460
- ## BACTERIAL SOFT ROT
- Ecological studies on the soft-rot bacteria of vegetables. III. Application of immunofluorescent staining for the detection and the counting of *Erwinia ardoideae* in soil. 14385
- ## BACTERICIDES
- Speed the key to preserving hides. 14551
- ## BACTERIOLOGY
- Insect visceral muscle: Neural relations of the proctodeal muscles of the cockroach. 14189
- Diapause in the neuropteran *Chrysopa oculata*, by ultracentrifugation and identification of N- and C-terminal ends. 14256
- A study of contagious caprine pleuropneumonia. 14552

- The temperature requirements for interferon production in cells stimulated by Newcastle disease virus or microbial agents in vitro. 14585
- An immunity test in cattle to compare two contagious bovine pleuropneumonia vaccines. 14587
- Contagious bovine pleuropneumonia in wildlife. 14613
- BAITS**  
A new idea from California--lollipop bait cube. 14648
- BANANAS**  
The effect of benomyl on *Mycosphaerella musicola*. 14457
- Pathogenicity and identity of root-knot nematodes on five varieties of banana. 14507
- BARK**  
The existence of bark borers in Berlin (Lepid.). 14132
- Economic effect and control of wood-boring insects in fruit trees. 14329
- Comatricha nodulifera*, a new myxomycete from Texas. 14474
- BARLEY**  
The effects of ligaturing *Galleria mellonella* larvae on total haemocyt counts and on mitotic indices among haemocytes. 14218
- Mutation induction by EMS in autotetraploid barley. 14319
- Moisture corrosion, a new corrosive method. 14330
- Living haustoria and hyphae of *Erysiphe graminis* f.sp. *hordei* with intact and partly dissected host cells of *Hordeum vulgare*. 14349
- An electron microscopic observation of the surface structure of conidia of *Erysiphe graminis hordei*. 14393
- Physiological and ecological studies on the over-summering and overwintering of the stripe rust of wheat and barley, *Puccinia striiformis* Westend. 14424
- Evaluation and use of fungicides in commercial cultivation of barley in Colombia. 14436
- Secondary effects of fungicides on barley. 14517
- The influence of CCC on lodging and development of grain. 14680
- BEANS**  
In vivo and in vitro reactions of 1,1-dimethylamino succinamic acid (B-9, Alar) and related substances. 14328
- Cryopreservation and pathogenicity of selected isolates of *Colletotrichum*, *Rhizoctonia*, and *Phytophthora*. 14374
- Bean yellow mosaic and tobacco ringspot virus isolated from *Crotalaria* (*Crotalaria spectabilis*). 14388
- Two important bacterial diseases on beans. 14454
- Experiences with Patoran (metabromuron) on weed control in bean shrubs. 14526
- BEAVERIA BASSIANA**  
Investigations on the use of the parasitic fungus *Beauveria bassiana* in the control of pests on field and forest crops in Czechoslovakia. 14419
- Fine structure of the intestinal epithelium of *Dirofilaria immitis* and changes occurring after vermifical treatment with caparsolate sodium. 14637
- BEEES**  
Concerning some West German bees and digger wasps (Hym. Apoidea, Sphecoidea). 14176
- Parasitization of social Halictine bees in southern Ontario. 14224
- Plant care and bee care go hand in hand. 14478
- BEETS**  
A study of the appearance of the cleonus of beets, *Temnorhinus* (*Cleonus*) *mendicus* Gyll. 14273
- Developmental trends in the chemical control of weeds in beets. 14536
- BEHAVIORISM**  
Importance and causes of Nematode movement in the soil and research on the migration of '*Ditylenchus myceliophagus*'. 14506
- BELOSTOMATIDAE**  
A new species of Tertiary water bug from the Bechlejovice diatomites (Heteroptera, Belostomatidae). 14161
- BENOMYL**  
A low-volume postharvest spray of benomyl prevents ascospore production in apple leaves infected by *Venturia inaequalis*. 14405
- The effect of benomyl on *Mycosphaerella musicola*. 14457
- BENZO(B)THIOPHENE-4-OL**  
Notice of withdrawal of petition regarding pesticides. 14654
- BENZOTHIENYL N-METHYLCARBAMATE, 4-**  
Notice of withdrawal of petition regarding pesticides. 14654
- BERBERIS**  
Witches' broom of *Berberis*. 14395
- BETULA**  
Pathogenicity of some species of *Godronia* occurring in Quebec. 14453
- BIO-ELECTRIC POTENTIAL**  
Effect of the venom of the black widow spider, *Latrodectus mactans tredecimguttatus*, on evoked action potentials in the isolated nerve cord of *Periplaneta americana*. 14195
- BIOCHEMISTRY**  
Diapause in the neuropteran *Chrysopa oculata*. by ultracentrifugation and identification of N- and Cterminal ends. 14256
- Hydrolysis of acetylthiocholine and butyrylthiocholine by cholinesterases of insects and a mite. 14261
- Fatty acids, alcohols and hydrocarbons in the waxy covering of *Ceroplastes pseudoceriferus* Green, *Ceroplastes japonicus* Green and *Ceroplastes rubens* Maskell (Homoptera: Coccidae). 14269
- Vegetable dry rot and phytoprog- service in North-Hanover 1968. 14380
- Identification of a bacterial strain *Pseudomonas solanacearum* E. F. Sm. of tobacco (*Nicotiana tabacum* L.) in Colombia. 14396
- A new bacterial leaf spot of *Antirrhinum* seedlings caused by a subspecies of *Pseudomonas fluorescens* Migula, 1895. 14410
- Bacterial leaf spot of capc gooseberry in Queensland. 14411
- New tin complex compounds as plant protection fungicides. 14445
- On the appearance and the control of the red-currant leaf-gall fly. 14489
- Tanymericus dilaticollis* Gyll. (Curculionidae, Coleoptera) as a pest of cultivated plants and the pre-sowing treatment of the seed with insecticides as a control measure. 14494
- The sugar beet nematode. 14504
- Effect of selective herbicides to liquorice plant growing in cereal fields. 14519
- Possibilities of weed control in corn with atrazine, taking special note of the control of couch-grass, wild oats and older weeds. 14524
- Improved method for weed control in potatoes on extremely marshy soil. (Test experiences in upper Bavaria 1965-67). 14528
- Simultaneous control of *Apera spica venti* and broad leaf weeds through soil herbicides. (Test results in upper bavaria 1965-1967). 14529
- Some factors affecting the disappearance of tordon in soil. 14533
- Piperazine-carbon disulfide complex. Drugs for vcterinary use; drug efficacy study implementation. 14547
- Relationship of electrophoretic mobility to the sialic acid concentration of erythrocytes in bovine anaplasmosis. 14563
- Characteristics for two classes of embryonic cells in oncospheres of *Hymenolepis diminuta* stained for cytoplasmic substances. 14640
- Respiratory activity of *Trypanosoma lewisi* during several phases of infection in the rat. 14643
- Trypanosoma lewisi*: Creatine phosphokinase, ornithine carbamyl transferase, ATPases, Pi, and glucose levels in the rat host. 14644
- Blood chemical and cellular changes in canine dirofilariasis. 14645
- Guidelines for evaluating the properties of pesticides for safe use in the wildlife environment. 14652
- Notice of withdrawal of petition regarding pesticides. 14654
- Excretion of aflatoxin in a lactating cow. *Drosophila melanogaster* to anesthesia. 14660
- The respiration and flower development of ever-green azaleas as influenced by gibberellin, scale removal, and 2,4-dinitrophenol. 14666
- The separation of the proteins of wheat by acrylamide gel electrophoresis, with special reference to mottled and unmottled wheat. 14667
- Mycobacterium tuberculosis* in macrophages: Effect of certain surfactants and other membrane-active compounds. 14671
- Effect of D-galactose on the ultrastructure of bentgrass root apices. 14672
- Microsomal N-demethylation, by a cotton leaf oxidase system, of 3-(4'-chlorophenyl)-1,1-dimethylurea (monuron). 14675
- Metabolism of aromatic compounds in healthy and rust-infected primary leaves of wheat. li. Stu-

BIOENERGETICS

- dicts with l-phenylalanine-U-14C, l-tyrosine-U-14C, and ferulate-U-14C. 14676
- Calcium localization in *Hypomyces*-infected squash hypocotyls and effect of calcium on pectate lyase and tissue maceration. 14677
- Is it possible to draw any conclusions from the red epidemic of 1967, in regard to the appearance of the disease during this year. 14678
- The Erysiphid cichoracearum conidium. 14682
- Cucumber sex expression modified by 2-chloroethanphosphonic acid. 14683
- Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by *Melampsora lini*. II. Conversion to soluble products. 14684
- 2,4-D, to ripen tobacco may be detrimental to producer and industry. 14688
- Two important diseases of walnut trees. 14695
- 'Reduced volume' by how much? Why? Actual state of affairs. 14699
- Kinetic evidence of reversible iso-cholinesterases based on inhibition by organophosphates. (Abstract). 14700

BIOENERGETICS

- Quantitative aspects of insect nutrition. 14201

BIOLOGICAL ASSAY

- An apparently two-factor dose-response dependence in lucerne mosaic virus assay. 14368
- Some factors affecting the disappearance of torden in soil. 14533
- A comparison of the haemagglutination-inhibition and neutralisation test in the assay of rinderpest antibodies in cattle. 14607
- Systemic activity of zectran, matacil and bidrin injected into conifer trunks. 14656
- Biological activity and dissipation of IPC and Cipc. (Abstract). 14686

BIOLOGICAL CONTROL (INSECTS)

- Aziridinyl chemosterilants for house flies. 14186
- DD-136: The worm that makes short work of insect pests. 14215
- Damage caused by *Lankesteria culicis* (Ross) to *Aedes aegypti* (L.). 14297
- Investigations on the use of the parasitic fungus *Beauveria bassiana* in the control of pests on field and forest crops in Czechoslovakia. 14419
- Problems regarding the protection of fruit trees against infestations by leaf mining Microlepidoptera. 14480
- Biology of *Hyphantria cunea* Drury (Lepidoptera: arctiidae) in Japan. I. Notes on adult biology with references to the predation by birds. 14627
- Fine structure of the intestinal epithelium of *Dirofilaria immitis* and changes occurring after vermifugal treatment with caparsolate sodium. 14637

BIOLOGICAL CONTROL (PESTS)

- A new nematode-destroying *Harpasporium*. 14508

BIOLOGICAL TRANSPORT

- Diaplacentarian immunity to foot-and-mouth virus in nursing rats: correlation and regression. 14594

BIOLOGY

- Studies on the biology and control of *Sogatella furcifera* Horv. (Delphacidae: Homoptera) in the Punjab. 14118
- In vivo and in vitro reactions of 1,1-dimethylamino succinamic acid (B-9, Alar) and related substances. 14328
- A contribution to studies on the biology and control of apple mildew (*Podosphaera leucotricha* (Ell. and Ev.) Salm.). 14383
- A morphological and biological concept of the species *Ceratocystis fimbriata*. 14696

BIOMETRY

- Bionomics of the rice gundhy bug, *Leptocorisa varicornis* Fabr. (Hemiptera, Heteroptera; Coreidae). 14490

BIOPHYSICS

- A note on the genus *Pseudathyma* Staudinger with description of a new species (Lepidoptera: Nymphalidae). 14143
- A study of the physical properties of the immunizing antigen of foot-and-mouth disease virus and the effect of various inactivating agents on its structure. 14620

BIPHENYL

- Comparison of absorbed biphenyl in oranges and biphenyl vapor in controlling decay, mycelial growth, and sporulation by *Penicillium digitatum*. 14417

BIRD CONTROL

- Repelling pheasants from sprouting corn with a carbamate insecticide. 14337

BIRDS

- Are scarecrows useful against bird damage. 14550
- Arbovirus studies in the Ohio-Mississippi basin, 1964-1967. I. Introduction. 14581

BIS((3,5-DIMETHYLMORPHOLINO)CARBONYL)METHYL-4,4'-BIPYRIDINIUM DICHLORIDE, 1,1'

- Corn daisies and their control. 14527

BLABERUS CRANIIFER

- The effect of sodium replacement on the electroretinogram recorded from the cockroach ocellus. 14179

- Studies on a trehalase from a symbiont of the tropical cockroach, *Blaberus craniifer*--a suggested analytical enzyme. 14198

BLACK MILDEW

- Alternaria leaf spot of loliondo (*Olea welwitschii* (Knobl.) Gilg. and Schellenb.). 14371

BLAST

- Controlling effect of phenylhydrazine derivatives on rice blast in relation to the structural modifications. 14402
- Effect of beta-acylphenylhydrazine derivatives on blast fungus upon leaves and in tissues of rice plants. 14459
- Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665
- Physiological effects of pentachlorobenzylalcohol on rice plants. 14690
- Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Piricularia oryzae* cavara. 14691
- Controlling effect of pentachlorobenzyl alcohol on rice blast. 14692

BLAST (RICE)

- The present state of rice research in India--diseases. 14425

BLIGHT

- Two important diseases of walnut trees. 14695

BLISTER RUST

- Overwintering of *Tuberculina maxima* on white pine blister rust cankers. 14472

BLOOD

- Lysozyme action in the cockroach--blood changes, while probing intercellularly. 14279

BLOOD CELLS

- The effects of ligaturing *Galleria mellonella* larvae on total haemocyte counts and on mitotic indices among haemocytes. 14218

BLOOD CHEMISTRY

- Effect of bovine coccidiosis on blood serum sodium and potassium levels of calves. 14567

BLOOD PARASITES

- Morphologic features of *Haemobartonella felis*. 14616

BLOOD PROTEINS

- Blood changes associated with locoweed poisoning. 14577
- Blood chemical and cellular changes in canine dirofilariasis. 14645

BLOOD SERUM

- Effect of bovine coccidiosis on blood serum sodium and potassium levels of calves. 14567

- Kinetic evidence of reversible iso-cholinesterases based on inhibition by organophosphates. (Abstract). 14700

BLUEBERRIES

- Fruiting response of the highbush blueberry to applied gibberellic acid under field conditions. (Abstract). 14308

- Vegetative and reproductive responses of highbush blueberry to succinic acid 2,2-dimethylhydrazide (Alar). 14314

- The effect of gibberellic acid on the highbush blueberry (*Vaccinium corymbosum*). (Abstract). 14316

BLUETONGUE VIRUS

- Transmission of attenuated and virulent bluetongue virus with *Culicoides variipennis* infected orally via shecp. 14569

BOGS

- Observations on wood-destroying insect living in the footbridge over Siikaneva bog. 14235

BOLL ROT

- Narrow leaves reduce boll rot. 14341

BOMBYX MORI

- Ultrastructural modifications of the secretion cells of the prothoracic gland to themselves during the last two larval stages. I. The chondriosome, and its relationship with the granular reticulum. 14181

- Development of the virus with inclusion bodies, of the Lepidoptera *Lymantria dispar* in cell cultures. 14275

- Pests of legume covers, characteristic cocoon production. 14479

- Sex differences in embryonic response to *Eimeria tenella* infection. 14579

- BORDEAUX MIXTURE**  
Rust of stone fruits. 14412  
Peach leaf curl (*Taphrina*). 14413  
Fungicides can check fruit-rot and die-back of chilli. 14432
- BORDETELLA**  
Experimental inactivated-virus hog cholera vaccines: Induction period of immunity. 14601
- BORIC ACID**  
Speed the key to preserving hides. 14551
- BORNEO**  
*Coniopteryx remota* Banks, further description and lectotype designation (*Neuroptera*, *Coniopterygidae*). 14171
- BOTRYTIS CINERA**  
Properties of leptinotarsin, a toxic hemolymph protein from the Colorado potato beetle. 14212
- BOTRYTIS CINEREA**  
Three years of tests with new anti-peronosporic preparations. 14400
- BOVINE ENTEROVIRUSES**  
Plaque characteristics of four classes of bovine viruses. 14570
- BOVINE RHINOVIRUS**  
Plaque characteristics of four classes of bovine viruses. 14570
- BOVINE VIRUS DIARRHEA VIRUS**  
Bovine virus diarrhea in Italy. II. Reproduction of the disease. 14554  
Plaque characteristics of four classes of bovine viruses. 14570
- BRACONIDAE**  
A further representative of the sub-species *Betuloxys Mackauer* (*Hymenoptera*: *Braconidae*, *Aphidiinae*). 14155  
The Indo-Australian species of the *ultor*-group of *Apanteles* Forster (*Hymenoptera*: *Braconidae*). 14159  
The mode of life of the borer moth parasite *Adelius erythronotus* Forst. (*Hym.*, *Brac.*) 14264
- BRAIN**  
Brain interneurons in noctuid moths: Differential suppression by high sound intensities, and grasses. 14258  
Isolation of *Toxoplasma gondii* from swine and cattle, following pesticide treatments. 14558
- BRAIN DISEASES**  
The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568
- BRASSICA**  
An alternative weed host for *Xanthomonas campestris*. 14476
- BREEDING**  
Communication regarding the existence of *Cidaria* (subgen. *Calostigia*) *multistrigaria* Hw. on the Kaiserstuhl Mountain in Baden. 14166  
Preliminary report about my breeding attempts with *Micropteryx calthella* L. (*Lep.*, *Micr.*). 14234  
Pathogenic variability and the unit representing a single fertilization in *Puccinia coronata* var. *avenae*. 14306
- Inheritance of split cotyledons in swede turnips (*Brassica napus*). 14326  
Nature and inheritance of resistance to red clover vein mosaic virus in *Pisum sativum*. (Abstract). 14345  
Inheritance of resistance in tomato (*Lycopersicon* spp.) to the anthracnose pathogen *Colletotrichum coccodes*. 14437  
Cucumber sex expression modified by 2-chloroethanephosphonic acid. 14683
- BREVIPALPUS**  
Pests of the grapevine. 14485  
Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638
- BREVIPALPUS OBOVATUS**  
Mites. 14531
- BREVIPALPUS PHOENICIS**  
Mites. 14531
- BRINING**  
Speed the key to preserving hides. 14551
- BROADBEANS**  
Yellow dwarf of pea and broadbean caused by milk-vetch dwarf virus. 14378
- BROMIDES**  
Some results from allium tests with organic mercury halogenides. 14674
- BROMUS**  
Brain interneurons in noctuid moths: Differential suppression by high sound intensities, and grasses. 14258
- BROWN SPOT**  
The etiology, including nutritional considerations, of passion fruit brown spot in Hawaii. 14342  
Internal brown spot--a condition in yams in Barbados. 14352
- BRUCELLA ABORTUS VACCINES**  
Brucellosis vaccination is now compulsory. 14578
- BRUCELLOSIS**  
Insect visceral muscle: Neural relations of the proctodeal muscles of the cockroach. 14189  
Observations on the tolerance and susceptibility of tea clones to shot-hole borer investigation-1969. 14500
- BRUCHIDAE**  
Bruchid beetles (*Coloptera*, *Bruchidae*) from the Megri district of Armenia. 14125
- BRUSSELS SPROUTS**  
Brussels sprouts growth and production as influenced by *N*-dimethylamino succinamic acid (*Alar*). (Abstract). 14334
- BRYOBIA**  
Hard-to-kill pests of fruit trees; the mites. 14488
- BUCHLOE DACTYLOIDES**  
*Helminthosporium* leafspot of buffalograss in Japan. 14416
- BUCKWHEAT**  
An outbreak of photosensitisation in Karamojong sheep at Entebbe. 14557  
Biological activity and dissipation of IPC and Cipc. (Abstract). 14686
- BUILDINGS**  
Observations of the insect pests of the old shrine and the Buddhist temple wooden buildings and a few trypoxylonid wasps. 14244
- BUNYAMWERA VIRUSES**  
Isolation of Bunyamwera-group viruses from Wisconsin mosquitoes. 14553
- BUPRESTIDAE**  
A new species of *Acmaeodera* (*Coleoptera*, *Buprestidae*). 14158
- BUSH REDPEPPERS (VEGETABLE)**  
Effect of *N*-dimethylamino succinamic acid (*Alar*) on vegetable growth of chile pepper (*Capsicum frutescens*) plants. (Abstract). 14338  
Fungicides can check fruit-rot and die-back of chilli. 14432
- BUTTERFLIES**  
Communication regarding the existence of *Cidaria* (subgen. *Calostigia*) *multistrigaria* Hw. on the Kaiserstuhl Mountain in Baden. 14166  
Does the beating of butterfly wings cause electrical phenomena. 14239
- CABBAGE**  
Ecological studies on the soft-rot bacteria of vegetables. III. Application of immunofluorescent staining for the detection and the counting of *Erwinia aroideae* in soil. 14385
- CALABASH GOURDS**  
On *Fusarium oxysporum* f. sp. *lagenariae* n. f. causing wilt of *Lagenaria vulgaris* var. *hispida*. 14404
- CALCIUM**  
Calcium localization in *Hypomyces*-infected squash hypocotyls and effect of calcium on pectate lyase and tissue maceration. 14677
- CALCIUM NITRATE**  
Control of weed grass. 14525
- CALCIUM PHOSPHATES**  
Speed the key to preserving hides. 14551
- CALIFORNIA ENCEPHALITIS VIRUS**  
Isolation of viruses of the California encephalitis virus group from boreal *Aedes* mosquitoes. 14216
- CALLIPHORA VICINA**  
Analysis of a recessive mutation on the Y chromosome of the fly *Calliphora erythrocephala*. 14288
- CALLIPHORIDAE**  
The sheep blowfly's tolerance of insecticides (*Lucilia cuprina*). 14295  
Studies on the possibilities of using blowflies (*Dipt.*) as medicolegal indicators in Finland. I. Report of four indoor cases from the city of Helsinki. 14299  
Controlling external parasites of sheep. 14628
- CALOGLYPHUS**  
Preliminary observations on moulting and limb regeneration in the mite *Caloglyphus boharti*. 14280
- CALVES**  
Effect of bovine coccidiosis on blood serum sodium and potassium levels of calves. 14567
- CAMBIIUM**  
Evidence of hyphal growth of *Cronartium quercum* in the pine-host cambium. 14379

## SUBJECT INDEX

### CANDIDA ALBICANS

#### CANDIDA ALBICANS

The temperature requirements for interferon production in cells stimulated by Newcastle disease virus or microbial agents in vitro. 14585

#### CAPTAN

Two important diseases of walnut trees. 14695

#### CARABIDAE

The Icelandic form of *Carabus problematicus* Hbst. (Col. Carabidae). A statistic treatment of subspecies. 14152

#### CARBAMATES

The sheep blowfly's tolerance of insecticides (*Lucilia cuprina*). 14295

Repelling pheasants from sprouting corn with a carbamate insecticide. 14337

Chemical treatment the answer to fruit scald. 14466

Effect of carbaryl on the neuroendocrine system of rats. foodstuffs: a multi-detection scheme for gas chromatography of solvent extracts. 14662

#### CARBARYL

Effect of carbaryl on the neuroendocrine system of rats. foodstuffs: a multi-detection scheme for gas chromatography of solvent extracts. 14662

#### CARBOHYDRATES

Physiological effects of pentachlorobenzylalcohol on rice plants. 14690

#### CARBON DIOXIDE

Excretion of aflatoxin in a lactating cow. *Drosophila melanogaster* to anesthesia. 14660

Stability and effects of some pesticides in soil. 14697

#### CARBON DISULFIDE

Piperazine-carbon disulfide complex. Drugs for veterinary use; drug efficacy study implementation. 14547

#### CARBON ISOTOPES

Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by *Melampsora lini*. II. Conversion to soluble products. 14684

#### CARBONATES

Control of powdery mildew of cucurbits with systemic and nonsystemic fungicides. 14428

#### CARICACEAE

Identification of the virus causing papaw yellow crinkle with tomato big bud virus by transmission tests. 14365

#### CARROTS

Ecological studies on the soft-rot bacteria of vegetables. III. Application of immunofluorescent staining for the detection and the counting of *Erwinia carotae* in soil. 14385

#### CARYA ILLINOENSIS

Vegetative and fruiting responses of pecan (*Carya illinoensis* Koch) to heading back and N-dimethylamino succinamic acid. (Abstract). 14332

#### CASSAVA

Susceptibility of 'tapioca macaroni' to insect attack. 14647

#### CATALOGS

Bruchid beetles (Coleoptera, Bruchidae) from the Megri district of Armenia. 14125

An index-catalogue of the genus-group names of Oriental and Australasian Tachinidae (Diptera) and their type-species. 14129

Contribution to the knowledge of the genus *Saprinus* (Col. Histeridae). II. 14130

Sphecidae of the Canary Islands (Hymenoptera). 14131

Quasihesma—a new genus of Australian bees (Apoidea: Colletidae). 14133

Revision of the genus *Euryglossella* Cockerell (Apoidea: Colletidae). 14134

Revision of the genus *Euryglossula* Michener (Apoidea: Colletidae). 14135

Further notes on Icelandic Agromyzidae (Dipt.). 14140

Isoptera from Vietnam, Cambodia and Thailand. 14141

Leaf beetle larvae of the subfamily Eumolpinae and of Syneta betulae F. (Coleoptera, Chrysomelidae). 14149

The insect fauna in the burrows of the long-clawed molevole, a Caucasian endemic species. 14154

On the diagnostics of certain species of spring-tails of the genera *Folsomia* Willem and *Pseudofolsomia* Gen. Nov. (Collembola, Isotomidae) recorded in the middle Volga region. 14156

The Indo-Australian species of the ulitor-group of *Apanteles* Forster (Hymenoptera: Braconidae). 14159

Rhyparochrominae types in the British Museum (Natural History) (Hemiptera: Lygaeidae). 14164

Contribution to the fauna of the Congo (Brazzaville). Mission A. Villiers and A. Descarpentries. XLVII. Homoptera Cercopidae and Fulgoroidea. 14169

General non-selective weed control with monosodium acid methane arsonate (MSMA) based mixtures in rubber plantations. 14535

#### CATERPILLARS

Communication regarding the existence of *Cidaria* (subgen. *Calostigia*) *multistrigaria* Hw. on the Kaiserstuhl Mountain in Baden. 14166

Caterpillar polymorphism of *Pergesa elpenor* L. 14221

#### CATS

Morphologic features of *Haemobartonella felis*. 14616

Efficacy of niclosamide in the treatment of *Taenia taeniaeformis* infections in cats. 14646

#### CATTLE

Adenine and related substances as potent feeding stimulants for the alfalfa weevil, *Hypera postica*. 14213

Arbovirus studies in the Ohio-Mississippi basin, 1964–1967. IV. Cache Valley virus. 14226

Developmental genetic studies of aminopeptidases in *Drosophila melanogaster*. 14294

Observations on the tolerance and susceptibility of tea clones to shot-hole borer investigation—1969. 14500

Tuberculosis in three herds with access to the same open sewer. 14546

A study of contagious caprine pleuropneumonia. 14552

Bovine virus diarrhea in Italy. II. Reproduction of the disease. 14554

Isolation of *Toxoplasma gondii* from swine and cattle, following pesticide treatments. 14558

A histological study of the effects of enzootic abortion of ewes virus in the lactating bovine mammary gland. 14559

Relationship of electrophoretic mobility to the sialic acid concentration of erythrocytes in bovine anaplasmosis. 14563

The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568

Spiny burr grass—a serious and increasing problem. 14571

Brucellosis vaccination is now compulsory. 14578

The protection of a small group of Nigerian trade cattle from trypanosomiasis using samorin. 14580

An immunity test in cattle to compare two contagious bovine pleuropneumonia vaccines. 14587

Serological response in cattle to East Coast fever (*Theileria parva* infection) as measured by the indirect fluorescent antibody test. 14588

Antibodies to Leptospiral serotypes in sera of North Queensland cattle. 14590

Variable resistance of cows to *Streptococcus agalactiae* mastitis. 14602

Immunological response in cows to *Mycoplasma bovis* strain 1836. 14606

A comparison of the haemagglutination-inhibition and neutralisation test in the assay of rinderpest antibodies in cattle. 14607

Effects of humoral and cellular phases of acute inflammation in the bovine mammary gland on *Aerobacter aerogenes* introduced en masse and on leukocytes in milk. 14610

Can you afford cattle lice. 14625

Warble fly larvae control study. 14631

Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634

Excretion of aflatoxin in a lactating cow. *Drosophila melanogaster* to anesthesia. 14660

#### CAULIFLOWER

Morphology of cauliflower mosaic virus. 14464

#### CAVE FAUNA

Fruit-piercing moths and their control in Japan. 14246

#### CEANOTHUS

A new species of *Acmaeodera* (Coleoptera, Buprestidae). 14158

#### CECIDOMYIIDAE

On the appearance and the control of the red-currant leaf-gall fly. 14489

Occurrence and control of *Haplodiplosis equestris* in Holland. 14496

A contribution to the study of olive *Cecidomyiidae*: *Lasioptera berlesiana* (paoli). 14502

#### CELERY

Computation of results of crop protection experiments by the method of Townsend and Heuberger. 14392

New tin complex compounds as plant protection fungicides. 14445

#### CELL NUCLEUS

Experiments on nuclear transplantation in *Drosophila melanogaster*. Preliminary report. 14200

- The details of endomitosis in the scriceous glands of *Galleria mellonella* (Insecta Lepidoptera). 14247
- Special forms of amitotic nuclear division in striated muscle and other insect tissues. 14254
- Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638
- The fine structure of hyphae of *Helminthosporium oryzae* Ito et Kurib. and *Pyricularia oryzae* Cava. 14679
- The *Erysiphe cichoracearum* conidium. 14682
- Nucleus of fusion body and infection structure produced by uredospores of three rust fungi. 14685
- CELL WALL**
- Studies on the pathological anatomy of rice plants infected by *Helminthosporium oryzae*, I. Behavior of the causal fungus on the coleoptile of rice seedlings and its ultrafine structure. 14373
- The fine structure of hyphae of *Helminthosporium oryzae* Ito et Kurib. and *Pyricularia oryzae* Cava. 14679
- CELLS**
- Insect hormones: Olive oil is not an inert vehicle for hormone injection into locusts. 14197
- Degradation of pure aflatoxin by *Tetrahymena pyriformis*. 14333
- The low maximum temperature for growth of the psychrophile *Sclerotinia borealis*; evidence for the uncoupling of growth from respiration. 14336
- Living haustoria and hyphae of *Erysiphe graminis* f.sp. *hordei* with intact and partly dissected host cells of *Hordeum vulgare*. 14349
- Ecological studies on the soft-rot bacteria of vegetables. III. Application of immunofluorescent staining for the detection and the counting of *Erwinia aroideae* in soil. 14385
- An evidence for the multiplication of rice dwarf virus in the vector cell cultures inoculated in vitro. 14409
- Multiplication of Tribec virus in chick embryo cell cultures: cytopathic changes and immunofluorescence. 14603
- Inhibition of host-cell protein and ribonucleic acid synthesis by newcastle disease virus. 14622
- Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665
- Mycobacterium tuberculosis in macrophages: Effect of certain surfactants and other membrane-active compounds. 14671
- Effect of D-galactose on the ultrastructure of bentgrass root apices. 14672
- Nucleus of fusion body and infection structure produced by uredospores of three rust fungi. 14685
- Discoloration of chlorella cells treated with several pesticides- utilization of chlorella cells for the study of pesticides. 14693
- CENCHRUS PAUCIFLORUS**
- Spiny burr grass--a serious and increasing problem. 14571
- CENTAUREA CYANUS**
- Experiences with Patoran (mctabromuron) on weed control in bean shrubs. 14526
- CENTRIFUGATION**
- Use of high speed centrifugation to obtain extracts from cuttings treated by terminal applications of indoleacetic acid-3 (IAA-2-14C). (Abstract). 14323
- Preliminary report on the amino acid composition of TMV-C protein. 14422
- Morphology of cauliflower mosaic virus. 14464
- CENTRIFUGES**
- Diapause in the neuropteran *Chrysopa oculata*. by ultracentrifugation and identification of N- and Cterminal ends. 14256
- Removal of pseudomonads from plant leaves and measurement of their in vivo beta-glucosidase synthesis. 14369
- CEPHALOSPORIUM GRAMINEUM**
- Brain interneurons in noctuid moths: Differential suppression by high sound intensities. and grasses. 14258
- CERAMBYCIDAE**
- The present distribution of *Hylotrupes bajulus* L. (Col., Cerambycidae) in Norway and its abundance in some districts. 14146
- Observations on wood-destroying insect living in the footbridge over Siikaneva bog. 14235
- CERATOCYSTIS**
- The causes of sapstain in red beech. 14350
- A morphological and biological concept of the species *Ceratocystis fimbriata*. 14696
- CERATOCYSTIS FIMBRIATA**
- A morphological and biological concept of the species *Ceratocystis fimbriata*. 14696
- CERATOPOGONIDAE**
- Contributions to the knowledge of the Heleide fauna (Dipt. Nemat.) of Berlin. 14157
- Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634
- CERCOPIDAE**
- Contribution to the fauna of the Congo (Brazzaville). Mission A. Villiers and A. Descarpentries. XLVII. Homoptera Cercopidae and Fulgoroidea. 14169
- CERCOSPORA**
- Effects of *Cercospora* leaf spot and dates of harvest on sugar beet varieties with or without Maneb treatment. 14358
- Computation of results of crop protection experiments by the method of Townsend and Heuberger. 14392
- CERCOSPORA BETICOLA**
- Contribution to the investigation of chemocnotherapy of sugar beet infected by *Cercospora beticola* Sacc. 14408
- New tin complex compounds as plant protection fungicides. 14445
- CEROPLASTES JAPONICUS**
- Fatty acids, alcohols and hydrocarbons in the waxy covering of *Ceroplastes pseudoceriferus* Green, *Ceroplastes japonicus* Green and *Ceroplastes rubens* Maskell (Homoptera: Coccidae). 14269
- CEROPLASTES PSEUDOCERIFERUS**
- Fatty acids, alcohols and hydrocarbons in the waxy covering of *Ceroplastes pseudoceriferus* Green, *Ceroplastes japonicus* Green and *Ceroplastes rubens* Maskell (Homoptera: Coccidae). 14269
- CESTODA**
- Localization of glycogen in the cestode, *Hymenolepis diminuta*. 14642
- Efficacy of niclosamide in the treatment of *Taenia taeniaeformis* infections in cats. 14646
- CHABERTIA OVINA**
- The chromosome numbers of *Oesophagostomum columbianum* Cutice and *Chabertia ovina* Fabricius (Nematoda, Strongylata). 14636
- CHAETOSIPHON FRAGAEFOLII**
- Studies on virus diseases of strawberries in the Western Cape Province. I. Degeneration of locally bred strawberry cultivars. 14355
- CHALCIDIDAE**
- Brachymeria femorata* Panzer (Hymenoptera Chalcididae). 14267
- CHALCIDOIDAE**
- A note on the new species of *Sphegigaster* Spin. (Chalcidoidea, Pteromalidae). 14136
- CHEMICAL ANALYSIS**
- Properties of leptinotarsin, a toxic hemolymph protein from the Colorado potato beetle. 14212
- The pheromone of the queen of the Oriental hornet, *Vespa orientalis*. 14214
- Lysozyme action in the cockroach--blood changes. while probing intercellularly. 14279
- Development of *Caenorhabditis briggsae* and *Hymenolepis nana* in interchanged media. France. 14633
- Effect of carbaryl on the neuroendocrine system of rats. foodstuffs: a multi-detection scheme for gas chromatography of solvent extracts. 14662
- Synthesis and reactions of a proposed DDT metabolite, 2,2-bis(p-chlorophenyl)acetaldehyde. 14701
- CHEMICAL CONTROL (INSECTS)**
- Studies on the biology and control of *Sogatella furcifera* Horv. (Delphacidae: Homoptera) in the Punjab. 14118
- Aziridinyl chemosterilants for house flies. 14186
- Plictran miticide--New approach to mite control. 14202
- Insects Vs man. (Lcp. Notodontidae). 14210
- Persistent toxicity of some systemic insecticides to little honey bees. 14260
- Trends in studies on insect natural enemies and the future problems concerned. 14271
- Global eradication of malaria: Changes of strategy and future outlook. 14298
- Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317
- Pesticide spraying during the rains. 14433

# SUBJECT INDEX

## CHEMICAL CONTROL (NEMATODES)

- Pests of legume covers. characteristic cocoon production. 14479
- Problems regarding the protection of fruit trees against infestations by leaf mining Microlepidoptera. 14480
- The frequency of *Sogata orizicola* Muir and *Sogata cubana* Crawford, on rice and *Echinochloa colonum* in Colombia. 14482
- Least white grubs visit your sugarcane...and find you unprepared. 14486
- Influence of pesticides on russeting of Golden Delicious apples. 14487
- Hard-to-kill pests of fruit trees; the mites. 14488
- On the appearance and the control of the red-currant leaf-gall fly. 14489
- Studies on the insecticide resistance of the tea red spider mite, *Tetranychus kanzawai* Kishida. II. The mite resistance to phenkapton, estox, and kelthane in the tea growing areas in Japan. 14493
- Tanymecus dilaticollis* Gyll. (Curculionidae, Coleoptera) as a pest of cultivated plants and the pre-sowing treatment of the seed with insecticides as a control measure. 14494
- Occurrence and control of *Haplodiplosis equestris* in Holland. 14496
- Insecticidal experiments for the control of mustard aphid. 14497
- Recommendations for chemical control of pests of rubber plantations. 14498
- Neotetranychus rubicola* Bagd. on the raspberry bush in Serbia. 14501
- Know your enemy: The so-called 'cornfly'. 14503
- Can you afford cattle lice. 14625
- Asuntol and Neguvon in the fight against dog fleas. 14626
- Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638
- CHEMICAL CONTROL (NEMATODES)**  
The sugar beet nematode. 14504
- Control of citrus nematode, *Tylenchus semipenetrans*, with DBCP in established Cyprus citrus groves. 14512
- CHEMICAL CONTROL (PESTS)**  
Economic effect and control of wood-boring insects in fruit trees. 14329
- Repelling pheasants from sprouting corn with a carbamate insecticide. 14337
- Musk, brown rats and harvest mice as pests in maize. 14541
- Ridding rice fields of rats. 14542
- Controlling external parasites of sheep. 14628
- A new idea from California--lollipop bait cube. 14648
- CHEMICAL CONTROL (PLANT DISEASES)**  
Importance of industry and labor to plant care in farm management. 14331

- The etiology, including nutritional considerations, of passion fruit brown spot in Hawaii. 14342
- Soil condition and the violet and white root rot discases of fruit trees. 14343
- The causes of sapstain in red beech. 14350
- Cultural factors in relation to collar rot control of groundnut. 14351
- Effects of *Cercospora* leaf spot and dates of harvest on sugar beet varieties with or without Maneb treatment. 14358
- Vegetable dry rot and phytoprog- service in North-Hanover 1968. 14380
- Phytophthora-prognosis and -control in theory and practice. 14381
- Mildews that might mar your opium poppy. 14390
- Effect of soil fumigants on control of pea root rot pathogens. 14391
- Computation of results of crop protection experiments by the method of Townsend and Heuberger. 14392
- Is an early infection by *Peronospora tabacina* Adam controllable in the field. 14397
- Effect of different micronutrient sprays on chlorosis, granulation, fruit fall, yield and fruit quality of sweet oranges var. blood red. 14398
- Three years of tests with new anti-peronosporic preparations. 14400
- Controlling effect of phenylhydrazine derivatives on rice blast in relation to the structural modifications. 14402
- A low-volume postharvest spray of benomyl prevents ascospore production in apple leaves infected by *Venturia inaequalis*. 14405
- Rust of stone fruits. 14412
- Peach leaf curl (*Taphrina*). 14413
- Common scab and *Rhizoctonia* disease of potato. 14414
- Comparison of absorbed biphenyl in oranges and biphenyl vapor in controlling decay, mycelial growth, and sporulation by *Penicillium digitatum*. 14417
- Control of powdery mildew of cucurbits with systemic and non-systemic fungicides. 14428
- Evaluation and use of fungicides in commercial cultivation of barley in Colombia. 14436
- Phytophthora diseases of rubber in Ceylon and India. 14438
- New tin complex compounds as plant protection fungicides. 14445
- Studies on the parasitism and control of tea root discase fungi in Ceylon. Heteroptera. 14448
- The effect of benomyl on *Mycosphaerella musicola*. 14457
- Effect of beta-acylphenylhydrazine derivatives on blast fungus upon leaves and in tissues of rice plants. 14459
- Chemical treatment the answer to fruit scald. 14466

- Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Piricularia oryzae* cava. 14691
- Controlling effect of pentachlorobenzyl alcohol on rice blast. 14692
- Two important diseases of walnut trees. 14695
- CHEMICAL CONTROL (WEEDS)**  
Importance of industry and labor to plant care in farm management. 14331
- Onion weed control on Mallee soils. 14518
- Effect of selective herbicides to liquorice plant growing in cereal fields. 14519
- Monolinuron in increase of grain. 14520
- Coltsfoot control with 2,4-DP on the stubble. 14521
- Water hyacinth and its control. 14522
- Development of corn-growing along the Rhein through use of growth producing herbicides. 14523
- Possibilities of weed control in corn with atrazine, taking special note of the control of couch-grass, wild oats and older weeds. 14524
- Control of weed grass. 14525
- Experiences with Patoran (metabromuron) on weed control in bean shrubs. 14526
- Corn daisies and their control. 14527
- Improved method for weed control in potatoes on extremely marshy soil. (Test experiences in upper Bavaria 1965-67). 14528
- Simultaneous control of *Apera spica venti* and broad leaf weeds through soil herbicides. (Test results in upper bavaria 1965-1967). 14529
- Chemicals that show--crops' co-existence with weeds is not necessary. 14530
- Weed control in vegetables. 14532
- Some factors affecting the disappearance of tordon in soil. 14533
- Pre-emergence application of 2,4-D-ester to wheat (*Triticum vulgare*). 14534
- General non-selective weed control with monosodium acid methane arsonate (MSMA) based mixtures in rubber plantations. 14535
- Developmental trends in the chemical control of weeds in beets. 14536
- Stam F-34 can kill the weeds of Gora paddies. 14537
- Systematic weed control in grape culture. Results of a first four year period of experimentation. 14538
- The control of wild foxtail grass in winter wheat as well as the prevention of weather trodden grain. 14539
- Influence of residues of some triazine herbicides upon wheat and weeds in wheat crops. 14653
- CHEMICAL REACTIONS**  
Aziridinyl chemosterilants for house flies. 14186
- Moisture corrosion, a new corrosive method. 14330



- Some physical properties of purified neurotropic foot-and-mouth disease virus. 14586
- 3-(N-formylamino)-salicylic acid - a new metabolite of *Streptomyces* antibioticus. 14702
- Preparation of the new fungicide heximide. 14703
- CHEMICAL STRUCTURE**  
 Synthesis and reactions of a proposed DDT metabolite, 2,2-bis(p-chlorophenyl)acetaldehyde. 14701
- CHEMICALS**  
 Relative efficacy of different insecticides, as contact poisons, to the larvae of the diamond-black moth, *Plutella maculipennis* Curtis (Lepidoptera: Plutellidae). 14122
- Rooting of narrowleaf evergreen cuttings as influenced by various hormone treatments. (Abstract). 14318
- Interactive effects of gibberellic acid and Alar on bush bean growth. (Abstract). 14344
- Warble fly larvae control study. 14631
- Systemic activity of zectran, matacil and bidrin injected into conifer trunks. 14656
- Stability and effects of some pesticides in soil. 14697
- 'Reduced volume' by how much Why Actual state of affairs. 14699
- CHEMISTRY**  
 Aflatoxin detoxification: Hydroxydihydroaflatoxin B1. 14698
- CHEMORECEPTORS**  
 The ultrastructure and electrophysiology of the membranous lobe of the antenna in *Speophyes lucidulus* larvae (Coleoptera). 14192
- CHEMOSTERILANTS**  
 Aziridinyl chemosterilants for house flies. 14186
- CHEMURGY**  
 Discoloration of chlorella cells treated with several pesticides- utilization of chlorella cells for the study of pesticides. 14693
- CHENOPODIUM**  
 Chenopodium as host to viruses transmitted from apple, pear and grapevine. 14356
- CHENOPODIUM QUINOA**  
 The problem of sowbane mosaic virus contamination. 14354
- CHICK EMBRYOS**  
 Multiplication of Tribec virus in chick embryo cell cultures: cytopathic changes and immunofluorescence. 14603
- CHICKENS**  
 Relationship of plaque size and virulence for chickens of 14 representative Newcastle disease virus stains. 14611
- Virological, histopathological and histochemical behavior of the corioalantois of chick embryos inoculated with Aequi/Uruguay/540/1963 virus. 14619
- The persistence of drug resistance in strains of *Eimeria* species in broiler chickens following a change of coccidiostat. 14621
- CHICKS**  
 Five years' research with a hatchery sanitation program in Maine. 14545
- Titration of *Salmonella abortus-ovis* strains with chick embryos and white mice. 14561
- Sex differences in embryonic response to *Eimeria tenella* infection. 14579
- Histopathologic and hematologic changes in moribund stages of chicks infected with T-virus. 14600
- CHILO IRIDESCENT VIRUS**  
 On the cross-inoculation of Chilo iridescent virus. CIV. 14206
- CHILO SUPPRESSALIS**  
 On the cross-inoculation of Chilo iridescent virus. CIV. 14206
- CHLORAMPHENICOL**  
 Sperm activation and migration in bed bugs. size in hypersensitive hosts in the presence of chloramphenicol. 14257
- CHLORELLA**  
 The importance of preceding crop-dependent shifts in the micro flora of the soil. I. The influence of soil fungi on the root development of wheat, peas, and rape. 14353
- Some physiological effects of cotoran on unicellular Algae. (Abstract). 14689
- Discoloration of chlorella cells treated with several pesticides- utilization of chlorella cells for the study of pesticides. 14693
- CHLORENDIC ANHYDRIDE**  
 Preparation of the new fungicide heximide. 14703
- CHLORINATED HYDROCARBONS**  
 Global eradication of malaria: Changes of strategy and future outlook. 14298
- Effect of soil fumigants on control of pea root rot pathogens. 14391
- Selective vapor phase activity of chloronitro- and chlorobenzenes in soil. 14435
- On the appearance and the control of the red-currant leaf-gall fly. 14489
- Studies on the insecticide resistance of the tea red spider mite, *Tetranychus kanzawai* Kishida. II. The mite resistance to phenkapton, estox, and kelthane in the tea growing areas in Japan. 14493
- Occurrence and control of Haplodiplosis equestris in Holland. 14496
- Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthem, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657
- Biological activity and dissipation of IPC and Cipc. (Abstract). 14686
- Synthesis and reactions of a proposed DDT metabolite, 2,2-bis(p-chlorophenyl)acetaldehyde. 14701
- CHLOROETHYL)TRIMETHYLAMMONIUM CHLORIDE, (2-**  
 Effects of N-dimethylamino succinamic acid (Alar), (2-chloroethyl trimethylammonium chloride (CCC), gibberellic acid (GA), and maleic hydrazide (MH) on bolting in lettuce. (Abstract). 14305
- Stimulation and retardation of adventitious root formation by application of B-Nine and Cycocel. 14327
- Relationship between the number of suckers (tilters) and the number of adventitious roots during the developmental cycle of hard corn sensitive to radial tipping and a report concerning the treatment with auxin, gibberellin, activators and growth inhibitors of the CCC type. 14670
- CHLOROFORM**  
 In vivo demonstration of lability of hog cholera virus to lipolytic agents. 14593
- CHLOROPICRIN**  
 Effect of soil fumigants on control of pea root rot pathogens. 14391
- CHLOROSIS**  
 Effects of N-dimethylamino succinamic acid (Alar), (2-chloroethyl trimethylammonium chloride (CCC), gibberellic acid (GA), and maleic hydrazide (MH) on bolting in lettuce. (Abstract). 14305
- CHLOROSIS (CITRUS)**  
 Effect of different micronutrient sprays on chlorosis, granulation, fruit fall, yield and fruit quality of sweet oranges var. blood red. 14398
- CHLORPROPHAM**  
 Effects of CIPC applications to individual eyes of potato tubers on type and pattern of sprout development. 14320
- Biological activity and dissipation of IPC and Cipc. (Abstract). 14686
- CHOLINE**  
 The effect of sodium replacement on the electroretinogram recorded from the cockroach ocellus. 14179
- Hormones from the fly agaric (*Amanita*). 14673
- CHOLINESTERASES**  
 Hydrolysis of acetylthiocholine and butyrylthiocholine by cholinesterases of insects and a mite. 14261
- CHORISTONEURA FUMIFERANA**  
 Systemic activity of zectran, matacil and bidrin injected into conifer trunks. 14656
- CHROMATOGRAPHY**  
 The pheromone of the queen of the Oriental hornet, *Vespa orientalis*. 14214
- Interaction between two races of *Piricularia oryzae* in lesion-formation in rice plants and accumulation of fluorescent compounds associated with infection. 14420
- Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthem, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657
- The determination of some substituted urea herbicide residues in soil by electron-capture gas chromatography. 14658
- Effect of carbaryl on the neuroendocrine system of rats. foodstuffs: a multi-detection scheme for gas chromatography of solvent extracts. 14662
- Synthesis and reactions of a proposed DDT metabolite, 2,2-bis(p-chlorophenyl)acetaldehyde. 14701
- 3-(N-formylamino)-salicylic acid - a new metabolite of *Streptomyces* antibioticus. 14702
- CHROMATOPHORES**  
 Physiological genetics of melanotic tumors in *Drosophila melanogaster*. VI. The tumorigenic effects of juvenile hormone-like substances. 14190

# SUBJECT INDEX

## CHROMOSOMES

### CHROMOSOMES

- Puff forming ability as a function of chromosomal position in *Drosophila melanogaster*. 14284
- Analysis of a recessive mutation on the Y chromosome of the fly *Calliphora erythrocephala*. 14288
- Genetical relationship and isolating mechanisms in *Ananassae* species subgroup (*Sophophora*, *Drosophila*). III. Chromosome behaviour during meiosis in *D. bipunctata*, *D. malerkotliana* and their hybrid. 14290
- A thymidine-induced sex-linked, sex-limited temperature-sensitive lethal and the significance of modifier genes in *Drosophila melanogaster*. 14292
- The position of the *cp*, *in* and *ri* genes and the 3rd chromosome centromere in *Drosophila melanogaster*. Evidence from a new translocation. 14293
- Genetic variation in natural island populations of members of the *Drosophila nasuta* and *Drosophila ananassae* subgroups. 14296
- The chromosome numbers of *Oesophagostomum columbianum* Cutice and *Chabertia ovina* Fabricius (Nematoda, Strongylata). 14636
- Some results from allium tests with organic mercury halogenides. 14674
- CHRYSANTHEMUM MORIFOLIUM**  
The effect of succinic acid 2,2-dimethyl hydrazide on stem and leaf tissues of *Chrysanthemum morifolium* Bright Golden Anne. (Abstract). 14324
- CHRYSANTHEMUM SEGETUM**  
Corn daisies and their control. 14527
- CHRYSOMELIDAE**  
Leaf beetle larvae of the subfamily Eumolpinae and of *Syneta betulae* F. (Coleoptera, Chrysomelidae). 14149
- CHRYSOPA**  
Diapause in the neuropteran *Chrysopa oculata*. by ultracentrifugation and identification of N- and C-terminal ends. 14256
- CICADELLIDAE**  
Contribution to the knowledge of Colombian fauna of the Cicadellidae. 14153
- A new contribution to the study of Leafhopper fauna (Homoptera, Auchenorrhyncha). 14270
- CIGARETTE INDUSTRY**  
Strains of tobacco mosaic virus contained in cigarettes, with especial reference to the infection source for mosaic disease of tomato. 14389
- CIMEX LECTULARIUS**  
Sperm activation and migration in bed bugs. size in hypersensitive hosts in the presence of chloramphenicol. 14257
- CINNAMIC ACID COMPOUNDS**  
Metabolism of aromatic compounds in healthy and rust-infected primary leaves of wheat. II. Studies with 1-phenylalanine-U-14C, 1-tyrosine-U-14C, and ferulate-U-14C. 14676
- CIRCULIFER TENELLUS**  
Greenhouse testing of sugar beets for resistance to curly top. 14446
- CITRIC ACID**  
Studies on a new intramuscular haematinic for piglet anaemia. 14573

### CITRUS

- A mild strain of tristeza virus in Hassaku trees (*Citrus hassaku* Hort. et Y. Tanaka) in Hiroshima prefecture. 14442
- A color test for citrus exocortis in Japan. 14462
- Control of citrus nematode, *Tylenchus semipenetrans*, with DBCP in established cyprus citrus groves. 14512

### CLADOSPORIUM

- Alternaria* leaf spot of loliondo (*Olea welwitschii* (Knobl.) Gilg. and Schellenb.). 14371
- Study of the antifungal properties of 8-Hydroxyquinoline tartrate. 14651

### CLASSIFICATION

- Insects Vs man. (Lep. Notodontidae). 14210

### CLIMATE

- Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317
- Importance of industry and labor to plant care in farm management. 14331
- Plant care on the North Sea coast. 14375
- Damage and evolution disturbance through weather influence. 14426

### CLOSTRIDIUM PERFRINGENS

- Enterotoxaemia in sheep on dry feed. 14591

### CLOVER

- Identification of the virus causing papaw yellow crinkle with tomato big bud virus by transmission tests. 14365
- Pests of legume covers. characteristic cocoon production. 14479
- The occurrence of *Heterodera glycines* on *Trifolium alexandrinum* in United Arab Republic. 14509

### COBALT

- A correlation between the ability to withstand high temperatures and radioresistance in *Drosophila melanogaster*. 14252

### COCCIDAE

- Fatty acids, alcohols and hydrocarbons in the waxy covering of *Ceroplastes pseudoceriferus* Green, *Ceroplastes japonicus* Green and *Ceroplastes rubens* Maskell (Homoptera: Coccidae). 14269

### COCCIDIOSIS

- Effect of bovine coccidiosis on blood serum sodium and potassium levels of calves. 14567

### COCCIDIOSTATS

- The persistence of drug resistance in strains of *Eimeria* species in broiler chickens following a change of coccidiostat. 14621

### COCHLIOBOLUS MIYABEANUS

- Influence of hydrostatic pressure upon germinability of the spores of some rice-parasitic fungi effects of physical factors upon plant diseases. III. 14376

### COCONUTS

- Analysis of a recessive mutation on the Y chromosome of the fly *Calliphora erythrocephala*. 14288
- Evidence of phenotypic mixing between two strains of tobacco mosaic virus. 14441

### COLD

- Overwintering of *Tuberculina maxima* on white pine blister rust cankers. 14472

### COLEOPTERA

- The insect fauna in the burrows of the long-clawed molevole, a Caucasian endemic species. 14154
- Electron microscopy of spindle-shaped inclusion viruses of Coleoptera. 14184
- The ultrastructure and electrophysiology of the membranous lobe of the antenna in *Speophyes lucidulus* larvae (Coleoptera). 14192
- Special forms of amitotic nuclear division in striated muscle and other insect tissues. 14254

### COLEOPTILE

- Studies on the pathological anatomy of rice plants infected by *Helminthosporium oryzae*. I. Behavior of the causal fungus on the coleoptile of rice seedlings and its ultrafine structure. 14373

### COLLADONUS MONTANUS

- Enhancement of infectivity of a mammalian virus preparation after injection into insects. 14268

### COLLAR ROT (PEANUTS)

- Cultural factors in relation to collar rot control of groundnut. 14351

### COLLEMBOLA

- Revision of Indo-Pakistan *Parisomias* Faust (Coleoptera, Curculionidae) with some notes on *Leptomias* Faust. 14123
- Notes on the genus *Schyzops* Spinola, 1837 (Phyllocephalinae, Pentatomoidea, Heteroptera). *maritima* (Guer.). 14139

### COLLETIDAE

- Quasihesma*-a new genus of Australian bees (Apoidea: Colletidae). 14133
- Revision of the genus *Euryglossella* Cockerell (Apoidea: Colletidae). 14134
- Revision of the genus *Euryglossula* Michener (Apoidea: Colletidae). 14135

### COLLETOTRICHUM COCCODES

- Inheritance of resistance in tomato (*Lycopersicon* spp.) to the anthracnose pathogen *Colletotrichum coccodes*. 14437

### COLLETOTRICHUM LINDEMUTHIANUM

- Cryopreservation and pathogenicity of selected isolates of *Colletotrichum*, *Rhizoctonia*, and *Phytophthora*. 14374

### COLOMBIA

- Diseases of Annual Oleaceae in Colombia. 14427

### COLOR

- Effect of population density on the larval coloration and development of larva and pupa in the larger pellucid hawk moth, *Cephonodes hylas* L. (Lepidoptera: Sphingidae). 14121
- The ability of colour distinction in the wood-ant *Formica polyctena* Forster. 14223
- The influence of N-dimethylamino succinamic acid (Alar) on growth of the sweet cherry, *Prunus avium*. (Abstract). 14303
- Effects of succinic acid 2, 2-dimethyl hydrazide (Alar) on apples. (Abstract). 14322
- Effects of N-dimethylamino succinamic acid (Alar) on yield, size, maturation, and quality of peaches with reference to its use in adapting fruit for mechanical harvesting. (Abstract). 14362

# SUBJECT INDEX

## CROP ROTATION

- A color test for citrus exocortis in Japan. 14462
- Discoloration of chlorella cells treated with several pesticides- utilization of chlorella cells for the study of pesticides. 14693
- COLORADO TICK FEVER VIRUS**  
Serologic diagnosis of Colorado tick fever. A comparison of complement-fixation, immunofluorescence, and plaque-reduction methods. 14564
- COLORIMETRY**  
Hydrolysis of acetylthiocholine and butyrylthiocholine by cholinesterases of insects and a mite. 14261
- COMPLEMENT FIXATION**  
Study of the practicability of various diagnostic methods in the demonstration of swine fever virus of high and low virulence in organs of experimentally infected pigs. 14595
- Contagious bovine pleuropneumonia in wildlife. 14613
- CONIDIA**  
Influence of hydrostatic pressure upon germinability of the spores of some rice-parasitic fungi effects of physical factors upon plant diseases. III. 14376
- On the longevity of Conidia of cucumber downy mildew fungus, with special reference to the influence of sunlight. 14382
- An electron microscopic observation of the surface structure of conidia of *Erysiphe graminis hordei*. 14393
- CONIFERAE**  
Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317
- Systemic activity of zectran, matacil and bidrin injected into conifer trunks. 14656
- CONIOPTERYGIDAE**  
*Coniopteryx remota* Banks, further description and lectotype designation (Neuroptera, Coniopterygidae). 14171
- CONORHYNCHUS MENDICUS**  
A study of the appearance of the clones of beetles, *Temnorhynchus (Cleonus) mendicus* Gyll. 14273
- CONSTRUCTION MATERIALS**  
Design and maintenance of beehives. 14183
- Design of honey houses--central and mobile. 14194
- A three dimensional sketch of the tunnels of the *Rapientia* nests (Hym., Sphecoidea). 14240
- CONTAGIOUS BOVINE PLEUROPNEUMONIA**  
A study of contagious caprine pleuropneumonia. 14552
- An immunity test in cattle to compare two contagious bovine pleuropneumonia vaccines. 14587
- Contagious bovine pleuropneumonia in wildlife. 14613
- CONTROL EQUIPMENT**  
Economic effect and control of wood-boring insects in fruit trees. 14329
- COPPER**  
Is it possible to draw any conclusions from the red epidemic of 1967, in regard to the appearance of the disease during this year. 14678
- COPPER OXYCHLORIDE**  
Properties of leptinotarsin, a toxic hemolymph protein from the Colorado potato beetle. 14212
- Early sowings and fungicides help arrest the angular leafspot of cotton. 14439
- CORDYLOBIA ANTHROPOPHAGA**  
Furuncular Tumbu Fly Myiasis of man in Gabon, equatorial Africa. 14572
- CORK ROT**  
Damage and evolution disturbance through weather influence. 14426
- CORN**  
A new contribution to the study of Leafhopper fauna (Homoptera, Auchenorrhyncha). 14270
- The European corn borer; how to control it. 14301
- Importance of industry and labor to plant care in farm management. 14331
- Repelling pheasants from sprouting corn with a carbamate insecticide. 14337
- Tanymecus dilaticollis* Gyll. (Curculionidae, Coleoptera) as a pest of cultivated plants and the pre-sowing treatment of the seed with insecticides as a control measure. 14494
- Know your enemy: The so-called 'cornfly'. 14503
- Development of corn-growing along the Rhein through use of growth producing herbicides. 14523
- Possibilities of weed control in corn with atrazine, taking special note of the control of couch-grass, wild oats and older weeds. 14524
- Control of weed grass. 14525
- Musk, brown rats and harvest mice as pests in maize. 14541
- Notice of withdrawal of petition regarding pesticides. 14654
- Effect of phytotoxins from the decomposition of organic matter upon peanut seedling emergence. (Abstract). 14668
- Relationship between the number of suckers (tillers) and the number of adventitious roots during the developmental cycle of hard corn sensitive to radial tipping and a report concerning the treatment with auxin, gibberellin, activators and growth inhibitors of the CCC type. 14670
- CORNEA**  
Recent advances in the studies of insect compound eyes. 14281
- CORNYBACTERIUM**  
Two important bacterial diseases on beans. 14454
- CORPUS LUTEUM**  
Observations on the ovulation and oviposition with reference to corpus luteum formation in *Musca domestica* n. n. Fabr. (Muscidae: Diptera). 14229
- CORRELATION**  
A study on the correlation of citrus nematode population with decline of citrus. 14505
- CORROSION**  
Moisture corrosion, a new corrosive method. 14330
- COSTS**  
Repelling pheasants from sprouting corn with a carbamate insecticide. 14337
- Water hyacinth and its control. 14522
- COTTON**  
The interrelationship of resistance and susceptibility of cotton to *Verticillium albo-atrum* and *Fusarium oxysporum* f. sp. *vasinfectum* as influenced by soil temperature. (abstract). 14339
- Narrow leaves reduce boll rot. 14341
- Verticillium* wilt of cotton--the situation in the Namoi Valley. 14357
- Early sowings and fungicides help arrest the angular leafspot of cotton. 14439
- Microsomal N-demethylation, by a cotton leaf oxidase system, of 3-(4'-chlorophenyl)-1,1-dimethylurea (monuron). 14675
- COUMAPHOS**  
Asuntol and Neguvon in the fight against dog fleas. 14626
- COWPEAS**  
Removal of pseudomonads from plant leaves and measurement of their in vivo beta-glucosidase synthesis. 14369
- Peroxidase isozymes in virus-infected plants. 14418
- CRICONEMOIDES**  
Ring nematode disease of rice in Louisiana. (Abstract). 14510
- CRINKLE (STRAWBERRIES)**  
Studies on virus diseases of strawberries in the Western Cape Province. I. Degeneration of locally bred strawberry cultivars. 14355
- CRINKLE (SUGAR BEETS)**  
Further experiments regarding the clarification of the connection between the beet lacebug *Piesma quadratum* (Fieb) and the beet crinkle virus. 14499
- CRISTULARIELLA PYRAMIDALIS**  
A leafspot disease of kenaf in Maryland associated with *Cristulariella pyramidalis*. 14431
- CRONARTIUM**  
Limb rust of pine: The causal fungi. 14430
- CRONARTIUM QUERCUM**  
Evidence of hyphal growth of *Cronartium quercuum* in the pine-host cambium. 14379
- CRONARTIUM RIBICOLA**  
Overwintering of *Tuberculina maxima* on white pine blister rust cankers. 14472
- CROP LOSSES**  
Insects Vs man. (Lep. Notodontidae). 14210
- Verticillium* wilt of cotton--the situation in the Namoi Valley. 14357
- Bionomics of the rice gundhy bug, *Leptocoris varicornis* Fabr. (Hemiptera, Heteroptera; Coreidae). 14490
- The sugar beet nematode. 14504
- Control of weed grass. 14525
- The economic incidence of field vole control in France. 14540
- CROP ROTATION**  
Analysis of a recessive mutation on the Y chromosome of the fly *Calliphora erythrocephala*. 14288
- The importance of preceeding crop-dependent shifts in the micro flora of the soil. I. The in-

## SUBJECT INDEX

### CROP VARIETIES

- fluence of soil fungi on the root development of wheat, peas, and rape. 14353
- Lest white grubs visit your sugarcane...and find you unprepared. 14486
- Occurrence and control of Haplodiplosis cucurtris in Holland. 14496

### CROP VARIETIES

- Effects of Cercospora leaf spot and dates of harvest on sugar beet varieties with or without Maneb treatment. 14358
- Isolation of rishitin from tubers of interspecific potato varieties containing different late-blight resistance genes. 14443
- Greenhouse testing of sugar beets for resistance to curly top. 14446
- Influence of pesticides on russeting of Golden Delicious apples. 14487

### CROP YIELDS

- Preliminary observations on moulting and limb regeneration in the mite Caloglyphus boharti. 14280
- The effect of Alar (N-dimethylamino succinamic acid) on yield and quality attributes of Concord grapes. 14302
- Fruiting response of the highbush blueberry to applied gibberellic acid under field conditions. (Abstract). 14308
- Vegetative and fruiting responses of pecan (*Carya illinoensis* Koch) to heading back and N-dimethylamino succinamic acid. (Abstract). 14332
- Effects of Cercospora leaf spot and dates of harvest on sugar beet varieties with or without Maneb treatment. 14358
- Effects of N-dimethylamino succinamic acid (Alar) on yield, size, maturation, and quality of peaches with reference to its use in adapting fruit for mechanical harvesting. (Abstract). 14362
- Computation of results of crop protection experiments by the method of Townsend and Heuberger. 14392
- Breeding for disease resistance and yield improvement in flue-cured tobacco. 14394
- Effect of different micronutrient sprays on chlorosis, granulation, fruit fall, yield and fruit quality of sweet oranges var. blood red. 14398
- Fungicides can check fruit-rot and die-back of chilli. 14432
- Evaluation and use of fungicides in commercial cultivation of barley in Colombia. 14436
- Post-year responses of Concord grape vines treated with N-dimethylamino succinamic acid. (Abstract). 14467
- The sugar beet nematode. 14504
- A study on the correlation of citrus nematode population with decline of citrus. 14505
- Secondary effects of fungicides on barley. 14517
- Effect of selective herbicides to liquorice plant growing in cereal fields. 14519
- Monolinuron in increase of grain. 14520
- Control of weed grass. 14525

- Simultaneous control of *Apera spica-venti* and broad leaf weeds through soil herbicides. (Test results in upper Bavaria 1965-1967). 14529
- Chemicals that show--crops' co-existence with weeds is not necessary. 14530
- Stam F-34 can kill the weeds of Gora paddies. 14537
- Ridding rice fields of rats. 14542
- CROPS**
- Insecticidal experiments for the control of mustard aphid. 14497
- Weed control in vegetables. 14532
- CROTALARIA SPECTABILIS**
- Bean yellow mosaic and tobacco ringspot virus isolated from *Crotalaria spectabilis*. 14388
- CROWN RUST (OATS)**
- Virulence of uredial and aecial isolates of *Puccinia coronata* Corda f.sp. *avenae* identified in Canada from 1952 to 1966. 14359
- CROWS**
- Are scarecrows useful against bird damage. 14550
- CRUCIFERAE**
- Insecticidal experiments for the control of mustard aphid. 14497
- CRYPTOPHAGIDAE**
- The flight activity of the pigmy-mangold chafer *Atomaria linearis* Steph. in the course of 24 hours. (Col., Cryptophagidae). 14249
- CTENOCEPHALIDES**
- Exceptions to the prevailing pattern of tubules (9 plus 9 plus 2) in the sperm flagella of certain insect species. 14255
- CTENUCHA**
- Studies on the parasitism and control of tea root disease fungi in Ceylon. Heteroptera. 14448
- CUCUMBERS**
- Preliminary observations on moulting and limb regeneration in the mite *Caloglyphus boharti*. 14280
- A system for screening of rare events in genes of *Drosophila melanogaster*. 14289
- The effect of inoculum concentration on virus multiplication in cucumber cotyledons. II. Cucumber mosaic and tobacco mosaic viruses. 14367
- On the longevity of *Conidia* of cucumber downy mildew fungus, with special reference to the influence of sunlight. 14382
- Cucumber sex expression modified by 2-chloroethanephosphonic acid. 14683
- CUCURBITS**
- Control of powdery mildew of cucurbits with systemic and non-systemic fungicides. 14428
- CULEX RESTUANS**
- Arbovirus studies in the Ohio-Mississippi basin, 1964-1967. III. Flanders virus. 14227
- CULICIDAE**
- Arbovirus studies in the Ohio-Mississippi basin, 1964-1967. I. Introduction. 14581
- CULICOIDES**
- Transmission of attenuated and virulent bluetongue virus with *Culicoides variipennis* infected orally via sheep. 14569
- Skin diseases of horses. 14592

### CULTURAL CONTROL (INSECTS)

- The frequency of *Sogata orizicola* Muir and *Sogata cubana* Crawford on rice and *Echinochloa colonum* in Colombia. 14482

### CULTURAL CONTROL (PLANT DISEASES)

- Analysis of a recessive mutation on the Y chromosome of the fly *Calliphora erythrocephala*. 14288
- Verticillium wilt of cotton--the situation in the Namoi Valley. 14357
- Mildews that might mar your opium poppy. 14390
- Common scab and *Rhizoctonia* disease of potato. 14414

### CULTURAL CONTROL (WEEDS)

- Onion weed control on Mallee soils. 14518
- Weed control in vegetables. 14532

### CULTURE MEDIA

- In vivo and in vitro reactions of 1,1-dimethylamino succinamic acid (B-9, Alar) and related substances. 14328
- An apparently two-factor dose-response dependence in lucerne mosaic virus assay. 14368
- Evidence for the release of 28 S RNA from turnip yellow mosaic virus heated in vitro. 14370
- An evidence for the multiplication of rice dwarf virus in the vector cell cultures inoculated in vitro. 14409
- Effect of beta-acylphenylhydrazine derivatives on blast fungus upon leaves and in tissues of rice plants. 14459
- Morphology of cauliflower mosaic virus. 14464
- Overwintering of *Tuberculina maxima* on white pine blister rust cankers. 14472
- Comatricha nodulifera*, a new myxomycete from Texas. 14474
- Isolation and characterization of *Mycoplasma arginini*: spec. nov. 14555
- Development of *Caenorhabditis briggsae* and *Hymenolepis nana* in interchanged media. France. 14633
- Mycobacterium tuberculosis* in macrophages: Effect of certain surfactants and other membrane-active compounds. 14671
- Physiological effects of pentachlorobenzylalcohol on rice plants. 14690
- CURCULIONIDAE**
- Revision of Indo-Pakistan *Parisomias* Faust (Coleoptera, Curculionidae) with some notes on *Leptomias* Faust. 14123
- Observations on the ovulation and oviposition with reference to corpus luteum formation in *Musca domestica* *nebulosa* Fabr. (Muscidae: Diptera). 14229
- A study of the appearance of the cleonus of beet, *Temnorhinus (Cleonus) mendicus* Gyll. 14273
- Tanymericus dilaticollis* Gyll. (Curculionidae, Coleoptera) as a pest of cultivated plants and the pre-sowing treatment of the seed with insecticides as a control measure. 14494

# SUBJECT INDEX

## DIATRAEA CRAMBIDOIDES

- CURCUMA LONGA**  
Some factors affecting incidence of leaf spot of turmeric by *Taphrina maculans* butler. 14468
- CURING**  
Speed the key to preserving hides. 14551
- CURLY TOP**  
Greenhouse testing of sugar beets for resistance to curly top. 14446
- CURRENTS**  
On the appearance and the control of the red-currant leaf-gall fly. 14489
- CUSCUTA**  
Identification of the virus causing papaw yellow crinkle with tomato big bud virus by transmission tests. 14365
- CUTICLE**  
A new species of *Acmaeodera* (Coleoptera, Buprestidae). 14158  
Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638
- CYCLOHEXIMIDE**  
The effect of cycloheximide on the resistance of potato tuber discs to invasion by a fluorescent *Pseudomonas* sp. 14477
- CYCOCEL**  
The control of wild foxtail grass in winter wheat as well as the prevention of weather trodden grain. 14539
- CYPRUS**  
Control of citrus nematode, *Tylenchus semipenetrans*, with DBCP in established cyprus citrus groves. 14512
- CYSTS**  
Pulmonary disease in Kenya sheep. 14639
- CYTOLOGY**  
Ultrastructural modifications of the secretion cells of the prothoracic gland to themselves during the last two larval stages. I. The chondriosome, and its relationship with the granular reticulum. 14181  
The details of endomitosis in the sericeous glands of *Galleria mellonella* (Insecta Lepidoptera). 14247  
Lysozyme action in the cockroach--blood changes. while probing intercellularly. 14279  
The temperature requirements for interferon production in cells stimulated by Newcastle disease virus or microbial agents in vitro. 14585  
Multiplication of Tribec virus in chick embryo cell cultures: cytopathic changes and immunofluorescence. 14603  
Fine structure of the intestinal epithelium of *Dirofilaria immitis* and changes occurring after vermifical treatment with caparsolate sodium. 14637  
Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638  
Characteristics for two classes of embryonic cells in oncospheres of *Hymenolepis diminuta* stained for cytoplasmic substances. 14640  
The basic cellular pattern for undifferentiated oncospheres of *Hymenolepis diminuta*. 14641  
The cytology of infection structure development in urediospore germ tubes of *Uromyces phaseoli* var. *typica* (Pers.) swint. 14681
- CYTOPLASM**  
Development of the virus with inclusion bodies, of the Lepidoptera *Lymantria dispar* in cell cultures. 14275  
Sex differences in embryonic response to *Eimeria tenella* infection. 14579  
The fine structure of hyphae of *Helminthosporium oryzae* Ito et Kurib. and *Pyricularia oryzae* Cavara. 14679
- D, 2,4-**  
Water hyacinth and its control. 14522  
Development of corn-growing along the Rhein through use of growth producing herbicides. 14523  
Pre-emergence application of 2,4-D-ester to wheat (*Triticum vulgare*). 14534  
2,4-D, to ripen tobacco may be detriment to producer and industry. 14688
- DACTYLIS GLOMERATA**  
Brain interneurons in noctuid moths: Differential suppression by high sound intensities. and grasses. 14258
- DAIRY CATTLE**  
Two cases of urea poisoning in dairy herds. 14661
- DAIRY FARMS**  
Tuberculosis in three herds with access to the same open sewer. 14546
- DAMALINIA OVIS**  
Ecology of lice on sheep. VI. The influence of shearing and solar radiation on populations and transmission of *Damalinea ovis*. 14629
- DASINEURA TETENSI**  
On the appearance and the control of the red-currant leaf-gall fly. 14489
- DDT**  
Global eradication of malaria: Changes of strategy and future outlook. 14298  
Occurrence and control of Haplodiplois equestris in Holland. 14496  
Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638  
Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthem, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657  
Synthesis and reactions of a proposed DDT metabolite, 2,2-bis(p-chlorophenyl)acetaldehyde. 14701
- DECOQUINATE**  
The persistence of drug resistance in strains of *Eimeria* species in broiler chickens following a change of coccidiostat. 14621
- DEFICIENCY DISEASES**  
Nutritional effects connected with sheepnosing, a disorder of grapefruit. (Abstract). 14475  
Studies on a new intramuscular haematonic for piglet anaemia. 14573
- DEGRADATION**  
Some factors affecting the disappearance of tordon in soil. 14533
- DEMETON**  
On the appearance and the control of the red-currant leaf-gall fly. 14489
- DEMOGRAPHY**  
Sleep in moths and its dependence on the frequency of stimulation in *Anagasta kuehniella*. 14177  
Field studies on the life-histories of some British Staphylinidae (Coleoptera). 14220  
Efficiency of selection for increased or decreased recombination. 14291
- DENDROLIMUS SPECTABILIS**  
On the cross-inoculation of *Chilo* iridescent virus. CIV. 14206
- DEOXYRIBONUCLEASES**  
Exocellular deoxyribonuclease I of *Penicillium chrysozenum* Part I. Partial purification and properties of the enzyme. 14694
- DEOXYRIBONUCLEIC ACID**  
Ultrastructural modifications of the secretion cells of the prothoracic gland to themselves during the last two larval stages. I. The chondriosome, and its relationship with the granular reticulum. 14181  
DNA-MEASUREMENTS in insects and a hypothesis concerning retarded evolution and especially high DNA content in the animal kingdom. 14185  
Development and diapause in insects. 14199  
Ecdysone and DNA synthesis in cultured wing disks of the wax moth, *Galleria mellonella*. 14250  
An approach to the elucidation of host-parasite interaction. 14450
- DERMANYSSUS**  
Sparrow mite *Dermanyssus passerinus* Berl. et Trouess, 1885. 14282
- DEXTRINS**  
Studies on a new intramuscular haematonic for piglet anaemia. 14573
- DIAGNOSIS**  
Insect visceral muscle: Neural relations of the proctodeal muscles of the cockroach. 14189  
Adenine and related substances as potent feeding stimulants for the alfalfa weevil, *Hypera postica*. 14213  
Bacterial rust on sour cherries and pears. 14340  
The problem of sowbane mosaic virus contamination. 14354  
Evidence of phenotypic mixing between two strains of tobacco mosaic virus. 14441  
Virus A as a cause of streak on secondary infected eyesteccklings of the potato. 14471  
Serologic diagnosis of Colorado tick fever. A comparison of complement-fixation, immunofluorescence, and plaque-reduction methods. 14564  
Study of the practicability of various diagnostic methods in the demonstration of swine fever virus of high and low virulence in organs of experimentally infected pigs. 14595  
Can you afford cattle lice. 14625
- DIAPAUSE**  
Diversity of forms of physiological rest in insects as one of the causes of their biological progress. 14274
- DIATRAEA CRAMBIDOIDES**  
The European corn borer; how to control it. 14301

## SUBJECT INDEX

- DIBROMO-3-CHLOROPROPANE, 1,2-**
- DIBROMO-3-CHLOROPROPANE, 1,2-**  
Control of citrus nematode, *Tylenchus semipenetrans*, with DBCP in established cyprus citrus groves. 14512
- DICHLOBENIL**  
Effect of *Loxosceles reclusa* Gertsch and Mulaik venom on *Heliobis virescens* (F.) larvae. oosterhof, g. 14248
- DICHLORO-1-PHENOXYCARBONYL-2-TRIFLUOROMETHYLBENZIMIDAZOLE, 5,6-**  
5,6-Dichloro-1-phenoxy-carbonyl-2-trifluoromethylbenzimidazole. Notice of extension of temporary tolerance. 14655
- DICHLOROPHENYL(THIO)METHYL O,O-DIETHYL PHOSPHORODITHIOATE, S-((2,5-**  
Studies on the insecticide resistance of the tea red spider mite, *Tetranychus kanzawai* Kishida. II. The mite resistance to phenkapton, estox, and kelthane in the tea growing areas in Japan. 14493
- Neotetranychus rubicola Bagd. on the raspberry bush in Serbia. 14501
- DICHLOROPROPENE, 1,3-**  
Effect of soil fumigants on control of pea root rot pathogens. 14391
- The sugar beet nematode. 14504
- DICHLORPROP**  
Coltsfoot control with 2,4-DP on the stubble. 14521
- DICHLORVOS**  
Problems regarding the protection of fruit trees against infestations by leaf mining *Microlepidoptera*. 14480
- DICOLFOL**  
Studies on the insecticide resistance of the tea red spider mite, *Tetranychus kanzawai* Kishida. II. The mite resistance to phenkapton, estox, and kelthane in the tea growing areas in Japan. 14493
- Neotetranychus rubicola Bagd. on the raspberry bush in Serbia. 14501
- DICTYOCAULUS FILARIA**  
Pulmonary disease in Kenya sheep. 14639
- DIEBACK**  
Fungicides can check fruit-rot and die-back of chilli. 14432
- DIELDRIN**  
*Tanymecus dilaticollis* Gyll. (Curculionidae, Coleoptera) as a pest of cultivated plants and the pre-sowing treatment of the seed with insecticides as a control measure. 14494
- Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthemic, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657
- An interaction of dieldrin with thiamine. 14664
- DIET**  
An outbreak of anthrax in mink. 14562
- DIETHYLAMINO)ETHYL O,O-DIETHYL PHOSPHORODITHIOATE HYDROGEN OXALATE, S-(2-**  
Kinetic evidence of reversible iso-cholinesterases based on inhibition by organophosphates. (Abstract). 14700
- DIFFUSION**  
Biological activity and dissipation of IPC and Cipc. (Abstract). 14686
- DIGITARIA SANGUINALIS**  
Musk, brown rats and harvest mice as pests in maize. 14541
- DIISOPROPYL FLUOROPHOSPHATE**  
Kinetic evidence of reversible iso-cholinesterases based on inhibition by organophosphates. (Abstract). 14700
- DIMETHOATE**  
Persistent toxicity of some systemic insecticides to little honey bees. 14260
- DIMETHYL O-(4-NITRO-M-TOLYL) PHOSPHOROTHIOATE, O,O**  
Determination of insecticide residue in animal and plant tissues. IV: Determination of residual amount of Sumithion and some of its metabolites in fresh milk. 14659
- DIMETHYL S-(1-METHYL-2-ETHYLSULFINYL)ETHYL PHOSPHORODITHIOATE, O,O-**  
Studies on the insecticide resistance of the tea red spider mite, *Tetranychus kanzawai* Kishida. II. The mite resistance to phenkapton, estox, and kelthane in the tea growing areas in Japan. 14493
- DIMETHYL-3-(ALPHA,ALPHA,ALPHA-M-TOLYL)UREA, 1,1-**  
Some physiological effects of cotoran on unicellular Algae. (Abstract). 14689
- DIMETHYLAMINO)-M-TOLYL METHYL-CARBAMATE, 4-**  
Systemic activity of zectran, matacil and bidrin injected into conifer trunks. 14656
- DIMETHYLAMINO-3,5-XYLYL METHYL-CARBAMATE, 4-**  
Systemic activity of zectran, matacil and bidrin injected into conifer trunks. 14656
- DINITROPHENOL, 2,4-**  
The respiration and flower development of evergreen azaleas as influenced by gibberellin, scale removal, and 2,4-dinitrophenol. 14666
- DIPHACINONE**  
A new idea from California--lollipop bait cube. 14648
- DIPLOPODA**  
Cytology and cytochemistry of spermatogenesis in two millipedes *Phyllogonostreptus nigrolabiatus* and *Gonoplectus malayas*. 14219
- DIPPING**  
Developmental genetic studies of aminopeptidases in *Drosophila melanogaster*. 14294
- Chemical treatment the answer to fruit scald. 14466
- DIPTERA**  
The insect fauna in the burrows of the long-clawed molevole, a Caucasian endemic species. 14154
- Contributions to the knowledge of the Heleide fauna (Dipt. Nemat.) of Berlin. 14157
- Identification list. 5. 14165
- Hilaria sartor* Becker, the fly with the little veil and its dance (Diptera). 14204
- Hilaria sartor* Becker, the fly with the little veil and its dance (Diptera). 14205
- Special forms of amitotic nuclear division in striated muscle and other insect tissues. 14254
- Furuncular Tumbu Fly Myiasis of man in Gabon, equatorial Africa. 14572
- DIROFILARIA IMMITIS**  
Fine structure of the intestinal epithelium of *Dirofilaria immitis* and changes occurring after vermifical treatment with caparsolate sodium. 14637
- DIROFILARIASIS**  
Blood chemical and cellular changes in canine dirofilariasis. 14645
- DISEASE TRANSMISSION**  
DNA-MEASUREMENTS in insects and a hypothesis concerning retarded evolution and especially high DNA content in the animal kingdom. 14185
- Transmission of attenuated and virulent bluetongue virus with *Culicoides variipennis* infected orally via sheep. 14569
- DISTILLATION**  
Preparation of the new fungicide heximide. 14703
- DITHANE**  
Secondary effects of fungicides on barley. 14517
- DITYLENCHUS**  
Importance and causes of Nematode movement in the soil and research on the migration of *Ditylenchus myceliophagus*. 14506
- DIURON**  
Systematic weed control in grape culture. Results of a first four year period of experimentation. 14538
- DODINE**  
Two important diseases of walnut trees. 14695
- DOGS**  
Fibrinogen content and fibrinolytic activity of plasma from dogs infected with *Leptospira canicola*. 14566
- Asuntol and Neguvon in the fight against dog fleas. 14626
- Blood chemical and cellular changes in canine dirofilariasis. 14645
- DORSAL VESSEL**  
Histochemical data on the cardiac bodies of *Antheraea pernyi* Guer. (Lepidoptera, Attacidae) and of *Rhodnius prolixus* Stal. (Hemiptera, Reduviidae). 14191
- DOSAGE**  
Insect hormones: Olive oil is not an inert vehicle for hormone injection into locusts. 14197
- Possibilities of weed control in corn with atrazine, taking special note of the control of couch-grass, wild oats and older weeds. 14524
- Some factors affecting the disappearance of tordon in soil. 14533
- Piperazine-carbon disulfide complex. Drugs for veterinary use; drug efficacy study implementation. 14547
- Field trials on the efficacy of thiabendazole against *Haemonchus contortus* in West African dwarf forest sheep and goats. 14635
- Guidelines for evaluating the properties of pesticides for safe use in the wildlife environment. 14652
- Controlling effect of pentachlorobenzyl alcohol on rice blast. 14692
- Discoloration of chlorella cells treated with several pesticides- utilization of chlorella cells for the study of pesticides. 14693

- DOTHIDEA**  
*Alternaria* leaf spot of loliondo (*Olea welwitschii* (Knobl.) Gilg. and Schellenb.). 14371
- DOWNY MILDEW**  
 On the longevity of *Conidia* of cucumber downy mildew fungus, with special reference to the influence of sunlight. 14382
- DROSOPHILA**  
 Efficiency of selection for increased or decreased recombination. 14291  
 Genetic variation in natural island populations of members of the *Drosophila nasuta* and *Drosophila ananassae* subgroups. 14296
- DROSOPHILA BIPECTINATA**  
 Genetical relationship and isolating mechanisms in *Ananassae* species subgroup (*Sophophora*, *Drosophila*). III. Chromosome behaviour during meiosis in *D. bipectinata*, *D. malerkotliana* and their hybrid. 14290
- DROSOPHILA MALERKOTLIANA**  
 Genetical relationship and isolating mechanisms in *Ananassae* species subgroup (*Sophophora*, *Drosophila*). III. Chromosome behaviour during meiosis in *D. bipectinata*, *D. malerkotliana* and their hybrid. 14290
- DROSOPHILA MELANOGASTER**  
 Physiological genetics of melanotic tumors in *Drosophila melanogaster*. VI. The tumorigenic effects of juvenile hormone-like substances. 14190  
 Experiments on nuclear transplantation in *Drosophila melanogaster*. Preliminary report. 14200  
 Radiation sensitivity of *Drosophila* embryos in relation to age, in air and in nitrogen. 14208  
 A correlation between the ability to withstand high temperatures and radioresistance in *Drosophila melanogaster*. 14252  
 Puff forming ability as a function of chromosomal position in *Drosophila melanogaster*. 14284  
 Genetical studies on the resistance to parathion in *Drosophila melanogaster*. III. Induction of a susceptible gene from its resistance allele. 14287  
 A system for screening of rare events in genes of *Drosophila melanogaster*. 14289  
 A thymidine-induced sex-linked, sex-limited temperature-sensitive lethal and the significance of modifier genes in *Drosophila melanogaster*. 14292  
 The position of the *cp*, *in* and *ri* genes and the 3rd chromosome centromere in *Drosophila melanogaster*. Evidence from a new translocation. 14293  
 Developmental genetic studies of aminopeptidases in *Drosophila melanogaster*. 14294  
 Excretion of aflatoxin in a lactating cow. *Drosophila melanogaster* to anesthesia. 14660
- DROSOPHILA OBSCURA**  
 Dawn and dusk activity periods and orientation to forest and field of the *Drosophila subobscura* and *Drosophila obscura*. 14225
- DROSOPHILA PSEUDOBSCURA**  
 The genetics of *Drosophila* mating behavior. II. The genetic architecture of mating speed in *Drosophila pseudoobscura*. 14286
- DROSOPHILA SUBOBSCURA**  
 Dawn and dusk activity periods and orientation to forest and field of the *Drosophila subobscura* and *Drosophila obscura*. 14225
- DRUG RESISTANCE**  
 The persistence of drug resistance in strains of *Eimeria* species in broiler chickens following a change of coccidiostat. 14621
- DRUG THERAPY**  
 Piperazine-carbon disulfide complex. Drugs for veterinary use; drug efficacy study implementation. 14547  
 Studies on a new intramuscular haematonic for piglet anaemia. 14573  
 The protection of a small group of Nigerian trade cattle from trypanosomiasis using samorin. 14580  
 Warfarin treatment of mice bearing autochthonous tumors: Effect on spontaneous metastases. 14608  
 The persistence of drug resistance in strains of *Eimeria* species in broiler chickens following a change of coccidiostat. 14621  
 Comparative anthelmintic efficiencies of parabendazole, thiabendazole, and phenothiazine in lambs. 14630  
 Efficacy of niclosamide in the treatment of *Taenia taeniaeformis* infections in cats. 14646
- DRYING**  
 The causes of sapstain in red beech. 14350  
 Speed the key to preserving hides. 14551  
 Lyophilizing foot-and-mouth disease virus at low drying temperature. 14604
- DUSTING**  
 The European corn borer; how to control it. 14301  
 Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317
- DWARF DISEASE**  
 Yellow dwarf of pea and broadbean caused by milk-vetch dwarf virus. 14378  
 Studies on dwarf disease of mulberry tree. XVI. On two strains. 14461
- DWARF DISEASE (RICE)**  
 An evidence for the multiplication of rice dwarf virus in the vector cell cultures inoculated in vitro. 14409
- DYSDERCUS FASCIATUS**  
 Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthemic, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657
- ECDYSONE**  
 Hormonal control of imaginal disc regeneration in *Galleria mellonella* (Lepidoptera). 14236  
 Ecdysone and DNA synthesis in cultured wing disks of the wax moth, *Galleria mellonella*. 14250
- ECHINOCHLOA**  
 The frequency of *Sogata orizicola* Muir and *Sogata cubana* Crawford, on rice and *Echinochloa colonum* in Colombia. 14482
- ECHINOCOCCUS GRANULOSUS**  
 Pulmonary disease in Kenya sheep. 14639
- ECOLOGY**  
 Essentials in pest control. 14196
- ECONOMIC ENTOMOLOGY**  
 Advances and problems of applied entomological studies in agriculture and forestry. 14142
- ECONOMIC PLANTS**  
 A new contribution to the study of Leafhopper fauna (Homoptera, Auchenorrhyncha). 14270  
 Plant protection chemical residues and food consumption. 14706
- ECONOMICS**  
 Plectran miticide-New approach to mite control. 14202  
 Economic effect and control of wood-boring insects in fruit trees. 14329  
 The economic incidence of field vole control in France. 14540  
 Musk, brown rats and harvest mice as pests in maize. 14541  
 'Reduced volume' by how much Why Actual state of affairs. 14699
- EGGS**  
 The viability of brown locust eggs (*Locustana pardalina* (Walker)). 14188  
 Radiation sensitivity of *Drosophila* embryos in relation to age, in air and in nitrogen. 14208  
 Study on the density of the adult of the brown planthopper *Nilaparvata lugens* Stal. 14251  
 Oviposition sites and the viability of eggs of *Thymelicus lineola* (Ochs.) (Lepidoptera: Hesperidae). 14253  
 Five years' research with a hatchery sanitation program in Maine. 14545
- EICHHORNIA CRASSIPES**  
 Water hyacinth and its control. 14522
- EIMERIA**  
 Effect of bovine coccidiosis on blood serum sodium and potassium levels of calves. 14567  
 The persistence of drug resistance in strains of *Eimeria* species in broiler chickens following a change of coccidiostat. 14621
- EIMERIA TENELLA**  
 Sex differences in embryonic response to *Eimeria tenella* infection. 14579
- ELATERIDAE**  
 A new sub-genus of *Tetralobus* (Coleoptera Elateridae). 14150
- ELECTRICITY**  
 Does the beating of butterfly wings cause electrical phenomena. 14239
- ELECTRON CAPTURE**  
 The determination of some substituted urca herbicide residues in soil by electron-capture gas chromatography. 14658
- ELECTRON MICROSCOPES**  
 Electron microscopy of uredospores of *Melampsora lini* and of rust-infected flax. 14399  
 The development of echinulation in uredospores of wheat stem rust. 14463
- ELECTRON MICROSCOPY**  
 The effect of sodium replacement on the electretinogram recorded from the cockroach ocellus. 14179

# SUBJECT INDEX

## ELECTROPHORESIS

- Electron microscopy of spindle-shaped inclusion viruses of Coleoptera. 14184
- The ultrastructure and electrophysiology of the membranous lobe of the antenna in *Speophyes lucidulus* larvae (Coleoptera). 14192
- Ultrastructure of the ileum of the European corn borer, *Ostrinia nubilalis*. 14207
- Ecdysone and DNA synthesis in cultured wing disks of the wax moth, *Galleria mellonella*. 14250
- The ultrastructure and physiology of the abdominal air-guide retractor muscles in the giant water bug, *Lethocerus*. 14277
- Lysozyme action in the cockroach--blood changes. while probing intercellularly. 14279
- Soil-borne wheat mosaic virus from *Poa annua* L., a new host. 14377
- Bean yellow mosaic and tobacco ringspot virus isolated from *Crotalaria* (*Crotalaria spectabilis*). 14388
- An electron microscopic observation of the surface structure of conidia of *Erysiphe graminis hordei*. 14393
- The development of echination in uredospores of wheat stem rust. 14463
- Morphology of cauliflower mosaic virus. 14464
- Comparative morphologic features of *Babesia caballi* and *Babesia equi*. 14614
- Morphologic features of *Haemobartonella felis*. 14616
- Fine structure of the intestinal epithelium of *Dirofilaria immitis* and changes occurring after vermicide treatment with caparsolate sodium. 14637
- Localization of glycogen in the cestode, *Hymenolepis diminuta*. 14642
- The fine structure of hyphae of *Helminthosporium oryzae* Ito et Kurib. and *Pyricularia oryzae* Cava. 14679
- ## ELECTROPHORESIS
- Continuous and rhythmic reproductive cycle observed in *Periplaneta americana* (L.). 14182
- Developmental genetic studies of aminopeptidases in *Drosophila melanogaster*. 14294
- Relationship of electrophoretic mobility to the sialic acid concentration of erythrocytes in bovine anaplasmosis. 14563
- The separation of the proteins of wheat by acrylamide gel electrophoresis, with special reference to mottled and unmottled wheat. 14667
- Kinetic evidence of reversible iso-cholinesterases based on inhibition by organophosphates. (Abstract). 14700
- ## ELECTROPHYSIOLOGY
- Insect visceral muscle: Neural relations of the proctodeal muscles of the cockroach. 14189
- The ultrastructure and electrophysiology of the membranous lobe of the antenna in *Speophyes lucidulus* larvae (Coleoptera). 14192
- The ultrastructure and physiology of the abdominal air-guide retractor muscles in the giant water bug, *Lethocerus*. 14277

## ELECTRORETINOGRAMS

- The effect of sodium replacement on the electroretinogram recorded from the cockroach ocellus. 14179

## EMBRYOLOGY

- Titration of *Salmonella abortus-ovis* strains with chick embryos and white mice. 14561
- Virological, histopathological and histochemical behavior of the corioalantosis of chick embryos inoculated with Aequi/Uruguay/540/1963 virus. 14619
- Characteristics for two classes of embryonic cells in oncospheres of *Hymenolepis diminuta* stained for cytoplasmic substances. 14640

## EMBRYOS

- Sex differences in embryonic response to *Eimeria tenella* infection. 14579

## ENATION MOSAIC

- Radish enation mosaic virus. 14465

## ENCEPHALITIS

- Occurrence of tick-borne encephalitis virus neutralizing antibody in aquatic birds in central Europe. 14565

## ENDOSULFAN

- On the appearance and the control of the recurreant leaf-gall fly. 14489

## ENTEROTOXEMIA

- Enterotoxaemia in sheep on dry feed. 14591

## ENTOMOGENOUS FUNGI

- Natural mortality of overwintering eggs of *Longicungus donacis* (Pass.). 14266

## ENTOMOLOGY

- Important forest insects of Ontario in 1966. 14120

## ENVIRONMENT

- The viability of brown locust eggs (*Locustana pardalina* (Walker)). 14188
- Caterpillar polymorphism of *Pergesa elpenor* L. 14221
- Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317

- Nature and inheritance of resistance to red clover vein mosaic virus in *Pisum sativum*. (Abstract). 14345

- A contribution to studies on the biology and control of apple mildew (*Podosphaera leucotricha* (Ell. and Ev.) Salm.). 14383

- Guidelines for evaluating the properties of pesticides for safe use in the wildlife environment. 14652

## ENZYMES

- Studies on a trehalase from a symbiont of the tropical cockroach, *Blaberus craniifer*--a suggested analytical enzyme. 14198

- Developmental genetic studies of aminopeptidases in *Drosophila melanogaster*. 14294

- Genetic variation in natural island populations of members of the *Drosophila nasuta* and *Drosophila ananassae* subgroups. 14296

- Production of toxins and peptolytic enzymes by two isolates of *Sclerotium bataticola* Taub. and their role in pathogenesis. 14401

- Peroxidase isozymes in virus-infected plants. 14418

- The effect of cycloheximide on the resistance of potato tuber discs to invasion by a fluorescent *Pseudomonas* sp. 14477

- Identification of aeromonads in furred animals. 14560

- Trypanosoma Jewisi*: Creatine phosphokinase, ornithine carbamyl transferase, ATPases, Pi, and glucose levels in the rat host. 14644

- Microsomal N-demethylation, by a cotton leaf oxidase system, of 3-(4'-chlorophenyl)-1,1-dimethylurea (monuron). 14675

- Exocellular deoxyribonuclease I of *Penicillium chrysogenum* Part I. Partial purification and properties of the enzyme. 14694

- Kinetic evidence of reversible iso-cholinesterases based on inhibition by organophosphates. (Abstract). 14700

## EPIDEMIOLOGY

- Yellow dwarf of pea and broadbean caused by milk-vetch dwarf virus. 14378

- Epidemiology of tea blister blight (*Exobasidium vexans*), the genus *Graphelysia* Hampson, 1911 (Lepidoptera-Heterocera). 14384

- What the sanitarian should know about *Staphylococci* and *salmonellae* in non-dairy products. II. *Salmonellae*. 14649

- Is it possible to draw any conclusions from the red epidemic of 1967, in regard to the appearance of the disease during this year. 14678

## EPIZOOTIC DISEASES

- Transmission of attenuated and virulent bluetongue virus with *Culicoides variipennis* infected orally via sheep. 14569

- Epizootiologic factors of *Fascioloides magna* (Trematoda) in Oregon and southern Washington. 14632

## EQUINE INFLUENZA

- Use of sodium alginate adjuvant in immunization against equine influenza. 14612

## EQUINE INFLUENZA VIRUSES

- Evolution of the antibody curve in animals experimentally inoculated with Aequi/Uruguay/540/63. 14596

- Virological, histopathological and histochemical behavior of the corioalantosis of chick embryos inoculated with Aequi/Uruguay/540/1963 virus. 14619

## EQUIPMENT

- An apparatus for dispensing house fly eggs mechanically. 14119

- Effects of N-dimethylamino succinamic acid (Alar) on yield, size, maturation, and quality of peaches with reference to its use in adapting fruit for mechanical harvesting. (Abstract). 14362

- Hard-to-kill pests of fruit trees; the mites. 14488

- Five years' research with a hatchery sanitation program in Maine. 14545

## ERIOPHYTES VITIS

- Pests of the grapevine. 14485

## ERIOPHYIDAE

- Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638



- ERWINIA AROIDEAE**  
Ecological studies on the soft-rot bacteria of vegetables. III. Application of immunofluorescent staining for the detection and the counting of *Erwinia aroideae* in soil. 14385
- ERYSIPHE CICHORACEARUM**  
The *Erysiphe cichoracearum* conidium. 14682
- ERYSIPHE GRAMINIS**  
The effects of ligaturing *Galleria mellonella* larvae on total haemocyte counts and on mitotic indices among haemocytes. 14218  
Living haustoria and hyphae of *Erysiphe graminis* f.sp. *hordei* with intact and partly dissected host cells of *Hordeum vulgare*. 14349
- ERYSIPHE GRAMINIS HORDEI**  
An electron microscopic observation of the surface structure of conidia of *Erysiphe graminis hordei*. 14393
- ERYTHROCYTES**  
Relationship of electrophoretic mobility to the sialic acid concentration of erythrocytes in bovine anaplasmosis. 14563  
The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568  
Studies on a new intramuscular haematinic for piglet anaemia. 14573  
Equine piroplasmiasis: Intraerythrocytic development of *Babesia caballi* (Nuttall) and *Babesia equi* (Laveran). 14574  
Evolution of the antibody curve in animals experimentally inoculated with *Aequi/Urugay/540/63*. 14596  
Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597  
Comparative morphologic features of *Babesia caballi* and *Babesia equi*. 14614  
Hemagglutination and hemolysis of erythrocytes of unrelated species of animals by the Blacksburg strain of Newcastle disease virus 14615  
Kinetic evidence of reversible iso-cholinesterases based on inhibition by organophosphates. (Abstract). 14700
- ESCHERICHIA COLI**  
The temperature requirements for interferon production in cells stimulated by Newcastle disease virus or microbial agents in vitro. 14585
- ESTERS**  
Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthemic, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657
- ETHOXYQUIN**  
Chemical treatment the answer to fruit scald. 14466
- ETHYL CHLORIDE**  
Some results from allium tests with organic mercury halogenides. 14674
- ETHYL ETHER**  
In vivo demonstration of lability of hog cholera virus to lipolytic agents. 14593  
Excretion of aflatoxin in a lactating cow. *Drosophila melanogaster* to anesthesia. 14660
- ETHYL METHANESULFONATE**  
Mutation induction by EMS in autotetraploid barley. 14319
- ETHYLENIMINE**  
Aziridinyl chemosterilants for house flies. 14186
- ETIOLOGY**  
A study of contagious caprine pleuropneumonia. 14552
- EUCALYPTUS**  
Onion weed control on Mallee soils. 14518
- EUGLENA GRACILIS**  
Some physiological effects of cotoran on unicellular Algae. (Abstract). 14689
- EURYDEMA RUGOSA**  
Radish enation mosaic virus. 14465
- EURYTOMIDAE**  
Entomological notes on *Beprata maculicollis* Cam., perforator of seeds of some Annonaceae. 14283
- EVOLUTION**  
DNA-MEASUREMENTS in insects and a hypothesis concerning retarded evolution and especially high DNA content in the animal kingdom. 14185
- EXCRETION**  
Excretion of aflatoxin in a lactating cow. *Drosophila melanogaster* to anesthesia. 14660
- EXOBASIDIUM VEXANS**  
Epidemiology of tea blister blight (*Exobasidium vexans*), the genus *Graphelysia* Hampson, 1911 (*Lepidoptera*-*Heterocerca*). 14384
- EXTRACTS**  
Use of high speed centrifugation to obtain extracts from cuttings treated by terminal applications of indoleacetic acid-3 (IAA-2-14C). (Abstract). 14323
- EXUDATES**  
*Pseudomonas* infections in mink with special reference to *Pseudomonas vasculitis* in pulmonary lesions. 14598
- EYES**  
The phototactic push-pull-coupling between dorsal ocelli and compound eyes in the phototropotaxis of locusts and crickets (*Saltatoria*: *Lucusta migratoria* and *Gryllus bimaculatus*). 14217  
Recent advances in the studies of insect compound eyes. 14281  
First records of eye-frequenting *Lepidoptera* from India. 14624  
Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thclazia rhodesii* as a possible aetiological agent. 14634
- FAGUS**  
The causes of sapstain in red beech. 14350
- FARM MANAGEMENT**  
Importance of industry and labor to plant care in farm management. 14331
- FASCIOLOIDIASIS**  
Epizootiologic factors of *Fascioloides magna* (*Trematoda*) in Oregon and southern Washington. 14632
- FATTY ACIDS**  
Fatty acids, alcohols and hydrocarbons in the waxy covering of *Ceroplastes pseudoceriferus* Green, *Ceroplastes japonicus* Green and *Ceroplastes rubens* Maskell (*Homoptera*: *Coccidae*). 14269
- FEED**  
Enterotoxaemia in sheep on dry feed. 14159  
What the sanitarian should know about *Staphylococci* and *salmonellae* in non-dairy products. II. *Salmonellae*. 14649  
Notice of withdrawal of petition regarding pesticides. 14654
- FEED TOXICITY**  
Two cases of urea poisoning in dairy herds. 14661
- FEEDING**  
A change of feeding habit in *Archips cerasivorana* (Fitch) (*Lepidoptera*, *Tortricidae*). 14178  
Adenine and related substances as potent feeding stimulants for the alfalfa weevil, *Hypera postica*. 14213  
Observations on the diapausal and post-diapausal, proterandric developmental events in caterpillars of *Sparganothis pillariana* Schiff. (*Lepidoptera*: *Tortricidae*). 14259  
Transmission experiments with the latent *Prunus-virus* and the gall mite *Vasates fockeui* Nal. 14495
- FERMENTATION**  
An immunity test in cattle to compare two contagious bovine pleuropneumonia vaccines. 14587
- FERRETS**  
Hemagglutination and hemolysis of erythrocytes of unrelated species of animals by the Blacksburg strain of Newcastle disease virus. 14615
- FERTILIZATION (PLANTS)**  
Pathogenic variability and the unit representing a single fertilization in *Puccinia coronata* var. *avenae*. 14306
- FERTILIZERS**  
Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317  
The etiology, including nutritional considerations, of passion fruit brown spot in Hawaii. 14342
- FEVER**  
The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568
- FIBRINOGEN**  
Fibrinogen content and fibrinolytic activity of plasma from dogs infected with *Leptospira canicola*. 14566
- FIELD CROPS**  
Is an early infection by *Peronospora tabacina* Adam controllable in the field. 14397  
Effect of selective herbicides to liquorice plant growing in cereal fields. 14519  
Musk, brown rats and harvest mice as pests in maize. 14541
- FIELD MICE**  
The insect fauna in the burrows of the long-clawed molevole, a Caucasian endemic species. 14154  
The economic incidence of field vole control in France. 14540
- FLAGELLA**  
Exceptions to the prevailing pattern of tubules (9 plus 9 plus 2) in the sperm flagella of certain insect species. 14255

## SUBJECT INDEX

- FLAX**  
Electron microscopy of uredospores of *Melampsora lini* and of rust-infected flax. 14399
- FLOWERS**  
Blossom visitations of domestic *Allantus* species, and places where they are found. 14263  
The respiration and flower development of evergreen azaleas as influenced by gibberellin, scale removal, and 2,4-dinitrophenol. 14666
- FLUE-CURED TOBACCO**  
Breeding for disease resistance and yield improvement in flue-cured tobacco. 14394  
2,4-D, to ripen tobacco may be detrimental to producer and industry. 14688
- FLUORESCENCE**  
The effect of cycloheximide on the resistance of potato tuber discs to invasion by a fluorescent *Pseudomonas* sp. 14477
- FLUORESCENCE MICROSCOPY**  
Multiplication of Tribec virus in chick embryo cell cultures: cytopathic changes and immunofluorescence. 14603
- FLUORESCENT ANTIBODY TECHNIC**  
Serological response in cattle to East Coast fever (*Theileria parva* infection) as measured by the indirect fluorescent antibody test. 14588  
Study of the practicability of various diagnostic methods in the demonstration of swine fever virus of high and low virulence in organs of experimentally infected pigs. 14595  
Multiplication of Tribec virus in chick embryo cell cultures: cytopathic changes and immunofluorescence. 14603  
Morphologic features of *Haemobartonella felis*. 14616
- FLUORESCENT DYES**  
Ecological studies on the soft-rot bacteria of vegetables. III. Application of immunofluorescent staining for the detection and the counting of *Erwinia arborescens* in soil. 14385
- FLUORESCENT SUBSTANCES**  
Interaction between two races of *Piricularia oryzae* in lesion-formation in rice plants and accumulation of fluorescent compounds associated with infection. 14420
- FOLIAR APPLICATION**  
Some factors affecting the disappearance of tordon in soil. 14533
- FOLIC ACID**  
Levels of shikimate and folate in primary leaves of wheat and in uredospores of leaf rust. 14372
- FOLPET**  
Three years of tests with new anti-peronosporic preparations. 14400
- FOOD**  
Communication regarding the existence of *Cidaria* (subgen. *Calostigia*) *multistrigaria* Hw. on the Kaiserstuhl Mountain in Baden. 14166
- FOOD ANALYSIS**  
Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthemic, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657
- FOOD CONSUMPTION**  
Quantitative aspects of insect nutrition. 14201
- FOOD CONTAMINATION**  
Identification of hog-cholera virus in frozen pork imported from China. 14556  
Plant protection chemical residues and food consumption. 14706
- FOOD HABITS**  
The mandibles of two South American grasshoppers. 14233  
Entomological notes on *Beprata maculicollis* Cam., perforator of seeds of some Annonaceae. 14283
- FOOD PLANTS**  
A change of feeding habit in *Archips cerasivorana* (Fitch) (Lepidoptera, Tortricidae). 14178  
Preliminary report about my breeding attempts with *Micropteryx calthella* L. (Lep., Micr.). 14234  
The mode of life of the borer moth parasite *Adelius erythronotus* Forst. (Hym., Braconidae). 14264  
Plant protection chemical residues and food consumption. 14706
- FOOD PROCESSING**  
What the sanitarian should know about *Staphylococci* and *salmonellae* in non-dairy products. II. *Salmonellae*. 14649
- FOOT ROT**  
Utilization of various forms of nitrogen by *Drechslera sorokiniana*, the pathogen causing foot rot disease in wheat. 14458
- FOOT-AND-MOUTH DISEASE**  
Antibody in experimentally infected sheep and anti-foot-and-mouth disease vaccines. 14605
- FOOT-AND-MOUTH DISEASE VIRUS**  
A note on the genus *Pseudathyma* Staudinger with description of a new species (Lepidoptera: Nymphalidae). 14143  
Some physical properties of purified neurotropic foot-and-mouth disease virus. 14586  
Diaplacentarian immunity to foot-and-mouth virus in nursing rats: correlation and regression. 14594  
Lyophilizing foot-and-mouth disease virus at low drying temperature. 14604  
A study of the physical properties of the immunizing antigen of foot-and-mouth disease virus and the effect of various inactivating agents on its structure. 14620
- FORAGE PLANTS**  
Notice of withdrawal of petition regarding pesticides. 14654
- FORCIPOMYIA**  
Contributions to the knowledge of the Heleide fauna (Dipt. Nemat.) of Berlin. 14157
- FOREIGN TRADE**  
Identification of hog-cholera virus in frozen pork imported from China. 14556
- FORENSIC MEDICINE**  
Studies on the possibilities of using blowflies (Dipt.) as medicolegal indicators in Finland. I. Report of four indoor cases from the city of Helsinki. 14299
- FOREST CUTTING CYCLES**  
Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317
- FOREST INSECTS**  
Important forest insects of Ontario in 1966. 14120  
Dawn and dusk activity periods and orientation to forest and field of the *Drosophila subobscura* and *Drosophila obscura*. 14225
- FORESTRY**  
Advances and problems of applied entomological studies in agriculture and forestry. 14142
- FORESTS**  
Epizootic symbiosis. 14203  
Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317
- FORMALDEHYDE**  
A study of the physical properties of the immunizing antigen of foot-and-mouth disease virus and the effect of various inactivating agents on its structure. 14620
- FORMICA POLYCTENA**  
The ability of colour distinction in the wood-ant *Formica polyctena* Forster. 14223
- FORMICA RUF A**  
A survey of the distribution and present status of the wood ant, *Formica rufa* L. (Hym., Formicidae) in England and Wales. 14126
- FORMICIDAE**  
A survey of the distribution and present status of the wood ant, *Formica rufa* L. (Hym., Formicidae) in England and Wales. 14126
- FORMULATIONS**  
Seed dressing formulations. 14452
- FORMYLAMINO)-SALICYCLIC ACID, 3-(N**  
3-(N-formylamino)-salicylic acid - a new metabolite of *Streptomyces antibioticus*. 14702
- FREEZE DRYING**  
Cryopreservation and pathogenicity of selected isolates of *Colletotrichum*, *Rhizoctonia*, and *Phytophthora*. 14374  
Speed the key to preserving hides. 14551
- FROGS**  
Does the beating of butterfly wings cause electrical phenomena. 14239  
Hemagglutination and hemolysis of erythrocytes of unrelated species of animals by the Blacksburg strain of Newcastle disease virus. 14615
- FROZEN FOOD**  
Identification of hog-cholera virus in frozen pork imported from China. 14556
- FRUIT**  
The scientific name for the fruit cup leaf roller (Lep. Tortricidae). (A contribution to *Organoxenidia*). 14285  
The regulatory effect of gibberellic acid and cytokinins on fruit maturation and ripening. (Abstract). 14300  
Bacterial rust on sour cherries and pears. 14340  
Studies on the monilia disease of the apple caused by *Monilia mali* (Tak.) Nhetzel. 14386  
Chemical treatment the answer to fruit scald. 14466  
Insects of the season 1966 related to fruit, vegetables and ornamentals. 14483  
Hard-to-kill pests of fruit trees; the mites. 14488

## SUBJECT INDEX

### FUNGUS DISEASES (PLANTS)

#### FRUIT CULTURE

Economic effect and control of wood-boring insects in fruit trees. 14329

#### FULANI CATTLE

Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634

#### FUMIGANTS

The pesticide review, 1968. 14321

Effect of carbaryl on the neuroendocrine system of rats. foodstuffs: a multi-detection scheme for gas chromatography of solvent extracts. 14662

Methyl bromide can be dangerous. 14663

#### FUNGI

Epizotic symbiosis. 14203

*Rutstroemia cuniculi*, a coprophilous species of the Sclerotiniaceae. 14310

Degradation of pure aflatoxin by *Tetrahymena pyriformis*. 14333

Selective vapor phase activity of chloronitro- and chlorobenzenes in soil. 14435

A new nematode-destroying *Harposporium*. 14508

Five years' research with a hatchery sanitation program in Maine. 14545

A case of ovine dermatomycosis produced by *Trichophyton verrucosum*. 14584

Experimental studies on *Aspergillus* (1). 14599

Study of the antifungal properties of 8-Hydroxyquinoline tartrate. 14651

Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665

Is it possible to draw any conclusions from the red epidemic of 1967, in regard to the appearance of the disease during this year. 14678

The fine structure of hyphae of *Helminthosporium oryzae* Ito et Kurib. and *Pyricularia oryzae* Cava. 14679

Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by *Melampsora lini*. II. Conversion to soluble products. 14684

Exocellular deoxyribonuclease I of *Penicillium chrysogenum* Part I. Partial purification and properties of the enzyme. 14694

#### FUNGICIDES

The pesticide review, 1968. 14321

The etiology, including nutritional considerations, of passion fruit brown spot in Hawaii. 14342

Cultural factors in relation to collar rot control of groundnut. 14351

Effects of *Cercospora* leaf spot and dates of harvest on sugar beet varieties with or without Maneb treatment. 14358

Fungal foes that menace ginger crop. 14366

Vegetable dry rot and phytoprog- service in North-Hanover 1968. 14380

Computation of results of crop protection experiments by the method of Townsend and Heuberger. 14392

Is an early infection by *Peronospora tabacina* Adam controllable in the field. 14397

A low-volume postharvest spray of benomyl prevents ascospore production in apple leaves infected by *Venturia inaequalis*. 14405

Contribution to the investigation of chemotherapeutic of sugar beet infected by *Cercospora beticola* Sacc. 14408

Rust of stone fruits. 14412

The present state of rice research in India--diseases. 14425

Control of powdery mildew of cucurbits with systemic and nonsystemic fungicides. 14428

Fungicides can check fruit-rot and die-back of chilli. 14432

Selective vapor phase activity of chloronitro- and chlorobenzenes in soil. 14435

Evaluation and use of fungicides in commercial cultivation of barley in Colombia. 14436

Early sowings and fungicides help arrest the angular leafspot of cotton. 14439

Seed dressing formulations. 14452

The effect of benomyl on *Mycosphaerella musicola*. 14457

Influence of pesticides on russetting of Golden Delicious apples. 14487

Secondary effects of fungicides on barley. 14517

Study of the antifungal properties of 8-Hydroxyquinoline tartrate. 14651

Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665

Is it possible to draw any conclusions from the red epidemic of 1967, in regard to the appearance of the disease during this year. 14678

Physiological effects of pentachlorobenzylalcohol on rice plants. 14690

Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Pyricularia oryzae* cava. 14691

Controlling effect of pentachlorobenzyl alcohol on rice blast. 14692

Two important diseases of walnut trees. 14695

Preparation of the new fungicide heximide. 14703

#### FUNGUS DISEASES (PLANTS)

The effects of ligaturing *Galleria mellonella* larvae on total haemocyte counts and on mitotic indices among haemocytes. 14218

Brain interneurons in noctuid moths: Differential suppression by high sound intensities. and grasses. 14258

Preliminary observations on moulting and limb regeneration in the mite *Caloglyphus boharti*. 14280

Importance of industry and labor to plant care in farm management. 14331

The interrelationship of resistance and susceptibility of cotton to *Verticillium albo-atrum* and

*Fusarium oxysporum* f. sp. *vasinfectum* as influenced by soil temperature. (abstract). 14339

The etiology, including nutritional considerations, of passion fruit brown spot in Hawaii. 14342

Soil condition and the violet and white root rot diseases of fruit trees. 14343

*Verticillium* spp. and associated fungi from certified potato seed tubers. 14346

Living haustoria and hyphae of *Erysiphe graminis* f.sp. *hordei* with intact and partly dissected host cells of *Hordeum vulgare*. 14349

The causes of sapstain in red beech. 14350

Cultural factors in relation to collar rot control of groundnut. 14351

The importance of preceding crop-dependent shifts in the micro flora of the soil. I. The influence of soil fungi on the root development of wheat, peas, and rape. 14353

Effects of *Cercospora* leaf spot and dates of harvest on sugar beet varieties with or without Maneb treatment. 14358

Investigations concerning a root rot on *Phalaenopsis* hybrids and its causative agent (*Fusarium oxysporum*). 14363

Fungal foes that menace ginger crop. 14366

*Alternaria* leaf spot of loliondo (*Olea welwitschii* (Knohl.) Gilg. and Schellenb.). 14371

Levels of shikimate and folate in primary leaves of wheat and in uredospores of leaf rust. 14372

Studies on the pathological anatomy of rice plants infected by *Helminthosporium oryzae*, I. Behavior of the causal fungus on the coleoptile of rice seedlings and its ultrafine structure. 14373

Cryopreservation and pathogenicity of selected isolates of *Colletotrichum*, *Rhizoctonia*, and *Phytophthora*. 14374

Plant care on the North Sea coast. 14375

Influence of hydrostatic pressure upon germinability of the spores of some rice-parasitic fungi effects of physical factors upon plant diseases. III. 14376

Evidence of hyphal growth of *Cronartium quercuum* in the pine-host cambium. 14379

Vegetable dry rot and phytoprog- service in North-Hanover 1968. 14380

Phytophthora-prognosis and -control in theory and practice. 14381

On the longevity of *Conidia* of cucumber downy mildew fungus, with special reference to the influence of sunlight. 14382

A contribution to studies on the biology and control of apple mildew (*Podosphaera leucotricha* (Ell. and Ev.) Salm.). 14383

Epidemiology of tea blister blight (*Exobasidium vexans*), the genus *Graphelysia* Hampson, 1911 (*Lepidoptera*-*Heterocerca*). 14384

Studies on the monilia disease of the apple caused by *Monilinia mali* (Tak.) Nhetzel. 14386

Effect of soil fumigants on control of pea root rot pathogens. 14391

## SUBJECT INDEX

### FUR-BEARING ANIMALS

Computation of results of crop protection experiments by the method of Townsend and Heuberger. 14392

An electron microscopic observation of the surface structure of conidia of *Erysiphe graminis hordei*. 14393

Breeding for disease resistance and yield improvement in flue-cured tobacco. 14394

Witches' broom of *Berberis*. 14395

Is an early infection by *Peronospora tabacina* Adam controllable in the field. 14397

Electron microscopy of uredospores of *Melampsora lini* and of rust-infected flax. 14399

Three years of tests with new anti-peronosporic preparations. 14400

Production of toxins and pectolytic enzymes by two isolates of *Sclerotium bataticola* Taub. and their role in pathogenesis. 14401

Controlling effect of phenylhydrazine derivatives on rice blast in relation to the structural modifications. 14402

*Phyllachora domingensis* and *Phyllachora simplex*--new reports for the continental. 14403

On *Fusarium oxysporum* f. sp. *lagenariae* n. f. causing wilt of *Lagenaria vulgaris* var. *hispidula*. 14404

Tobacco diseases in Venezuela, Costa Rico and Nicaragua. 14407

Contribution to the investigation of chemotherapeutic of sugar beet infected by *Cercospora beticola* Sacc. 14408

Rust of stone fruits. 14412

Peach leaf curl (*Taphrina*). 14413

Common scab and *Rhizoctonia* disease of potato. 14414

Leafspot of *Cucurbita pepo* caused by *Alternaria cucumerina*. 14415

*Helminthosporium* leafspot of buffalograss in Japan. 14416

Comparison of absorbed biphenyl in oranges and biphenyl vapor in controlling decay, mycelial growth, and sporulation by *Penicillium digitatum*. 14417

Physiological strains of *Puccinia graminis tritici* in Colombia and its implications. 14421

The induction of stelar reddening in strawberry roots. 14423

Physiological and ecological studies on the over-summering and overwintering of the stripe rust of wheat and barley, *Puccinia striiformis* Westend. 14424

A study of the biology of *Pseudopeziza jonesii* nannf (*Pyrenopeziza medicaginis* Fuck) the cause of yellow blotches on leaves of alfalfa. 14429

Limb rust of pine: The causal fungi. 14430

A leafspot disease of kenaf in Maryland associated with *Cristulariella pyramidalis*. 14431

Evaluation and use of fungicides in commercial cultivation of barley in Colombia. 14436

Phytophthora diseases of rubber in Ceylon and India. 14438

Isolation of rishitin from tubers of interspecific potato varieties containing different late-blight resistance genes. 14443

Studies on the parasitism and control of tea root disease fungi in Ceylon. Heteroptera. 14448

Powdery mildew of rubber in Papua. 14449

Seed dressing formulations. 14452

Pathogenicity of some species of *Godronia* occurring in Quebec. 14453

Occurrence of *Phyllosticta* leaf spot on Florida cigar-wrapper tobacco. 14456

Utilization of various forms of nitrogen by *Drechslera sorokiniana*, the pathogen causing foot rot disease in wheat. 14458

Effect of beta-acylphenylhydrazine derivatives on blast fungus upon leaves and in tissues of rice plants. 14459

The development of echinulation in uredospores of wheat stem rust. 14463

Some factors affecting incidence of leaf spot of turmeric by *Taphrina maculans* butler. 14468

Fungal pathogenicity to sound and mechanically damaged blue lupine seed in anoxic culture at two temperatures. 14470

Overwintering of *Tuberculina maxima* on white pine blister rust cankers. 14472

Nucleus of fusion body and infection structure produced by uredospores of three rust fungi. 14685

On the occurrence of periderm in the leaves of *Welwitschia mirabilis*. 14687

Two important diseases of walnut trees. 14695

Preparation of the new fungicide heximide. 14703

**FUR-BEARING ANIMALS**  
Identification of aeromonads in furred animals. 14560

**FURUNCULOSIS**  
Furuncular Tumbu Fly Myiasis of man in Gabon, equatorial Africa. 14572

**FUSARIUM**  
Fungal foes that menace ginger crop. 14366

**FUSARIUM OXYSPORUM**  
Investigations concerning a root rot on *Phalaenopsis* hybrids and its causative agent (*Fusarium oxysporum*). 14363

Underpopulation in plant parasitic nematodes. 14515

**FUSARIUM OXYSPORUM LAGENARIAE**  
On *Fusarium oxysporum* f. sp. *lagenariae* n. f. causing wilt of *Lagenaria vulgaris* var. *hispidula*. 14404

**FUSARIUM OXYSPORUM VASINFECTUM**  
The interrelationship of resistance and susceptibility of cotton to *Verticillium albo-atrum* and *Fusarium oxysporum* f. sp. *vasinfectum* as influenced by soil temperature. (abstract). 14339

**GALACTOSE**  
Effect of D-galactose on the ultrastructure of bentgrass root apices. 14672

**GALIJUM**  
Communication regarding the existence of *Cidaria* (subgen. *Calostigia*) *multistrigaria* Hw. on the Kaiserstuhl Mountain in Baden. 14166

**GALL-MAKING INSECTS**  
Occurrence and control of *Haplodiplosis equestris* in Holland. 14496

A contribution to the study of olive *Cecidomyiidae*: *Lasioptera berlesiana* (paoli). 14502

**GALLERIA MELLONELLA**  
A serological comparison of some iridescent non-occluded insect viruses. 14193

On the cross-inoculation of Chilo iridescent virus. CIV. 14206

The effects of ligaturing *Galleria mellonella* larvae on total haemocyte counts and on mitotic indices among haemocytes. 14218

Hormonal control of imaginal disc regeneration in *Galleria mellonella* (Lepidoptera). 14236

The action of X-rays on the osmotic pressure and the pH of the hemolymph of *Galleria mellonella* L. (Insecta Lepidoptera). 14242

The details of endomitosis in the sericeous glands of *Galleria mellonella* (Insecta Lepidoptera). 14247

Ecdysone and DNA synthesis in cultured wing disks of the wax moth, *Galleria mellonella*. 14250

Body constraint and developmental arrest in *Galleria mellonella* L.: Further studies. 14265

**GAMMA RAYS**  
Effects of gamma irradiation on prickly pear cactus. 14325

Vaccination against leptospirosis: Protection of hamsters and swine against renal leptospirosis by killed but intact gamma-irradiated or dihydrostreptomycin-exposed *Leptospira pomona*. 14617

**GARDENIA**  
Effect of population density on the larval coloration and development of larva and pupa in the larger pellucid hawk moth, *Cephonodes hylas* L. (Lepidoptera Sphingidae). 14121

A new leaf spot disease of *Gardenia jasminoides* from India. 14406

**GARDENS**  
Cost of effective plant protection in the field, the garden, and the vineyard. 14307

**GASTROENTERITIS**  
Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597

**GASTROINTESTINAL SYSTEM**  
Ultrastructure of the ileum of the European corn borer, *Ostrinia nubilalis*. 14207

Further experiments regarding the clarification of the connection between the beet lacebug *Piesma quadratum* (Fieb) and the beet crinkle virus. 14499

**GELECHIIDAE**  
Key to the adult hymenopterous parasites of *Plicalvaria piceaella* (Kearfoot), (Lepidoptera: Gelechiidae) of Quebec. 14231

**GELS**  
The separation of the proteins of wheat by acrylamide gel electrophoresis, with special reference to mottled and unmottled wheat. 14667

- GENES**  
The effects of ligaturing *Galleria mellonella* larvae on total haemocyte counts and on mitotic indices among haemocytes. 14218  
Puff forming ability as a function of chromosomal position in *Drosophila melanogaster*. 14284  
Genetical studies on the resistance to parathion in *Drosophila melanogaster*. III. Induction of a susceptible gene from its resistance allele. 14287  
A system for screening of rare events in genes of *Drosophila melanogaster*. 14289  
A thymidine-induced sex-linked, sex-limited temperature-sensitive lethal and the significance of modifier genes in *Drosophila melanogaster*. 14292  
The position of the *cp*, *in* and *ri* genes and the 3rd chromosome centromere in *Drosophila melanogaster*. Evidence from a new translocation. 14293  
Inheritance of split cotyledons in swede turnips (*Brassica napus*). 14326
- GENETICS**  
The scientific name for the fruit cup leaf roller. (Lep. Tortricidae). (A contribution to *Organoxenina*). 14285
- GEOGRAPHY**  
Records of the orthopteroid insects in Ontario. 14276  
Lebanon. 14549
- GERANIUM**  
Stimulation and retardation of adventitious root formation by application of B-Nine and Cycocel. 14327
- GERM-FREE LIFE**  
Effect of *Heterodera schachtii* on sugar beet seedlings under monoxenic conditions. 14513
- GIBBERELIC ACID**  
The regulatory effect of gibberellic acid and cytokinins on fruit maturation and ripening. (Abstract). 14300  
Effects of N-dimethylamino succinamic acid (Alar), (2-chloroethyl) trimethylammonium chloride (CCC), gibberellic acid (GA), and maleic hydrazide (MH) on bolting in lettuce. (Abstract). 14305  
Fruiting response of the highbush blueberry to applied gibberellic acid under field conditions. (Abstract). 14308  
The effect of gibberellic acid on the highbush blueberry (*Vaccinium corymbosum*). (Abstract). 14316  
Interactive effects of gibberellic acid and Alar on bush bean growth. (Abstract). 14344
- GIBBERELLINS**  
Ten years of investigations with potato virus in Hannover. 14347  
The respiration and flower development of evergreen azaleas as influenced by gibberellin, scale removal, and 2,4-dinitrophenol. 14666  
Relationship between the number of suckers (tilers) and the number of adventitious roots during the developmental cycle of hard corn sensitive to radial tipping and a report concerning the treatment with auxin, gibberellin, activators and growth inhibitors of the CCC type. 14670
- GLADIOLUS**  
A transmissible disorder of gladiolus flowers. 14360
- GLANDS (INSECTS)**  
Ultrastructural modifications of the secretion cells of the prothoracic gland to themselves during the last two larval stages. I. The chondriosome, and its relationship with the granular reticulum. 14181  
Body constraint and developmental arrest in *Galleria mellonella* L.: Further studies. 14265  
Fatty acids, alcohols and hydrocarbons in the waxy covering of *Ceroplastes pseudoceriferus* Green, *Ceroplastes japonicus* Green and *Ceroplastes rubens* Maskell (Homoptera: Coccidac). 14269
- GLOMERELLA**  
*Alternaria* leaf spot of loliondo (*Olea wclwitschii* (Knobl.) Gilg. and Schellenb.). 14371
- GLOSSINA MORSITANS**  
The protection of a small group of Nigerian trade cattle from trypanosomiasis using samorin. 14580
- GLOSSINA PALPALIS**  
The protection of a small group of Nigerian trade cattle from trypanosomiasis using samorin. 14580
- GLOSSINA TACHINOIDES**  
The protection of a small group of Nigerian trade cattle from trypanosomiasis using samorin. 14580
- GLUCITOL**  
Studies on a new intramuscular haematinic for piglet anaemia. 14573
- GLUCOSE**  
Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665
- GLUCOSE COMPOUNDS**  
Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by *Melampsora lini*. II. Conversion to soluble products. 14684
- GLUCOSIDASES**  
Removal of pseudomonads from plant leaves and measurement of their *in vivo* beta-glucosidase synthesis. 14369
- GLUTAMATE**  
Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665
- GLYCOGEN**  
Localization of glycogen in the cestode, *Hymenolepis diminuta*. 14642
- GNOMONIA LEPTOSTYLA**  
Two important diseases of walnut trees. 14695
- GOATS**  
A study of contagious caprine pleuropneumonia. 14552  
Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597  
Field trials on the efficacy of thiabendazole against *Haemonchus contortus* in West African dwarf forest sheep and goats. 14635
- GOOSEBERRIES**  
Bacterial leaf spot of cape gooseberry in Queensland. 14411
- GOURDS**  
On *Fusarium oxysporum* f. sp. *lagenariae* n. f. causing wilt of *Lagenaria vulgaris* var. *hispida*. 14404
- GRAIN**  
Brain interneurons in noctuid moths: Differential suppression by high sound intensities, and grasses. 14258  
Importance of industry and labor to plant care in farm management. 14331
- Soil-borne wheat mosaic virus from *Poa annua* L., a new host. 14377  
Erratum 49: A pleomorphic parasite on cereal seeds, *Pyrenophora scmeniperda*. 14451  
Virus diseases of cereals in South Africa. II. Identification of two elongated plant viruses as strains of sugar cane mosaic virus. 14469  
Effect of selective herbicides to liquorice plant growing in cereal fields. 14519  
Monolinuron in increase of grain. 14520  
The control of wild foxtail grass in winter wheat as well as the prevention of weather trodden grain. 14539  
Musk, brown rats and harvest mice as pests in maize. 14541  
Effect of carbaryl on the neuroendocrine system of rats, foodstuffs: a multi-detection scheme for gas chromatography of solvent extracts. 14662  
The influence of CCC on lodging and development of grain. 14680
- GRANADILLA**  
The etiology, including nutritional considerations, of passion fruit brown spot in Hawaii. 14342
- GRAPE VINEYARDS**  
Properties of leptinotarsin, a toxic hemolymph protein from the Colorado potato beetle. 14212  
Cost of effective plant protection in the field, the garden, and the vineyard. 14307  
Three years of tests with new anti-peronosporic preparations. 14400  
Systematic weed control in grape culture. Results of a first four year period of experimentation. 14538
- GRAPEFRUIT**  
A color test for citrus exocortis in Japan. 14462
- GRAPES**  
The effect of Alar (N-dimethylamino succinamic acid) on yield and quality attributes of Concord grapes. 14302  
Chenopodium as host to viruses transmitted from apple, pear and grapevine. 14356  
Three years of tests with new anti-peronosporic preparations. 14400  
Pests of the grapevine. 14485  
Preparation of the new fungicide heximide. 14703
- GRASSES**  
Brain interneurons in noctuid moths: Differential suppression by high sound intensities, and grasses. 14258  
Helminthosporium leafspot of buffalograss in Japan. 14416  
Control of weed grass. 14525
- GRASSHOPPERS**  
The phototactic push-pull-coupling between dorsal ocelli and compound eyes in the phototropotaxis of locusts and crickets (Saltatoria: *Lucusta migratoria* and *Gryllus bimaculatus*). 14217
- GREENHOUSE CULTURE**  
Interactive effects of gibberellic acid and Alar on bush bean growth. (Abstract). 14344

# SUBJECT INDEX

## GREENHOUSES

A contribution to studies on the biology and control of apple mildew (*Podosphaera leucotricha* (Ell. and Ev.) Salm.). 14383

Controlling effect of phenylhydrazine derivatives on rice blast in relation to the structural modifications. 14402

Contribution to the investigation of chemotherapeutic of sugar beet infected by *Cercospora beticola* Sacc. 14408

A mild strain of tristeza virus in Hassaku trees (*Citrus hassaku* Hort. et Y. Tanaka) in Hiroshima prefecture. 14442

Effects of N-dimethylamino succinamic acid (Alar) on maturity and size of *Pocahontas* strawberries. (Abstract). 14444

Greenhouse testing of sugar beets for resistance to curly top. 14446

Economically important nematodes in Ontario--1966. 14516

Effect of phytotoxins from the decomposition of organic matter upon peanut seedling emergence. (Abstract). 14668

Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Piricularia oryzae* Cavara. 14691

Controlling effect of pentachlorobenzyl alcohol on rice blast. 14692

## GREENHOUSES

Geotactic response of the two-spotted spider mite, *Tetranychus urticae* Koch (Acarina: Tetranychidae). 14137

Puff forming ability as a function of chromosomal position in *Drosophila melanogaster*. 14284

Stimulation of flower bud abscission and concentration of fruit set in tomato, (Abstract). 14312

Nature and inheritance of resistance to red clover vein mosaic virus in *Pisum sativum*. (Abstract). 14345

## GROWTH FACTORS

2,4-D to ripen tobacco may be detrimental to producer and industry. 14688

## GRYLLUS BIMACULATUS

The phototactic push-pull-coupling between dorsal ocelli and compound eyes in the phototropotaxis of locusts and crickets (Saltatoria: *Lucusta migratoria* and *Gryllus bimaculatus*). 14217

## HABITATS

Geotactic response of the two-spotted spider mite, *Tetranychus urticae* Koch (Acarina: Tetranychidae). 14137

Epizic symbiosis. 14203

Oviposition sites and the viability of eggs of *Thymelicus lineola* (Ochs.) (Lepidoptera: Hesperidae). 14253

## HAEMATOPINUS EURYSTERNUS

Can you afford cattle lice. 14625

## HAEMATOPOTA

Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634

## HAEMOBARTONELLA

Morphologic features of *Haemobartonella felis*. 14616

## HAEMONCHUS CONTORTUS

Comparative anthelmintic efficiencies of praziquantel, thiabendazole, and phenothiazine in lambs. 14630

Field trials on the efficacy of thiabendazole against *Haemonchus contortus* in West African dwarf forest sheep and goats. 14635

## HAIR

Characteristic order of the filiform hairs of *Periplaneta americana*. 14245

## HALOGENATED HYDROCARBONS

Cucumber sex expression modified by 2-chloroethanphosphonic acid. 14683

## HAMSTERS

Vaccination against leptospirosis: Protection of hamsters and swine against renal leptospirosis by killed but intact gamma-irradiated or dihydrostreptomycin-exposed *Leptospira pomona*. 14617

## HAPLODIPLOSI EQUESTRI

Occurrence and control of Haplodiplosis equestris in Holland. 14496

## HARPOSPORIUM

A new nematode-destroying Harposporium. 14508

## HARVEST MICE

Musk, brown rats and harvest mice as pests in maize. 14541

## HARVESTING

The regulatory effect of gibberellic acid and cytokinins on fruit maturation and ripening. (Abstract). 14300

Effects of N-dimethylamino succinamic acid (Alar), (2-chloroethyl trimethylammonium chloride (CCC), gibberellic acid (GA), and maleic hydrazide (MH) on bolting in lettuce. (Abstract). 14305

Regulation of growth, flowering and fruit abscission of apples and peaches with Amchem 66-329. (Abstract). 14309

Effects of succinic acid 2, 2-dimethyl hydrazide (Alar) on apples. (Abstract). 14322

Vegetative and fruiting responses of pecan (*Carya illinoensis* Koch) to heading back and N-dimethylamino succinamic acid. (Abstract). 14332

Brussels sprouts growth and production as influenced by N-dimethylamino succinamic acid (Alar). (Abstract). 14334

The effects of Alar on red tart cherries (*Prunus cerasus*). 14335

Effects of N-dimethylamino succinamic acid (Alar) on yield, size, maturation, and quality of peaches with reference to its use in adapting fruit for mechanical harvesting. (Abstract). 14362

Effects of N-dimethylamino succinamic acid (Alar) on maturity and size of *Pocahontas* strawberries. (Abstract). 14444

Are scarecrows useful against bird damage. 14550

## HARVESTING DATE

Effects of *Cercospora* leaf spot and dates of harvest on sugar beet varieties with or without Maneb treatment. 14358

## HEAD

Notes on the genus *Schyzops* Spinola, 1837 (Phyllocephalinae, Pentatomoidea, Heteroptera). *maritima* (Guer.). 14139

## HEAT

Evidence for the release of 28 S RNA from turnip yellow mosaic virus heated in vitro. 14370

## HELICOBASIDIUM MOMPA

Soil condition and the violet and white root rot diseases of fruit trees. 14343

## HELIOTHIS VIRESCENS

Effect of *Loxosceles reclusa* Gertsch and Mulaik venom on *Heliothis virescens* (F.) larvae. oosterhof, g. 14248

## HELIOTHIS ZEA

Brain interneurons in noctuid moths: Differential suppression by high sound intensities. and grasses. 14258

The European corn borer; how to control it. 14301

## HELMINTHIASIS

Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634

Field trials on the efficacy of thiabendazole against *Haemonchus contortus* in West African dwarf forest sheep and goats. 14635

Pulmonary disease in Kenya sheep. 14639

## HELMINTHOSPORIUM

The present state of rice research in India--diseases. 14425

## HELMINTHOSPORIUM BUCHLOES

Helminthosporium leafspot of buffalograss in Japan. 14416

## HELMINTHOSPORIUM ORYZAE

Studies on the pathological anatomy of rice plants infected by *Helminthosporium oryzae*, I. Behavior of the causal fungus on the coleoptile of rice seedlings and its ultrafine structure. 14373

The fine structure of hyphae of *Helminthosporium oryzae* Ito et Kurib. and *Piricularia oryzae* Cavara. 14679

## HELMINTHS

Development of *Caenorhabditis briggsae* and *Hymenolepis nana* in interchanged media. France. 14633

## HEMAGGLUTINATION

Sex differences in embryonic response to *Eimeria tenella* infection. 14579

Arbovirus studies in the Ohio-Mississippi basin, 1964--1967. I. Introduction. 14581

Hemagglutination and hemolysis of erythrocytes of unrelated species of animals by the Blacksburg strain of Newcastle disease virus. 14615

## HEMAGGLUTINATION-INHIBITION TEST

Isolation of Bunyamwera-group viruses from Wisconsin mosquitoes. 14553

A comparison of the haemagglutination-inhibition and neutralisation test in the assay of rinderpest antibodies in cattle. 14607

## HEMATOLOGY

Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597

Histopathologic and hematologic changes in moribund stages of chicks infected with T-virus. 14600

## HEME

Studies on a new intramuscular haematitic for piglet anaemia. 14573

- HEMIPTERA**  
What is *Dasyctus sordidus* Fieber 1864 (Hem. Het. Miridae). 14173
- HEMITARSONEMUS LATUS**  
Mites. 14531
- HEMOGLOBIN**  
Studies on a new intramuscular haematinic for piglet anaemia. 14573  
Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597
- HEMOGLOBINURIA**  
The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568
- HEMOLYMPH**  
Properties of leptinotarsin, a toxic hemolymph protein from the Colorado potato beetle. 14212  
The action of X-rays on the osmotic pressure and the pH of the hemolymph of *Galleria mellonella* L. (Insecta Lepidoptera). 14242  
Effect of *Loxosceles reclusa* Gertsch and Mulaik venom on *Heliiothis virescens* (F.) larvae. oosterhof, g. 14248
- HEMORRHAGE**  
*Pseudomonas* infections in mink with special reference to *Pseudomonas vasculitis* in pulmonary lesions. 14598
- HERBICIDE APPLICATION**  
Effect of *Loxosceles reclusa* Gertsch and Mulaik venom on *Heliiothis virescens* (F.) larvae. oosterhof, g. 14248
- HERBICIDE RESIDUES**  
Influence of residues of some triazine herbicides upon wheat and weeds in wheat crops. 14653  
The determination of some substituted urea herbicide residues in soil by electron-capture gas chromatography. 14658
- HERBICIDES**  
The pesticide review, 1968. 14321  
Plant care on the North Sea coast. 14375  
Onion weed control on Mallee soils. 14518  
Effect of selective herbicides to liquorice plant growing in cereal fields. 14519  
Monolinuron in increase of grain. 14520  
Coltsfoot control with 2,4-DP on the stubble. 14521  
Development of corn-growing along the Rhein through use of growth producing herbicides. 14523  
Possibilities of weed control in corn with atrazine, taking special note of the control of couch-grass, wild oats and older weeds. 14524  
Control of weed grass. 14525  
Experiences with Patoran (metabromuron) on weed control in bean shrubs. 14526  
Improved method for weed control in potatoes on extremely marshy soil. (Test experiences in upper Bavaria 1965-67). 14528  
Simultaneous control of *Apera spica venti* and broad leaf weeds through soil herbicides. (Test results in upper bavaria 1965-1967). 14529  
Weed control in vegetables. 14532
- Some factors affecting the disappearance of iron in soil. 14533  
Pre-emergence application of 2,4-D-ester to wheat (*Triticum vulgare*). 14534  
General non-selective weed control with monosodium acid methane arsonate (MSMA) based mixtures in rubber plantations. 14535  
Developmental trends in the chemical control of weeds in beets. 14536  
Stam F-34 can kill the weeds of Gora paddies. 14537  
The control of wild foxtail grass in winter wheat as well as the prevention of weather trodden grain. 14539  
Influence of residues of some triazine herbicides upon wheat and weeds in wheat crops. 14653  
The determination of some substituted urea herbicide residues in soil by electron-capture gas chromatography. 14658  
Microsomal N-demethylation, by a cotton leaf oxidase system, of 3-(4'-chlorophenyl)-1,1-dimethylurea (monuron). 14675  
Biological activity and dissipation of IPC and Cipc. (Abstract). 14686  
2,4-D, to ripen tobacco may be detriment to producer and industry. 14688  
Some physiological effects of cotoran on unicellular Algae. (Abstract). 14689
- HEREDITY**  
Inheritance of split cotyledons in swede turnips (*Brassica napus*). 14326
- HETERODERA**  
The sugar beet nematode. 14504
- HETERODERA GLYCINES**  
The occurrence of *Heterodera glycines* on *Trifolium alexandrinum* in United Arabic Republic. 14509
- HETERODERA SCHACHTII**  
Effect of *Heterodera schachtii* on sugar beet seedlings under monoxenic conditions. 14513
- HETEROPTERA**  
What is *Dasyctus sordidus* Fieber 1864 (Hem. Hct. Miridae). 14173
- HEVEA**  
Phytophthora diseases of rubber in Ceylon and India. 14438  
Powdery mildew of rubber in Papua. 14449  
Recommendations for chemical control of pests of rubber plantations. 14498  
General non-selective weed control with monosodium acid methane arsonate (MSMA) based mixtures in rubber plantations. 14535
- HEXACHLORO-N-O-TOLYL-5-NORBORNENE-2,3-DICARBOXIMIDE, 1,4,5,6,7,7-**  
Preparation of the new fungicide heximide. 14703
- HIBERNATION**  
Geotactic response of the two-spotted spider mite, *Tetranychus urticae* Koch (Acarina: Tetranychidae). 14137  
Natural mortality of overwintering eggs of *Longinguis donacis* (Pass.). 14266
- Physiological and ecological studies on the over-summering and overwintering of the stripe rust of wheat and barley, *Puccinia striiformis* Westend. 14424  
Overwintering of *Tuberculina maxima* on white pine blister rust cankers. 14472
- HIDES**  
Speed the key to preserving hides. 14551
- HILARIA**  
*Hilaria sartor* Becker, the fly with the little veil and its dance (Diptera). 14204  
*Hilaria sartor* Becker, the fly with the little veil and its dance (Diptera). 14205
- HISTERIDAE**  
Contribution to the knowledge of the genus *Saprinus* (Col. Histeridae). II. 14130
- HISTOCHEMISTRY**  
Histochemical data on the cardiac bodies of *Antheraea pernyi* Guer. (Lepidoptera, At-tacidae) and of *Rhodnius prolixus* Stal. (Hemiptera, Reduviidae). 14191  
Polyphenols and discoloration in the elm disease investigated by histochemical techniques. 14361  
Virological, histopathological and histochemical behavior of the corioalantosis of chick embryos inoculated with Aequi/Uruguay/540/1963 virus. 14619
- HISTOLOGY**  
Studies on the biology and control of *Sogatella furcifera* Horv. (Delphacidae: Homoptera) in the Punjab. 14118  
The effect of succinic acid 2,2-dimethyl hydrazide on stem and leaf tissues of *Chrysanthemum morifolium* Bright Golden Anne. (Abstract). 14324  
The insect ecology of old-field red pine plantations in central Ontario, I. Description of the study area. III. Soil-surface fauna as indicators of stand change. 14548  
Histopathologic and hematologic changes in moribund stages of chicks infected with T-virus. 14600  
Comparative morphologic features of *Babesia caballi* and *Babesia equi*. 14614  
Morphologic features of *Haemobartonella felis*. 14616
- HISTOPATHOLOGY**  
Virological, histopathological and histochemical behavior of the corioalantosis of chick embryos inoculated with Aequi/Uruguay/540/1963 virus. 14619
- HOG CHOLERA**  
Study of the practicability of various diagnostic methods in the demonstration of swine fever virus of high and low virulence in organs of experimentally infected pigs. 14595
- HOG CHOLERA VACCINES**  
Experimental inactivated-virus hog cholera vaccines: Induction period of immunity. 14601
- HOG CHOLERA VIRUS**  
Identification of hog-cholera virus in frozen pork imported from China. 14556  
Attenuation of hog cholera virus in the carrier cell strains established from kidneys of pigs experimentally infected with the virulent virus. 14576  
In vivo demonstration of lability of hog cholera virus to lipolytic agents. 14593

# SUBJECT INDEX

## HOMOPTERA

### HOMOPTERA

Contribution to the fauna of the Congo (Brazzaville). Mission A. Villiers and A. Descarpentries. XLVII. Homoptera Cercopidae and Fulgoroidea. 14169

A new contribution to the study of Leafhopper fauna (Homoptera, Auchenorrhyncha). 14270

### HONEY

Design of honey houses--central and mobile. 14194

### HORMONES

Physiological genetics of melanotic tumors in *Drosophila melanogaster*. VI. The tumorigenic effects of juvenile hormone-like substances. 14190

Insect hormones: Olive oil is not an inert vehicle for hormone injection into locusts. 14197

Development and diapause in insects. 14199

Hormonal control of imaginal disc regeneration in *Galleria mellonella* (Lepidoptera). 14236

Body constraint and developmental arrest in *Galleria mellonella* L.: Further studies. 14265

Hormones from the fly agaric (*Amanita*). 14673

### HORSES

Equine piroplasmiasis: Intraerythrocytic development of *Babesia caballi* (Nuttall) and *Babesia equi* (Laveran). 14574

Skin diseases of horses. 14592

Use of sodium alginate adjuvant in immunization against equine influenza. 14612

Comparative morphologic features of *Babesia caballi* and *Babesia equi*. 14614

Kinetic evidence of reversible iso-cholinesterases based on inhibition by organophosphates. (Abstract). 14700

### HOST INDEXING (PLANTS)

Yellow dwarf of pea and broadbean caused by milk-vetch dwarf virus. 14378

Bean yellow mosaic and tobacco ringspot virus isolated from *Crotalaria* (*Crotalaria spectabilis*). 14388

An approach to the elucidation of host-parasite interaction. 14450

### HOST PLANTS

The development of the citrus psylla, *Trioza erytreae* (Del Guercio) (Homoptera: Psyllidae), on *Citrus limon* and four indigenous host plants. 14491

### HOST RELATIONSHIPS

Bruchid beetles (Coleoptera, Bruchidae) from the Megri district of Armenia. 14125

A new bacterial leaf spot of *Antirrhinum* seedlings caused by a subspecies of *Pseudomonas fluorescens* Migula, 1895. 14410

### HOUSES

The present distribution of *Hylotrupes bajulus* L. (Col., Cerambycidae) in Norway and its abundance in some districts. 14146

### HUMIDITY

Use of a non-absorbent barrier in rearing pupae. 14180

Plant care on the North Sea coast. 14375

Some factors affecting incidence of leaf spot of turmeric by *Taphrina maculans* Hutler. 14468

### HUMUS

Developmental trends in the chemical control of weeds in beets. 14536

### HYADAPHIS PSEUDOBRASSICAE

Radish enation mosaic virus. 14465

### HYBRIDS

Genetical relationship and isolating mechanisms in *Ananassae* species subgroup (*Sophophora*, *Drosophila*). III. Chromosome behaviour during meiosis in *D. bipectinata*, *D. malerkotliana* and their hybrid. 14290

### HYDRAZINE COMPOUNDS

Controlling effect of phenylhydrazine derivatives on rice blast in relation to the structural modifications. 14402

Effect of beta-acylphenylhydrazine derivatives on blast fungus upon leaves and in tissues of rice plants. 14459

### HYDROCARBONS

Fatty acids, alcohols and hydrocarbons in the waxy covering of *Ceroplastes pseudoceriferus* Green, *Ceroplastes japonicus* Green and *Ceroplastes rubens* Maskell (Homoptera: Coccidae). 14269

### HYDROGEN-ION CONCENTRATION

The action of X-rays on the osmotic pressure and the pH of the hemolymph of *Galleria mellonella* L. (Insecta Lepidoptera). 14242

Sperm activation and migration in bed bugs, size in hypersensitive hosts in the presence of chloramphenicol. 14257

Analysis of a recessive mutation on the Y chromosome of the fly *Calliphora erythrocephala*. 14288

The influence of N-dimethylamino succinamic acid (Alar) on growth of the sweet cherry, *Prunus avium*. (Abstract). 14303

The effect of gibberellic acid on the highbush blueberry (*Vaccinium corymbosum*). (Abstract). 14316

Soil condition and the violet and white root rot diseases of fruit trees. 14343

Removal of pseudomonads from plant leaves and measurement of their in vivo beta-glucosidase synthesis. 14369

Nutritional effects connected with sheepnosing, a disorder of grapefruit. (Abstract). 14475

### HYDROLYSIS

The pheromone of the queen of the Oriental hornet, *Vespa orientalis*. 14214

Hydrolysis of acetylthiocholine and butyrylthiocholine by cholinesterases of insects and a mite. 14261

### HYDROSTATICS

Influence of hydrostatic pressure upon germinability of the spores of some rice-parasitic fungi effects of physical factors upon plant diseases. III. 14376

### HYDROXY-N,N-DIMETHYL-CIS-CROTONAMIDE DIMETHYL PHOSPHATE, 3-

Systemic activity of zectran, matacil and bidrin injected into conifer trunks. 14656

### HYDROXYQUINOLINE

Study of the antifungal properties of 8-Hydroxyquinoline tartrate. 14651

### HYLEMIA PLATURA

Know your enemy: The so-called 'cornfly'. 14503

### HYLOBIUS ABIETIS

Investigations on the use of the parasitic fungus *Beauveria bassiana* in the control of pests on field and forest crops in Czechoslovakia. 14419

### HYLOTRUPES BAJULUS

The present distribution of *Hylotrupes bajulus* L. (Col., Cerambycidae) in Norway and its abundance in some districts. 14146

### HYMENOLEPIS DIMINUTA

Characteristics for two classes of embryonic cells in oncospheres of *Hymenolepis diminuta* stained for cytoplasmic substances. 14640

The basic cellular pattern for undifferentiated oncospheres of *Hymenolepis diminuta*. 14641

Localization of glycogen in the cestode, *Hymenolepis diminuta*. 14642

### HYMENOLEPIS NANA

Development of *Caenorhabditis briggsae* and *Hymenolepis nana* in interchanged media. France. 14633

### HYMENOPTERA

The insect fauna in the burrows of the long-clawed molevole, a Caucasian endemic species. 14154

A further representative of the sub-species *Betuloxys Mackauer* (Hymenoptera: Braconidae, Aphidiinae). 14155

Identification list. 5. 14165

Remarks concerning some species of spider wasps (Hym. Pompilidae) (2.). 14174

Remarks concerning some species of wasps (Hym. Pompilidae) (3.). 14175

Concerning some West German bees and digger wasps (Hym. Apoidea, Sphecoidea). 14176

Key to the adult hymenopterous parasites of *Puccinia piceae* (Kearfoot), (Lepidoptera: Gelichiidae) of Quebec. 14231

A three dimensional sketch of the tunnels of the *Rapientia* nests (Hym., Sphecoidea). 14240

Observations of the insect pests of the old shrine and the Buddhist temple wooden buildings and a few trypoxylonid wasps. 14244

Special forms of amitotic nuclear division in striated muscle and other insect tissues. 14254

The mode of life of the borer moth parasite *Adelius erythronotus* Forst. (Hym., Braconidae). 14264

*Brachymeria femorata* Panzer (Hymenoptera Chalcididae). 14267

### HYPERA POSTICA

Adenine and related substances as potent feeding stimulants for the alfalfa weevil, *Hypera postica*. 14213

### HYPERICUM

An outbreak of photosensitisation in Karamojong sheep at Entebbe. 14557

### HYPERSENSITIVITY

Sperm activation and migration in bed bugs, size in hypersensitive hosts in the presence of chloramphenicol. 14257



- HYPHAE**  
Living haustoria and hyphae of *Erysiphe graminis* f.sp. *hordei* with intact and partly dissected host cells of *Hordeum vulgare*. 14349  
The fine structure of hyphae of *Helminthosporium oryzae* Ito et Kurib. and *Pyricularia oryzae* Cavara. 14679
- HYPHANTRIA CUNEA**  
Biology of *Hyphantria cunea* Drury (Lepidoptera: arctiidae) in Japan. I. Notes on adult biology with references to the predation by birds. 14627
- HYPOCHLORITES**  
Developmental genetic studies of aminopeptidases in *Drosophila melanogaster*. 14294
- HYPOMYCES**  
Calcium localization in *Hypomyces*-infected squash hypocotyls and effect of calcium on pectate lyase and tissue maceration. 14677
- ICHNEUMONIDAE**  
A new species of Ichneumonidae from Rumania. 14128  
The persistence of drug resistance in strains of *Eimeria* species in broiler chickens following a change of coccidiostat. 14621
- ILEX CRENATA**  
Use of high speed centrifugation to obtain extracts from cuttings treated by terminal applications of indolacetic acid-3 (IAA-2-14C). (Abstract). 14323
- ILLUSTRATIONS**  
An apparatus for dispensing house fly eggs mechanically. 14119  
A three dimensional sketch of the tunnels of the *Rapientia* nests (Hym., Sphecoidea). 14240  
Bacterial rust on sour cherries and pears. 14340
- IMAGOS**  
Study on the density of the adult of the brown planthopper *Nilaparvata lugens* Stal. 14251
- IMMUNITY**  
Studies on the pathological anatomy of rice plants infected by *Helminthosporium oryzae*, I. Behavior of the causal fungus on the coleoptile of rice seedlings and its ultrafine structure. 14373  
Isolation of rishitin from tubers of interspecific potato varieties containing different late-blight resistance genes. 14443  
A color test for citrus exocortis in Japan. 14462  
Radish enation mosaic virus. 14465  
Furuncular Tumbu Fly Myiasis of man in Gabon, equatorial Africa. 14572  
An immunity test in cattle to compare two contagious bovine pleuropneumonia vaccines. 14587  
Diaplacentarian immunity to foot-and-mouth virus in nursing rats: correlation and regression. 14594  
Experimental inactivated-virus hog cholera vaccines: Induction period of immunity. 14601  
Variable resistance of cows to *Streptococcus agalactiae* mastitis. 14602
- IMMUNIZATION**  
On the cross-inoculation of *Chilo iridescent* virus. CIV. 14206
- The effect of inoculum concentration on virus multiplication in cucumber cotyledons. II. Cucumber mosaic and tobacco mosaic viruses. 14367  
Pathogenicity and identity of root-knot nematodes on five varieties of banana. 14507  
A histological study of the effects of enzootic abortion of ewes virus in the lactating bovine mammary gland. 14559  
Attenuation of hog cholera virus in the carrier cell strains established from kidneys of pigs experimentally infected with the virulent virus. 14576  
Brucellosis vaccination is now compulsory. 14578  
Enterotoxaemia in sheep on dry feed. 14591  
Immunological response in cows to *Mycoplasma bovis* strain 1836. 14606  
Use of sodium alginate adjuvant in immunization against equine influenza. 14612  
Vaccination against leptospirosis: Protection of hamsters and swine against renal leptospirosis by killed but intact gamma-irradiated or dihydrostreptomycin-exposed *Leptospira pomona*. 14617  
A study of the physical properties of the immunizing antigen of foot-and-mouth disease virus and the effect of various inactivating agents on its structure. 14620
- IMMUNOCHEMISTRY**  
In vivo demonstration of lability of hog cholera virus to lipolytic agents. 14593  
A comparison of the haemagglutination-inhibition and neutralisation test in the assay of rinderpest antibodies in cattle. 14607
- IMMUNOFLUORESCENCE**  
Serologic diagnosis of Colorado tick fever. A comparison of complement-fixation, immunofluorescence, and plaque-reduction methods. 14564
- IMMUNOLOGY**  
Ecological studies on the soft-rot bacteria of vegetables. III. Application of immunofluorescent staining for the detection and the counting of *Erwinia aroideae* in soil. 14385  
Multiplication of Tribec virus in chick embryo cell cultures: cytopathic changes and immunofluorescence. 14603  
Effects of humoral and cellular phases of acute inflammation in the bovine mammary gland on *Aerobacter aerogenes* introduced en masse and on leukocytes in milk. 14610
- IMPORT CONTROL**  
New plant protection law is in force. 14704
- INACTIVATING AGENTS**  
In vivo demonstration of lability of hog cholera virus to lipolytic agents. 14593  
Experimental inactivated-virus hog cholera vaccines: Induction period of immunity. 14601  
A study of the physical properties of the immunizing antigen of foot-and-mouth disease virus and the effect of various inactivating agents on its structure. 14620
- INCLUSION BODIES**  
Development of the virus with inclusion bodies, of the *Lepidoptera* *Lymantria dispar* in cell cultures. 14275
- INDOLEACETIC ACID**  
An approach to the elucidation of host-parasite interaction. 14450
- INDONESIA**  
*Coniopteryx remota* Banks, further description and lectotype designation (Neuroptera, Coniopterygidae). 14171
- INFECTIOUS DISEASES**  
A study of contagious caprine pleuropneumonia. 14552  
Identification of aeromonads in furred animals. 14560  
An immunity test in cattle to compare two contagious bovine pleuropneumonia vaccines. 14587  
Pseudomonas infections in mink with special reference to *Pseudomonas vasculitis* in pulmonary lesions. 14598  
Contagious bovine pleuropneumonia in wildlife. 14613  
Experimental aerosol transmission of yaba virus in monkeys. 14623  
Respiratory activity of *Trypanosoma lewisi* during several phases of infection in the rat. 14643  
*Trypanosoma lewisi*: Creatine phosphokinase, ornithine carbamyl transferase, ATPases, Pi, and glucose levels in the rat host. 14644
- INFLUENZA**  
Evolution of the antibody curve in animals experimentally inoculated with Aequi/Uruguay/540/63. 14596  
Virological, histopathological and histochemical behavior of the corioalantois of chick embryos inoculated with Aequi/Uruguay/540/1963 virus. 14619
- INJECTIONS**  
Insect hormones: Olive oil is not an inert vehicle for hormone injection into locusts. 14197  
Enhancement of infectivity of a mammalian virus preparation after injection into insects. 14268  
Stimulation of tomato ripening by Amchem 66-329. (Abstract). 14313  
Controlling effect of phenylhydrazine derivatives on rice blast in relation to the structural modifications. 14402  
An evidence for the multiplication of rice dwarf virus in the vector cell cultures inoculated in vitro. 14409  
Radish enation mosaic virus. 14465  
Identification of aeromonads in furred animals. 14560  
Study of the practicability of various diagnostic methods in the demonstration of swine fever virus of high and low virulence in organs of experimentally infected pigs. 14595  
Evolution of the antibody curve in animals experimentally inoculated with Aequi/Uruguay/540/63. 14596  
Antibody in experimentally infected sheep and antfoot-and-mouth disease vaccines. 14605  
Verification of antibodies of Newcastle virus in rats inoculated with different types of experimental vaccines. 14609  
Virological, histopathological and histochemical behavior of the corioalantois of chick embryos inoculated with Aequi/Uruguay/540/1963 virus. 14619

# SUBJECT INDEX

## INJURIES

### INJURIES

Spiny burr grass—a serious and increasing problem. 14571

### INOCULUM

The effect of inoculum concentration on virus multiplication in cucumber cotyledons. II. Cucumber mosaic and tobamovirus mosaic viruses. 14367

### INSECT ADAPTATION

Some aspects of adaptation in the life cycle of insects. 14238

### INSECT ANATOMY

A comparative study of gastric caeca in adult and larval stages of bark beetles (Coleoptera: Scolytidae). 14170

### INSECT BEHAVIOR

Geotactic response of the two-spotted spider mite. *Tetranychus urticae* Koch (Acarina: Tetranychidae). 14137

A comparative study of gastric caeca in adult and larval stages of bark beetles (Coleoptera: Scolytidae). 14170

A change of feeding habit in *Archips cerasivorana* (Fitch) (Lepidoptera, Tortricidae). 14178

Some phase characteristics of the southern African form of the desert locust (*Schistocerca gregaria* (Forsk.)). 14187

The ultrastructure and electrophysiology of the membranous lobe of the antenna in *Speophyes lucidulus* larvae (Coleoptera). 14192

*Hilaria sartor* Becker, the fly with the little veil and its dance (Diptera). 14204

*Hilaria sartor* Becker, the fly with the little veil and its dance (Diptera). 14205

Adenine and related substances as potent feeding stimulants for the alfalfa weevil, *Hypera postica*. 14213

Field studies on the life-histories of some British Staphylinidae (Coleoptera). 14220

Hawk moths with mites. (Lep. Sphingidae). 14222

The ability of colour distinction in the wood-ant *Formica polyctena* Forster. 14223

Parasitization of social Halictine bees in southern Ontario. 14224

Dawn and dusk activity periods and orientation to forest and field of the *Drosophila subobscura* and *Drosophila obscura*. 14225

Mating and ovary studies on *Cerapteryx grammis* L. (Lep. Noctuidae), collected from a light trap. 14228

Artificial stimulations in encounter behavior of *Vestria viridis* (Redt.) (Orthoptera Tettigonidae Copiphorinae de La Trinite). 14232

Preliminary report about my breeding attempts with *Micropteryx calthella* L. (Lep., Mier.). 14234

A new method of estimating population size, survivorship, and birth rate from capture-recapture data. 14237

Does the beating of butterfly wings cause electrical phenomena. 14239

The flight activity of the pigmy-mangold chafer *Atomaria linearis* Steph. in the course of 24 hours. (Col., Cryptophagidae). 14249

Sperm activation and migration in bed bugs. size in hypersensitive hosts in the presence of chloramphenicol. 14257

Blossom visitations of domestic *Allantus* species, and places where they are found. 14263

The mode of life of the borer moth parasite *Adelius erythronotus* Forst. (Hym., Brac.). 14264

*Brachymeria femorata* Panzer (Hymenoptera Chalcididae). 14267

The mechanism of coupling of the locust Light oscillator to oscillatory inputs. 14278

The genetics of *Drosophila* mating behavior. II. The genetic architecture of mating speed in *Drosophila pseudoobscura*. 14286

The European corn borer; how to control it. 14301

*Neotetranychus rubicola* Bagd. on the raspberry bush in Serbia. 14501

### INSECT BIOCHEMISTRY

Continuous and rhythmic reproductive cycle observed in *Periplaneta americana* (L.). 14182

DNA-MEASUREMENTS in insects and a hypothesis concerning retarded evolution and especially high DNA content in the animal kingdom. 14185

Studies on a trehalase from a symbiont of the tropical cockroach, *Blaberus craniifer*—a suggested analytical enzyme. 14198

A study of free amino acids in rice moth larvae during mycotoxicosis. 14209

Properties of leptinotarsin, a toxic hemolymph protein from the Colorado potato beetle. 14212

The pheromone of the queen of the Oriental hornet, *Vespa orientalis*. 14214

Cytology and cytochemistry of spermatogenesis in two millipedes *Phyllogonostreptus nigrolabiatus* and *Gonoplectus malayus*. 14219

Effect of *Loxosceles reclusa* Gertsch and *Mulaik venom* on *Heliothis virescens* (F.) larvae. oosterhof, g. 14248

Ecdysone and DNA synthesis in cultured wing disks of the wax moth, *Galleria mellonella*. 14250

Sperm activation and migration in bed bugs. size in hypersensitive hosts in the presence of chloramphenicol. 14257

Fatty acids, alcohols and hydrocarbons in the waxy covering of *Ceroplastes pseudoceriferus* Green, *Ceroplastes japonicus* Green and *Ceroplastes rubens* Maskell (Homoptera: Coccidae). 14269

Lysozyme action in the cockroach—blood changes. while probing intercellularly. 14279

Developmental genetic studies of aminopeptidases in *Drosophila melanogaster*. 14294

Sex differences in embryonic response to *Eimeria tenella* infection. 14579

### INSECT BIOLOGY

Continuous and rhythmic reproductive cycle observed in *Periplaneta americana* (L.). 14182

Essentials in pest control. 14196

Some aspects of adaptation in the life cycle of insects. 14238

Natural mortality of overwintering eggs of *Longiguis donacis* (Pass.). 14266

Sparrow mite *Dermanyssus passerinus* Berl. et Trouess, 1885. 14282

Entomological notes on *Beprata maculicollis* Cam., perforator of seeds of some Annonaceae. 14283

*Tanymecus dilaticollis* Gyll. (Curculionidae, Coleoptera) as a pest of cultivated plants and the pre-sowing treatment of the seed with insecticides as a control measure. 14494

A contribution to the study of olive *Cecidomyiidae*: *Lasioptera berlesiana* (paoli). 14502

Serological response in cattle to East Coast fever (*Theileria parva* infection) as measured by the indirect fluorescent antibody test. 14588

Biology of *Hyphantria cunea* Drury (Lepidoptera: arctiidae in Japan. I. Notes on adult biology with references to the predation by birds. 14627

Development of *Caenorhabditis briggsae* and *Hymenolepis nana* in interchanged media. France. 14633

### INSECT COLOR

Epidemiology of tea blister blight (*Exobasidium vexans*). the genus *Graphelysia* Hampson, 1911 (Lepidoptera -Heterocerca). 14384

Studies on the parasitism and control of tea root disease fungi in Ceylon. Heteroptera. 14448

### INSECT CONTROL

An apparatus for dispensing house fly eggs mechanically. 14119

Important forest insects of Ontario in 1966. 14120

Fruit-piercing moths and their control in Japan. 14246

Oviposition sites and the viability of eggs of *Thymelicus lineola* (Ochs.) (Lepidoptera: Hesperidae). 14253

Insects of the season 1966 related to fruit, vegetables and ornamentals. 14483

Hard-to-kill pests of fruit trees; the mites. 14488

Warble fly larvae control study. 14631

### INSECT CULTURES

The ability of colour distinction in the wood-ant *Formica polyctena* Forster. 14223

Dawn and dusk activity periods and orientation to forest and field of the *Drosophila subobscura* and *Drosophila obscura*. 14225

### INSECT CYTOLOGY

Experiments on nuclear transplantation in *Drosophila melanogaster*. Preliminary report. 14200

### INSECT DISEASES

Electron microscopy of spindle-shaped inclusion viruses of Coleoptera. 14184

A serological comparison of some iridescent non-occluded insect viruses. 14193

On the cross-inoculation of Chilo iridescent virus. CIV. 14206

Natural mortality of overwintering eggs of *Longiguis donacis* (Pass.). 14266

- Development of the virus with inclusion bodies, of the Lepidoptera *Lymantria dispar* in cell cultures. 14275
- Damage caused by *Lankesteria eulicis* (Ross) to *Aedes aegypti* (L.). 14297
- Sex differences in embryonic response to *Eimeria tenella* infection. 14579
- INSECT DISSEMINATION**
- An apparatus for dispensing house fly eggs mechanically. 14119
- Hemianax ephippiger (Burm.) (Odonata) carried to Iceland from the eastern Mediterranean by an aircurrent. 14243
- Study on the density of the adult of the brown planthopper *Nilaparvata lugens* Stal. 14251
- Records of the orthopteroid insects in Ontario. 14276
- The mechanism of coupling of the locust Light oscillator to oscillatory inputs. 14278
- Factors affecting the infestation of aphids on potato plants. 14481
- INSECT ECOLOGY**
- Oribatid mite fauna in Sarobetsu Moor in northern Hokkaido, Japan. 14138
- The insect fauna in the burrows of the long-elawed molevole, a Caucasian endemic species. 14154
- The viability of brown locust eggs (*Locustana pardalina* (Walker)). 14188
- Epizotic symbiosis. 14203
- Insects Vs man. (Lep. Notodontidae). 14210
- A troglobitic staphylinid from Mexico (Coleoptera, Staphylinidae, Paederinae). 14211
- Dawn and dusk activity periods and orientation to forest and field of the *Drosophila subobscura* and *Drosophila obscura*. 14225
- Mating and ovary studies on *Cerapteryx grammis* L. (Lep. Noctuidae), collected from a light trap. 14228
- Observations on wood-destroying insect living in the footbridge over Siikaneva bog. 14235
- A three dimensional sketch of the tunnels of the *Rapientia* nests (Hym., Sphecoidea). 14240
- On the life cycle of *Coelobro ambiguus* (Hym., Sphecoidea). 14241
- Observations of the insect pests of the old shrine and the Buddhist temple wooden buildings and a few trypoxylonid wasps. 14244
- Fruit-piereing moths and their control in Japan. 14246
- A new contribution to the study of Leafhopper fauna (Homoptera, Auchenorrhyncha). 14270
- Trends in studies on insect natural enemies and the future problems concerned. 14271
- Lest white grubs visit your sugarcane...and find you unprepared. 14486
- Influence of pesticides on russetting of Golden Delicious apples. 14487
- Oecurrence and control of *Haplodiplosis equestris* in Holland. 14496
- The insect ecology of old-field red pine plantations in central Ontario, I. Description of the study area. III. Soil-surface fauna as indicators of stand change. 14548
- Ecology of lice on sheep. VI. The influence of shearing and solar radiation on populations and transmission of *Damalinea ovis*. 14629
- INSECT EGGS**
- An apparatus for dispensing house fly eggs mechanically. 14119
- Notes on the genus *Schyzops* Spinola, 1837 (Phyllocephalinae, Pentatomoidea, Heteroptera). *maritima* (Guer.). 14139
- Observations on the ovulation and oviposition with reference to corpus luteum formation in *Musea domestica nebulosa* Fabr. (Muscidae: Diptera). 14229
- Natural mortality of overwintering eggs of *Longiguis donaeis* (Pass.). 14266
- Hard-to-kill pests of fruit trees; the mites. 14488
- INSECT EVOLUTION**
- Structural peculiarities of the mouth parts in certain gamasid mites (Parasitiformes, Gamasoidea) in relation to their transition to haematophagy. 14230
- INSECT FLIGHT**
- The flight activity of the pigmy-mangold chafer *Atomaria linearis* Steph. in the course of 24 hours. (Col., Cryptophagidae). 14249
- INSECT GENETICS**
- Physiological genetics of melanotic tumors in *Drosophila melanogaster*. VI. The tumorigenic effects of juvenile hormone-like substances. 14190
- Development and diapause in insects. 14199
- Puff forming ability as a function of chromosomal position in *Drosophila melanogaster*. 14284
- The genetics of *Drosophila* mating behavior. II. The genetic architecture of mating speed in *Drosophila pseudoobscura*. 14286
- Genetical studies on the resistance to parathion in *Drosophila melanogaster*. III. Induction of a susceptible gene from its resistance allele. 14287
- Analysis of a recessive mutation on the Y chromosome of the fly *Calliphora erythrocephala*. 14288
- A system for screening of rare events in genes of *Drosophila melanogaster*. 14289
- Genetical relationship and isolating mechanisms in *Ananassae* species subgroup (Sophophora, *Drosophila*). III. Chromosome behaviour during meiosis in *D. hipectinata*, *D. malerkotliana* and their hybrid. 14290
- Efficiency of selection for increased or decreased recombination. 14291
- A thymidine-induced sex-linked, sex-limited temperature-sensitive lethal and the significance of modifier genes in *Drosophila melanogaster*. 14292
- The position of the ep, in and ri genes and the 3rd chromosome centromere in *Drosophila melanogaster*. Evidence from a new translocation. 14293
- Developmental genetic studies of aminopeptidases in *Drosophila melanogaster*. 14294
- The sheep blowfly's tolerance of insecticides (*Lucilia cuprina*). 14295
- Genetic variation in natural island populations of members of the *Drosophila nasuta* and *Drosophila ananassae* subgroups. 14296
- INSECT HISTOLOGY**
- Revision of Indo-Pakistan *Parisomias* Faust (Coleoptera, Cureulionidae) with some notes on *Leptomias* Faust. 14123
- Notes on the genus *Schyzops* Spinola, 1837 (Phyllocephalinae, Pentatomoidea, Heteroptera). *maritima* (Guer.). 14139
- A comparative study of gastric caeca in adult and larval stages of bark beetles (Coleoptera: Scolytidae). 14170
- On the cross-inoculation of *Chilo iridescent* virus. CIV. 14206
- Observations on the ovulation and oviposition with reference to corpus luteum formation in *Musea domestica nebulosa* Fabr. (Muscidae: Diptera). 14229
- Exceptions to the prevailing pattern of tubules (9 plus 9 plus 2) in the sperm flagella of certain insect species. 14255
- Sex differences in embryonic response to *Eimeria tenella* infection. 14579
- INSECT IDENTIFICATION**
- A note on the new species of *Sphegigaster* Spin. (Chalcidoidea, Pteromalidae). 14136
- A further representative of the sub-species *Betuloxys Maekaueri* (Hymenoptera: Braconidae, Aphidinae). 14155
- A new species of *Acmaeodera* (Coleoptera, Buprestidae). 14158
- Identity of instars of apterous viviparae of *Rhopalosiphum fitchii* (Sanderson) and *Toxoptera graminum* (Rondani), (Aphididae, Homoptera). 14163
- What is *Dasyscytus sordidus* Fieber 1864 (Hem. Het. Miridae). 14173
- Remarks concerning some species of spider wasps (Hym. Pompilidae)(2.). 14174
- Remarks concerning some species of wasps (Hym. Pompilidae) (3.). 14175
- INSECT METABOLISM**
- Quantitative aspects of insect nutrition. 14201
- INSECT MIGRATION**
- Sleep in moths and its dependence on the frequency of stimulation in *Anagasta kuehniella*. 14177
- INSECT MORPHOLOGY**
- Studies on the biology and control of *Sogatella furcifera* Horv. (Delphacidae: Homoptera) in the Punjab. 14118
- Effect of population density on the larval coloration and development of larva and pupa in the larger pellucid hawk moth, *Cephonodes hylas* L. (Lepidoptera' Sphingidae). 14121
- Leaf beetle larvae of the subfamily Eumolpinae and of *Syneta betulac* F. (Coleoptera, Chrysomelidae). 14149
- Development and diapause in insects. 14199
- Caterpillar polymorphism of *Pergesa elpenor* L. 14221

# SUBJECT INDEX

## INSECT MUTATION

- Structural peculiarities of the mouth parts in certain gamasid mites (Parasitiformes, Gamasoidea) in relation to their transition to haematophagy. 14230
- The mandibles of two South American grasshoppers. 14233
- Observations on the diapausal and post-diapausal, proterandric developmental events in caterpillars of *Sparganothis pilleriana* Schiff. (Lepidoptera: Tortricidae). 14259
- Diversity of forms of physiological rest in insects as one of the causes of their biological progress. 14274
- The development of the citrus psylla, *Trioza erytreae* (Del Guercio) (Homoptera: Psyllidae), on *Citrus limon* and four indigenous host plants. 14491

## INSECT MUTATION

- Analysis of a recessive mutation on the Y chromosome of the fly *Calliphora erythrocephala*. 14288

## INSECT NAMES

- A study of the population of insects emerging as adults from Spettigue's Pond at London, Ontario. 14144
- A comparative study of gastric caeca in adult and larval stages of bark beetles (Coleoptera: Scolytidae). 14170
- Parasitization of social Halictine bees in southern Ontario. 14224
- Records of the orthopteroid insects in Ontario. 14276

## INSECT NESTS

- The ultrastructure and electrophysiology of the membranous lobe of the antenna in *Speophyes lucidulus* larvae (Coleoptera). 14192
- A three dimensional sketch of the tunnels of the *Rapientia* nests (Hym., Sphecoidea). 14240

## INSECT NUTRITION

- Quantitative aspects of insect nutrition. 14201

## INSECT OUTBREAKS

- Investigations on the use of the parasitic fungus *Beauveria bassiana* in the control of pests on field and forest crops in Czechoslovakia. 14419
- Problems regarding the protection of fruit trees against infestations by leaf mining *Microlepidoptera*. 14480
- Development of *Caenorhabditis briggsae* and *Hymenolepis nana* in interchanged media. France. 14633

## INSECT PESTS

- Effect of population density on the larval coloration and development of larva and pupa in the larger pellucid hawk moth, *Cephonodes hylas* L. (Lepidoptera: Sphingidae). 14121
- Identification list. 5. 14165
- Essentials in pest control. 14196
- Insects Vs man. (Lep. Notodontidae). 14210
- Observations of the insect pests of the old shrine and the Buddhist temple wooden buildings and a few trypoxylonid wasps. 14244
- A study of the appearance of the cleonus of heets, *Temnorhinus* (*Cleonus*) *mendicus* Gyll. 14273
- Studies on the possibilities of using blowflies (Dipt.) as medicolegal indicators in Finland. I. Report of four indoor cases from the city of Helsinki. 14299

- The Tea Research Institute of Ceylon. Annual Report for the year 1966. Part II. 14304
- Pests of legume covers. characteristic cocoon production. 14479
- Factors affecting the infestation of aphids on potato plants. 14481
- Influence of pesticides on russeting of Golden Delicious apples. 14487
- Hard-to-kill pests of fruit trees; the mites. 14488
- On the appearance and the control of the red-currant leaf-gall fly. 14489
- Tanymecus dilaticollis* Gyll. (Curculionidae, Coleoptera) as a pest of cultivated plants and the pre-sowing treatment of the seed with insecticides as a control measure. 14494
- Occurrence and control of Haplodiplosis equestris in Holland. 14496
- Insecticidal experiments for the control of mustard aphid. 14497
- Recommendations for chemical control of pests of rubber plantations. 14498
- Neotetranychus rubicola* Bagd. on the raspberry bush in Serbia. 14501
- A contribution to the study of olive Cecidomyiidae: *Lasioptera berlesiana* (paoli). 14502
- Know your enemy: The so-called 'cornfly'. 14503
- First records of eye-frequenting Lepidoptera from India. 14624
- Asuntol and Neguvon in the fight against dog fleas. 14626
- Fine structure of the intestinal epithelium of *Dirofilaria immitis* and changes occurring after vermifugal treatment with caparsolate sodium. 14637
- Susceptibility of 'tapioca macaroni' to insect attack. 14647

## INSECT PHYSIOLOGY

- Revision of Indo-Pakistan *Parisomias* Faust (Coleoptera, Curculionidae) with some notes on *Leptomias* Faust. 14123
- Notes on the genus *Schyzops* Spinola, 1837 (Phyllocephalinae, Pentatomoidea, Heteroptera). *maritima* (Guer.). 14139
- Sleep in moths and its dependence on the frequency of stimulation in *Anagasta kuehniella*. 14177
- The effect of sodium replacement on the electroretinogram recorded from the cockroach ocellus. 14179
- Ultrastructural modifications of the secretion cells of the prothoracic gland to themselves during the last two larval stages. I. The chondriosome, and its relationship with the granular reticulum. 14181
- DNA-MEASUREMENTS in insects and a hypothesis concerning retarded evolution and especially high DNA content in the animal kingdom. 14185
- Insect visceral muscle: Neural relations of the proctodael muscles of the cockroach. 14189
- Physiological genetics of melanotic tumors in *Drosophila melanogaster*. VI. The tumorigenic effects of juvenile hormone-like substances. 14190

- Histochemical data on the cardiac bodies of *Antheraea pernyi* Guer. (Lepidoptera, Attacidae) and of *Rhodnius prolixus* Stal. (Hemiptera, Reduviidae). 14191
- Effect of the venom of the black widow spider, *Latrodectus mactans* *tredecimguttatus*, on evoked action potentials in the isolated nerve cord of *Periplaneta americana*. 14195
- Insect hormones: Olive oil is not an inert vehicle for hormone injection into locusts. 14197
- Development and diapause in insects. 14199
- Ultrastructure of the ileum of the European corn borer, *Ostrinia nubilalis*. 14207
- A study of free amino acids in rice moth larvae during mycotoxicosis. 14209
- Insects Vs man. (Lep. Notodontidae). 14210
- The phototactic push-pull-coupling between dorsal ocelli and compound eyes in the phototropotaxis of locusts and crickets (Saltatorpha: *Lucusta migratoria* and *Gryllus bimaculatus*). 14217
- The effects of ligaturing *Galleria mellonella* larvae on total haemocyte counts and on mitotic indices among haemocytes. 14218
- Observations on the ovulation and oviposition with reference to corpus luteum formation in *Musca domestica* *nebulosa* Fabr. (Muscidae: Diptera). 14229
- Hormonal control of imaginal disc regeneration in *Galleria mellonella* (Lepidoptera). 14236
- The action of X-rays on the osmotic pressure and the pH of the hemolymph of *Galleria mellonella* L. (Insecta Lepidoptera). 14242
- Characteristic order of the filiform hairs of *Periplaneta americana*. 14245
- The details of endomitosis in the sericeous glands of *Galleria mellonella* (Insecta Lepidoptera). 14247
- Study on the density of the adult of the brown planthopper *Nilaparvata lugens* Stal. 14251
- A correlation between the ability to withstand high temperatures and radioresistance in *Drosophila melanogaster*. 14252
- Special forms of amitotic nuclear division in striated muscle and other insect tissues. 14254
- Diapause in the neuropteran *Chrysopa oculata*. by ultracentrifugation and identification of N- and C-terminal ends. 14256
- Brain interneurons in noctuid moths: Differential suppression by high sound intensities. and grases. 14258
- Tension transients in glycerol-extracted fibres of insect fibrillar muscle (*Lethocerus maximus*). 14262
- Body constraint and developmental arrest in *Galleria mellonella* L.: Further studies. 14265
- Diversity of forms of physiological rest in insects as one of the causes of their biological progress. 14274
- The ultrastructure and physiology of the abdominal air-guide retractor muscles in the giant water bug, *Lethocerus*. 14277
- The mechanism of coupling of the locust Light oscillator to oscillatory inputs. 14278

# SUBJECT INDEX

## INSECT VECTORS

- Preliminary observations on moulting and limb regeneration in the mite *Caloglyphus boharti*. 14280
- Recent advances in the studies of insect compound eyes. 14281
- Sparrow mite *Dermanyssus passerinus* Berl. et Trouess, 1885. 14282
- Damage caused by *Lankesteria culicis* (Ross) to *Aedes aegypti* (L.). 14297
- The European corn borer; how to control it. 14301
- Epidemiology of tea blister blight (*Exobasidium vexans*), the genus *Graphelysia* Hampson, 1911 (Lepidoptera -Heterocerca). 14384
- Studies on the parasitism and control of tea root disease fungi in Ceylon. Heteroptera. 14448
- Pests of legume covers. characteristic cocoon production. 14479
- Excretion of aflatoxin in a lactating cow. *Drosophila melanogaster* to anesthesia. 14660
- INSECT REARING**
- Studies on the biology and control of *Sogatella furcifera* Horv. (Delphacidae: Homoptera) in the Punjab. 14118
- The genetics of *Drosophila* mating behavior. II. The genetic architecture of mating speed in *Drosophila pseudoobscura*. 14286
- Pests of legume covers. characteristic cocoon production. 14479
- The development of the citrus psylla, *Trioxa erythrae* (Del Guercio) (Homoptera: Psyllidac), on *Citrus limon* and four indigenous host plants. 14491
- INSECT REARING EQUIPMENT**
- Use of a non-absorbent barrier in rearing pupae. 14180
- INSECT REPELLENTS**
- The pesticide review, 1968. 14321
- Repelling pheasants from sprouting corn with a carbamate insecticide. 14337
- INSECT TAXONOMY**
- Revision of Indo-Pakistan *Parisomias* Faust (Coleoptera, Curculionidae) with some notes on *Leptomias* Faust. 14123
- Raphidiidae (Insecta, Neuroptera). 154. Contribution to the series Results of the zoological investigations of Dr. Z. Kazab in Mongolia. 14124
- Bruchid beetles (Coleoptera, Bruchidae) from the Megri district of Armenia. 14125
- Contribution to the knowledge of the neotropical Oribatid fauna. 5. Arhegozetes. (Arach., Acari). 14127
- An index-catalogue of the genus-group names of Oriental and Australasian Tachinidae (Diptera) and their type-species. 14129
- Contribution to the knowledge of the genus *Saprinus* (Col. Histeridae). II. 14130
- Sphecidae of the Canary Islands (Hymenoptera). 14131
- Quasihesma--a new genus of Australian bees (Apoidea: Colletidae). 14133
- Revision of the genus *Euryglossella* Cockerell (Apoidea: Colletidae). 14134
- Revision of the genus *Euryglossula* Michener (Apoidea: Colletidae). 14135
- A note on the new species of *Sphegigaster* Spin. (Chalcidoidea, Pteromalidae). 14136
- Notes on the genus *Schyzops* Spinola, 1837 (Phyllocephalinae, Pentatomoidca, Heteroptera). *maritima* (Guer.). 14139
- Further notes on Icelandic *Agromyzidac* (Dipt.). 14140
- Isoptera from Vietnam, Cambodia and Thailand. 14141
- A note on the genus *Pseudathyma* Staudinger with description of a new species (Lepidoptera: Nymphalidae). 14143
- A study of the population of insects emerging as adults from Spettigue's Pond at London, Ontario. 14144
- Lamellarea, a new oribatid genus (Acari) from South Africa. 14147
- Two new oribatid mites from South Africa (Oribatei, Acari). 14148
- Leaf beetle larvae of the subfamily Eumolpinae and of *Syneta betulae* F. (Coleoptera, Chrysomelidae). 14149
- A new sub-genus of *Tetralobus* (Coleoptera Elateridae). 14150
- The Icelandic form of *Carabus problematicus* Hbst. (Col. Carabidae). A statistic treatment of subspecies. 14152
- Contribution to the knowledge of Colombian fauna of the Cicadellidae. 14153
- On the diagnostics of certain species of spring-tails of the genera *Folsomia* Willem and *Pseudofolsomia* Gen. Nov. (Collembola, Isotomidac) recorded in the middle Volga region. 14156
- A new species of *Acmaeodera* (Coleoptera, Buprestidae). 14158
- The Indo-Australian species of the ulitor-group of *Apanteles* Forster (Hymenoptera: Braconidae). 14159
- The Rhaphidophoridae (Orthoptera) of Australia. Part 7. *Pallidotettix*, a new genus from the Nullarbor Plain, south-western Australia. 14160
- A new species of Tertiary water bug from the Bechlejovice diatomites (Heteroptera, Belostomatidae). 14161
- Identity of instars of apterous viviparae of *Rhopalosiphum fitchii* (Sanderson) and *Toxoptera graminum* (Rondani), (Aphididae, Homoptera). 14163
- Rhyparochrominae types in the British Museum (Natural History) (Hemiptera: Lygaeidae). 14164
- Communication regarding the existence of *Cidaria* (subgen. *Calostigia*) *multistrigaria* Hw. on the Kaiserstuhl Mountain in Baden. 14166
- A new species of the genus *Heterothops* Steph. from Czechoslovakia (Col., Staphylinidae). 14167
- A second *Cephalothrips* specie in Germany (Ins., Thysanoptera, Phlaeothripidae). 14168
- Contribution to the fauna of the Congo (Brazzaville). Mission A. Villiers and A. Descarpentries. XLVII. Homoptera Cercopidae and Fulgoroidea. 14169
- Coniopteryx remota* Banks, further description and lectotype designation (Neuroptera, Coniopterygidae). 14171
- What is *Dasyscytus sordidus* Fieber 1864 (Hem. Het. Miridae). 14173
- Some phase characteristics of the southern African form of the desert locust (*Schistocerca gregaria* (Forskall)). 14187
- A troglobitic staphylinid from Mexico (Coleoptera, Staphylinidae, Paederinae). 14211
- Cytology and cytochemistry of spermatogenesis in two millipedes *Phyllogonostreptus nigrolabiatus* and *Gonoplectus malayas*. 14219
- Sparrow mite *Dermanyssus passerinus* Berl. et Trouess, 1885. 14282
- Genetical relationship and isolating mechanisms in *Ananassae* species subgroup (Sophophora, Drosophila). III. Chromosome behaviour during meiosis in *D. bipunctinata*, *D. malerkotliana* and their hybrid. 14290
- Epidemiology of tea blister blight (*Exobasidium vexans*), the genus *Graphelysia* Hampson, 1911 (Lepidoptera -Heterocerca). 14384
- Studies on the parasitism and control of tea root disease fungi in Ceylon. Heteroptera. 14448
- Serological response in cattle to East Coast fever (*Theileria parva* infection) as measured by the indirect fluorescent antibody test. 14588
- The persistence of drug resistance in strains of *Eimeria* species in broiler chickens following a change of coccidiostat. 14621
- INSECT TEMPERATURE**
- Factors affecting the infestation of aphids on potato plants. 14481
- INSECT TRAPS**
- A study of the appearance of the cleonus of beetles, *Temnorrhinus* (*Cleonus*) *mendicus* Gyll. 14273
- INSECT VECTORS**
- DNA-MEASUREMENTS in insects and a hypothesis concerning retarded evolution and especially high DNA content in the animal kingdom. 14185
- Isolation of viruses of the California encephalitis virus group from boreal *Aedes* mosquitoes. 14216
- Lysozyme action in the cockroach--blood changes. while probing intercellularly. 14279
- Studies on virus diseases of strawberries in the Western Cape Province. I. Degeneration of locally bred strawberry cultivars. 14355
- Lucerne bud mite recorded from New South Wales. 14364
- A veinbanding virus of groundnuts, *Arachis hypogaea* L. 14387
- An evidence for the multiplication of rice dwarf virus in the vector cell cultures inoculated in vitro. 14409
- Greenhouse testing of sugar beets for resistance to curly top. 14446
- Radish enation mosaic virus. 14465
- Note on the transmission of northern cereal mosaic virus by *Muellerianella fairmairei* (Peris). 14484

**INSECTICIDE APPLICATION**

Various problems on vectors of rice viruses. 14492

Transmission experiments with the latent Prunus-virus and the gall mite *Vasates foekuei* Nal. 14495

Further experiments regarding the clarification of the connection between the beet lacebug *Piesma quadratum* (Fieb) and the beet crinkle virus. 14499

Occurrence of tick-borne encephalitis virus neutralizing antibody in aquatic birds in central Europe. 14565

The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568

Furuncular Tumbu Fly Myiasis of man in Gabon, equatorial Africa. 14572

The protection of a small group of Nigerian trade cattle from trypanosomiasis using samorin. 14580

Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634

**INSECTICIDE APPLICATION**

Pesticide spraying during the rains. 14433

Insecticidal experiments for the control of mustard aphid. 14497

Recommendations for chemical control of pests of rubber plantations. 14498

Pre-emergence application of 2,4-D-ester to wheat (*Triticum vulgare*). 14534

**INSECTICIDE RESIDUES**

Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthemic, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657

Determination of insecticide residuc in animal and plant tissues. IV: Determination of residual amount of Sumithion and some of its metabolites in fresh milk. 14659

**INSECTICIDE RESISTANT INSECTS**

The sheep blowfly's tolerance of insecticides (*Lucilia cuprina*). 14295

Hard-to-kill pests of fruit trees;the mites. 14488

Studies on the insecticide resistance of the tea red spider mite, *Tetranychus kanzawai* Kishida. II. The mite resistance to phenkapton, estox, and kelthane in the tea growing areas in Japan. 14493

Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638

**INSECTICIDES**

Relative efficacy of different insecticides, as contact poisons, to the larvae of the diamond-black moth, *Plutella maculipennis* Curtis (Lepidoptera: Plutellidae). 14122

Essentials in pest control. 14196

The European corn borer; how to control it. 14301

Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317

The pesticide review, 1968. 14321

Repelling pheasants from sprouting corn with a carbamate insecticide 14337

Pesticide spraying during the rains. 14433

Influence of pesticides on russetting of Golden Delicious apples. 14487

Hard-to-kill pests of fruit trees;the mites. 14488

On the appearance and the control of the red-currant leaf-gall fly. 14489

Studies on the insecticide resistance of the tea red spider mite, *Tetranychus kanzawai* Kishida. II. The mite resistance to phenkapton, estox, and kelthane in the tea growing areas in Japan. 14493

*Tanymecus dilaticollis* Gyll. (Curculionidae, Coleoptera) as a pest of cultivated plants and the pre-sowing treatment of the seed with insecticides as a control measure. 14494

Occurrence and control of *Haplodiplosis equestris* in Holland. 14496

Asuntol and Ncguvon in the fight against dog fleas. 14626

Warble fly larvae control study. 14631

Notice of withdrawal of petition regarding pesticides. 14654

5,6-Dichloro-1-phenoxy-carbonyl-2-trifluoromethylbenzimidazole. Notice of extension of temporary tolerance. 14655

Systemic activity of zectran, matacil and bidrin injected into conifer trunks. 14656

Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthemic, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657

Effect of carbaryl on the neuroendocrine system of rats. foodstuffs: a multi-detection scheme for gas chromatography of solvent extracts. 14662

Methyl bromide can be dangerous. 14663

Kinetic evidence of reversible iso-cholinesterases based on inhibition by organophosphates. (Abstract). 14700

**INSECTS**

Hydrolysis of acetylthiocholine and butyrylthiocholine by cholinesterases of insects and a mite. 14261

Enhancement of infectivity of a mammalian virus preparation after injection into insects. 14268

Diversity of forms of physiological rest in insects as one of the causes of their biological progress. 14274

Insects of the season 1966 related to fruit, vegetables and ornamentals. 14485

**INTEGRATED CONTROL (INSECTS)**

Trends in studies on insect natural enemies and the future problems concerned. 14271

The European corn borer; how to control it. 14301

**INTEGRATED CONTROL (PESTS)**

Problems of integrated pest control in practical plant protection. 14315

**INTERFERON**

The temperature requirements for interferon production in cells stimulated by Newcastle disease virus or microbial agents in vitro. 14585

**IRON**

Studies on a new intramuscular haematonic for piglet anaemia. 14573

**IRRADIATION**

A correlation between the ability to withstand high temperatures and radioresistance in *Drosophila melanogaster*. 14252

On the longevity of *Conidia* of cucumber downy mildew fungus, with special reference to the influence of sunlight. 14382

**ISOMETAMIDIUM CHLORIDE**

The protection of a small group of Nigerian trade cattle from trypanosomiasis using samorin. 14580

**ISOTOMIDAE**

On the diagnostics of certain species of spring-tails of the genera *Folsomia* Willem and *Pseudofolsomia* Gen. Nov. (Collembola, Isotomidae) recorded in the middle Volga region. 14156

**ISOTOPES**

Use of high speed centrifugation to obtain extracts from cuttings treated by terminal applications of indoleacetic acid-3 (IAA-2-14C). (Abstract). 14323

**IXODES RICINUS**

The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568

**IXODIDES**

Occurrence of tick-borne encephalitis virus neutralizing antibody in aquatic birds in central Europe. 14565

**JAUNDICE**

Some aspects of the etiology of enzootic icterus (geelsiekte) and tribulosis ovis (geeldikkop). 14589

**JUNIPERUS**

Rooting of narrowleaf evergreen cuttings as influenced by various hormone treatments. (Abstract). 14318

**JUNIPERUS CHINENSIS**

Rooting of narrowleaf evergreen cuttings as influenced by various hormone treatments. (Abstract). 14318

**JURISPRUDENCE**

Studies on the possibilities of using blowflies (Dipt.) as medicolegal indicators in Finland. I. Report of four indoor cases from the city of Helsinki. 14299

**KENAF**

A leafspot disease of kenaf in Maryland associated with *Cristulariella pyramidalis*. 14431

**KERATOCONJUNCTIVITIS**

Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634

**KIDNEY BEANS**

Peroxidase isozymes in virus-infected plants. 14418

**KIDNEYS**

Attenuation of hog cholera virus in the carrier cell strains established from kidneys of pigs experimentally infected with the virulent virus. 14576

Nairobi sheep disease: A study of it's pathogenesis in sheep, goats and suckling mice. 14597

**KINETICS**

Kinetic evidence of reversible iso-cholinesterases based on inhibition by organophosphates. (Abstract). 14700

## SUBJECT INDEX

## LEAVES

### LABORATORIES

Studies on the biology and control of *Sogatella furcifera* Horv. (Delphacidae: Homoptera) in the Punjab.

14118

Relative efficacy of different insecticides, as contact poisons, to the larvae of the diamond-black moth, *Plutella maculipennis* Curtis (Lepidoptera: Plutellidae).

14122

### LABORATORY ANIMALS

*Pseudomonas* infections in mink with special reference to *Pseudomonas vasculitis* in pulmonary lesions.

14598

### LACTATION

A histological study of the effects of enzootic abortion of ewes virus in the lactating bovine mammary gland.

14559

Excretion of aflatoxin in a lactating cow. *Drosophila melanogaster* to anesthesia.

14660

### LACTIC ACID BACTERIA

Studies on a new intramuscular haematinic for piglet anaemia.

14573

### LAMBS

Comparative anthelmintic efficiencies of parabendazole, thiabendazole, and phenothiazine in lambs.

14630

### LAMELLAREA

Lamellarea, a new oribatid genus (Acari) from South Africa.

14147

### LAND

Dawn and dusk activity periods and orientation to forest and field of the *Drosophila subobscura* and *Drosophila obscura*.

14225

Cost of effective plant protection in the field, the garden, and the vineyard.

14307

### LANKESTERIA CULICIS

Damage caused by *Lankesteria culicis* (Ross) to *Aedes aegypti* (L.).

14297

### LANTANA CAMARA

An outbreak of photosensitisation in Karamojong sheep at Entebbe.

14557

### LARVAE

A study of the population of insects emerging as adults from Spettigue's Pond at London, Ontario.

14144

Leaf beetle larvae of the subfamily Eumolpinae and of *Syneta betulae* F. (Coleoptera, Chrysomelidae).

14149

Identity of instars of apterous viviparae of *Rhopalosiphum fitchii* (Sanderson) and *Toxoptera graminum* (Rondani), (Aphididae, Homoptera).

14163

A comparative study of gastric caeca in adult and larval stages of bark beetles (Coleoptera: Scolytidae).

14170

The ultrastructure and electrophysiology of the membranous lobe of the antenna in *Speophyes lucidulus* larvae (Coleoptera).

14192

Experiments on nuclear transplantation in *Drosophila melanogaster*. Preliminary report.

14200

On the cross-inoculation of Chilo iridescent virus. CIV.

14206

A study of free amino acids in rice moth larvae during mycotoxicosis.

14209

Insects Vs man. (Lep. Notodontidae).

14210

The effects of ligaturing *Galleria mellonella* larvae on total haemocytoc counts and on mitotic indices among haemocytoc.

14218

Caterpillar polymorphism of *Pergesa elpenor* L.

14221

Effect of *Loxosceles reclusa* Gertsch and Mulaik venom on *Heliothis virescens* (F.) larvae. oosterhof, g.

14248

Diapause in the neuropteran *Chrysopa oculata*. by ultracentrifugation and identification of N- and Cterminal ends.

14256

*Brachymeria femorata* Panzer (Hymenoptera Chalcididae).

14267

Sparrow mite *Dermanyssus passerinus* Berl. et Trouess, 1885.

14282

The European corn borer; how to control it.

14301

Economic effect and control of wood-boring insects in fruit trees.

14329

A contribution to the study of olive *Cecidomyiidae*: *Lasioptera berlesiana* (paoli).

14502

Mites.

14531

Warble fly larvae control study.

14631

Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes.

14638

### LASIOPTERA BERLESIANA

A contribution to the study of olive *Cecidomyiidae*: *Lasioptera berlesiana* (paoli).

14502

### LASPEYRESIA

Details on the codling plum moth (*Laspeyresia funebrana* Tr.) in Lot-et-Garonne on Plum-tree grafts.

14272

### LATE BLIGHT

Isolation of rishitin from tubers of interspecific potato varieties containing different late-blight resistance genes.

14443

### LATEX VIRUS (APPLES)

The problem of sowbane mosaic virus contamination.

14354

### LATRODECTUS MACTANS

Effect of the venom of the black widow spider, *Latrodectus mactans* *tredecimguttatus*, on evoked action potentials in the isolated nerve cord of *Periplaneta americana*.

14195

### LEAF CURL

Peach leaf curl (Taphrina).

14413

### LEAF MINERS

Problems regarding the protection of fruit trees against infestations by leaf mining *Microlepidoptera*.

14480

### LEAF ROLL

Ultrastructure of the ileum of the European corn borer, *Ostrinia nubilalis*.

14207

### LEAF RUST (WHEAT)

Levels of shikimate and folate in primary leaves of wheat and in uredospores of leaf rust.

14372

### LEAF SPOT

Effects of *Cercospora* leaf spot and dates of harvest on sugar beet varieties with or without Maneb treatment.

14358

*Alternaria* leaf spot of loliondo (*Olea welwitschii* (Knobl.) Gilg. and Schellenb.).

14371

A new bacterial leaf spot of *Antirrhinum* seedlings caused by a subspecies of *Pseudomonas fluorescens* Migula, 1895.

14410

Bacterial leaf spot of cape gooseberry in Queensland.

14411

Leafspot of *Cucurbita pepo* caused by *Alternaria cucumerina*.

14415

Helminthosporium leafspot of buffalograss in Japan.

14416

A leafspot disease of kenaf in Maryland associated with *Cristulariella pyramidalis*.

14431

Occurrence of *Phyllosticta* leaf spot on Florida cigar-wrapper tobacco.

14456

Some factors affecting incidence of leaf spot of turmeric by *Taphrina maculans* butler.

14468

### LEAFSPOT

A new leaf spot disease of *Gardenia jasminoides* from India.

14406

### LEAVES

The effect of sodium replacement on the electroretinogram recorded from the cockroach ocellus.

14179

The European corn borer; how to control it.

14301

Stimulation of flower bud abscission and concentration of fruit set in tomato, (Abstract).

14312

In vivo and in vitro reactions of 1,1-dimethylamino succinamic acid (B-9, Alar) and related substances.

14328

Narrow leaves reduce boll rot.

14341

Interactive effects of gibberellic acid and Alar on bush bean growth. (Abstract).

14344

Removal of pseudomonads from plant leaves and measurement of their in vivo beta-glucosidase synthesis.

14369

Soil-borne wheat mosaic virus from *Poa annua* L., a new host.

14377

Computation of results of crop protection experiments by the method of Townsend and Heuberger.

14392

Interaction between two races of *Piricularia oryzae* in lesion-formation in rice plants and accumulation of fluorescent compounds associated with infection.

14420

Preliminary report on the amino acid composition of TMV-C protein.

14422

A study of the biology of *Pseudopeziza jonesii* nannf (*Pyrenopeziza medicaginis* Fuck) the cause of yellow blotches on leaves of alfalfa.

14429

Evidence of phenotypic mixing between two strains of tobacco mosaic virus.

14441

Effect of beta-acylphenylhydrazine derivatives on blast fungus upon leaves and in tissues of rice plants.

14459

Studies on dwarf disease of mulberry tree. XVI. On two strains.

14461

Radish enation mosaic virus.

14465

Virus A as a cause of streak on secondary infected eyestecklings of the potato.

14471

## SUBJECT INDEX

### LEGISLATION

- Nutritional effects connected with sheepnosing, a disorder of grapefruit. (Abstract). 14475
- Mites. 14531
- Microsomal N-demethylation, by a cotton leaf oxidase system, of 3-(4'-chlorophenyl)-1,1-dimethylurea (monuron). 14675
- On the occurrence of periderm in the leaves of *Welwitschia mirabilis*. 14687
- Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Piricularia oryzae* cava. 14691
- LEGISLATION**
- Brucellosis vaccination is now compulsory. 14578
- New plant protection law is in force. 14704
- Plant protection chemical residues and food consumption. 14706
- LEGS**
- Preliminary observations on moulting and limb regeneration in the mite *Caloglyphus boharti*. 14280
- LEGUMES**
- Pests of legume covers. characteristic cocoon production. 14479
- LEMONS**
- A color test for citrus exocortis in Japan. 14462
- LEPIDOPTERA**
- The existence of bark borers in Berlin (Lepid.). 14132
- The occurrence of *Ectoedemia libwerdella* Zimm. in Western Germany (Lepidoptera, Nepticulidae). 14151
- Hawk moths with mites. (Lep. Sphingidae). 14222
- Key to the adult hymenopterous parasites of *Pulicaria piceaella* (Kearfoot), (Lepidoptera: Gelichiidae) of Quebec. 14231
- Preliminary report about my breeding attempts with *Micropteryx calthella* L. (Lep., Micr.). 14234
- Fruit-piercing moths and their control in Japan. 14246
- Special forms of amitotic nuclear division in striated muscle and other insect tissues. 14254
- The scientific name for the fruit cup leaf roller. (Lep. Tortricidae). (A contribution to Organoxenia). 14285
- The persistence of drug resistance in strains of *Eimeria* species in broiler chickens following a change of coccidiostat. 14621
- LEPTINOTARSA DECEMLINEATA**
- Properties of leptinotarsin, a toxic hemolymph protein from the Colorado potato beetle. 14212
- Investigations on the use of the parasitic fungus *Beauveria hassiana* in the control of pests on field and forest crops in Czechoslovakia. 14419
- LEPTOCORISA VARICORNIS**
- Bionomics of the rice gundhy bug, *Leptocorisa varicornis* Fabr. (Hemiptera, Heteroptera; Coreidae). 14490
- LEPTOSPIRA**
- Antibodies to Leptospiral serotypes in sera of North Queensland cattle. 14590

- LEPTOSPIRA CANICOLA**
- Fibrinogen content and fibrinolytic activity of plasma from dogs infected with *Leptospira canicola*. 14566
- LEPTOSPIRA POMONA**
- Vaccination against leptospirosis: Protection of hamsters and swine against renal leptospirosis by killed but intact gamma-irradiated or dihydrostreptomycin-exposed *Leptospira pomona*. 14617
- LESIONS**
- Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597
- LETHAL FACTOR**
- A thymidine-induced sex-linked, sex-limited temperature-sensitive lethal and the significance of modifier genes in *Drosophila melanogaster*. 14292
- LETHOCERUS**
- The ultrastructure and physiology of the abdominal air-guide retractor muscles in the giant water bug, *Lethocerus*. 14277
- LETHOCERUS MAXIMUS**
- Tension transients in glycerol-extracted fibres of insect fibrillar muscle (*Lethocerus maximus*). 14262
- LETTUCE**
- Effects of N-dimethylamino succinamic acid (Alar), (2-chloroethyl trimethylammonium chloride (CCC), gibberellic acid (GA), and maleic hydrazide (MH) on bolting in lettuce. (Abstract). 14305
- LEUKOCYTES**
- The temperature requirements for interferon production in cells stimulated by Newcastle disease virus or microbial agents in vitro. 14585
- Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597
- Pseudomonas* infections in mink with special reference to *Pseudomonas vasculitis* in pulmonary lesions. 14598
- Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638
- LICHENES**
- Epizic symbiosis. 14203
- LIFE CYCLE**
- Field studies on the life-histories of some British Staphylinidae (Coleoptera). 14220
- On the life cycle of *Coelorabro ambiguus* (Hym., Sphecidae). 14241
- Details on the codling plum moth (*Laspeyresia funebrana* Tr.) in Lot-et-Garonne on Plum-tree grafts. 14272
- Bionomics of the rice gundhy bug, *Leptocorisa varicornis* Fabr. (Hemiptera, Heteroptera; Coreidae). 14490
- Equine piroplasmiasis: Intraerythrocytic development of *Babesia caballi* (Nuttall) and *Babesia equi* (Laveran). 14574
- Controlling external parasites of sheep. 14628
- LIGHT**
- The ability of colour distinction in the wood-ant *Formica polyctena* Forster. 14223
- Characteristic order of the filiform hairs of *Periplaneta americana*. 14245

- Diapause in the neuropteran *Chrysopa oculata*. by ultracentrifugation and identification of N- and C-terminal ends. 14256
- The mechanism of coupling of the locust Light oscillator to oscillatory inputs. 14278
- On the longevity of Conidia of cucumber downy mildew fungus, with special reference to the influence of sunlight. 14382
- LIGHT TRAPS**
- Contributions to the knowledge of the Helicide fauna (Dipt. Nemat.) of Berlin. 14157
- Lest white grubs visit your sugarcane...and find you unprepared. 14486
- LIGHTING**
- Blue light promotes symptom formation and virus multiplication in plants. 14669
- LIMES**
- A mild strain of tristeza virus in Hassaku trees (*Citrus hassaku* Hort. et Y. Tanaka) in Hiroshima prefecture. 14442
- LINOGNATHUS VITULI**
- Can you afford cattle lice. 14625
- LINURON**
- The determination of some substituted urea herbicide residues in soil by electron-capture gas chromatography. 14658
- LIPAPHIS ERSYSIMI**
- Insecticidal experiments for the control of mustard aphid. 14497
- LIPIDS**
- Effect of *Loxosceles reclusa* Gertsch and Mulaik venom on *Heliothis virescens* (F.) larvae. oosterhof, g. 14248
- In vivo demonstration of lability of hog cholera virus to lipolytic agents. 14593
- The fine structure of hyphae of *Helminthosporium oryzae* Ito et Kurib. and *Piricularia oryzae* Cava. 14679
- LIRIOMYZA**
- Further notes on Icelandic Agromyzidae (Dipt.). 14140
- LISTERIA MONOCYTOGENES**
- Titration of *Salmonella abortus-ovis* strains with chick embryos and white mice. 14561
- LIVER**
- Blood changes associated with locoweed poisoning. 14577
- Some aspects of the etiology of enzootic icterus (geelsiekte) and tribulosis ovis (geeldikkop). 14589
- Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597
- Histopathologic and hematologic changes in moribund stages of chicks infected with T-virus. 14600
- LIVESTOCK**
- Essentials in pest control. 14196
- First records of eye-frequenting Lepidoptera from India. 14624
- What the sanitarian should know about Staphylococci and salmonellae in non-dairy products. II. Salmonellae. 14649
- LIVESTOCK DISEASES**
- Developmental genetic studies of aminopeptidases in *Drosophila melanogaster*. 14294



# SUBJECT INDEX

## MATHEMATICAL ANALYSIS

- Observations on the tolerance and susceptibility of tea clones to shot-hole borer investigation--1969. 14500
- A study of contagious caprine pleuropneumonia. 14552
- Identification of hog-cholera virus in frozen pork imported from China. 14556
- Isolation of *Toxoplasma gondii* from swine and cattle, following pesticide treatments. 14558
- A histological study of the effects of enzootic abortion of ewes virus in the lactating bovine mammary gland. 14559
- The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568
- Studies on a new intramuscular haematitic for piglet anaemia. 14573
- Geographical distribution maps of animal diseases in Africa, 1966. 14575
- The protection of a small group of Nigerian trade cattle from trypanosomiasis using samorin. 14580
- An immunity test in cattle to compare two contagious bovine pleuropneumonia vaccines. 14587
- Study of the practicability of various diagnostic methods in the demonstration of swine fever virus of high and low virulence in organs of experimentally infected pigs. 14595
- Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597
- Antibody in experimentally infected sheep and antfoot-and-mouth disease vaccines. 14605
- A comparison of the haemagglutination-inhibition and neutralisation test in the assay of rinderpest antibodies in cattle. 14607
- Variations in isolations of pathogenic bacteria from the udders of cows during a six-month period. 14618
- Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634
- Field trials on the efficacy of thiabendazole against *Haemonchus contortus* in West African dwarf forest sheep and goats. 14635
- Pulmonary disease in Kenya sheep. 14639
- LOCOMOTION**  
Importance and causes of Nematode movement in the soil and research on the migration of '*Ditylenchus myceliophagus*'. 14506
- LOCUSTA MIGRATORIA**  
The phototactic push-pull-coupling between dorsal ocelli and compound eyes in the phototropotaxis of locusts and crickets (*Saltatoptera*: *Locusta migratoria* and *Gryllus bimaculatus*). 14217
- LOCUSTANA PARDALINA**  
The viability of brown locust eggs (*Locustana pardalina* (Walker)). 14188
- LODGING**  
The influence of CCC on lodging and development of grain. 14680
- LOLIUM PERENNE**  
Witches' broom of *Berberis*. 14395
- LONGEVITY**  
A new method of estimating population size, survivorship, and birth rate from capture-recapture data. 14237
- LONGIDORUS**  
Present knowledge on Phytophagous nematodes and their relations with virus diseases. 14514
- LONGIUNGUIS DONACIS**  
Natural mortality of overwintering eggs of *Longiunguis donacis* (Pass.). 14266
- LOXOSCELES RECLUSA**  
Effect of *Loxosceles reclusa* Gertsch and Mulaik venom on *Heliothis virescens* (F.) larvae. oosterhof, g. 14248
- LUMBER PRESERVATIVES**  
The causes of sapstain in red beech. 14350
- LUMPY SKIN DISEASE**  
Geographical distribution maps of animal diseases in Africa, 1966. 14575
- LUNGS**  
Warfarin treatment of mice bearing autochthonous tumors: Effect on spontaneous metastases. 14608
- Pulmonary disease in Kenya sheep. 14639
- LUPINUS ANGUSTIFOLIUS**  
Fungal pathogenicity to sound and mechanically damaged blue lupine seed in anoxic culture at two temperatures. 14470
- LYGAEIDAE**  
Rhyarochrominae types in the British Museum (Natural History) (Hemiptera: Lygaeidae). 14164
- LYOPHILIZATION**  
Lyophilizing foot-and-mouth disease virus at low drying temperature. 14604
- MACARONI**  
Susceptibility of 'tapioca macaroni' to insect attack. 14647
- MACROPHAGES**  
*Mycobacterium tuberculosis* in macrophages: Effect of certain surfactants and other membrane-active compounds. 14671
- MACROSIPHUM AVENAE**  
Development of *Caenorhabditis briggsae* and *Hymenolepis nana* in interchanged media. France. 14633
- MACROSIPHUM EUPHORBIAE**  
Factors affecting the infestation of aphids on potato plants. 14481
- MALARIA**  
Global eradication of malaria: Changes of strategy and future outlook. 14298
- MALEIC HYDRAZIDE**  
Effects of N-dimethylamino succinamic acid (Alar), (2-chloroethyl trimethylammonium chloride (CCC), gibberellic acid (GA), and maleic hydrazide (MH) on bolting in lettuce. (Abstract). 14305
- MALPIGHIAN TUBES**  
Damage caused by *Lankesteria culicis* (Ross) to *Aedes aegypti* (L.). 14297
- MAMMALS**  
Enhancement of infectivity of a mammalian virus preparation after injection into insects. 14268
- MAMMARY GLANDS**  
A histological study of the effects of enzootic abortion of ewes virus in the lactating bovine mammary gland. 14559
- Effects of humoral and cellular phases of acute inflammation in the bovine mammary gland on *Aerobacter aerogenes* introduced en masse and on leukocytes in milk. 14610
- MANDARIN ORANGES**  
A color test for citrus exocortis in Japan. 14462
- MANEB**  
The etiology, including nutritional considerations, of passion fruit brown spot in Hawaii. 14342
- Effects of *Cercospora* leaf spot and dates of harvest on sugar beet varieties with or without Maneb treatment. 14358
- Is an early infection by *Peronospora tabacina* Adam controllable in the field. 14397
- Evaluation and use of fungicides in commercial cultivation of barley in Colombia. 14436
- Secondary effects of fungicides on barley. 14517
- MANGE**  
Skin diseases of horses. 14592
- MANNITOL**  
Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by *McClamsora lini*. II. Conversion to soluble products. 14684
- MANSONIA**  
Isolation of Bunyamwera-group viruses from Wisconsin mosquitoes. 14553
- MARSHES**  
Occurrence and control of *Haplodiplosis equestris* in Holland. 14496
- Corn daisies and their control. 14527
- Improved method for weed control in potatoes on extremely marshy soil. (Test experiences in upper Bavaria 1965-67). 14528
- MASS SPECTRA**  
The pheromone of the queen of the Oriental hornet, *Vespa orientalis*. 14214
- Synthesis and reactions of a proposed DDT metabolite, 2,2-bis(p-chlorophenyl)acetaldehyde. 14701
- MASTITIS**  
Developmental genetic studies of aminopeptidases in *Drosophila melanogaster*. 14294
- A histological study of the effects of enzootic abortion of ewes virus in the lactating bovine mammary gland. 14559
- Variable resistance of cows to *Streptococcus agalactiae* mastitis. 14602
- Effects of humoral and cellular phases of acute inflammation in the bovine mammary gland on *Aerobacter aerogenes* introduced en masse and on leukocytes in milk. 14610
- Variations in isolations of pathogenic bacteria from the udders of cows during a six-month period. 14618
- MATHEMATICAL ANALYSIS**  
Efficiency of selection for increased or decreased recombination. 14291

## SUBJECT INDEX

### MAZZARD CHERRIES

Importance and causes of Nematode movement in the soil and research on the migration of 'Ditylenchus myceliophagus'. 14506

### MAZZARD CHERRIES

The influence of N-dimethylamino succinamic acid (Alar) on growth of the sweet cherry, *Prunus avium* (Abstract). 14303

### MEASUREMENT

An apparatus for dispensing house fly eggs mechanically. 14119

Observations on the diapausal and post-diapausal, proterandric developmental events in caterpillars of *Sparganothis pilleriana* Schiff. (Lepidoptera: Tortricidae). 14259

### MECHANIZATION

An apparatus for dispensing house fly eggs mechanically. 14119

### MECOPROP

Coltsfoot control with 2,4-DP on the stubble. 14521

### MEDICAL ENTOMOLOGY

Essentials in pest control. 14196

### MEDICINE

Studies on the possibilities of using blowflies (Dipt.) as medicolegal indicators in Finland. I. Report of four indoor cases from the city of Helsinki. 14299

### MEIOSIS

Genetical relationship and isolating mechanisms in *Ananassae* species subgroup (Sophophora, Drosophila). III. Chromosome behaviour during meiosis in *D. bipectinata*, *D. malerkotiana* and their hybrid. 14290

### MELAMPSORA LINI

Electron microscopy of uredospores of *Melampsora lini* and of rust-infected flax. 14399

Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by *Melampsora lini*. II. Conversion to soluble products. 14684

### MELIOLA PETIOLARIS

Alternaria leaf spot of loliondo (*Olea welwitschii* (Knobl.) Gilg. and Schellenb.). 14371

### MELOIDOGYNE INCOGNITA

Breeding for disease resistance and yield improvement in flue-cured tobacco. 14394

Pathogenicity and identity of root-knot nematodes on five varieties of banana. 14507

Ring nematode disease of rice in Louisiana. (Abstract). 14510

### MELOPHAGUS OVINUS

Controlling external parasites of sheep. 14628

### MENAZON

Persistent toxicity of some systemic insecticides to little honey bees. 14260

### MERCURY COMPOUNDS

Some results from allium tests with organic mercury halogenides. 14674

### METABOLISM

Utilization of various forms of nitrogen by *Drechslera sorokiniana*, the pathogen causing foot rot disease in wheat. 14458

Fibrinogen content and fibrinolytic activity of plasma from dogs infected with *Leptospira canicola*. 14566

Respiratory activity of *Trypanosoma lewisi* during several phases of infection in the rat. 14643

*Trypanosoma lewisi*: Creatine phosphokinase, ornithine carbonyl transferase, ATPases, Pi, and glucose levels in the rat host. 14644

Blue light promotes symptom formation and virus multiplication in plants. 14669

Metabolism of aromatic compounds in healthy and rust-infected primary leaves of wheat. II. Studies with l-phenylalanine-U-14C, l-tyrosine-U-14C, and ferulate-U-14C. 14676

Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by *Melampsora lini*. II. Conversion to soluble products. 14684

### METABOLITES

Determination of insecticide residue in animal and plant tissues. IV: Determination of residual amount of Sunithion and some of its metabolites in fresh milk. 14659

Synthesis and reactions of a proposed DDT metabolite, 2,2-bis(p-chlorophenyl)acetaldehyde. 14701

3-(N-formylamino)-salicylic acid - a new metabolite of *Streptomyces antibioticus*. 14702

### METALS

New tin complex compounds as plant protection fungicides. 14445

### METAMORPHOSIS

Development and diapause in insects. 14199

Hormonal control of imaginal disc regeneration in *Galleria mellonella* (Lepidoptera). 14236

Some aspects of adaptation in the life cycle of insects. 14238

Observations on the diapausal and post-diapausal, proterandric developmental events in caterpillars of *Sparganothis pilleriana* Schiff. (Lepidoptera: Tortricidae). 14259

Body constraint and developmental arrest in *Galleria mellonella* L.: Further studies. 14265

### METANASTES VULGIVAGUS

A comparative study of gastric caeca in adult and larval stages of bark beetles (Coleoptera: Scolytidae). 14170

### METASTASIS

Warfarin treatment of mice bearing autochthonous tumors: Effect on spontaneous metastases. 14608

### METHODOLOGY

A note on the genus *Pseudathyma* Staudinger with description of a new species (Lepidoptera: Nymphalidae). 14143

Insect visceral muscle: Neural relations of the proctodeal muscles of the cockroach. 14189

Physiological genetics of melanotic tumors in *Drosophila melanogaster*. VI. The tumorigenic effects of juvenile hormone-like substances. 14190

Effect of the venom of the black widow spider, *Latrodectus mactans tredecimguttatus*, on evoked action potentials in the isolated nerve cord of *Periplaneta americana*. 14195

Effect of *I. oxosecles reclusa* Gertsch and Mulaik venom on *Heliothis virescens* (F.) larvae. oosterhof, g. 14248

Puff forming ability as a function of chromosomal position in *Drosophila melanogaster*. 14284

Problems of integrated pest control in practical plant protection. 14315

Evidence for the release of 28 S RNA from turnip yellow mosaic virus heated in vitro. 14370

Pesticide spraying during the rains. 14433

Greenhouse testing of sugar beets for resistance to curly top. 14446

Two important bacterial diseases on beans. 14454

Recommendations for chemical control of pests of rubber plantations. 14498

Improved method for weed control in potatoes on extremely marshy soil. (Test experiences in upper Bavaria 1965-67). 14528

Plaque characteristics of four classes of bovine viruses. 14570

Use of sodium alginate adjuvant in immunization against equine influenza. 14612

The chromosome numbers of *Oesophagostomum columbianum* Cuticce and *Chabertia ovina* Fabricius (Nematoda, Strongylata). 14636

Preparation of dehydrated tomato powder samples for Howard mold count. 14650

Effect of carbaryl on the neuroendocrine system of rats. foodstuffs: a multi-detection scheme for gas chromatography of solvent extracts. 14662

**METHOXYETHYLMERCURY CHLORIDE, 2-** Some results from allium tests with organic mercury halogenides. 14674

**METHYL BROMIDE** Studies on the parasitism and control of tea root disease fungi in Ceylon. Heteroptera. 14448

Methyl bromide can be dangerous. 14663

**METHYL CHLORIDE** Some results from allium tests with organic mercury halogenides. 14674

**METHYL M-HYDROXYCARBANILATE** Developmental trends in the chemical control of weeds in beets. 14536

**METHYL-4-CHLOROPHENOXY)BUTYRIC ACID, 4-(2-** Chemicals that show--crops' co-existence with weeds is not necessary. 14530

**METHYL-4-CHLOROPHENOXYACETIC ACID, 2-** Effect of selective herbicides to liquorice plant growing in cereal fields. 14519

Development of corn-growing along the Rhein through use of growth producing herbicides. 14523

Corn daisies and their control. 14527

**METHYLTHIO)-3,5-XYLYL METHYL CARBAMATE, 4-(** Repelling pheasants from sprouting corn with a carbamate insecticide. 14337

**METOBROMURON** Experiences with Patoran (metabromuron) on weed control in bean shrubs. 14526

**MICE** Isolation of Bunyamwera-group viruses from Wisconsin mosquitoes. 14553

- Titration of *Salmonella abortus-ovis* strains with chick embryos and white mice. 14561
- The temperature requirements for interferon production in cells stimulated by Newcastle disease virus or microbial agents in vitro. 14585
- Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597
- Warfarin treatment of mice bearing autochthonous tumors: Effect on spontaneous metastases. 14608
- MICROBIOLOGY**
- Degradation of pure aflatoxin by *Tetrahymena pyriformis*. 14333
- Five years' research with a hatchery sanitation program in Maine. 14545
- The temperature requirements for interferon production in cells stimulated by Newcastle disease virus or microbial agents in vitro. 14585
- Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634
- What the sanitarian should know about *Staphylococci* and *salmonellae* in non-dairy products. II. *Salmonellae*. 14649
- The fine structure of hyphae of *Helminthosporium oryzae* Ito et Kurib. and *Pyricularia oryzae* Cavara. 14679
- Nucleus of fusion body and infection structure produced by uredospores of three rust fungi. 14685
- MICROFILARIAE**
- The protection of a small group of Nigerian trade cattle from trypanosomiasis using samorin. 14580
- MICROLEPIDOPTERA**
- Problems regarding the protection of fruit trees against infestations by leaf mining Microlepidoptera. 14480
- MICROORGANISMS**
- Inheritance of resistance in tomato (*Lycopersicon* spp.) to the anthracnose pathogen *Colletotrichum coccodes*. 14437
- Five years' research with a hatchery sanitation program in Maine. 14545
- Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634
- Two cases of urea poisoning in dairy herds. 14661
- Stability and effects of some pesticides in soil. 14697
- MICROPTERYGIDAE**
- Preliminary report about my breeding attempts with *Micropteryx calthella* L. (Lep., Micr.). 14234
- MICROSCOPY**
- Characteristic order of the filiform hairs of *Periplaneta americana*. 14245
- Studies on the pathological anatomy of rice plants infected by *Helminthosporium oryzae*, I. Behavior of the causal fungus on the coleoptile of rice seedlings and its ultrafine structure. 14373
- MILDEW**
- A contribution to studies on the biology and control of apple mildew (*Podosphaera leucotricha* (Ell. and Ev.) Salm.). 14383
- Preparation of the new fungicide heximide. 14703
- MILDEW (PLANTS)**
- Mildews that might mar your opium poppy. 14390
- MILK**
- Determination of insecticide residuc in animal and plant tissues. IV: Determination of residual amount of Sumithion and some of its metabolites in fresh milk. 14659
- Excretion of aflatoxin in a lactating cow. *Drosophila melanogaster* to anesthesia. 14660
- MIINKS**
- An outbreak of anthrax in mink. 14562
- Pseudomonas* infections in mink with special reference to *Pseudomonas vasculitis* in pulmonary lesions. 14598
- MIRIDAE**
- What is *Dasyscytus sordidus* Fieber 1864 (Hem. Het. Miridae). 14173
- MITES**
- Oribatid mite fauna in Sarobetsu Moor in northern Hokkaido, Japan. 14138
- Plictran miticide-New approach to mite control. 14202
- Hawk moths with mites. (Lep. Sphingidae). 14222
- Structural peculiarities of the mouth parts in certain gamasid mites (Parasitiformes, Gamasoidea) in relation to their transition to haematophagy. 14230
- Hydrolysis of acetylthiocholine and butyrylthiocholine by cholinesterases of insects and a mite. 14261
- Sparrow mite *Dermanyssus passerinus* Berl. et Trouess, 1885. 14282
- Influence of pesticides on russetting of Golden Delicious apples. 14487
- Hard-to-kill pests of fruit trees; the mites. 14488
- Studies on the insecticide resistance of the tea red spider mite, *Tetranychus kanzawai* Kishida. II. The mite resistance to phenkapton, estox, and kelthane in the tea growing areas in Japan. 14493
- Transmission experiments with the latent *Prunus-virus* and the gall mite *Vasates fockeui* Nal. 14495
- MITOCHONDRIA**
- Ultrastructural modifications of the secretion cells of the prothoracic gland to themselves during the last two larval stages. I. The chondriosome, and its relationship with the granular reticulum. 14181
- The fine structure of hyphae of *Helminthosporium oryzae* Ito et Kurib. and *Pyricularia oryzae* Cavara. 14679
- MITOSIS**
- The effects of ligaturing *Galleria mellonella* larvae on total haemocyte counts and on mitotic indices among haemocytes. 14218
- The details of endomitosis in the sericcous glands of *Galleria mellonella* (Insecta Lepidoptera). 14247
- The regulatory effect of gibberellic acid and cytokinins on fruit maturation and ripening. (Abstract). 14300
- MOLDS**
- Preparation of dehydrated tomato powder samples for Howard mold count. 14650
- MONILIASIS**
- Studies on the monilia disease of the apple caused by *Monilinia mali* (Tak.) Nhtzel. 14386
- MONKEYS**
- Experimental aerosal transmission of yaba virus in monkeys. 14623
- MONOLINURON**
- Monolinuron in increase of grain. 14520
- MONURON**
- Microsomal N-demethylation, by a cotton leaf oxidase system, of 3-(4'-chlorophenyl)-1,1-dimethylurea (monuron). 14675
- MOORS**
- Oribatid mite fauna in Sarobetsu Moor in northern Hokkaido, Japan. 14138
- MORAXELLA BOVIS**
- Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634
- MORPHOLOGY**
- Oviposition sites and the viability of eggs of *Thymelicus lineola* (Ochs.) (Lepidoptera: Hesperidae). 14253
- The regulatory effect of gibberellic acid and cytokinins on fruit maturation and ripening. (Abstract). 14300
- Fruiting response of the highbush blueberry to applied gibberellic acid under field conditions. (Abstract). 14308
- Regulation of growth, flowering and fruit abscission of apples and peaches with Amchem 66-329. (Abstract). 14309
- Effects of N-dimethylamino succinamic acid on the size of potatoes. (Abstract). 14311
- Effects of CIPC applications to individual eyes of potato tubers on type and pattern of sprout development. 14320
- The effects of Alar on red tart cherries (*Prunus cerasus*). 14335
- Investigations concerning a root rot on *Phalaenopsis* hybrids and its causative agent (*Fusarium oxysporum*). 14363
- The sugar beet nematode. 14504
- A morphological and biological concept of the species *Ceratocystis fimbriata*. 14696
- MORTALITY**
- Effect of population density on the larval coloration and development of larva and pupa in the larger pellucid hawk moth, *Cephonodes hylas* L. (Lepidoptera' Sphingidae). 14121
- Use of a non-absorbent barrier in rearing pupae. 14180
- The viability of brown locust eggs (*Locustana pardalina* (Walker)). 14188
- Natural mortality of overwintering eggs of *Longiguis donacis* (Pass.). 14266
- Effects of gamma irradiation on prickly pear cactus. 14325
- Sex differences in embryonic response to *Eimeria tenella* infection. 14579
- Histopathologic and hematologic changes in moribund stages of chicks infected with T-virus. 14600
- Warfarin treatment of mice bearing autochthonous tumors: Effect on spontaneous metastases. 14608

## SUBJECT INDEX

### MORUS

#### MORUS

- Soil condition and the violet and white root rot diseases of fruit trees. 14343
- Studies on dwarf disease of mulberry tree. XVI. On two strains. 14461

#### MOSAIC

- Nature and inheritance of resistance to red clover vein mosaic virus in *Pisum sativum*. (Abstract). 14345
- Ten years of investigations with potato virus in Hannover. 14347
- The problem of sowbane mosaic virus contamination. 14354
- The effect of inoculum concentration on virus multiplication in cucumber cotyledons. II. Cucumber mosaic and tobacco mosaic viruses. 14367
- An apparently two-factor dose-response dependence in lucerne mosaic virus assay. 14368
- Soil-borne wheat mosaic virus from *Poa annua* L., a new host. 14377
- Strains of tobacco mosaic virus contained in cigarettes, with special reference to the infection source for mosaic disease of tomato. 14389
- Peroxidase isozymes in virus-infected plants. 14418
- Preliminary report on the amino acid composition of TMV-C protein. 14422
- Morphology of cauliflower mosaic virus. 14464
- Radish cation mosaic virus. 14465
- Virus diseases of cereals in South Africa. II. Identification of two elongated plant viruses as strains of sugar cane mosaic virus. 14469
- Note on the transmission of northern cereal mosaic virus by *Muellerianella fairmairei* (Perris). 14484

#### MOSAIC (BEANS)

- Peroxidase isozymes in virus-infected plants. 14418

#### MOSAIC (TOBACCO)

- Peroxidase isozymes in virus-infected plants. 14418

#### MOSAIC (TURNIPS)

- Evidence for the release of 28 S RNA from turnip yellow mosaic virus heated in vitro. 14370

#### MOTHS

- A study of free amino acids in rice moth larvae during mycotoxicosis. 14209
- Hawk moths with mites. (Lep. Sphingidae). 14222
- Fruit-piercing moths and their control in Japan. 14246

#### MOTTLE

- The separation of the proteins of wheat by acrylamide gel electrophoresis, with special reference to mottled and unmottled wheat. 14667

#### MOUTH

- Structural peculiarities of the mouth parts in certain gamasid mites (Parasitiformes, Gamasoidea) in relation to their transition to haematophagy. 14230

#### MOUTH PARTS

- The mandibles of two South American grasshoppers. 14233

#### MUELLERIANELLA FAIRMAIREI

- Note on the transmission of northern cereal mosaic virus by *Muellerianella fairmairei* (Perris). 14484

#### MUELLERIUS CAPILLARIS

- Pulmonary disease in Kenya sheep. 14639

#### MUNG BEANS

- Peroxidase isozymes in virus-infected plants. 14418

#### MURAMIDASE

- Lysozyme action in the cockroach--blood changes, while probing intercellularly. 14279

#### MUSCA DOMESTICA

- An apparatus for dispensing house fly eggs mechanically. 14119
- Aziridinyl chemosterilants for house flies. 14186
- Properties of leptinotarsin, a toxic hemolymph protein from the Colorado potato beetle. 14212
- Observations on the ovulation and oviposition with reference to corpus luteum formation in *Musca domestica* nebulosa Fabr. (Muscidae: Diptera). 14229
- Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634
- Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthemic, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657

#### MUSCARINE

- Hormones from the fly agaric (*Amanita*). 14673

#### MUSCLES

- Insect visceral muscle: Neural relations of the proctodeal muscles of the cockroach. 14189
- Effect of *Loxosceles reclusa* Gertsch and *Mulaik venom* on *Heliethis virescens* (F.) larvae. oosterhof, g. 14248
- Special forms of amitotic nuclear division in striated muscle and other insect tissues. 14254

- Tension transients in glycerol-extracted fibres of insect fibrillar muscle (*Lethocerus maximus*). 14262

- The ultrastructure and physiology of the abdominal air-guide retractor muscles in the giant water bug, *Lethocerus*. 14277

- Isolation of *Toxoplasma gondii* from swine and cattle, following pesticide treatments. 14558

- Studies on a new intramuscular haematitic for piglet anaemia. 14573

#### MUSEUMS

- Rhyparochrominae types in the British Museum (Natural History) (Hemiptera: Lygaeidae). 14164

#### MUSKRATS

- Musk, brown rats and harvest mice as pests in maize. 14541

#### MUTAGENS

- Mutation induction by EMS in autotetraploid barley. 14319

#### MUTATION

- Mutation induction by EMS in autotetraploid barley. 14319

#### MYCELIA STERILIA

- Contribution to the investigation of chemoendotherapy of sugar beet infected by *Cercospora beticola* Sacc. 14408

#### MYCOLOGY

- Studies on the pathological anatomy of rice plants infected by *Helminthosporium oryzae*, I. Behavior of the causal fungus on the coleoptile of rice seedlings and its ultrafine structure. 14373
- On the longevity of Conidia of cucumber downy mildew fungus, with special reference to the influence of sunlight. 14382
- An electron microscopic observation of the surface structure of conidia of *Erysiphe graminis hordei*. 14393
- Utilization of various forms of nitrogen by *Drechslera sorokiniana*, the pathogen causing foot rot disease in wheat. 14458
- Experimental studies on Aspergillosis (I). 14599
- Nucleus of fusion body and infection structure produced by uredospores of three rust fungi. 14685

#### MYCOPLASMA

- Isolation and characterization of *Mycoplasma arginini*: spec. nov. 14555
- Immunological response in cows to *Mycoplasma bovigenitalium*, strain 1836. 14606

#### MYCOPLASMA ARGININI

- Isolation and characterization of *Mycoplasma arginini*: spec. nov. 14555

#### MYCOPLASMA MYCOIDES

- A study of contagious caprine pleuropneumonia. 14552
- An immunity test in cattle to compare two contagious bovine pleuropneumonia vaccines. 14587
- Contagious bovine pleuropneumonia in wildlife. 14613

#### MYCOSIS

- Experimental studies on Aspergillosis (I). 14599

#### MYCOSPHAERELLA MUSICOLA

- The effect of benomyl on *Mycosphaerella musicola*. 14457

#### MYCOTOXICOSIS

- A study of free amino acids in rice moth larvae during mycotoxicosis. 14209

#### MYIASIS

- Furuncular Tumbu Fly Myiasis of man in Gabon, equatorial Africa. 14572

#### MYXOMYCETES

- Comatricha nodulifera*, a new myxomycete from Texas. 14474

#### MYXOVIRUSES

- A comparison of the haemagglutination-inhibition and neutralisation test in the assay of rinderpest antibodies in cattle. 14607

#### MYZUS ASCALONICUS

- The pheromone of the queen of the Oriental hornet, *Vespa orientalis*. 14214

#### MYZUS PERSICAE

- Lysozyme action in the cockroach--blood changes, while probing intercellularly. 14279
- Radish cation mosaic virus. 14465
- Factors affecting the infestation of aphids on potato plants. 14481

# SUBJECT INDEX

OATS

- Insecticidal experiments for the control of mustard aphid. 14497
- NAIROBI SHEEP DISEASE VIRUS**  
Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597
- NAPHTHALENE**  
Speed the key to preserving hides. 14551
- NATURAL CONTROL (INSECTS)**  
Trends in studies on insect natural enemies and the future problems concerned. 14271
- NECROSIS**  
An apparently two-factor dose-response dependence in lucerne mosaic virus assay. 14368  
Preliminary report on the amino acid composition of TMV-C protein. 14422  
Isolation of *Toxoplasma gondii* from swine and cattle, following pesticide treatments. 14558  
A histological study of the effects of enzootic abortion of ewes virus in the lactating bovine mammary gland. 14559
- NEMATOCIDES**  
Studies on the parasitism and control of tea root disease fungi in Ceylon. Heteroptera. 14448
- NEMATODE CONTROLLING FUNGI**  
A new nematode-destroying *Harposporium*. 14508
- NEMATODES**  
DD--136: The worm that makes short work of insect pests. 14215  
Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317  
A new nematode-destroying *Harposporium*. 14508  
Present knowledge on Phytophagous nematodes and their relations with virus diseases. 14514  
Economically important nematodes in Ontario--1966. 14516  
Field trials on the efficacy of thiabendazole against *Haemonchus contortus* in West African dwarf forest sheep and goats. 14635
- NEMATODIRUS**  
Comparative anthelmintic efficiencies of pabendazole, thiabendazole, and phenothiazine in lambs. 14630
- NEOPLASMS**  
Warfarin treatment of mice bearing autochthonous tumors: Effect on spontaneous metastases. 14608  
Experimental aerosol transmission of yaba virus in monkeys. 14623
- NEOTETRANYCHUS RUBICOLA**  
Neotetranychus rubicola Bagd. on the raspberry bush in Serbia. 14501
- NEPHOTETTIX CINCTICEPS**  
An evidence for the multiplication of rice dwarf virus in the vector cell cultures inoculated in vitro. 14409
- NEPTICULIDAE**  
The occurrence of *Ectoedemia libwerdella* Zimm. in Western Germany (Lepidoptera, Nepticulidae). 14151
- NERVES**  
The effect of sodium replacement on the electroretinogram recorded from the cockroach ocellus. 14179  
Insect visceral muscle: Neural relations of the proctodeal muscles of the cockroach. 14189  
Effect of the venom of the black widow spider, *Latrodectus mactans tredecimguttatus*, on evoked action potentials in the isolated nerve cord of *Periplaneta americana*. 14195  
Brain interneurons in noctuid moths: Differential suppression by high sound intensities, and grasses. 14258
- NEUROENDOCRINES**  
Body constraint and developmental arrest in *Galleria mellonella* L.: Further studies. 14265  
Effect of carbaryl on the neuroendocrine system of rats, foodstuffs: a multi-detection scheme for gas chromatography of solvent extracts. 14662
- NEUROPTERA**  
*Raphidiidae* (Insecta, Neuroptera). 154. Contribution to the series Results of the zoological investigations of Dr. Z. Kazab in Mongolia. 14124  
Genetical relationship and isolating mechanisms in *Ananassae* species subgroup (*Sophophora*, *Drosophila*). III. Chromosome behaviour during meiosis in *D. bipunctinata*, *D. malerkotliana* and their hybrid. 14290
- NEUROTROPIC VIRUSES**  
Some physical properties of purified neurotropic foot-and-mouth disease virus. 14586
- NEUTRALIZATION TEST**  
Isolation of Bunyamwera-group viruses from Wisconsin mosquitoes. 14553  
A comparison of the haemagglutination-inhibition and neutralisation test in the assay of rinderpest antibodies in cattle. 14607
- NEW ZEALAND**  
Some factors affecting the disappearance of tor-don in soil. 14533
- NEWCASTLE DISEASE VACCINES**  
Verification of antibodies of Newcastle virus in rats inoculated with different types of experimental vaccines. 14609
- NEWCASTLE DISEASE VIRUS**  
The temperature requirements for interferon production in cells stimulated by Newcastle disease virus or microbial agents in vitro. 14585  
Verification of antibodies of Newcastle virus in rats inoculated with different types of experimental vaccines. 14609  
Relationship of plaque size and virulence for chickens of 14 representative Newcastle disease virus stains. 14611  
Hemagglutination and hemolysis of erythrocytes of unrelated species of animals by the Blacksburg strain of Newcastle disease virus. 14615  
Inhibition of host-cell protein and ribonucleic acid synthesis by newcastle disease virus. 14622
- NICKEL**  
Evaluation and use of fungicides in commercial cultivation of barley in Colombia. 14436
- NICLOSAMIDE**  
Efficacy of niclosamide in the treatment of *Taenia taeniaeformis* infections in cats. 14646
- NICOTINAMIDE**  
Microsomal N-demethylation, by a cotton leaf oxidase system, of 3-(4'-chlorophenyl)-1,1-dimethylurea (monuron). 14675
- NILAPARVATA LUGENS**  
Study on the density of the adult of the brown planthopper *Nilaparvata lugens* Stal. 14251
- NINHYDRIN REACTION**  
Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665
- NITRIFICATION**  
Stability and effects of some pesticides in soil. 14697
- NITROGEN**  
Radiation sensitivity of *Drosophila* embryos in relation to age, in air and in nitrogen. 14208  
Lysozyme action in the cockroach--blood changes, while probing intercellularly. 14279  
Cryopreservation and pathogenicity of selected isolates of *Colletotrichum*, *Rhizoctonia*, and *Phytophthora*. 14374  
Utilization of various forms of nitrogen by *Drechslera sorokiniana*, the pathogen causing foot rot disease in wheat. 14458  
Isolation of *Toxoplasma gondii* from swine and cattle, following pesticide treatments. 14558  
Two cases of urea poisoning in dairy herds. 14661  
Physiological effects of pentachlorobenzylalcohol on rice plants. 14690
- NOCTUIDAE**  
Mating and ovary studies on *Cerapteryx grammis* L. (Lep. Noctuidae), collected from a light trap. 14228  
Brain interneurons in noctuid moths: Differential suppression by high sound intensities, and grasses. 14258  
First records of eye-frequenting Lepidoptera from India. 14624
- NODULES (PLANTS)**  
Isolation of rishitin from tubers of interspecific potato varieties containing different late-blight resistance genes. 14443
- NOMENCLATURE**  
The scientific name for the fruit cup leaf roller. (Lep. Tortricidae). (A contribution to Organoxenia). 14285
- NOTODONTIDAE**  
Insects Vs man. (Lep. Notodontidae). 14210
- NURSING**  
Diaplacental immunity to foot-and-mouth virus in nursing rats: correlation and regression. 14594
- NUTRITION**  
An interaction of dieldrin with thiamine. 14664
- NYMPHALIDAE**  
A note on the genus *Pseudathyma* Staudinger with description of a new species (Lepidoptera: Nymphalidae). 14143
- OATS**  
Moisture corrosion, a new corrosive method. 14330  
Virulence of uredial and aecial isolates of *Puccinia coronata* Corda f.sp. *avenae* identified in Canada from 1952 to 1966. 14359

## SUBJECT INDEX

### OCELLI

- Possibilities of weed control in corn with atrazine, taking special note of the control of couch-grass, wild oats and older weeds. 14524
- The influence of CCC on lodging and development of grain. 14680

### OCELLI

- The effect of sodium replacement on the electroretinogram recorded from the cockroach ocellus. 14179
- The phototactic push-pull-coupling between dorsal ocelli and compound eyes in the phototropaxis of locusts and crickets (Saltatoria: *Lucusta migratoria* and *Gryllus bimaculatus*). 14217

### ODONATA

- Dragonfly catches from the Gifhorn area (A contribution to the Odonata fauna of Lower Saxony). 14145
- Hemianax ephippiger (Burm.) (Odonata) carried to Iceland from the eastern Mediterranean by an aircurrent. 14243
- Genetical relationship and isolating mechanisms in *Ananassae* species subgroup (Sophophora, Drosophila). III. Chromosome behaviour during meiosis in *D. bipunctata*, *D. malerkotliana* and their hybrid. 14290

### OESOPHAGOSTOMUM

- The chromosome numbers of *Oesophagostomum columbianum* Cutice and *Chabertia ovina* Fabricius (Nematoda, Strongylata). 14636

### OESTRIDAE

- Warble fly larvae control study. 14631

### OIDIUM

- Three years of tests with new anti-peronosporic preparations. 14400
- Powdery mildew of rubber in Papua. 14449

### OILS

- Hard-to-kill pests of fruit trees; the mites. 14488
- 'Reduced volume' by how much? Why? Actual state of affairs. 14699

### OLEA WELTWITSCHII

- Alternaria* leaf spot of loliondo (*Olea welwitschii* (Knobl.) Gilg. and Schellenb.). 14371

### OLEACEAE

- Diseases of Annual Oleaceae in Colombia. 14427

### OLETHREUTIDAE

- Details on the codling plum moth (*Laspeyresia funebrana* Tr.) in Lot-et-Garonne on Plum-tree grafts. 14272

### OLIVE OIL

- Insect hormones: Olive oil is not an inert vehicle for hormone injection into locusts. 14197

### OLIVES

- A contribution to the study of olive *Cecidomyiidae*: *Lasioptera berlesiana* (paoli). 14502

### ONCHOCERCIASIS

- DNA-MEASUREMENTS in insects and a hypothesis concerning retarded evolution and especially high DNA content in the animal kingdom. 14185

### ONIONS

- Onion weed control on Mallee soils. 14518
- Some results from allium tests with organic mercury halogenides. 14674

### OOGENESIS

- Revision of Indo-Pakistan *Parisomias* Faust (Coleoptera, Curculionidae) with some notes on *Leptomias* Faust. 14123
- Continuous and rhythmic reproductive cycle observed in *Periplaneta americana* (L.). 14182

### OPTIC NERVE

- Recent advances in the studies of insect compound eyes. 14281

### OPUNTIA

- Effects of gamma irradiation on prickly pear cactus. 14325

### ORANGES

- Effect of different micronutrient sprays on chlorosis, granulation, fruit fall, yield and fruit quality of sweet oranges var. blood red. 14398
- Comparison of absorbed biphenyl in oranges and biphenyl vapor in controlling decay, mycelial growth, and sporulation by *Penicillium digitatum*. 14417
- A study on the correlation of citrus nematode population with decline of citrus. 14505

### ORCHIDACEAE

- Influence of pesticides on russeting of Golden Delicious apples. 14487

### ORGANIC COMPOUNDS

- Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665
- Some results from allium tests with organic mercury halogenides. 14674

### ORGANOPHOSPHORUS COMPOUNDS

- Genetical studies on the resistance to parathion in *Drosophila melanogaster*. III. Induction of a susceptible gene from its resistance allele. 14287
- The sheep blowfly's tolerance of insecticides (*Lucilia cuprina*). 14295
- Problems regarding the protection of fruit trees against infestations by leaf mining Microlepidoptera. 14480
- On the appearance and the control of the red-currant leaf-gall fly. 14489

- Studies on the insecticide resistance of the tea red spider mite, *Tetranychus kanzawai* Kishida. II. The mite resistance to phenkapton, estox, and kelthane in the tea growing areas in Japan. 14493

- Insecticidal experiments for the control of mustard aphid. 14497

- Asuntol and Neguvon in the fight against dog fleas. 14626

- Systemic activity of zectran, matacil and bidrin injected into conifer trunks. 14656

- Determination of insecticide residue in animal and plant tissues. IV: Determination of residual amount of Sumithion and some of its metabolites in fresh milk. 14659

- The influence of CCC on lodging and development of grain. 14680

- Kinetic evidence of reversible iso-cholinesterases based on inhibition by organophosphates. (Abstract). 14700

### ORIBATEI

- Contribution to the knowledge of the neotropical Oribatid fauna. 5. Archeogozetes. (Arach., Acari). 14127

- Oribatid mite fauna in Sarobetsu Moor in northern Hokkaido, Japan. 14138

- Lamellarea, a new oribatid genus (Acari) from South Africa. 14147

- Two new oribatid mites from South Africa (Oribatei, Acari). 14148

### ORNAMENTAL PLANT CULTURE

- Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638

### ORNAMENTAL PLANTS

- Insects of the season 1966 related to fruit, vegetables and ornamentals. 14483

### ORNAMENTAL TREES

- The respiration and flower development of evergreen azaleas as influenced by gibberellin, scale removal, and 2,4-dinitrophenol. 14666

### ORTHOPTERA

- The Rhaphidophoridae (Orthoptera) of Australia. Part 7. *Pallidotettix*, a new genus from the Nullarbor Plain, south-western Australia. 14160
- Records of the orthopteroid insects in Ontario. 14276

### OSCILLATION

- The mechanism of coupling of the locust Light oscillator to oscillatory inputs. 14278

### OSMOTIC PRESSURE

- The action of X-rays on the osmotic pressure and the pH of the hemolymph of *Galleria mellonella* L. (Insecta Lepidoptera). 14242

### OSTRINIA NUBILALIS

- Ultrastructure of the ileum of the European corn borer, *Ostrinia nubilalis*. 14207
- The European corn borer; how to control it. 14301

### OVARIES

- Mating and ovary studies on *Cerapteryx grammis* L. (Lep. Noctuidae), collected from a light trap. 14228

### OVIPOSITION

- Observations on the ovulation and oviposition with reference to corpus luteum formation in *Musca domestica* nebulosa Fabr. (Muscidae: Diptera). 14229

### OVIPOSITORS

- Study on the density of the adult of the brown planthopper *Nilaparvata lugens* Stal. 14251

- Oviposition sites and the viability of eggs of *Thymelicus lineola* (Ochs.) (Lepidoptera: Hesperidae). 14253

### OVULATION

- Observations on the ovulation and oviposition with reference to corpus luteum formation in *Musca domestica* nebulosa Fabr. (Muscidae: Diptera). 14229

- Field trials on the efficacy of thiabendazole against *Haemonchus contortus* in West African dwarf forest sheep and goats. 14635

### OXIDASES

- Microsomal N-demethylation, by a cotton leaf oxidase system, of 3-(4-chlorophenyl)-1,1-dimethylurea (monuron). 14675

### PALEOENTOMOLOGY

- A new species of Tertiary water bug from the Bechlejovice diatomites (Heteroptera, Belostomatidae). 14161

### PANICUM

- Musk, brown rats and harvest mice as pests in maize. 14541

# SUBJECT INDEX

## PERIPLANETA AMERICANA

- PANONYCHUS ULMI**  
Influence of pesticides on russeting of Golden Delicious apples. 14487
- PAPAVER SOMNIFERUM**  
Mildews that might mar your opium poppy. 14390
- PARAFFIN WAX**  
A new idea from California--lollipop bait cube. 14648
- PARAINFLUENZA-3 VIRUS**  
Plaque characteristics of four classes of bovine viruses. 14570
- PARAQUAT**  
Systematic weed control in grape culture. Results of a first four year period of experimentation. 14538
- PARASITES**  
The European corn borer; how to control it. 14301
- PARASITIC BRONCHITIS**  
Pulmonary disease in Kenya sheep. 14639
- PARASITIC INSECTS**  
Identification list. 5. 14165  
Key to the adult hymenopterous parasites of *Puccinellia piceaella* (Kearfoot), (Lepidoptera: Gelichiidae) of Quebec. 14231  
Sparrow mite *Dermanyssus passerinus* Berl. et Trouess. 1885. 14282  
The persistence of drug resistance in strains of *Eimeria* species in broiler chickens following a change of coccidiostat. 14621
- PARASITISM**  
Contributions to the knowledge of the Helleidae fauna (Dipt. Nemat.) of Berlin. 14157  
Hawk moths with mites. (Lep. Sphingidae). 14222  
Parasitization of social Halictine bees in southern Ontario. 14224  
The mode of life of the borer moth parasite *Adelius erythronotus* Forst. (Hym., Brac.). 14264  
*Brachymeria femorata* Panzer (Hymenoptera Chalcididae). 14267  
Living haustoria and hyphae of *Erysiphe graminis* f.sp. *hordei* with intact and partly dissected host cells of *Hordeum vulgare*. 14349  
Removal of pseudomonads from plant leaves and measurement of their *in vivo* beta-glucosidase synthesis. 14369  
Studies on the parasitism and control of tea root disease fungi in Ceylon. Heteroptera. 14448  
Erratum 49: A pleomorphic parasite on cereal seeds, *Pyrenophora semeniperda*. 14451  
Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634  
Field trials on the efficacy of thiabendazole against *Haemonchus contortus* in West African dwarf forest sheep and goats. 14635  
Pulmonary disease in Kenya sheep. 14639
- PARATHION**  
Genetical studies on the resistance to parathion in *Drosophila melanogaster*. III. Induction of a susceptible gene from its resistance allele. 14287  
Insecticidal experiments for the control of mustard aphid. 14497
- Ridding rice fields of rats. 14542
- PARTHENOGENESIS**  
Revision of Indo-Pakistan *Parisomias* Faust (Coleoptera, Curculionidae) with some notes on *Leptomias* Faust. 14123
- PARTICLE SIZE DETERMINATION**  
Enhancement of tobacco rattle virus stable form infection by heterologous short particles. 14447
- PASTURES**  
Spiny burr grass--a serious and increasing problem. 14571
- PATHOGENESIS**  
Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597
- PEACHES**  
Regulation of growth, flowering and fruit abscission of apples and peaches with Amchem 66-329. (Abstract). 14309  
Effects of N-dimethylamino succinamic acid (Alar) on yield, size, maturation, and quality of peaches with reference to its use in adapting fruit for mechanical harvesting. (Abstract). 14362  
Peach leaf curl (*Taphrina*). 14413  
Isolation of *Toxoplasma gondii* from swine and cattle. following pesticide treatments. 14558
- PEANUTS**  
Cultural factors in relation to collar rot control of groundnut. 14351  
A veinbanding virus of groundnuts, *Arachis hypogaea* L. 14387  
Effect of phytotoxins from the decomposition of organic matter upon peanut seedling emergence. (Abstract). 14668
- PEARS**  
Economic effect and control of wood-boring insects in fruit trees. 14329  
Soil condition and the violet and white root rot diseases of fruit trees. 14343  
Chenopodium as host to viruses transmitted from apple, pear and grapevine. 14356  
Chemical treatment the answer to fruit scald. 14466  
Several years' research on the investigations of virus in pears. 14473
- PEAS**  
The ultrastructure and physiology of the abdominal air-guide retractor muscles in the giant water bug, *Lethocerus*. 14277  
In vivo and in vitro reactions of 1,1-dimethylamino succinamic acid (B-9, Alar) and related substances. 14328  
The importance of preceding crop-dependent shifts in the micro flora of the soil. I. The influence of soil fungi on the root development of wheat, peas, and rape. 14353  
Yellow dwarf of pea and broadbean caused by milk-vetch dwarf virus. 14378  
Effect of soil fumigants on control of pea root rot pathogens. 14391  
Underpopulation in plant parasitic nematodes. 14515
- PECTASE**  
Calcium localization in *Hypomyces*-infected squash hypocotyls and effect of calcium on pectate lyase and tissue maceration. 14677
- PECTINS**  
Production of toxins and pectolytic enzymes by two isolates of *Sclerotium bataticola* Taub. and their role in pathogenesis. 14401
- PENICILLIUM**  
Effect of a varietal mixture on sugarcane root rot susceptibility and on the rhizosphere microflora. 14455  
Study of the antifungal properties of 8-Hydroxyquinoline tartrate. 14651
- PENICILLIUM CHRYSOZENUM**  
Exocellular deoxyribonuclease I of *Penicillium chrysozenum* Part I. Partial purification and properties of the enzyme. 14694
- PENICILLIUM DIGITATUM**  
Comparison of absorbed biphenyl in oranges and biphenyl vapor in controlling decay, mycelial growth, and sporulation by *Penicillium digitatum*. 14417
- PENTACHLOROBENZYL ALCOHOL**  
Physiological effects of pentachlorobenzylalcohol on rice plants. 14690  
Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Piricularia oryzae* cavara. 14691  
Controlling effect of pentachlorobenzyl alcohol on rice blast. 14692
- PENTACHLOROPHENOL**  
Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665
- PENTATOMIDAE**  
Notes on the genus *Schyzops* Spinola, 1837 (Phyllocephalinae, Pentatomoidea, Heteroptera). *maritima* (Guer.). 14139
- PERENNIAL PLANTS**  
Onion weed control on Mallee soils. 14518
- PERIDERMIIUM**  
Limb rust of pine: The causal fungi. 14430  
On the occurrence of periderm in the leaves of *Welwitschia mirabilis*. 14687
- PERIDERMIIUM FILAMENTOSUM**  
Limb rust of pine: The causal fungi. 14430
- PERIDERMIIUM STALACTIFORME**  
Limb rust of pine: The causal fungi. 14430
- PERIPLANETA AMERICANA**  
Continuous and rhythmic reproductive cycle observed in *Periplaneta americana* (L.). 14182  
Insect visceral muscle: Neural relations of the proctodeal muscles of the cockroach. 14189  
Effect of the venom of the black widow spider, *Latrodectus mactans* *tredecimguttatus*, on evoked action potentials in the isolated nerve cord of *Periplaneta americana*. 14195  
Characteristic order of the filiform hairs of *Periplaneta americana*. 14245  
Lysozyme action in the cockroach--blood changes, while probing intercellularly. 14279

## SUBJECT INDEX

### PERMEABILITY

#### PERMEABILITY

Mycobacterium tuberculosis in macrophages: Effect of certain surfactants and other membrane-active compounds. 14671

#### PERONOSPORA

Computation of results of crop protection experiments by the method of Townsend and Heuberger 14392

Is it possible to draw any conclusions from the red epidemic of 1967, in regard to the appearance of the disease during this year. 14678

#### PERONOSPORA TABACINA

Is an early infection by Peronospora tabacina Adam controllable in the field. 14397

#### PERONOSPORALES

Three years of tests with new anti-peronosporic preparations. 14400

#### PEROXIDASES

Peroxidase isozymes in virus-infected plants. 14418

#### PEST CONTROL

The economic incidence of field vole control in France. 14540

Comments on rat-free towns. 14544

#### PESTICIDE APPLICATION

Physiological genetics of melanotic tumors in Drosophila melanogaster. VI. The tumorigenic effects of juvenile hormone-like substances. 14190

Effect of the venom of the black widow spider, Latrodectus mactans tredecimguttatus, on evoked action potentials in the isolated nerve cord of Periplaneta americana. 14195

Puff forming ability as a function of chromosomal position in Drosophila melanogaster. 14284

Developmental trends in the chemical control of weeds in beets. 14536

Guidelines for evaluating the properties of pesticides for safe use in the wildlife environment. 14652

#### PESTICIDE RESIDUES

Plectran miticide-New approach to mite control. 14202

Economic effect and control of wood-boring insects in fruit trees. 14329

Guidelines for evaluating the properties of pesticides for safe use in the wildlife environment. 14652

Notice of withdrawal of petition regarding pesticides. 14654

Systemic activity of zectran, matacil and bidrin injected into conifer trunks. 14656

2,4-D. to ripen tobacco may be detriment to producer and industry. 14688

The Regulation of Pesticides in the United States. 14705

Plant protection chemical residues and food consumption. 14706

#### PESTICIDES

Trends in studies on insect natural enemies and the future problems concerned. 14271

Cost of effective plant protection in the field, the garden, and the vineyard. 14307

The pesticide review, 1968. 14321

Isolation of Toxoplasma gondii from swine and cattle. following pesticide treatments. 14558

Guidelines for evaluating the properties of pesticides for safe use in the wildlife environment. 14652

Discoloration of ehlereella cells treated with several pesticides- utilization of chlorella cells for the study of pesticides. 14693

Stability and effects of some pesticides in soil. 14697

'Reduced volume' by how much Why Actual state of affairs. 14699

The Regulation of Pesticides in the United States. 14705

#### PHALAEINOIDES GLYCINAE

Pests of the grapevine. 14485

#### PHALAEINOPSIS

Investigations concerning a root rot on Phalaenopsis hybrids and its causative agent (Fusarium oxysporum). 14363

#### PHEASANTS

Repelling pheasants from sprouting corn with a carbamate insecticide. 14337

#### PHENOLS

Polyphenols and discoloration in the elm disease investigated by histochemical techniques. 14361

Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665

#### PHENOTHIAZINE

Comparative anthelmintic efficiencies of parbendazole, thiabendazole, and phenothiazine in lambs. 14630

#### PHENOXY ACID

Pre-emergence application of 2,4-D-ester to wheat (Triticum vulgare). 14534

#### PHENOXY ACID COMPOUNDS

Development of corn-growing along the Rhein through use of growth producing herbicides. 14523

Corn daisies and their control. 14527

#### PHENYLALANINE

Metabolism of aromatic compounds in healthy and rust-infected primary leaves of wheat. II. Studies with l-phenylalanine-U-14C, l-tyrosine-U-14C, and ferulate-U-14C. 14676

#### PHENYLHYDRAZINE

Controlling effect of phenylhydrazine derivatives on rice blast in relation to the structural modifications. 14402

#### PHENYLMERCURIC ACETATE

Controlling effect of penta-chlorobenzyl alcohol on rice blast. 14692

#### PHEROMONES

The pheromone of the queen of the Oriental hornet, Vespa orientalis. 14214

#### PHLAEOTHIRIPIDAE

A second Cephalothrips species in Germany (Ins., Thysanoptera, Phlaeothripidae). 14168

#### PHOMOPSIS SCLEROTIOIDES

Preliminary observations on moulting and limb regeneration in the mite Caloglyphus boharti. 14280

#### PHOSPHAMIDON

Persistent toxicity of some systemic insecticides to little honey bees. 14260

Neotetranychus rubicola Bagd. on the raspberry bush in Serbia. 14501

#### PHOSPHORUS

Are scarecrows useful against bird damage. 14550

#### PHOTOMICROGRAPHY

Cytology and cytochemistry of spermatogenesis in two millipedes Phyllognostreptus nigrolabiatus and Gonoplectus malayas. 14219

#### PHOTOPERIODISM

Dawn and dusk activity periods and orientation to forest and field of the Drosophila subobscura and Drosophila obscura. 14225

#### PHOTOSENSITIZATION

An outbreak of photosensitisation in Karamojong sheep at Entebbe. 14557

Skin diseases of horses. 14592

#### PHOTOSYNTHESIS

Some physiological effects of eotoran on unicellular Algae. (Abstract). 14689

#### PHOTOTROPISM

The phototactic push-pull-coupling between dorsal ocelli and compound eyes in the phototropotaxis of locusts and crickets (Saltatoria: Lucusta migratoria and Gryllus bimaculatus). 14217

#### PHYCITIDAE

Phycitinae from Turkey and Greece (Lep., Pyralidae). 14162

#### PHYLLODY

Identification of the virus causing papaw yellow crinkle with tomato big bud virus by transmission tests. 14365

#### PHYLLOSTICTA

Fungal foes that menace ginger crop. 14366

A new leaf spot disease of Gardenia jasminoides from India. 14406

Occurrence of Phyllosticta leaf spot on Florida cigar-wrapper tobacco. 14456

#### PHYLLOTRETA STRIOLATA

Radish enation mosaic virus. 14465

#### PHYSIOLOGY

DNA-MEASUREMENTS in insects and a hypothesis concerning retarded evolution and especially high DNA content in the animal kingdom. 14185

Hilaria sartor Becker, the fly with the little veil and its dance (Diptera). 14204

Hilaria sartor Becker, the fly with the little veil and its dance (Diptera). 14205

Enhancement of infectivity of a mammalian virus preparation after injection into insects. 14268

The influence of N-dimethylamino succinamic acid (Alar) on growth of the sweet cherry, Prunus avium. (Abstract). 14303

Effects of N-dimethylamino succinamic acid on the size of potatoes. (Abstract). 14311

Effects of CIPC applications to individual eyes of potato tubers on type and pattern of sprout development. 14320

Vegetative and fruiting responses of peean (Carya illinoensis Koch) to heading back and N-dimethylamino succinamic acid. (Abstract). 14332



# SUBJECT INDEX

## PLANT BIOCHEMISTRY

- Degradation of pure aflatoxin by *Tetrahymena pyriformis*. 14333
- The effects of Alar on red tart cherries (*Prunus cerasus*). 14335
- Nature and inheritance of resistance to red clover vein mosaic virus in *Pisum sativum*. (Abstract). 14345
- Isolation and characterization of *Mycoplasma arginini*: spec. nov. 14555
- Some physical properties of purified neurotropic foot-and-mouth disease virus. 14586
- Inhibition of host-cell protein and ribonucleic acid synthesis by Newcastle disease virus. 14622
- Development of *Caenorhabditis briggsae* and *Hymenolepis nana* in interchanged media. France. 14633
- The basic cellular pattern for undifferentiated oncospheres of *Hymenolepis diminuta*. 14641
- An interaction of dieldrin with thiamine. 14664
- Mycobacterium tuberculosis* in macrophages: Effect of certain surfactants and other membrane-active compounds. 14671
- PHYTOALEXIN**  
Isolation of rishitin from tubers of interspecific potato varieties containing different late-blight resistance genes. 14443
- PHYTOMYZA**  
Further notes on Icelandic Agromyzidae (Dipt.). 14140
- PHYTOPATHOLOGY**  
Peach leaf curl (*Taphrina*). 14413
- PHYTOPHTHORA**  
Vegetable dry rot and phytoprog- service in North-Hanover 1968. 14380
- Phytophthora-prognosis and -control in theory and practice. 14381
- Phytophthora diseases of rubber in Ceylon and India. 14438
- PHYTOPHTHORA FRAGARIAE**  
Cryopreservation and pathogenicity of selected isolates of *Colletotrichum*, *Rhizoctonia*, and *Phytophthora*. 14374
- The induction of stelar reddening in strawberry roots. 14423
- PHYTOPHTHORA INFESTANS**  
Isolation of rishitin from tubers of interspecific potato varieties containing different late-blight resistance genes. 14443
- New tin complex compounds as plant protection fungicides. 14445
- PICLORAM**  
Some factors affecting the disappearance of tordon in soil. 14533
- PICORNAVIRUSES**  
Some physical properties of purified neurotropic foot-and-mouth disease virus. 14586
- Diaplacentarian immunity to foot-and-mouth virus in nursing rats: correlation and regression. 14594
- A study of the physical properties of the immunizing antigen of foot-and-mouth disease virus and the effect of various inactivating agents on its structure. 14620
- PIERIS BRASSICAE**  
A serological comparison of some iridescent non-occluded insect viruses. 14193
- PIERIS RAPAE CRUCIVORA**  
On the cross-inoculation of Chilo iridescent virus. CIV. 14206
- PIESMA**  
Further experiments regarding the clarification of the connection between the beet lacebug *Piesma quadratum* (Fieb) and the beet crinkle virus. 14499
- PIGMENTS (PLANT)**  
Discoloration of chlorella cells treated with several pesticides- utilization of chlorella cells for the study of pesticides. 14693
- PINDONE**  
A new idea from California--lollipop bait cube. 14648
- PINUS**  
Evidence of hyphal growth of *Cronartium quercuum* in the pine-host cambium. 14379
- Limb rust of pine: The causal fungi. 14430
- Overwintering of *Tuberculina maxima* on white pine blister rust cankers. 14472
- The insect ecology of old-field red pine plantations in central Ontario, I. Description of the study area. III. Soil-surface fauna as indicators of stand change. 14548
- PIPERAZINE**  
Piperazine-carbon disulfide complex. Drugs for veterinary use; drug efficacy study implementation. 14547
- PIRICULARIA**  
The present state of rice research in India--diseases. 14425
- PIRICULARIA ORYZAE**  
Influence of hydrostatic pressure upon germinability of the spores of some rice-parasitic fungi effects of physical factors upon plant diseases. III. 14376
- Interaction between two races of *Piricularia oryzae* in lesion-formation in rice plants and accumulation of fluorescent compounds associated with infection. 14420
- Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665
- Physiological effects of pentachlorobenzylalcohol on rice plants. 14690
- Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Piricularia oryzae* cavara. 14691
- PIROPLASMOSIS**  
The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568
- Equine piroplasmosis: Intraerythrocytic development of *Babesia caballi* (Nuttall) and *Babesia equi* (Laveran). 14574
- The protection of a small group of Nigerian trade cattle from trypanosomiasis using samorin. 14580
- Comparative morphologic features of *Babesia caballi* and *Babesia equi*. 14614
- PISTACIA LENTISCUS**  
A contribution to the study of olive Cecidomyiidae: *Lasioptera berlesiana* (paoli). 14502
- PISTACIA TEREBINTHUS**  
A contribution to the study of olive Cecidomyiidae: *Lasioptera berlesiana* (paoli). 14502
- PISUM SATIVUM**  
Nature and inheritance of resistance to red clover vein mosaic virus in *Pisum sativum*. (Abstract). 14345
- PLACENTA**  
Diaplacentarian immunity to foot-and-mouth virus in nursing rats: correlation and regression. 14594
- PLANT ANATOMY**  
The effect of succinic acid 2,2-dimethyl hydrazide on stem and leaf tissues of *Chrysanthemum morifolium* Bright Golden Anne. (Abstract). 14324
- Effect of N-dimethylamino succinamic acid (Alar) on vegetable growth of chile pepper (*Capsicum frutescens*) plants. (Abstract). 14338
- Studies on the pathological anatomy of rice plants infected by *Helminthosporium oryzae*, I. Behavior of the causal fungus on the coleoptile of rice seedlings and its ultrafine structure. 14373
- Anatomical studies of rice plant infected with bacterial leaf blight, with special reference to wilt symptom. 14460
- Effect of D-galactose on the ultrastructure of bentgrass root apices. 14672
- PLANT BIOCHEMISTRY**  
The Tea Research Institute of Ceylon. Annual Report for the year 1966. Part II. 14304
- Effects of *Cercospora* leaf spot and dates of harvest on sugar beet varieties with or without Maneb treatment. 14358
- Removal of pseudomonads from plant leaves and measurement of their in vivo beta-glucosidase synthesis. 14369
- Levels of shikimate and folate in primary leaves of wheat and in uredospores of leaf rust. 14372
- Strains of tobacco mosaic virus contained in cigarettes, with especial reference to the infection source for mosaic disease of tomato. 14389
- Controlling effect of phenylhydrazine derivatives on rice blast in relation to the structural modifications. 14402
- Contribution to the investigation of chemocotherapy of sugar beet infected by *Cercospora beticola* Sacc. 14408
- Interaction between two races of *Piricularia oryzae* in lesion-formation in rice plants and accumulation of fluorescent compounds associated with infection. 14420
- Isolation of rishitin from tubers of interspecific potato varieties containing different late-blight resistance genes. 14443
- An approach to the elucidation of host-parasite interaction. 14450
- The effect of cycloheximide on the resistance of potato tuber discs to invasion by a fluorescent *Pseudomonas* sp. 14477
- Experiences with Patoran (metabromuron) on weed control in bean shrubs. 14526
- The influence of CCC on lodging and development of grain. 14680

# SUBJECT INDEX

## PLANT BREEDING

- Biological activity and dissipation of IPC and Cipe. (Abstract). 14686
- Physiological effects of pentachlorobenzylalcohol on rice plants. 14690
- Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Piricularia oryzae* cavara 14691
- Controlling effect of pentachlorobenzyl alcohol on rice blast 14692
- Discoloration of chlorella cells treated with several pesticides- utilization of chlorella cells for the study of pesticides. 14693
- Exocellular deoxyribonuclease I of *Penicillium chrysogenum* Part I. Partial purification and properties of the enzyme. 14694

## PLANT BREEDING

- Narrow leaves reduce boll rot. 14341
- Breeding for disease resistance and yield improvement in flue-Cured tobacco. 14394
- Greenhouse testing of sugar beets for resistance to curly top. 14446
- Observations on the tolerance and susceptibility of tea clones to shot-hole borer investigation--1969. 14500

## PLANT CUTTINGS

- Rooting of narrowleaf evergreen cuttings as influenced by various hormone treatments. (Abstract). 14318
- Use of high speed centrifugation to obtain extracts from cuttings treated by terminal applications of indoleacetic acid-3 (IAA-2-14C). (Abstract). 14323
- Stimulation and retardation of adventitious root formation by application of B-Nine and Cycocel. 14327

## PLANT CYTOLOGY

- The effect of sodium replacement on the electroctinogram recorded from the cockroach ocellus. 14179
- The ultrastructure and physiology of the abdominal air-guide retractor muscles in the giant water bug, *Lethocerus*. 14277
- Studies on the pathological anatomy of rice plants infected by *Helminthosporium oryzae*, I. Behavior of the causal fungus on the coleoptile of rice seedlings and its ultrafine structure. 14373
- The fine structure of hyphae of *Helminthosporium oryzae* Ito et Kurib. and *Piricularia oryzae* Cavara. 14679

## PLANT DISEASE CONTROL

- Fruiting response of the highbush blueberry to applied gibberellic acid under field conditions. (Abstract). 14308
- Internal brown spot--a condition in yams in Barbados. 14352
- Investigations concerning a root rot on *Phalaenopsis* hybrids and its causative agent (*Fusarium oxysporum*). 14363
- A contribution to studies on the biology and control of apple mildew (*Podosphaera leucotricha* (Ell. and Ev.) Salm.). 14383
- Potato wart in Sweden and National measures for its control. 14707

## PLANT DISEASE RESISTANCE

- The effects of ligaturing *Galleria mellonella* larvae on total haemocyte counts and on mitotic indices among haemocytes. 14218
- Preliminary observations on moulting and limb regeneration in the mite *Caloglyphus boharti*. 14280
- The interrelationship of resistance and susceptibility of cotton to *Verticillium albo-atrum* and *Fusarium oxysporum* f. sp. *vasinfectum* as influenced by soil temperature. (abstract). 14339
- Narrow leaves reduce boll rot. 14341
- On the tolerance of wheat against *Septoria nodorum* Berk. 14348
- Verticillium* wilt of cotton--the situation in the Namoi Valley. 14357
- Virulence of uredial and aecial isolates of *Puccinia coronata* Corda f.sp. *avenae* identified in Canada from 1952 to 1966. 14359
- Breeding for disease resistance and yield improvement in flue-Cured tobacco. 14394
- The induction of scler reddening in strawberry roots. 14423
- The present state of rice research in India--diseases. 14425
- Inheritance of resistance in tomato (*Lycopersicon* spp.) to the anthracnose pathogen *Colletotrichum coccodes*. 14437
- Early sowings and fungicides help arrest the angular leafspot of cotton. 14439
- Isolation of rishitin from tubers of interspecific potato varieties containing different late-blight resistance genes. 14443
- Greenhouse testing of sugar beets for resistance to curly top. 14446
- The effect of cycloheximide on the resistance of potato tuber discs to invasion by a fluorescent *Pseudomonas* sp. 14477
- Observations on the tolerance and susceptibility of tea clones to shot-hole borer investigation--1969. 14500
- The influence of CCC on lodging and development of grain. 14680

## PLANT DISEASE TRANSMISSION

- Lysozyme action in the cockroach--blood changes, while probing intercellularly. 14279
- Internal brown spot--a condition in yams in Barbados. 14352
- The problem of sowbane mosaic virus contamination. 14354
- A transmissible disorder of gladiolus flowers. 14360
- Soil-borne wheat mosaic virus from *Poa annua* L., a new host. 14377
- Yellow dwarf of pea and broadbean caused by milk-vetch dwarf virus. 14378
- Epidemiology of tea blister blight (*Exobasidium vexans*), the genus *Graphelysia* Hampson, 1911 (I. epidoptera -Heterocerca). 14384
- A mild strain of tristeza virus in Hassaku trees (*Citrus hassaku* Hort. et Y. Tanaka) in Hiroshima prefecture. 14442

## Radish enation mosaic virus.

- 14465
- Transmission experiments with the latent Prunus-virus and the gall mite *Vasates foekuei* Nal. 14495
- Further experiments regarding the clarification of the connection between the beet lacebug *Piesma quadratum* (Fieb) and the beet crinkle virus. 14499

## PLANT DISEASES

- The Tea Research Institute of Ceylon. Annual Report for the year 1966. Part II. 14304
- Effects of CIPC applications to individual eyes of potato tubers on type and pattern of sprout development. 14320
- Narrow leaves reduce boll rot. 14341
- The etiology, including nutritional considerations, of passion fruit brown spot in Hawaii. 14342
- On the tolerance of wheat against *Septoria nodorum* Berk. 14348
- Polyphenols and discoloration in the elm disease investigated by histochemical techniques. 14361
- Yellow dwarf of pea and broadbean caused by milk-vetch dwarf virus. 14378
- A new leaf spot disease of *Gardenia jasminoides* from India. 14406
- Tobacco diseases in Venezuela, Costa Rico and Nicaragua. 14407
- Diseases of Annual Oleaceae in Colombia. 14427
- Sugarcane diseases in the Punjab--A survey report. 14440
- Evidence of phenotypic mixing between two strains of tobacco mosaic virus. 14441
- Comatricha nodulifera*, a new myxomycete from Texas. 14474
- Further experiments regarding the clarification of the connection between the beet lacebug *Piesma quadratum* (Fieb) and the beet crinkle virus. 14499
- The fine structure of hyphae of *Helminthosporium oryzae* Ito et Kurib. and *Piricularia oryzae* Cavara. 14679
- New plant protection law is in force. 14704

## PLANT ECOLOGY

- Soil condition and the violet and white root rot diseases of fruit trees. 14343
- Ecological studies on the soft-rot bacteria of vegetables. III. Application of immunofluorescent staining for the detection and the counting of *Erwinia aroideae* in soil. 14385
- Physiological and ecological studies on the over-summering and overwintering of the stripe rust of wheat and barley, *Puccinia striiformis* Westend. 14424
- Effect of a varietal mixture on sugarcane root rot susceptibility and on the rhizosphere microflora. 14455
- Some factors affecting incidence of leaf spot of turmeric by *Taphrina maculans* butler. 14468

## PLANT EXTRACTS

- Adenine and related substances as potent feeding stimulants for the alfalfa weevil, *Hypera postica*. 14213

# SUBJECT INDEX

## PLANT PHYSIOLOGY

- Production of toxins and pectolytic enzymes by two isolates of *Sclerotium bataticola* Taub. and their role in pathogenesis. 14401
- PLANT GALLS**  
A transmissible disorder of gladiolus flowers. 14360  
An apparently two-factor dose-response dependence in lucerne mosaic virus assay. 14368
- PLANT GENETICS**  
Pathogenic variability and the unit representing a single fertilization in *Puccinia coronata* var. *avenae*. 14306  
Inheritance of split cotyledons in swede turnips (*Brassica napus*). 14326  
Isolation of rishitin from tubers of interspecific potato varieties containing different late-blight resistance genes. 14443  
Some results from allium tests with organic mercury halogenides. 14674
- PLANT GEOGRAPHY**  
Insects Vs man. (Lep. Notodontidae). 14210  
*Phyllachora domingensis* and *Phyllachora simplex*-new reports for the continental. 14403
- PLANT GRAFTING**  
A mild strain of tristeza virus in Hassaku trees (*Citrus hassaku* Hort. et Y. Tanaka) in Hiroshima prefecture. 14442
- PLANT GROWTH INHIBITORS**  
Effect of N-dimethylamino succinamic acid (Alar) on vegetable growth of chile pepper (*Capsicum frutescens*) plants. (Abstract). 14338  
Effect of beta-acylphenylhydrazine derivatives on blast fungus upon leaves and in tissues of rice plants. 14459  
Relationship between the number of suckers (tillers) and the number of adventitious roots during the developmental cycle of hard corn sensitive to radial tipping and a report concerning the treatment with auxin, gibberellin, activators and growth inhibitors of the CCC type. 14670  
Effect of D-galactose on the ultrastructure of bentgrass root apices. 14672  
Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Piricularia oryzae* cava. 14691
- PLANT GROWTH REGULATOR**  
Effects of N-dimethylamino succinamic acid (Alar) on maturity and size of Pocahontas strawberries. (Abstract). 14444
- PLANT HARDINESS**  
Studies on the pathological anatomy of rice plants infected by *Helminthosporium oryzae*, I. Behavior of the causal fungus on the coleoptile of rice seedlings and its ultrafine structure. 14373  
Physiological and ecological studies on the over-summering and overwintering of the stripe rust of wheat and barley, *Puccinia striiformis* Westend. 14424
- PLANT HISTOLOGY**  
Anatomical studies of rice plant infected with bacterial leaf blight, with special reference to wilt symptom. 14460
- PLANT HORMONES**  
Regulation of growth, flowering and fruit abscission of apples and peaches with Amchem 66-329. (Abstract). 14309
- Rooting of narrowleaf evergreen cuttings as influenced by various hormone treatments. (Abstract). 14318
- PLANT INJURIES**  
The European corn borer; how to control it. 14301  
Effects of gamma irradiation on prickly pear cactus. 14325  
Bacterial rust on sour cherries and pears. 14340  
Interaction between two races of *Piricularia oryzae* in lesion-formation in rice plants and accumulation of fluorescent compounds associated with infection. 14420  
Damage and evolution disturbance through weather influence. 14426  
Fungal pathogenicity to sound and mechanically damaged blue lupine seed in anoxic culture at two temperatures. 14470  
Insects of the season 1966 related to fruit, vegetables and ornamentals. 14483  
On the appearance and the control of the red-currant leaf-gall fly. 14489  
*Tanyemecus dilaticollis* Gyll. (Curculionidae, Coleoptera) as a pest of cultivated plants and the pre-sowing treatment of the seed with insecticides as a control measure. 14494  
Know your enemy: The so-called 'cornfly'. 14503  
The sugar beet nematode. 14504  
Mites. 14531  
The control of wild foxtail grass in winter wheat as well as the prevention of weather trodden grain. 14539  
The economic incidence of field vole control in France. 14540
- PLANT METABOLISM**  
An approach to the elucidation of host-parasite interaction. 14450
- PLANT MORPHOLOGY**  
Inheritance of split cotyledons in swede turnips (*Brassica napus*). 14326  
Cryopreservation and pathogenicity of selected isolates of *Colletotrichum*, *Rhizoctonia*, and *Phytophthora*. 14374  
On *Fusarium oxysporum* f. sp. *lagenariae* n. f. causing wilt of *Lagenaria vulgaris* var. *hispida*. 14404  
Occurrence of *Phyllosticta* leaf spot on Florida cigar-wrapper tobacco. 14456  
Morphology of cauliflower mosaic virus. 14464  
The respiration and flower development of evergreen azaleas as influenced by gibberellin, scale removal, and 2,4-dinitrophenol. 14666  
Effect of D-galactose on the ultrastructure of bentgrass root apices. 14672  
Nucleus of fusion body and infection structure produced by uredospores of three rust fungi. 14685
- PLANT NEMATODE RESISTANCE**  
Influence of *Zygotylenchus guevarai* (Tobar Jimenez, 1963) Braun and Loof, 1966, on some of its hosts. 14511
- PLANT NEMATODES**  
The Tea Research Institute of Ceylon. Annual Report for the year 1966. Part II. 14304  
Breeding for disease resistance and yield improvement in flue-Cured tobacco. 14394  
Pests of legume covers. characteristic cocoon production. 14479  
The sugar beet nematode. 14504  
Importance and causes of Nematode movement in the soil and research on the migration of '*Ditylenchus myceliophagus*'. 14506  
Pathogenicity and identity of root-knot nematodes on five varieties of banana. 14507  
The occurrence of *Heterodera glycines* on *Trifolium alexandrinum* in United Arab Republic. 14509  
Ring nematode disease of rice in Louisiana. (Abstract). 14510  
Influence of *Zygotylenchus guevarai* (Tobar Jimenez, 1963) Braun and Loof, 1966, on some of its hosts. 14511  
Control of citrus nematode, *Tylenchus semipenetrans*, with DBCP in established cyprus citrus groves. 14512  
Effect of *Heterodera schachtii* on sugar beet seedlings under monoxenic conditions. 14513  
Underpopulation in plant parasitic nematodes. 14515
- PLANT NUTRITION**  
The etiology, including nutritional considerations, of passion fruit brown spot in Hawaii. 14342  
Evidence of phenotypic mixing between two strains of tobacco mosaic virus. 14441
- PLANT ODOR**  
Plant care and bee care go hand in hand. 14478
- PLANT PEST CONTROL**  
Essentials in pest control. 14196  
The European corn borer; how to control it. 14301  
Pests of the grapevine. 14485
- PLANT PEST RESISTANCE**  
The European corn borer; how to control it. 14301  
The frequency of *Sogata orizicola* Muir and *Sogata cubana* Crawford, on rice and *Echinochloa colonum* in Colombia. 14482  
New plant protection law is in force. 14704
- PLANT PESTS**  
A new nematode-destroying *Harposporium*. 14508
- PLANT PHYSIOLOGICAL DISEASES**  
The influence of CCC on lodging and development of grain. 14680
- PLANT PHYSIOLOGY**  
The effects of ligaturing *Galleria mellonella* larvae on total haemocyte counts and on mitotic indices among haemocytes. 14218  
The ultrastructure and physiology of the abdominal air-guide retractor muscles in the giant water bug, *Lethocerus*. 14277  
Preliminary observations on moulting and limb regeneration in the mite *Caloglyphus boharti*. 14280

## SUBJECT INDEX

### PLANT PROPAGATION

- The Tea Research Institute of Ceylon. Annual Report for the year 1966. Part II 14304
- Regulation of growth, flowering and fruit abscission of apples and peaches with Amchem 66-329. (Abstract). 14309
- The low maximum temperature for growth of the psychrophile *Sclerotinia borealis*; evidence for the uncoupling of growth from respiration. 14336
- Soil condition and the violet and white root rot diseases of fruit trees. 14343
- Interactive effects of gibberellic acid and Alar on bush bean growth. (Abstract). 14344
- On the tolerance of wheat against *Septoria nodorum* Berk. 14348
- The importance of preceeding crop-dependent shifts in the micro flora of the soil. I. The influence of soil fungi on the root development of wheat, peas, and rape. 14353
- Influence of hydrostatic pressure upon germinability of the spores of some rice-parasitic fungi effects of physical factors upon plant diseases. III. 14376
- Evidence of hyphal growth of *Cronartium quercuum* in the pine-host cambium. 14379
- An electron microscopic observation of the surface structure of conidia of *Erysiphe graminis hordei*. 14393
- Controlling effect of phenylhydrazine derivatives on rice blast in relation to the structural modifications. 14402
- Interaction between two races of *Piricularia oryzae* in lesion-formation in rice plants and accumulation of fluorescent compounds associated with infection. 14420
- Preliminary report on the amino acid composition of TMV-C protein. 14422
- Physiological and ecological studies on the over-summering and overwintering of the stripe rust of wheat and barley, *Puccinia striiformis* Westend. 14424
- A study of the biology of *Pseudopeziza jonesii* nannf (*Pyrenopeziza medicaginis* Fuck) the cause of yellow blotches on leaves of alfalfa. 14429
- The effect of benomyl on *Mycosphaerella musicola*. 14457
- Studies on dwarf disease of mulberry tree. XVI. On two strains. 14461
- Effect of *Heterodera schachtii* on sugar beet seedlings under monoxenic conditions. 14513
- Secondary effects of fungicides on barley. 14517
- Improved method for weed control in potatoes on extremely marshy soil. (Test experiences in upper Bavaria 1965-67). 14528
- The insect ecology of old-field red pine plantations in central Ontario, I. Description of the study area. III. Soil-surface fauna as indicators of stand change. 14548
- Isolation of *Toxoplasma gondii* from swine and cattle, following pesticide treatments. 14558
- Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665

- The separation of the proteins of wheat by acrylamide gel electrophoresis, with special reference to mottled and unmottled wheat. 14667
- Effect of phytotoxins from the decomposition of organic matter upon peanut seedling emergence. (Abstract). 14668
- Blue light promotes symptom formation and virus multiplication in plants. 14669
- Relationship between the number of suckers (til- lers) and the number of adventitious roots during the developmental cycle of hard corn sensitive to radial tipping and a report concerning the treatment with auxin, gibberellin, activators and growth inhibitors of the CCC type. 14670
- Microsomal N-demethylation, by a cotton leaf oxidase system, of 3-(4'-chlorophenyl)-1,1-dimethylurea (monuron). 14675
- Metabolism of aromatic compounds in healthy and rust-infected primary leaves of wheat. II. Studies with 1-phenylalanine-U-14C, 1-tyrosine-U-14C, and ferulate-U-14C. 14676
- Calcium localization in *Hypomyces*-infected squash hypocotyls and effect of calcium on pectate lyase and tissue maceration. 14677
- The fine structure of hyphae of *Hclmithosporium oryzae* Ito et Kurib. and *Pyricularia oryzae* Cavara. 14679
- The cytology of infection structure development in urediospore germ tubes of *Uromyces phaseoli* var. *typica* (Pers.) Swint. 14681
- The *Erysiphe cichoracearum* conidium. 14682
- Cucumber sex expression modified by 2-chloroethanephosphonic acid. 14683
- Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by *Melampsora lini*. II. Conversion to soluble products. 14684
- Nucleus of fusion body and infection structure produced by urediospores of three rust fungi. 14685
- On the occurrence of periderm in the leaves of *Welwitschia mirabilis*. 14687
- 2,4-D, to ripen tobacco may be detriment to producer and industry. 14688
- Some physiological effects of cotoran on unicellular Algae. (Abstract). 14689
- Physiological effects of pentachlorobenzylalcohol on rice plants. 14690
- Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Piricularia oryzae* cava. 14691
- Discoloration of chlorella cells treated with several pesticides- utilization of chlorella cells for the study of pesticides. 14693
- A morphological and biological concept of the species *Ceratocystis fimbriata*. 14696
- PLANT PROPAGATION**  
The Tea Research Institute of Ceylon. Annual Report for the year 1966. Part II. 14304
- PLANT PROTECTION**  
The genetics of *Drosophila* mating behavior. II. The genetic architecture of mating speed in *Drosophila pseudoobscura*. 14286

- Cost of effective plant protection in the field, the garden, and the vineyard. 14307
- Problems of integrated pest control in practical plant protection. 14315
- Importance of industry and labor to plant care in farm management. 14331
- New tin complex compounds as plant protection fungicides. 14445
- Present knowledge on Phytophagous nematodes and their relations with virus diseases. 14514
- The control of wild foxtail grass in winter wheat as well as the prevention of weather trodden grain. 14539
- The economic incidence of field vole control in France. 14540
- New plant protection law is in force. 14704
- PLANT PROTECTIVE DEVICES**  
Plant care and bee care go hand in hand. 14478
- PLANT QUARANTINE**  
Two important bacterial diseases on beans. 14454
- PLANT REGULATORS**  
Stimulation of tomato ripening by Amchem 66-329. (Abstract). 14313
- The pesticide review, 1968. 14321
- Brussels sprouts growth and production as influenced by N-dimethylamino succinamic acid (Alar). (Abstract). 14334
- Development of corn-growing along the Rhein through use of growth producing herbicides. 14523
- Relationship between the number of suckers (til- lers) and the number of adventitious roots during the developmental cycle of hard corn sensitive to radial tipping and a report concerning the treatment with auxin, gibberellin, activators and growth inhibitors of the CCC type. 14670
- The influence of CCC on lodging and development of grain. 14680
- 2,4-D, to ripen tobacco may be detriment to producer and industry. 14688
- PLANT REPRODUCTION**  
Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Piricularia oryzae* cava. 14691
- PLANT RESIDUES**  
Effect of phytotoxins from the decomposition of organic matter upon peanut seedling emergence. (Abstract). 14668
- PLANT RESPIRATION**  
The respiration and flower development of ever-green azaleas as influenced by gibberellin, scale removal, and 2,4-dinitrophenol. 14666
- Some physiological effects of cotoran on unicellular Algae. (Abstract). 14689
- PLANT TAXONOMY**  
Bruchid beetles (Coleoptera, Bruchidae) from the Megri district of Armenia. 14125
- Radish enation mosaic virus. 14465
- PLANT TRANSLOCATION**  
Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665

# SUBJECT INDEX

## POULTRY

- PLANTING**  
Onion weed control on Mallee soils. 14518
- PLANTING DATE**  
The frequency of *Sogata orizicola* Muir and *Sogata cubana* Crawford on rice and *Echinochloa colonum* in Colombia. 14482
- PLANTS**  
Plictran miticide-New approach to mite control. 14202  
Plant care on the North Sea coast. 14375  
Some aspects of the etiology of enzootic icterus (*geelsiekte*) and *tribulosis ovis* (*geeldikkop*). 14589  
Determination of insecticide residue in animal and plant tissues. IV: Determination of residual amount of Sumithion and some of its metabolites in fresh milk. 14659
- PLAQUE**  
Serologic diagnosis of Colorado tick fever. A comparison of complement-fixation, immunofluorescence, and plaque-reduction methods. 14564
- PLAQUE ASSAY**  
Plaque characteristics of four classes of bovine viruses. 14570
- PLASMODIUM**  
Global eradication of malaria: Changes of strategy and future outlook. 14298
- PLASTIDS**  
The effect of sodium replacement on the electroretinogram recorded from the cockroach ocellus. 14179
- PLOWING**  
Lest white grubs visit your sugarcane...and find you unprepared. 14486
- PLUTELLA MACULIPENNIS**  
Relative efficacy of different insecticides, as contact poisons, to the larvae of the diamond-black moth, *Plutella maculipennis* Curtis (Lepidoptera: Plutellidae). 14122
- PNEUMONIA**  
Pulmonary disease in Kenya sheep. 14639
- POA ANNUA**  
Soil-borne wheat mosaic virus from *Poa annua* L., a new host. 14377
- PODOSPHAERA LEUCOTRICHA**  
A contribution to studies on the biology and control of apple mildew (*Podosphaera leucotricha* (Ell. and Ev.) Salm.). 14383
- POISONING**  
Persistent toxicity of some systemic insecticides to little honey bees. 14260
- POISONOUS PLANTS**  
Blood changes associated with locoweed poisoning. 14577
- POLLINATION**  
Fruiting response of the highbush blueberry to applied gibberellic acid under field conditions. (Abstract). 14308  
Stimulation of tomato ripening by Amchem 66-329. (Abstract). 14313  
Plant care and bee care go hand in hand. 14478
- POLYETHYLENE GLYCOL**  
A note on the genus *Pseudathyma* Staudinger with description of a new species (Lepidoptera: Nymphalidae). 14143
- POLYETHYLENE THIURAM SULFIDES**  
Is an early infection by *Peronospora tabacina* Adam controllable in the field. 14397
- POLYHEDROSES**  
Development of the virus with inclusion bodies, of the Lepidoptera *Lymantria dispar* in cell cultures. 14275  
Sex differences in embryonic response to *Eimeria tenella* infection. 14579
- POLYMORPHISM**  
Caterpillar polymorphism of *Pergesa clpeonor* L. 14221  
Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638
- POLYMYXA GRAMINIS**  
Soil-borne wheat mosaic virus from *Poa annua* L., a new host. 14377
- POLYPLOIDY**  
Mutation induction by EMS in autotetraploid barley. 14319
- POMPILIDAE**  
Remarks concerning some species of spider wasps (Hym. Pompilidae)(2.). 14174  
Remarks concerning some species of wasps (Hym. Pompilidae) (3.). 14175
- POPULATION**  
Effect of population density on the larval coloration and development of larva and pupa in the larger pellucid hawk moth, *Cephonodes hylas* L. (Lepidoptera: Sphingidae). 14121  
Oribatid mite fauna in Sarobetsu Moor in northern Hokkaido, Japan. 14138  
A study of the population of insects emerging as adults from Spettigue's Pond at London, Ontario. 14144  
The present distribution of *Hylotrupes bajulus* L. (Col., Cerambycidae) in Norway and its abundance in some districts. 14146  
The viability of brown locust eggs (*Locustana pardalina* (Walker)). 14188  
The pheromone of the queen of the Oriental hornet, *Vespa orientalis*. 14214  
Parasitization of social Halictine bees in southern Ontario. 14224  
A new method of estimating population size, survivorship, and birth rate from capture-recapture data. 14237  
Study on the density of the adult of the brown planthopper *Nilaparvata lugens* Stal. 14251  
Genetic variation in natural island populations of members of the *Drosophila nasuta* and *Drosophila ananassae* subgroups. 14296  
Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317  
Soil condition and the violet and white root rot diseases of fruit trees. 14343  
A study on the correlation of citrus nematode population with decline of citrus. 14505  
Underpopulation in plant parasitic nematodes. 14515
- The causes and dynamics of population explosions of *M. arvalis*: A survey of current French research. 14543  
Ecology of lice on sheep. VI. The influence of shearing and solar radiation on populations and transmission of *Damalinea ovis*. 14629
- PORK**  
Identification of hog-cholera virus in frozen pork imported from China. 14556
- PORTHETRIA DISPAR**  
A serological comparison of some iridescent non-occluded insect viruses. 14193  
Development of the virus with inclusion bodies, of the Lepidoptera *Lymantria dispar* in cell cultures. 14275
- POTASSIUM**  
Nutritional effects connected with sheepnose, a disorder of grapefruit. (Abstract). 14475  
Effect of bovine coccidiosis on blood serum sodium and potassium levels of calves. 14567
- POTATOES**  
Ultrastructure of the ileum of the European corn borer, *Ostrinia nubilalis*. 14207  
A new contribution to the study of Leafhopper fauna (Homoptera, Auchenorrhyncha). 14270  
Effects of N-dimethylamino succinamic acid on the size of potatoes. (Abstract). 14311  
Effects of CIPC applications to individual eyes of potato tubers on type and pattern of sprout development. 14320  
Importance of industry and labor to plant care in farm management. 14331  
Verticillium spp. and associated fungi from certified potato seed tubers. 14346  
Ten years of investigations with potato virus in Hannover. 14347  
Vegetable dry rot and phytoprog- service in North-Hanover 1968. 14380  
Isolation of rishitin from tubers of interspecific potato varieties containing different late-blight resistance genes. 14443  
Virus A as a cause of streak on secondary infected eyesteklings of the potato. 14471  
The effect of cycloheximide on the resistance of potato tuber discs to invasion by a fluorescent *Pseudomonas* sp. 14477  
Factors affecting the infestation of aphids on potato plants. 14481  
Improved method for weed control in potatoes on extremely marshy soil. (Test experiences in upper Bavaria 1965-67). 14528  
Potato wart in Sweden and National measures for its control. 14707
- POULTRY**  
Lebanon. 14549  
Histopathologic and hematologic changes in moribund stages of chicks infected with T-virus. 14600  
What the sanitarian should know about Staphylococci and salmonellae in non-dairy products. II. Salmonellae. 14649

## SUBJECT INDEX

### POULTRY DISEASES

#### POULTRY DISEASES

Sex differences in embryonic response to *Eimeria tenella* infection. 14579

The persistence of drug resistance in strains of *Eimeria* species in broiler chickens following a change of coccidiostat. 14621

#### POULTRY HATCHERIES

Five years' research with a hatchery sanitation program in Maine. 14545

#### POULTRY INDUSTRY

Five years' research with a hatchery sanitation program in Maine. 14545

#### POWDERY MILDEW

The effects of ligaturing *Galleria mellonella* larvae on total haemocyt counts and on mitotic indices among haemocytes. 14218

A system for screening of rare events in genes of *Drosophila melanogaster*. 14289

An electron microscopic observation of the surface structure of conidia of *Erysiphe graminis hordei*. 14393

Breeding for disease resistance and yield improvement in flue-Cured tobacco. 14394

Control of powdery mildew of cucurbits with systemic and nonsystemic fungicides. 14428

Powdery mildew of rubber in Papua. 14449

#### POXVIRUSES

Bovine virus diarrhoea in Italy. II. Reproduction of the disease. 14554

#### PREDATORY BIRDS

Biology of *Hyphantria cunea* Drury (Lepidoptera: aretiidae in Japan. I. Notes on adult biology with references to the predation by birds. 14627

#### PREEMERGENCE

Pre-emergence application of 2,4-D-ester to wheat (*Triticum vulgare*). 14534

#### PROCESSING

Design of honey houses--central and mobile. 14194

#### PRODUCTION ECONOMICS

Repelling pheasants from sprouting corn with a carbamate insecticide. 14337

Control of weed grass. 14525

#### PROPANIL

Chemical treatment the answer to fruit seald. 14466

#### PROPAZINE

Chemicals that show--crops' co-existence with weeds is not necessary. 14530

#### PROPERTIES

Exocellular deoxyribonuclease I of *Penicillium chrysogenum* Part I. Partial purification and properties of the enzyme. 14694

#### PROPHAM

Biological activity and dissipation of IPC and Cipe. (Abstract). 14686

#### PROPYNYL N-PHENYLCARBAMATE

Developmental trends in the chemical control of weeds in beets. 14536

#### PROTEINS

Continuous and rhythmic reproductive cycle observed in *Periplaneta americana* (L.). 14182

Studies on a trehalase from a symbiont of the tropical cockroach, *Blaberus craniifer*--a suggested analytical enzyme. 14198

Properties of leptinotarsin, a toxic hemolymph protein from the Colorado potato beetle. 14212

Effect of *Loxosecles reelusa* Gertsch and Mulaik venom on *Heliothis virescens* (F.) larvae. oosterhof, g. 14248

Preliminary report on the amino acid composition of TMV-C protein. 14422

Current status of in vitro synthesis of plant viruses. 14434

Evidence of phenotypic mixing between two strains of tobacco mosaic virus. 14441

The effect of cycloheximide on the resistance of potato tuber discs to invasion by a fluorescent *Pseudomonas* sp. 14477

Inhibition of host-cell protein and ribonucleic acid synthesis by newcastle disease virus. 14622

The separation of the proteins of wheat by acrylamide gel electrophoresis, with special reference to mottled and unmottled wheat. 14667

#### PROTOSTRONGYLUS

Pulmonary disease in Kenya sheep. 14639

#### PROTOZOA

Damage caused by *Lankesteria culicis* (Ross) to *Aedes aegypti* (L.). 14297

The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568

#### PRUNING

Post-year responses of Concord grape vines treated with N-dimethylamino succinamic acid. (Abstract). 14467

#### PRUNUS

Transmission experiments with the latent Prunus-virus and the gall mite *Vasates fockeui* Nal. 14495

#### PRUNUS VIRGINIANA

A change of feeding habit in *Archips cerasivorana* (Fitch) (Lepidoptera, Tortricidae). 14178

#### PSAMMOTETTIX

A new contribution to the study of Leafhopper fauna (Homoptera, Auchenorrhyncha). 14270

#### PSEUDALETIA UNIPUNCTA

The European corn borer; how to control it. 14301

#### PSEUDOCOCCUS MARITIMUS

Pests of the grapevine. 14485

#### PSEUDOMONAS

Bacterial rust on sour cherries and pears. 14340

A new bacterial leaf spot of *Antirrhinum* seedlings caused by a subspecies of *Pseudomonas fluorescens* Migula, 1895. 14410

The effect of cycloheximide on the resistance of potato tuber discs to invasion by a fluorescent *Pseudomonas* sp. 14477

*Pseudomonas* infections in mink with special reference to *Pseudomonas vasculitis* in pulmonary lesions. 14598

#### PSEUDOMONAS PUTIDA

Removal of pseudomonads from plant leaves and measurement of their in vivo beta-glucosidase synthesis. 14369

#### PSEUDOMONAS SAVASTANOI

Removal of pseudomonads from plant leaves and measurement of their in vivo beta-glucosidase synthesis. 14369

#### PSEUDOMONAS SOLANACEARUM

Identification of a bacterial strain *Pseudomonas solanacearum* E. F. Sm. of tobacco (*Nicotiana tabacum* L.) in Colombia. 14396

#### PSEUDOMONAS SYRINGAE

Removal of pseudomonads from plant leaves and measurement of their in vivo beta-glucosidase synthesis. 14369

#### PSEUDOPERONOSPORA CUBENSIS

On the longevity of Conidia of cucumber downy mildew fungus, with special reference to the influence of sunlight. 14382

#### PSEUDOPEZIZA

Is it possible to draw any conclusions from the red epidemic of 1967, in regard to the appearance of the disease during this year. 14678

#### PSEUDOPEZIZA JONESII

A study of the biology of *Pseudopeziza jonesii* nannf (*Pyrenopeziza medicaginis* Fuck) the cause of yellow blotches on leaves of alfalfa. 14429

#### PSEUDOPEZIZA MEDICAGINIS

A study of the biology of *Pseudopeziza jonesii* nannf (*Pyrenopeziza medicaginis* Fuck) the cause of yellow blotches on leaves of alfalfa. 14429

#### PSEUDOTSUGA MENZIESII

Systemic activity of zectran, matacil and bidrin injected into conifer trunks. 14656

#### PSOCIDAE

Exceptions to the prevailing pattern of tubules (9 plus 9 plus 2) in the sperm flagella of certain insect species. 14255

#### PSYLLIDAE

The development of the citrus psylla, *Trioxa erytrae* (Del Guercio) (Homoptera: Psyllidae), on Citrus limon and four indigenous host plants. 14491

#### PTEROMALIDAE

A note on the new species of *Sphegigaster* Spin. (Chalcidoidea, Pteromalidae). 14136

#### PUBLIC HEALTH

Problems of integrated pest control in practical plant protection. 14315

Comments on rat-free towns. 14544

New plant protection law is in force. 14704

The Regulation of Pesticides in the United States. 14705

#### PUBLIC HEALTH ENTOMOLOGY

Global eradication of malaria: Changes of strategy and future outlook. 14298

#### PUCGINIA CORONATA

Pathogenic variability and the unit representing a single fertilization in *Puccinia coronata* var. *avenae*. 14306

Virulence of uredial and aecial isolates of *Puccinia coronata* Corda f.sp. *avenae* identified in Canada from 1952 to 1966. 14359

Nucleus of fusion body and infection structure produced by uredospores of three rust fungi. 14685

#### PUCGINIA GLUMARUM STRIIFORMIS

Physiological and ecological studies on the over-summering and overwintering of the stripe rust of wheat and barley, *Puccinia striiformis* Westend. 14424

# SUBJECT INDEX

## REPRODUCTIVE ORGANS

- PUCGINIA GRAMINIS**  
Physiological strains of *Puccinia graminis tritici* in Colombia and its implications. 14421
- PULICALVARIA**  
Key to the adult hymenopterous parasites of *Pulicalvaria piceaella* (Kearfoot), (Lepidoptera: Gelichiidae) of Quebec. 14231
- PULMONARY ADENOMATOSIS**  
Pulmonary disease in Kenya sheep. 14639
- PUMPKINS**  
Leafspot of *Cucurbita pepo* caused by *Alternaria cucumerina*. 14415
- PUPAL CASES**  
Pests of legume covers. characteristic cocoon production. 14479
- PURIFICATION**  
Exocellular deoxyribonuclease I of *Penicillium chrysogenum* Part I. Partial purification and properties of the enzyme. 14694
- PYCNIDIA**  
A study of the biology of *Pseudopeziza jonesii* nannf. (*Pyrenopeziza medicaginis* Fuck) the cause of yellow blotches on leaves of alfalfa. 14429
- PYRALIDAE**  
First records of eye-frequenting Lepidoptera from India. 14624
- PYRAUSTA AINSLIEI**  
The European corn borer; how to control it. 14301
- PYRENOPHORA**  
Utilization of various forms of nitrogen by *Drechslera sorokiniana*, the pathogen causing foot rot disease in wheat. 14458
- PYRENOPHORA SEMENIPERDA**  
Erratum 49: A pleomorphic parasite on cereal seeds, *Pyrenophora semeniperda*. 14451
- PYRETHRUM**  
Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthemum, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657
- PYRICULARIA ORYZAE**  
Effect of beta-acylphenylhydrazine derivatives on blast fungus upon leaves and in tissues of rice plants. 14459  
The fine structure of hyphae of *Helminthosporium oryzae* Ito et Kurib. and *Pyricularia oryzae* Cavara. 14679
- PYRUVIC ACID**  
Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by *Melampsora lini*. II. Conversion to soluble products. 14684
- PYTHIUM**  
Fungal foes that menace ginger crop. 14366
- PYTHIUM GRAMINICOLA**  
Effect of a varietal mixture on sugarcane root rot susceptibility and on the rhizosphere microflora. 14455
- PYTHIUM ULTIMUM**  
Selective vapor phase activity of chloronitro- and chlorobenzenes in soil. 14435
- QUANTITATIVE ANALYSIS**  
Quantitative aspects of insect nutrition. 14201  
Use of high speed centrifugation to obtain extracts from cuttings treated by terminal applications of indoleacetic acid-3 (IAA-2-14C). (Abstract). 14323
- RABIES**  
Adenine and related substances as potent feeding stimulants for the alfalfa weevil, *Hypera postica*. 14213
- RADIATION**  
Mutation induction by EMS in autotetraploid barley. 14319
- RADIOACTIVE TRACERS**  
Metabolism of aromatic compounds in healthy and rust-infected primary leaves of wheat. II. Studies with 1-phenylalanine-U-14C, 1-tyrosine-U-14C, and ferulate-U-14C. 14676
- RADIOBIOLOGY**  
A correlation between the ability to withstand high temperatures and radioresistance in *Drosophila melanogaster*. 14252
- RADISHES**  
Cryopreservation and pathogenicity of selected isolates of *Colletotrichum*, *Rhizoctonia*, and *Phytophthora*. 14374  
Radish enation mosaic virus. 14465
- RAINFALL**  
Bacterial rust on sour cherries and pears. 14340  
Pesticide spraying during the rains. 14433  
Factors affecting the infestation of aphids on potato plants. 14481  
Some factors affecting the disappearance of tordon in soil. 14533  
Is it possible to draw any conclusions from the red epidemic of 1967, in regard to the appearance of the disease during this year. 14678
- RAPE**  
Inheritance of split cotyledons in swede turnips (*Brassica napus*). 14326  
Importance of industry and labor to plant care in farm management. 14331  
The importance of preceding crop-dependent shifts in the micro flora of the soil. I. The influence of soil fungi on the root development of wheat, peas, and rape. 14353
- RASPBERRIES**  
*Neotetranychus rubicola* Bagd. on the raspberry bush in Serbia. 14501
- RATS**  
Musk, brown rats and harvest mice as pests in maize. 14541  
Ridding rice fields of rats. 14542  
Comments on rat-free towns. 14544  
Diaplacentarian immunity to foot-and-mouth virus in nursing rats: correlation and regression. 14594  
Varification of antibodies of Newcastle virus in rats inoculated with different types of experimental vaccines. 14609  
Localization of glycogen in the cestode, *Hymenolepis diminuta*. 14642  
Respiratory activity of *Trypanosoma lewisi* during several phases of infection in the rat. 14643  
*Trypanosoma lewisi*: Creatine phosphokinase, ornithine carbamyl transferase, ATPases, Pi, and glucose levels in the rat host. 14644  
A new idea from California--lollipop bait cube. 14648
- Effect of carbaryl on the neuroendocrine system of rats. foodstuffs: a multi-detection scheme for gas chromatography of solvent extracts. 14662  
An interaction of dieldrin with thiamine. 14664
- RATTLE DISEASE (TOBACCO)**  
Enhancement of tobacco rattle virus stable form infection by heterologous short particles. 14447
- REARING**  
DD-136: The worm that makes short work of insect pests. 14215  
Development of *Caenorhabditis briggsae* and *Hymenolepis nana* in interchanged media. France. 14633
- REDUVIIDAE**  
Histochemical data on the cardiac bodies of *Antheraea pernyi* Guer. (Lepidoptera, Attacidae) and of *Rhodnius prolixus* Stal. (Hemiptera, Reduviidae). 14191
- REFORESTATION**  
Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317
- REGENERATION**  
Hormonal control of imaginal disc regeneration in *Galleria mellonella* (Lepidoptera). 14236  
Preliminary observations on moulting and limb regeneration in the mite *Caloglyphus boharti*. 14280
- REPORTS**  
Preliminary report about my breeding attempts with *Micropteryx calthella* L. (Lep., Micr.). 14234  
The Tea Research Institute of Ceylon. Annual Report for the year 1966. Part II. 14304  
Sugarcane diseases in the Punjab--A survey report. 14440
- REPRODUCTION**  
Continuous and rhythmic reproductive cycle observed in *Periplaneta americana* (L.). 14182  
Aziridinyl chemosterilants for house flies. 14186  
The ultrastructure and electrophysiology of the membranous lobe of the antenna in *Speophyes lucidulus* larvae (Coleoptera). 14192  
Sperm activation and migration in bed bugs. size in hypersensitive hosts in the presence of chloramphenicol. 14257  
Pathogenic variability and the unit representing a single fertilization in *Puccinia coronata* var. *avcaea*. 14306  
Regulation of growth, flowering and fruit abscission of apples and peaches with Amchem 66-329. (Abstract). 14309  
Vegetative and reproductive responses of highbush blueberry to succinic acid 2,2-dimethylhydrazide (Alar). 14314  
Cucumber sex expression modified by 2-chloroethanephosphonic acid. 14683
- REPRODUCTIVE ORGANS**  
Epidemiology of tea blister blight (*Exobasidium vexans*), the genus *Graphelysia* Hampson, 1911 (Lepidoptera-Heterocerca). 14384  
Studies on the parasitism and control of tea root disease fungi in Ceylon. Heteroptera. 14448

## SUBJECT INDEX

### RESEARCH

#### RESEARCH

- An apparatus for dispensing house fly eggs mechanically. 14119
- Important forest insects of Ontario in 1966. 14120
- Effect of population density on the larval coloration and development of larva and pupa in the larger pellucid hawk moth, *Cephonodes hylas* L. (Lepidoptera: Sphingidae). 14121
- Geotactic response of the two-spotted spider mite, *Tetranychus urticae* Koch (Acarina: Tetranychidae). 14137
- A study of the population of insects emerging as adults from Spettiguc's Pond at London, Ontario. 14144
- Contributions to the knowledge of the Helicide fauna (Dipt. Nemat.) of Berlin. 14157
- A new species of *Acmaeodera* (Coleoptera, Buprestidae). 14158
- A comparative study of gastric caeca in adult and larval stages of bark beetles (Coleoptera: Scolytidae). 14170
- A change of feeding habit in *Archips cerasivorana* (Fitch) (Lepidoptera, Tortricidae). 14178
- Insect hormones: Olive oil is not an inert vehicle for hormone injection into locusts. 14197
- Parasitization of social Halictine bees in southern Ontario. 14224
- Oviposition sites and the viability of eggs of *Thymelicus lineola* (Ochs.) (Lepidoptera: Hesperidae). 14253
- Observations on the diapausal and post-diapausal, proterandric developmental events in caterpillars of *Sparganothis pilleriana* Schiff. (Lepidoptera: Tortricidae). 14259
- Hydrolysis of acetylthiocholine and butyrylthiocholine by cholinesterases of insects and a mite. 14261
- Records of the orthopteroïd insects in Ontario. 14276
- The regulatory effect of gibberellic acid and cytokinins on fruit maturation and ripening. (Abstract). 14300
- The effect of Alar (N-dimethylamino succinamic acid) on yield and quality attributes of Concord grapes. 14302
- The influence of N-dimethylamino succinamic acid (Alar) on growth of the sweet cherry, *Prunus avium*. (Abstract). 14303
- Effects of N-dimethylamino succinamic acid (Alar), (2-chloroethyl trimethylammonium chloride (CCC), gibberellic acid (GA), and maleic hydrazide (MH) on bolting in lettuce. (Abstract). 14305
- Pathogenic variability and the unit representing a single fertilization in *Puccinia coronata* var. *avenae*. 14306
- Fruiting response of the highbush blueberry to applied gibberellic acid under field conditions. (Abstract). 14308
- Regulation of growth, flowering and fruit abscission of apples and peaches with Amchem 66-329. (Abstract). 14309
- Effects of N-dimethylamino succinamic acid on the size of potatoes. (Abstract). 14311
- Stimulation of flower bud abscission and concentration of fruit set in tomato. (Abstract). 14312
- Stimulation of tomato ripening by Amchem 66-329. (Abstract). 14313
- Vegetative and reproductive responses of highbush blueberry to succinic acid 2,2-dimethylhydrazide (Alar). 14314
- Problems of integrated pest control in practical plant protection. 14315
- The effect of gibberellic acid on the highbush blueberry (*Vaccinium corymbosum*). (Abstract). 14316
- Effects of CIPC applications to individual eyes of potato tubers on type and pattern of sprout development. 14320
- Effects of succinic acid 2, 2-dimethyl hydrazide (Alar) on apples. (Abstract). 14322
- Use of high speed centrifugation to obtain extracts from cuttings treated by terminal applications of indoleacetic acid-3 (IAA-2-14C). (Abstract). 14323
- The effect of succinic acid 2,2-dimethyl hydrazide on stem and leaf tissues of *Chrysanthemum morifolium* Bright Golden Anne. (Abstract). 14324
- Effects of gamma irradiation on prickly pear cactus. 14325
- Stimulation and retardation of adventitious root formation by application of B-Nine and Cycocel. 14327
- In vivo and in vitro reactions of 1,1-dimethylamino succinamic acid (B-9, Alar) and related substances. 14328
- Vegetative and fruiting responses of pecan (*Carya illinoensis* Koch) to heading back and N-dimethylamino succinamic acid. (Abstract). 14332
- Brussels sprouts growth and production as influenced by N-dimethylamino succinamic acid (Alar). (Abstract). 14334
- The effects of Alar on red tart cherries (*Prunus cerasus*). 14335
- The low maximum temperature for growth of the psychrophile *Sclerotinia borealis*; evidence for the uncoupling of growth from respiration. 14336
- Effect of N-dimethylamino succinamic acid (Alar) on vegetable growth of chile pepper (*Capsicum frutescens*) plants. (Abstract). 14338
- Interactive effects of gibberellic acid and Alar on bush bean growth. (Abstract). 14344
- On the tolerance of wheat against *Septoria nodorum* Berk. 14348
- Cultural factors in relation to collar rot control of groundnut. 14351
- The importance of preceding crop-dependent shifts in the micro flora of the soil. I. The influence of soil fungi on the root development of wheat, peas, and rape. 14353
- Polyphenols and discoloration in the elm disease investigated by histochemical techniques. 14361
- Effects of N-dimethylamino succinamic acid (Alar) on yield, size, maturation, and quality of peaches with reference to its use in adapting fruit for mechanical harvesting. (Abstract). 14362
- Investigations concerning a root rot on *Phalaenopsis* hybrids and its causative agent (*Fusarium oxysporum*). 14363
- Evidence for the release of 28 S RNA from turnip yellow mosaic virus heated in vitro. 14370
- Effect of different micronutrient sprays on chlorosis, granulation, fruit fall, yield and fruit quality of sweet oranges var. blood red. 14398
- A new leaf spot disease of *Gardenia jasminoides* from India. 14406
- An evidence for the multiplication of rice dwarf virus in the vector cell cultures inoculated in vitro. 14409
- Inheritance of resistance in tomato (*Lycopersicon* spp.) to the anthracnose pathogen *Colletotrichum coccodes*. 14437
- Sugarcane diseases in the Punjab--A survey report. 14440
- Effects of N-dimethylamino succinamic acid (Alar) on maturity and size of Pocahontas strawberries. (Abstract). 14444
- New tin complex compounds as plant protection fungicides. 14445
- Post-year responses of Concord grape vines treated with N-dimethylamino succinamic acid. (Abstract). 14467
- Virus A as a cause of streak on secondary infected eyestecklings of the potato. 14471
- Nutritional effects connected with sheepposing, a disorder of grapefruit. (Abstract). 14475
- Insects of the season 1966 related to fruit, vegetables and ornamentals. 14483
- Note on the transmission of northern cereal mosaic virus by *Muellerianella fairmairei* (Perris). 14484
- Transmission experiments with the latent *Prunus-virus* and the gall mite *Vasates foekuei* Nal. 14495
- Further experiments regarding the clarification of the connection between the beet lacebug *Piesma quadratum* (Fieb) and the beet crinkle virus. 14499
- A study on the correlation of citrus nematode population with decline of citrus. 14505
- Economically important nematodes in Ontario--1966. 14516
- Mites. 14531
- The causes and dynamics of population explosions of *M. arvalis*: A survey of current French research. 14543
- Comments on rat-free towns. 14544
- Five years' research with a hatchery sanitation program in Maine. 14545
- Tuberculosis in three herds with access to the same open sewer. 14546
- Piperazine-carbon disulfide complex. Drugs for veterinary use; drug efficacy study implementation. 14547



## SUBJECT INDEX

RUST

- The insect ecology of old-field red pine plantations in central Ontario, I. Description of the study area. III. Soil-surface fauna as indicators of stand change. 14548
- Lebanon. 14549
- An outbreak of anthrax in mink. 14562
- Biology of *Hyphantria cunea* Drury (Lepidoptera: arctiidae) in Japan. I. Notes on adult biology with references to the predation by birds. 14627
- Warble fly larvae control study. 14631
- Effect of D-galactose on the ultrastructure of bentgrass root apices. 14672
- Metabolism of aromatic compounds in healthy and rust-infected primary leaves of wheat. II. Studies with 1-phenylalanine-U-14C, 1-tyrosine-U-14C, and ferulate-U-14C. 14676
- RESPIRATION**
- The low maximum temperature for growth of the psychrophile *Sclerotinia borealis*; evidence for the uncoupling of growth from respiration. 14336
- Respiratory activity of *Trypanosoma lewisi* during several phases of infection in the rat. 14643
- RESTRAINING TABLE**
- Body constraint and developmental arrest in *Galleria mellonella* L.: Further studies. 14265
- RETINA**
- Recent advances in the studies of insect compound eyes. 14281
- REVIEWS**
- The pesticide review, 1968. 14321
- RHIZOCTONIA**
- Cryopreservation and pathogenicity of selected isolates of *Colletotrichum*, *Rhizoctonia*, and *Phytophthora*. 14374
- Common scab and *Rhizoctonia* disease of potato. 14414
- RHIZOCTONIA SOLANI**
- Cryopreservation and pathogenicity of selected isolates of *Colletotrichum*, *Rhizoctonia*, and *Phytophthora*. 14374
- Selective vapor phase activity of chloronitro- and chlorobenzenes in soil. 14435
- RHIZOGLYPHUS ECHINOPUS**
- Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638
- RHOPALOSIPHUM FITCHII**
- Identity of instars of apterous viviparae of *Rhopalosiphum fitchii* (Sanderson) and *Toxoptera graminum* (Rondani), (Aphididae, Homoptera). 14163
- RHYNCHOPHORA**
- Epizotic symbiosis. 14203
- Pests of the grapevine. 14485
- RIBONUCLEIC ACID**
- Development and diapause in insects. 14199
- Ecdysone and DNA synthesis in cultured wing disks of the wax moth, *Galleria mellonella*. 14250
- Evidence for the release of 28 S RNA from turnip yellow mosaic virus heated in vitro. 14370
- Current status of in vitro synthesis of plant viruses. 14434
- Evidence of phenotypic mixing between two strains of tobacco mosaic virus. 14441
- Inhibition of host-cell protein and ribonucleic acid synthesis by newcastle disease virus. 14622
- RICE**
- Studies on the pathological anatomy of rice plants infected by *Helminthosporium oryzae*, I. Behavior of the causal fungus on the coleoptile of rice seedlings and its ultrafine structure. 14373
- Influence of hydrostatic pressure upon germinability of the spores of some rice-parasitic fungi effects of physical factors upon plant diseases. III. 14376
- Controlling effect of phenylhydrazine derivatives on rice blast in relation to the structural modifications. 14402
- Interaction between two races of *Piricularia oryzae* in lesion-formation in rice plants and accumulation of fluorescent compounds associated with infection. 14420
- The present state of rice research in India--diseases. 14425
- Effect of beta-acylphenylhydrazine derivatives on blast fungus upon leaves and in tissues of rice plants. 14459
- Anatomical studies of rice plant infected with bacterial leaf blight, with special reference to wilt symptom. 14460
- The frequency of *Sogata orizicola* Muir and *Sogata cubana* Crawford on rice and *Echinochloa colonum* in Colombia. 14482
- Bionomics of the rice gundhy bug, *Leptocoris varicornis* Fabr. (Hemiptera, Heteroptera; Coreidae). 14490
- Various problems on vectors of rice viruses. 14492
- Stam F-34 can kill the weeds of Gora paddies. 14537
- Ridding rice fields of rats. 14542
- Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665
- Physiological effects of pentachlorobenzylalcohol on rice plants. 14690
- Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Piricularia oryzae* cava. 14691
- Controlling effect of pentachlorobenzyl alcohol on rice blast. 14692
- RINDERPEST**
- A comparison of the haemagglutination-inhibition and neutralisation test in the assay of rinderpest antibodies in cattle. 14607
- RING SPOT**
- Ecdysone and DNA synthesis in cultured wing disks of the wax moth, *Galleria mellonella*. 14250
- The ultrastructure and physiology of the abdominal air-guide retractor muscles in the giant water bug, *Lethocerus*. 14277
- Bean yellow mosaic and tobacco ringspot virus isolated from *Crotalaria* (*Crotalaria spectabilis*). 14388
- Peroxidase isozymes in virus-infected plants. 14418
- Several years' research on the investigations of virus in pears. 14473
- RINGWORM**
- A case of ovine dermatomycosis produced by *Trichophyton verrucosum*. 14584
- Skin diseases of horses. 14592
- RISHITIN**
- Isolation of rishitin from tubers of interspecific potato varieties containing different late-blight resistance genes. 14443
- RODENT CONTROL**
- A new idea from California--lollipop bait cube. 14648
- RODENTICIDES**
- The pesticide review, 1968. 14321
- Musk, brown rats and harvest mice as pests in maize. 14541
- ROOT KNOT NEMATODE**
- Pathogenicity and identity of root-knot nematodes on five varieties of banana. 14507
- ROOT ROT**
- Preliminary observations on moulting and limb regeneration in the mite *Caloglyphus boharti*. 14280
- Effect of soil fumigants on control of pea root rot pathogens. 14391
- Effect of a varietal mixture on sugarcane root rot susceptibility and on the rhizosphere microflora. 14455
- ROOTS**
- The ultrastructure and physiology of the abdominal air-guide retractor muscles in the giant water bug, *Lethocerus*. 14277
- Rooting of narrowleaf evergreen cuttings as influenced by various hormone treatments. (Abstract). 14318
- Stimulation and retardation of adventitious root formation by application of B-Nine and Cycocel. 14327
- The importance of preceeding crop-dependent shifts in the micro flora of the soil. I. The influence of soil fungi on the root development of wheat, peas, and rape. 14353
- Damage and evolution disturbance through weather influence. 14426
- Studies on the parasitism and control of tea root disease fungi in Ceylon. Heteroptera. 14448
- Effect of D-galactose on the ultrastructure of bentgrass root apices. 14672
- RORIPPA SYLVESTRIS**
- Preliminary report on the amino acid composition of TMV-C protein. 14422
- ROSELLINIA NECATRIX**
- Soil condition and the violet and white root rot diseases of fruit trees. 14343
- ROT (REDPEPPERS)**
- Fungicides can check fruit-rot and die-back of chilli. 14432
- ROTYLENCHUS**
- Underpopulation in plant parasitic nematodes. 14515
- RUMINANTS**
- Two cases of urea poisoning in dairy herds. 14661
- RUSSETING**
- Influence of pesticides on russetting of Golden Delicious apples. 14487
- RUST**
- Limb rust of pine: The causal fungi. 14430

## SUBJECT INDEX

### RUST (FLAX)

#### RUST (FLAX)

Electron microscopy of uredospores of *Melanosporea lini* and of rust-infected flax. 14399

#### RUST (TREES)

Rust of stone fruits. 14412

#### RUST (WHEAT)

Witches' broom of *Berberis*. 14395

Metabolism of aromatic compounds in healthy and rust-infected primary leaves of wheat. I. Studies with 1-phenylalanine-U-14C, 1-tyrosine-U-14C, and ferulate-U-14C. 14676

### RUTACEAE

The development of the citrus psylla, *Triozocrypteae* (Del Guercio) (Homoptera: Psyllidae), on *Citrus limon* and four indigenous host plants. 14491

### RYE

Moisture corrosion, a new corrosive method. 14330

The influence of CCC on lodging and development of grain. 14680

### SALICYLIC ACID

3-(N-formylamino)-salicylic acid - a new metabolite of *Streptomyces antibioticus*. 14702

### SALIX CAPREA

Communication regarding the existence of *Cidaria* (subgen. *Calostigia*) *multistrigaria* Hw. on the Kaiserstuhl Mountain in Baden. 14166

### SALMONELLA ABORTUSOVIS

Titration of *Salmonella abortus-ovis* strains with chick embryos and white mice. 14561

### SALMONELLA PARATYPHI

What the sanitarian should know about *Staphylococci* and *salmonellae* in non-dairy products. II. *Salmonellae*. 14649

### SALMONELLA TYPHIMURIUM

The temperature requirements for interferon production in cells stimulated by Newcastle disease virus or microbial agents in vitro. 14585

What the sanitarian should know about *Staphylococci* and *salmonellae* in non-dairy products. I. *Salmonellae*. 14649

### SALMONELLOSIS

Geographical distribution maps of animal diseases in Africa, 1966. 14575

### SAMPLING (STATISTICS)

Important forest insects of Ontario in 1966. 14120

Effects of N-dimethylamino succinamic acid (Alar) on maturity and size of Pocahontas strawberries. (Abstract). 14444

The insect ecology of old-field red pine plantations in central Ontario. I. Description of the study area. III. Soil-surface fauna as indicators of stand change. 14548

### SANDY SOILS

Occurrence and control of *Haplodiplosis equestris* in Holland. 14496

### SANITATION

Five years' research with a hatchery sanitation program in Maine. 14545

### SAP

*Chenopodium* as host to viruses transmitted from apple, pear and grapevine. 14356

Soil-borne wheat mosaic virus from *Poa annua* L., a new host. 14377

### SAP STAIN (WOOD)

The causes of sapstain in red beech. 14350

### SCAB

Preparation of the new fungicide heximide. 14703

### SCAB (POTATOES)

Common scab and *Rhizoctonia* disease of potato. 14414

### SCALD

Chemical treatment the answer to fruit scald. 14466

### SCARABAEIDAE

Electron microscopy of spindle-shaped inclusion viruses of Coleoptera. 14184

Lest white grubs visit your sugarcane...and find you unprepared. 14486

### SCHISTOCERCA GREGARIA

Some phase characteristics of the southern African form of the desert locust (*Schistocerca gregaria* (Forsk.)). 14187

Insect hormones: Olive oil is not an inert vehicle for hormone injection into locusts. 14197

### SCLEROTINIA MALI

Studies on the monilia disease of the apple caused by *Monilinia mali* (Tak.) Nhetzel. 14386

### SCLEROTIUM BATATICOLA

Production of toxins and pectolytic enzymes by two isolates of *Sclerotium bataticola* Taub. and their role in pathogenesis. 14401

### SCOLYTUS RUGULOSUS

Observations on the tolerance and susceptibility of tea clones to shot-hole borer investigation--1969. 14500

### SEASONAL VARIATION

Field studies on the life-histories of some British *Staphylinidae* (Coleoptera). 14220

Details on the codling plum moth (*Laspesyesia funebrana* Tr.) in Lot-et-Garonne on Plum-tree grafts. 14272

### SECRETIONS

The pheromone of the queen of the Oriental hornet, *Vespa orientalis*. 14214

### SEDIMENTATION

Some physical properties of purified neurotropic foot-and-mouth disease virus. 14586

### SEED GERMINATION

Studies on the pathological anatomy of rice plants infected by *Helminthosporium oryzae*, I. Behavior of the causal fungus on the coleoptile of rice seedlings and its ultrafine structure. 14373

Influence of hydrostatic pressure upon germinability of the spores of some rice-parasitic fungi effects of physical factors upon plant diseases. III. 14376

Soil-borne wheat mosaic virus from *Poa annua* L., a new host. 14377

On the longevity of *Conidia* of cucumber downy mildew fungus, with special reference to the influence of sunlight. 14382

A contribution to studies on the biology and control of apple mildew (*Podosphaera leucotricha* (Eil. and Ev.) Salm.). 14383

Controlling effect of phenylhydrazine derivatives on rice blast in relation to the structural modifications. 14402

Interaction between two races of *Piricularia oryzae* in lesion-formation in rice plants and accumulation of fluorescent compounds associated with infection. 14420

A study of the biology of *Pseudopeziza jonesii* nannf (*Pyrenopeziza medicaginis* Fuck) the cause of yellow blotches on leaves of alfalfa. 14429

Effect of beta-acylphenylhydrazine derivatives on blast fungus upon leaves and in tissues of rice plants. 14459

### SEED PLANTING

Early sowings and fungicides help arrest the angular leafspot of cotton. 14439

*Tanyemecus dilaticollis* Gyll. (Curculionidae, Coleoptera) as a pest of cultivated plants and the pre-sowing treatment of the seed with insecticides as a control measure. 14494

Are scarecrows useful against bird damage. 14550

### SEED TREATMENT

Repelling pheasants from sprouting corn with a carbamate insecticide. 14337

Seed dressing formulations. 14452

Insecticidal experiments for the control of mustard aphid. 14497

### SEEDLINGS

Studies on the pathological anatomy of rice plants infected by *Helminthosporium oryzae*, I. Behavior of the causal fungus on the coleoptile of rice seedlings and its ultrafine structure. 14373

Soil-borne wheat mosaic virus from *Poa annua* L., a new host. 14377

Controlling effect of phenylhydrazine derivatives on rice blast in relation to the structural modifications. 14402

A mild strain of tristeza virus in Hassaku trees (*Citrus hassaku* Hort. et Y. Tanaka) in Hiroshima prefecture. 14442

Anatomical studies of rice plant infected with bacterial leaf blight, with special reference to wilt symptom. 14460

Effect of *Heterodera schachtii* on sugar beet seedlings under monoxenic conditions. 14513

Effect of phytotoxins from the decomposition of organic matter upon peanut seedling emergence. (Abstract). 14668

Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Piricularia oryzae* cava. 14691

### SEEDS

Entomological notes on *Beprata maculicollis* Cam., perforator of seeds of some Annonaceae. 14283

Effects of CIPC applications to individual eyes of potato tubers on type and pattern of sprout development. 14320

Moisture corrosion, a new corrosive method. 14330

Damage and evolution disturbance through weather influence. 14426

Erratum 49: A pleomorphic parasite on cereal seeds, *Pyrenophora semeniperda*. 14451

Know your enemy: The so-called 'cornfly'. 14503

## SUBJECT INDEX

### SOGATA ORIZICOLA

- Cucumber sex expression modified by 2-chloroethanephosphonic acid. 14683
- SELENIUM POISONING**  
Some aspects of the etiology of enzootic icterus ( geelsiekte ) and tribulosis ovis ( geeldikkop ). 14589
- SEPTORIA APII**  
New tin complex compounds as plant protection fungicides. 14445
- SEPTORIA NODORUM**  
On the tolerance of wheat against Septoria nodorum Berk. 14348
- SERICESTHIS IRIDESCENT VIRUS**  
A serological comparison of some iridescent non-occluded insect viruses. 14193
- SEROLOGICAL TESTS**  
Insect visceral muscle: Neural relations of the proctodeal muscles of the cockroach. 14189  
A serological comparison of some iridescent non-occluded insect viruses. 14193  
The problem of sowbane mosaic virus contamination. 14354  
Serologic diagnosis of Colorado tick fever. A comparison of complement-fixation, immunofluorescence, and plaque-reduction methods. 14564  
Fibrinogen content and fibrinolytic activity of plasma from dogs infected with *Leptospira canicola*. 14566  
Serological response in cattle to East Coast fever (*Theileria parva* infection) as measured by the indirect fluorescent antibody test. 14588  
Antibodies to Leptospiral serotypes in sera of North Queensland cattle. 14590  
Immunological response in cows to *Mycoplasma bovigenitalium*, strain 1836. 14606
- SERRATIA MARCESCENS**  
Removal of pseudomonads from plant leaves and measurement of their in vivo beta-glucosidase synthesis. 14369
- SERUM**  
Identification of aeromonads in furred animals. 14560  
Studies on a new intramuscular haematinic for piglet anaemia. 14573
- SEWAGE**  
Tuberculosis in three herds with access to the same open sewer. 14546
- SEX**  
Does the beating of butterfly wings cause electrical phenomena. 14239  
Analysis of a recessive mutation on the Y chromosome of the fly *Calliphora erythrocephala*. 14288  
A thymidine-induced sex-linked, sex-limited temperature-sensitive lethal and the significance of modifier genes in *Drosophila melanogaster*. 14292
- SEX BEHAVIOR**  
Mating and ovary studies on *Cerapteryx grammis* L. (*Lep. Noctuidae*), collected from a light trap. 14228  
The genetics of *Drosophila* mating behavior. II. The genetic architecture of mating speed in *Drosophila pseudoobscura*. 14286
- SEX DETERMINATION**  
Cucumber sex expression modified by 2-chloroethanephosphonic acid. 14683
- SHEEP**  
A study of contagious caprine pleuropneumonia. 14552  
An outbreak of photosensitisation in Karamojong sheep at Entebbe. 14557  
A histological study of the effects of enzootic abortion of ewes virus in the lactating bovine mammary gland. 14559  
Transmission of attenuated and virulent bluetongue virus with *Culicoides variipennis* infected orally via sheep. 14569  
Blood changes associated with locoweed poisoning. 14577  
A case of ovine dermatomycosis produced by *Trichophyton verrucosum*. 14584  
Some aspects of the etiology of enzootic icterus ( geelsiekte ) and tribulosis ovis ( geeldikkop ). 14589  
Enterotoxaemia in sheep on dry feed. 14591  
Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597  
Antibody in experimentally infected sheep and antifoet-and-mouth disease vaccines. 14605  
Controlling external parasites of sheep. 14628  
Ecology of lice on sheep. VI. The influence of shearing and solar radiation on populations and transmission of *Damalinea ovis*. 14629  
Field trials on the efficacy of thiabendazole against *Haemonchus contortus* in West African dwarf forest sheep and goats. 14635  
The chromosome numbers of *Oesophagostomum columbianum* Cutice and *Chabertia ovina* Fabricius (*Nematoda*, *Strongylata*). 14636  
Pulmonary disease in Kenya sheep. 14639  
Two cases of urea poisoning in dairy herds. 14661
- SHEEP SHEARING**  
Ecology of lice on sheep. VI. The influence of shearing and solar radiation on populations and transmission of *Damalinea ovis*. 14629
- SHEEP-DIP**  
Controlling external parasites of sheep. 14628
- SHIKIMIC ACID**  
Levels of shikimate and folate in primary leaves of wheat and in uredospores of leaf rust. 14372
- SHRUBS**  
Experiences with Patoran (metabromuron) on weed control in bean shrubs. 14526
- SIALIC ACIDS**  
Relationship of electrophoretic mobility to the sialic acid concentration of erythrocytes in bovine anaplasmosis. 14563
- SILK GLANDS**  
The details of endomitosis in the sericeous glands of *Galleria mellonella* (*Insecta Lepidoptera*). 14247
- SILVICULTURE**  
Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317
- SIMAZINE**  
Monolinuron in increase of grain. 14520  
Control of weed grass. 14525  
Chemicals that show--crops' co-existence with weeds is not necessary. 14530  
Musk, brown rats and harvest mice as pests in maize. 14541  
Influence of residues of some triazine herbicides upon wheat and weeds in wheat crops. 14653
- SIMULIUM**  
Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634
- SIMULIUM DAMNOSUM**  
DNA-MEASUREMENTS in insects and a hypothesis concerning retarded evolution and especially high DNA content in the animal kingdom. 14185
- SIPHONAPTERA**  
The insect fauna in the burrows of the long-clawed molevole, a Caucasian endemic species. 14154  
Asuntol and Neguvon in the fight against dog fleas. 14626
- SKIN DISEASES**  
Skin diseases of horses. 14592
- SLAUGHTERING**  
The prevalence of *Babesia bovis* (*Babesia argentina*) in the brains of slaughter cattle in Northern Nigeria. 14568
- SLEEP**  
Sleep in moths and its dependence on the frequency of stimulation in *Anagasta kuehniella*. 14177
- SNAILS**  
*Brachymeria femorata* Panzer (*Hymenoptera Chalcididae*). 14267  
Epizootiologic factors of *Fascioloides magna* (*Trematoda*) in Oregon and southern Washington. 14632
- SOCIAL INSECTS**  
Plant care and bee care go hand in hand. 14478
- SODIUM**  
The effect of sodium replacement on the electroretinogram recorded from the cockroach ocellus. 14179  
Effect of bovine coccidiosis on blood serum sodium and potassium levels of calves. 14567
- SODIUM ALGINATE**  
Use of sodium alginate adjuvant in immunization against equine influenza. 14612
- SODIUM DEOXYCHOLATE**  
Arbovirus studies in the Ohio-Mississippi basin, 1964-1967. VII. Lone star virus, a hitherto unknown agent isolated from the tick *Amblyomma americanum* (Linn.). 14582
- SOGATA CUBANA**  
The frequency of *Sogata orizicola* Muir and *Sogata cubana* Crawford on rice and *Echinochloa colonom* in Colombia. 14482
- SOGATA ORIZICOLA**  
The frequency of *Sogata orizicola* Muir and *Sogata cubana* Crawford on rice and *Echinochloa colonom* in Colombia. 14482

## SUBJECT INDEX

### SOGATELLA

#### SOGATELLA

Studies on the biology and control of *Sogatella furcifera* Horv. (Delphacidae: Homoptera) in the Punjab. 14118

#### SOIL AMENDMENTS

Effect of phytotoxins from the decomposition of organic matter upon peanut seedling emergence. (Abstract). 14668

#### SOIL ANALYSIS

Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317

Insecticidal experiments for the control of mustard aphid. 14497

Economically important nematodes in Ontario--1966. 14516

#### SOIL BIOLOGY

Oribatid mite fauna in Sarobetsu Moor in northern Hokkaido, Japan. 14138

#### SOIL CHEMISTRY

Analysis of a recessive mutation on the Y chromosome of the fly *Calliphora crythrocephala*. 14288

#### SOIL FAUNA

The insect ecology of old-field red pine plantations in central Ontario, I. Description of the study area. III. Soil-surface fauna as indicators of stand change. 14548

#### SOIL FUMIGATION

Physiological genetics of melanotic tumors in *Drosophila melanogaster*. VI. The tumorigenic effects of juvenile hormone-like substances. 14190

Effect of the venom of the black widow spider, *Latrodectus mactans tredecimguttatus*, on evoked action potentials in the isolated nerve cord of *Periplaneta americana*. 14195

Effect of soil fumigants on control of pea root rot pathogens. 14391

Selective vapor phase activity of chloronitro- and chlorobenzenes in soil. 14435

Studies on the parasitism and control of tea root discase fungi in Ceylon. Heteroptera. 14448

The sugar beet nematode. 14504

#### SOIL FUNGI

The importance of preceeding crop-dependent shifts in the micro flora of the soil. I. The influence of soil fungi on the root development of wheat, peas, and rape. 14353

#### SOIL LEACHING

Some factors affecting the disappearance of tordon in soil. 14533

#### SOIL MICROORGANISMS

The importance of preceeding crop-dependent shifts in the micro flora of the soil. I. The influence of soil fungi on the root development of wheat, peas, and rape. 14353

#### SOIL MOISTURE

Analysis of a recessive mutation on the Y chromosome of the fly *Calliphora crythrocephala*. 14288

Moisture corrosion, a new corrosive method. 14330

Plant care on the North Sea coast. 14375

Evidence of phenotypic mixing between two strains of tobacco mosaic virus. 14441

#### SOIL PROPERTIES

Weed control in vegetables. 14532

Influence of residues of some triazine herbicides upon wheat and weeds in wheat crops. 14653

#### SOIL SAMPLING

Occurrence and control of Haplodiplois equstris in Holland. 14496

#### SOIL SERIES

Some factors affecting the disappearance of tordon in soil. 14533

#### SOIL STRUCTURE

Nutritional effects connected with sheepnosing, a disorder of grapefruit. (Abstract). 14475

#### SOIL TEMPERATURE

The interrelationship of resistance and susceptibility of cotton to *Verticillium albo-atrum* and *Fusarium oxysporum* f. sp. vasinfectum as influenced by soil temperature. (abstract). 14339

#### SOIL-BORNE PLANT DISEASES

*Verticillium* wilt of cotton--the situation in the Namoi Valley. 14357

Soil-borne wheat mosaic virus from *Poa annua* L., a new host. 14377

Ecological studies on the soft-rot bacteria of vegetables. III. Application of immunofluorescent staining for the detection and the counting of *Erwinia ardoideae* in soil. 14385

Some factors affecting incidence of leaf spot of turmeric by *Taphrina maculans* butler. 14468

Ring nematode disease of rice in Louisiana. (Abstract). 14510

#### SOILS

Plictran miticide--New approach to mite control. 14202

Soil condition and the violet and white root rot discases of fruit trees. 14343

Importance and causes of Nematode movement in the soil and research on the migration of '*Ditylenchus myceliophagus*'. 14506

Onion weed control on Mallee soils. 14518

Stability and effects of some pesticides in soil. 14697

#### SOLANUM DEMISSUM

Isolation of rishitin from tubers of interspecific potato varieties containing different late-blight resistance genes. 14443

#### SOLAR RADIATION

Ecology of lice on shecp. VI. The influence of shearing and solar radiation on populations and transmission of *Damalinea ovis*. 14629

#### SOUND WAVES

Brain intercurons in noctuid moths: Differential suppression by high sound intensities, and grasses. 14258

#### SOUR CHERRIES

The effects of Alar on red tart cherries (*Prunus cerasus*). 14335

#### SOUTH AMERICA

The mandibles of two South American grasshoppers. 14233

#### SOYBEANS

Cryopreservation and pathogenicity of selected isolates of *Colletotrichum*, *Rhizoctonia*, and *Phytophthora*. 14374

#### SPARROWS

Sparrow mite *Dermanyssus passerinus* Berl. et Trouess, 1885. 14282

#### SPECTROCHEMISTRY

3-(N-formylamino)-salicylic acid - a new metabolite of *Streptomyces* antibioticus. 14702

#### SPECTROPHOTOMETRY

DNA-MEASUREMENTS in insects and a hypothesis concerning retarded evolution and especially high DNA content in the animal kingdom. 14185

#### SPERMATOGENESIS

Cytology and cytochemistry of spermatogenesis in two millipedes *Phyllogonostreptus nigrolabiatus* and *Gonoplectus malayas*. 14219

#### SPERMATOOZA

Exceptions to the prevailing pattern of tubules (9 plus 9 plus 2) in the sperm flagella of certain insect species. 14255

Sperm activation and migration in bed bugs, size in hypersensitive hosts in the presence of chloramphenicol. 14257

#### SPHAEROPSIDALES

The cause of sapstain in red beech. 14350

#### SPHECIDAE

Sphecidae of the Canary Islands (Hymenoptera). 14131

Concerning some West German bees and digger wasps (Hym. Apoidea, Sphecoidea). 14176

The ultrastructure and electrophysiology of the membranous lobe of the antenna in *Speophycs lucidulus* larvae (Coleoptera). 14192

On the life cycle of *Coelorabro ambiguus* (Hym., Sphecidae). 14241

#### SPHINGIDAE

Effect of population density on the larval coloration and development of larva and pupa in the larger pellucid hawk moth, *Cephonodes hylas* L. (Lepidoptera: Sphingidae). 14121

Hawk moths with mites. (Lep. Sphingidae). 14222

#### SPLEEN

Histopathologic and hematologic changes in moribund stages of chicks infected with T-virus. 14600

#### SPODOPTERA

Serological response in cattle to East Coast fever (*Theileria parva* infection) as measured by the indirect fluorescent antibody test. 14588

#### SPORE GERMINATION

The effect of benomyl on *Mycosphaerella musicola*. 14457

#### SPORES

Contribution to the investigation of chemoendotherapy of sugar beet infected by *Cercospora beticola* Sacc. 14408

#### SPORULATION

The effect of benomyl on *Mycosphaerella musicola*. 14457

#### SPRAY TECHNIQUE

The genetics of *Drosophila* mating behavior. II. The genetic architecture of mating speed in *Drosophila pseudoobscura*. 14286

#### SPRAYING

Important forest insects of Ontario in 1966. 14120

The regulatory effect of gibberellic acid and cytokinins on fruit maturation and ripening. (Abstract). 14300

- The European corn borer; how to control it. 14301
- The effect of Alar (N-dimethylamino succinamic acid) on yield and quality attributes of Concord grapes. 14302
- The influence of N-dimethylamino succinamic acid (Alar) on growth of the sweet cherry, *Prunus avium*. (Abstract). 14303
- Effects of N-dimethylamino succinamic acid (Alar), (2-chloroethyl) trimethylammonium chloride (CCC), gibberellic acid (GA), and maleic hydrazide (MH) on bolting in lettuce. (Abstract). 14305
- Stimulation of flower bud abscission and concentration of fruit set in tomato, (Abstract). 14312
- Vegetative and reproductive responses of highbush blueberry to succinic acid 2,2-dimethylhydrazide (Alar). 14314
- Effects of succinic acid 2, 2-dimethyl hydrazide (Alar) on apples. (Abstract). 14322
- Economic effect and control of wood-boring insects in fruit trees. 14329
- Brussels sprouts growth and production as influenced by N-dimethylamino succinamic acid (Alar). (Abstract). 14334
- Interactive effects of gibberellic acid and Alar on bush bean growth. (Abstract). 14344
- Effects of N-dimethylamino succinamic acid (Alar) on yield, size, maturation, and quality of peaches with reference to its use in adapting fruit for mechanical harvesting. (Abstract). 14362
- Vegetable dry rot and phytoprog- service in North-Hanover 1968. 14380
- Effect of different micronutrient sprays on chlorosis, granulation, fruit fall, yield and fruit quality of sweet oranges var. blood red. 14398
- Controlling effect of phenylhydrazine derivatives on rice blast in relation to the structural modifications. 14402
- Evaluation and use of fungicides in commercial cultivation of barley in Colombia. 14436
- Chemical treatment the answer to fruit scald. 14466
- Post-year responses of Concord grape vines treated with N-dimethylamino succinamic acid. (Abstract). 14467
- Influence of pesticides on russetting of Golden Delicious apples. 14487
- Hard-to-kill pests of fruit trees;the mites. 14488
- Occurrence and control of Haplodiplois equestris in Holland. 14496
- Insecticidal experiments for the control of mustard aphid. 14497
- Onion weed control on Mallee soils. 14518
- Possibilities of weed control in corn with atrazine, taking special note of the control of couch-grass, wild oats and older weeds. 14524
- Improved method for weed control in potatoes on extremely marshy soil. (Test experiences in upper Bavaria 1965-67). 14528
- Some factors affecting the disappearance of tordon in soil. 14533
- Developmental trends in the chemical control of weeds in beets. 14536
- Musk, brown rats and harvest mice as pests in maize. 14541
- What the sanitarian should know about Staphylococci and salmonellae in non-dairy products. Ii. Salmonellae. 14649
- Is it possible to draw any conclusions from the red epidemic of 1967, in regard to the appearance of the disease during this year. 14678
- Physiological effects of pentachlorobenzylalcohol on rice plants. 14690
- Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Piricularia oryzae* cava. 14691
- Controlling effect of pentachlorobenzyl alcohol on rice blast. 14692
- Two important diseases of walnut trees. 14695
- 'Reduced volume' by how much Why Actual state of affairs. 14699
- SPRAYING EQUIPMENT**  
Properties of leptinotarsin, a toxic hemolymph protein from the Colorado potato beetle. 14212
- SQUASH**  
Calcium localization in *Hypomyces*-infected squash hypocotyls and effect of calcium on pectase lyase and tissue maceration. 14677
- STAINING**  
Ecdysone and DNA synthesis in cultured wing disks of the wax moth, *Galleria mellonella*. 14250
- STAM**  
Stam F-34 can kill the weeds of Gora paddies. 14537
- STAPHYLINIDAE**  
A new species of the genus *Heterothops* Steph. from Czechoslovakia (Col., Staphylinidae). 14167  
A troglobitic staphylinid from Mexico (Coleoptera, Staphylinidae, Paederinae). 14211  
Field studies on the life-histories of some British Staphylinidae (Coleoptera). 14220
- STAPHYLOCOCCUS**  
Variations in isolations of pathogenic bacteria from the udders of cows during a six-month period. 14618  
What the sanitarian should know about Staphylococci and salmonellae in non-dairy products. Ii. Salmonellae. 14649
- STARCHES**  
Susceptibility of 'tapioca macaroni' to insect attack. 14647
- STATISTICAL ANALYSIS**  
A study of the population of insects emerging as adults from Spettigue's Pond at London, Ontario. 14144  
Parasitization of social Halictine bees in southern Ontario. 14224  
The Tea Research Institute of Ceylon. Annual Report for the year 1966. Part II. 14304
- Pests of legume covers. characteristic cocoon production. 14479
- Simultaneous control of *Apera spica venti* and broad leaf weeds through soil herbicides. (Test results in upper bavaria 1965-1967). 14529
- STATISTICAL DISTRIBUTIONS**  
A survey of the distribution and present status of the wood ant, *Formica rufa* L. (Hym., Formicidae) in England and Wales. 14126  
Oribatid mite fauna in Sarobetsu Moor in northern Hokkaido, Japan. 14138
- STATISTICAL METHODS**  
A new method of estimating population size, survivorship, and birth rate from capture-recapture data. 14237
- STATISTICS**  
The Icelandic form of *Carabus problematicus* Hbst. (Col. Carabidae). A statistic treatment of subspecies. 14152
- STELAS**  
The induction of stelar reddening in strawberry roots. 14423
- STIMULANTS**  
Adenine and related substances as potent feeding stimulants for the alfalfa weevil, *Hypera postica*. 14213  
Stimulation of flower bud abscission and concentration of fruit set in tomato, (Abstract). 14312  
Stimulation of tomato ripening by Amchem 66-329. (Abstract). 14313  
Stimulation and retardation of adventitious root formation by application of B-Nine and Cycocel. 14327
- STOMOXYS CALCITRANS**  
Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634
- STORAGE**  
Effects of succinic acid 2, 2-dimethyl hydrazide (Alar) on apples. (Abstract). 14322  
The control of wild foxtail grass in winter wheat as well as the prevention of weather trodden grain. 14539  
Speed the key to preserving hides. 14551  
Lyophilizing foot-and-mouth disease virus at low drying temperaturc. 14604
- STORAGE DISEASES**  
Chemical treatment the answer to fruit scald. 14466
- STORED PRODUCTS**  
Susceptibility of 'tapioca macaroni' to insect attack. 14647
- STRAWBERRIES**  
The pheromone of the queen of the Oriental hornet, *Vespa orientalis*. 14214  
Studies on virus diseases of strawberries in the Western Cape Province. I. Degeneration of locally bred strawberry cultivars. 14355  
The induction of stelar reddening in strawberry roots. 14423  
Effects of N-dimethylamino succinamic acid (Alar) on maturity and size of Pocahontas strawberries. (Abstract). 14444
- STREAK**  
Virus A as a cause of streak on secondary infected eyestecklings of the potato. 14471
- STREAK (TOBACCO)**  
Peroxidase isozymes in virus-infected plants. 14418

## SUBJECT INDEX

### STREPTOCOCCUS AGALACTIAE

#### STREPTOCOCCUS AGALACTIAE

Variable resistance of cows to *Streptococcus agalactiae* mastitis. 14602

#### STREPTOMYCIN

3-(N-formylamino)-salicylic acid - a new metabolite of *Streptomyces antibioticus*. 14702

#### STRIPE

Brain interneurons in noctuid moths: Differential suppression by high sound intensities, and grasses. 14258

#### STRIPE RUST

Physiological and ecological studies on the over-summering and overwintering of the stripe rust of wheat and barley, *Puccinia striiformis* Westend. 14424

#### STUBBLE CROPS

Coltsfoot control with 2,4-DP on the stubble. 14521

#### STYLETS

Lysozyme action in the cockroach--blood changes, while probing intercellularly. 14279

#### SUBSTRATES

Hydrolysis of acetylthiocholine and butyrylthiocholine by cholinesterases of insects and a mite. 14261

#### SUCCINIC ACID, 2,2-DIMETHYLHYDRAZIDE

The effect of Alar (N-dimethylamino succinamic acid) on yield and quality attributes of Concord grapes. 14302

The influence of N-dimethylamino succinamic acid (Alar) on growth of the sweet cherry, *Prunus avium*. (Abstract). 14303

Effects of N-dimethylamino succinamic acid (Alar), (2-chloroethyl trimethylammonium chloride (CCC), gibberellic acid (GA), and maleic hydrazide (MH) on bolting in lettuce. (Abstract). 14305

Effects of N-dimethylamino succinamic acid on the size of potatoes. (Abstract). 14311

Vegetative and reproductive responses of highbush blueberry to succinic acid 2,2-dimethylhydrazide (Alar). 14314

Effects of succinic acid 2, 2-dimethyl hydrazide (Alar) on apples. (Abstract). 14322

The effect of succinic acid 2,2-dimethyl hydrazide on stem and leaf tissues of *Chrysanthemum morifolium* Bright Golden Anne. (Abstract). 14324

In vivo and in vitro reactions of 1,1-dimethylamino succinamic acid (B-9, Alar) and related substances. 14328

Vegetative and fruiting responses of pecan (*Carya illinoensis* Koch) to heading back and N-dimethylamino succinamic acid. (Abstract). 14332

Brussels sprouts growth and production as influenced by N-dimethylamino succinamic acid (Alar). (Abstract). 14334

The effects of Alar on red tart cherries (*Prunus cerasus*). 14335

Effect of N-dimethylamino succinamic acid (Alar) on vegetable growth of chile pepper (*Capsicum frutescens*) plants. (Abstract). 14338

Interactive effects of gibberellic acid and Alar on bush bean growth. (Abstract). 14344

Effects of N-dimethylamino succinamic acid (Alar) on yield, size, maturation, and quality of

peaches with reference to its use in adapting fruit for mechanical harvesting. (Abstract). 14362

Effects of N-dimethylamino succinamic acid (Alar) on maturity and size of Pocahontas strawberries. (Abstract). 14444

Post-year responses of Concord grape vines treated with N-dimethylamino succinamic acid. (Abstract). 14467

#### SUCROSE

The effect of sodium replacement on the electroretinogram recorded from the cockroach ocellus. 14179

#### SUGAR BEETS

A new contribution to the study of Leafhopper fauna (Homoptera, Auchenorrhyncha). 14270

Effects of *Cercospora* leaf spot and dates of harvest on sugar beet varieties with or without Maneb treatment. 14358

Cryopreservation and pathogenicity of selected isolates of *Colletotrichum*, *Rhizoctonia*, and *Phytophthora*. 14374

Contribution to the investigation of chemotherapeutic of sugar beet infected by *Cercospora beticola* Sacc. 14408

New tin complex compounds as plant protection fungicides. 14445

Greenhouse testing of sugar beets for resistance to curly top. 14446

The sugar beet nematode. 14504

Effect of *Heterodera schachtii* on sugar beet seedlings under monoxenic conditions. 14513

#### SUGARCANE

Sugarcane diseases in the Punjab--A survey report. 14440

Effect of a varietal mixture on sugarcane root rot susceptibility and on the rhizosphere microflora. 14455

Virus diseases of cereals in South Africa. II. Identification of two elongated plant viruses as strains of sugar cane mosaic virus. 14469

Lest white grubs visit your sugarcane...and find you unprepared. 14486

#### SUGARS

Isolation of *Toxoplasma gondii* from swine and cattle, following pesticide treatments. 14558

#### SULFUR COMPOUNDS

Rust of stone fruits. 14412

#### SUNFLOWERS

A new contribution to the study of Leafhopper fauna (Homoptera, Auchenorrhyncha). 14270

Production of toxins and pectolytic enzymes by two isolates of *Sclerotium bataticola* Taub. and their role in pathogenesis. 14401

#### SUPERPHOSPHATES

Onion weed control on Mallee soils. 14518

#### SURFACE-ACTIVE AGENTS

Mycobacterium tuberculosis in macrophages: Effect of certain surfactants and other membrane-active compounds. 14671

#### SURVEYS

The existence of bark borers in Berlin (Lepid.). 14132

Dragonfly catches from the Gifhorn area (A contribution to the Odonata fauna of Lower Saxony). 14145

The insect fauna in the burrows of the long-clawed molevole, a Caucasian endemic species. 14154

Phycitinae from Turkey and Greece (Lep., Pyralidae). 14162

Insects Vs man. (Lep. Notodontidae). 14210

Cytology and cytochemistry of spermatogenesis in two millipedes *Phyllogonostreptus nigrolabiatus* and *Gonoplectus malayas*. 14219

Arbovirus studies in the Ohio-Mississippi basin, 1964--1967. IV. Cache Valley virus. 14226

Records of the orthopteroid insects in Ontario. 14276

A system for screening of rare events in genes of *Drosophila melanogaster*. 14289

Genetical relationship and isolating mechanisms in *Ananassae* species subgroup (*Sophophora*, *Drosophila*). III. Chromosome behaviour during meiosis in *D. bipectinata*, *D. malerkotliana* and their hybrid. 14290

Soil condition and the violet and white root rot diseases of fruit trees. 14343

*Verticillium* spp. and associated fungi from certified potato seed tubers. 14346

Tobacco diseases in Venezuela, Costa Rico and Nicaragua. 14407

Diseases of Annual Oleaceae in Colombia. 14427

Sugarcane diseases in the Punjab--A survey report. 14440

Powdery mildew of rubber in Papua. 14449

Pathogenicity of some species of *Godronia* occurring in Quebec. 14453

Fungal pathogenicity to sound and mechanically damaged blue lupine seed in anoxic culture at two temperatures. 14470

Pests of legume covers, characteristic cocoon production. 14479

Observations on the tolerance and susceptibility of tea clones to shot-hole borer investigation--1969. 14500

The causes and dynamics of population explosions of *M. arvalis*: A survey of current French research. 14543

Isolation of Bunyamwera-group viruses from Wisconsin mosquitoes. 14553

Arbovirus studies in the Ohio-Mississippi basin, 1964--1967. I. Introduction. 14581

Arbovirus studies in the Ohio-Mississippi basin, 1964--1967. VII. Lone star virus, a hitherto unknown agent isolated from the tick *Amblyomma americanum* (Linn.). 14582

Arbovirus studies in the Ohio-Mississippi basin, 1964--1967. V. Trivittatus and Western equine encephalomyelitis viruses. 14583

Variations in isolations of pathogenic bacteria from the udders of cows during a six-month period. 14618

# SUBJECT INDEX

## TEMPERATURE

- First records of eye-frequenting Lepidoptera from India. 14624
- Epizootiologic factors of *Fascioloides magna* (Trematoda) in Oregon and southern Washington. 14632
- SUTURES**  
The effects of ligaturing *Galleria mellonella* larvae on total haemocyt counts and on mitotic indices among haemocytes. 14218
- SWEET ORANGES**  
A color test for citrus exocortis in Japan. 14462
- SWINE**  
Identification of hog-cholera virus in frozen pork imported from China. 14556
- Isolation of *Toxoplasma gondii* from swine and cattle, following pesticide treatments. 14558
- Studies on a new intramuscular haematinic for piglet anaemia. 14573
- Attenuation of hog cholera virus in the carrier cell strains established from kidneys of pigs experimentally infected with the virulent virus. 14576
- Study of the practicability of various diagnostic methods in the demonstration of swine fever virus of high and low virulence in organs of experimentally infected pigs. 14595
- Experimental inactivated-virus hog cholera vaccines: Induction period of immunity. 14601
- Vaccination against leptospirosis: Protection of hamsters and swine against renal leptospirosis by killed but intact gamma-irradiated or dihydrostreptomycin-exposed *Leptospira pomona*. 14617
- SYMBIOSIS**  
The insect fauna in the burrows of the long-clawed molevole, a Caucasian endemic species. 14154
- Epizotic symbiosis. 14203
- SYNTHESIS**  
Ecdysone and DNA synthesis in cultured wing disks of the wax moth, *Galleria mellonella*. 14250
- Synthesis and reactions of a proposed DDT metabolite, 2,2-bis(p-chlorophenyl)acetaldehyde. 14701
- SYRPHIDAE**  
Cytology and cytochemistry of spermatogenesis in two millipedes *Phyllogonostreptus nigrolabiatus* and *Gonoplectus malayus*. 14219
- SYSTEMIC FUNGICIDES**  
A system for screening of rare events in genes of *Drosophila melanogaster*. 14289
- Control of powdery mildew of cucurbits with systemic and nonsystemic fungicides. 14428
- SYSTEMIC INSECTICIDES**  
Persistent toxicity of some systemic insecticides to little honey bees. 14260
- TABLES (DATA)**  
Relative efficacy of different insecticides, as contact poisons, to the larvae of the diamond-black moth, *Plutella maculipennis* Curtis (Lepidoptera: Plutellidae). 14122
- Aziridinyl chemosterilants for house flies. 14186
- Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317
- Effects of gamma irradiation on prickly pear cactus. 14325
- Sugarcane diseases in the Punjab--A survey report. 14440
- A study on the correlation of citrus nematode population with decline of citrus. 14505
- Simultaneous control of *Apera spica venti* and broad leaf weeds through soil herbicides. (Test results in upper bavaria 1965-1967). 14529
- Systemic activity of zectran, matacil and bidrin injected into conifer trunks. 14656
- TACHINIDAE**  
An index-catalogue of the genus-group names of Oriental and Australasian Tachinidae (Diptera) and their type-species. 14129
- TAENIA TAENIAEFORMIS**  
Efficacy of niclosamide in the treatment of *Taenia taeniaeformis* infections in cats. 14646
- TAENIASIS**  
Efficacy of niclosamide in the treatment of *Taenia taeniaeformis* infections in cats. 14646
- TAPHRINA DEFORMANS**  
Peach leaf curl (*Taphrina*). 14413
- TAPHRINA MACULANS**  
Some factors affecting incidence of leaf spot of turmeric by *Taphrina maculans* butler. 14468
- TARSONEMIDAE**  
Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638
- TARTRATES**  
Study of the antifungal properties of 8-Hydroxyquinoline tartrate. 14651
- TAXONOMY**  
A new species of Ichneumonidae from Rumania. 14128
- The occurrence of *Ectoedemia libwerdella* Zimm. in Western Germany (Lepidoptera, Nepticulidae). 14151
- A further representative of the sub-species *Betuloxys Mackauer* (Hymenoptera: Braconidae, Aphidiinae). 14155
- Contributions to the knowledge of the Heleide fauna (Dipt. Nemat.) of Berlin. 14157
- A comparative study of gastric caeca in adult and larval stages of bark beetles (Coleoptera: Scolytidae). 14170
- Remarks concerning some species of spider wasps (Hym. Pompiloidae)(2.). 14174
- Remarks concerning some species of wasps (Hym. Pompiloidae) (3.). 14175
- Concerning some West German bees and digger wasps (Hym. Apoidea, Sphecoidea). 14176
- Rutstroemia cuniculi*, a coprophilous species of the Sclerotiniaceae. 14310
- Bean yellow mosaic and tobacco ringspot virus isolated from *Crotalaria* (*Crotalaria spectabilis*). 14388
- A new leaf spot disease of *Gardenia jasminoides* from India. 14406
- A new bacterial leaf spot of *Antirrhinum* seedlings caused by a subspecies of *Pseudomonas fluorescens* Migula, 1895. 14410
- Bacterial leaf spot of cape gooseberry in Queensland. 14411
- A new nematode-destroying *Harposporium*. 14508
- Isolation and characterization of *Mycoplasma arginini*: spec. nov. 14555
- TEA**  
The Tea Research Institute of Ceylon. Annual Report for the year 1966. Part II. 14304
- Epidemiology of tea blister blight (*Exobasidium vexans*). the genus *Graphelysia* Hampson, 1911 (Lepidoptera-Heterocerca). 14384
- Studies on the parasitism and control of tea root disease fungi in Ceylon. Heteroptera. 14448
- Studies on the insecticide resistance of the tea red spider mite, *Tetranychus kanzawai* Kishida. II. The mite resistance to phenkapton, estox, and kelthane in the tea growing areas in Japan. 14493
- Observations on the tolerance and susceptibility of tea clones to shot-hole borer investigation-1969. 14500
- TELONE**  
Effect of soil fumigants on control of pea root rot pathogens. 14391
- TEMPERATURE**  
The pheromone of the queen of the Oriental hornet, *Vespa orientalis*. 14214
- Caterpillar polymorphism of *Pergesa elpenor* L. 14221
- A correlation between the ability to withstand high temperatures and radioresistance in *Drosophila melanogaster*. 14252
- Diapause in the neuropteran *Chrysopa oculata*. by ultracentrifugation and identification of N- and Cterminal ends. 14256
- Hydrolysis of acetylthiocholine and butyrylthiocholine by cholinesterases of insects and a mite. 14261
- Tension transients in glycerol-extracted fibres of insect fibrillar muscle (*Lethocerus maximus*). 14262
- Natural mortality of overwintering eggs of *Longiguis donacis* (Pass.). 14266
- A thymidine-induced sex-linked, sex-limited temperature-sensitive lethal and the significance of modifier genes in *Drosophila melanogaster*. 14292
- Inheritance of split cotyledons in swede turnips (*Brassica napus*). 14326
- The low maximum temperature for growth of the psychrophile *Sclerotinia borealis*; evidence for the uncoupling of growth from respiration. 14336
- Soil condition and the violet and white root rot diseases of fruit trees. 14343
- Evidence for the release of 28 S RNA from turnip yellow mosaic virus heated in vitro. 14370
- Yellow dwarf of pea and broadbean caused by milk-vetch dwarf virus. 14378
- On the longevity of *Conidia* of cucumber downy mildew fungus, with special reference to the influence of sunlight. 14382
- Damage and evolution disturbance through weather influence. 14426

## SUBJECT INDEX

### TENEBRIO MOLITOR

- Inheritance of resistance in tomato (*Lycopersicon* spp.) to the anthracnose pathogen *Colletotrichum coccodes*. 14437
- Evidence of phenotypic mixing between two strains of tobacco mosaic virus. 14441
- Radish enation mosaic virus. 14465
- Some factors affecting incidence of leaf spot of turmeric by *Taphrina maculans* butler. 14468
- Hard-to-kill pests of fruit trees; the mites. 14488
- The temperature requirements for interferon production in cells stimulated by Newcastle disease virus or microbial agents in vitro. 14585
- Lyophilizing foot-and-mouth disease virus at low drying temperature. 14604
- Preparation of dehydrated tomato powder samples for Howard mold count. 14650
- Excretion of aflatoxin in a lactating cow. *Drosophila melanogaster* to anesthesia. 14660
- Is it possible to draw any conclusions from the red epidemic of 1967, in regard to the appearance of the disease during this year. 14678
- Inhibitory effect of pentachlorobenzyl alcohol (PCBA) on sporulation of *Piricularia oryzae* cava. 14691
- Preparation of the new fungicide heximide. 14703
- TENEBRIO MOLITOR**  
Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthemum, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657
- TENSION**  
Tension transients in glycerol-extracted fibres of insect fibrillar muscle (*Lethocerus maximus*). 14262
- TENTHREDINIDAE**  
Endophytus anemones (Hering) in Finland (Hym., Tenthredinidae). 14172
- Blossom visitations of domestic Allantus species, and places where they are found. 14263
- TERMITES**  
Isoptera from Vietnam, Cambodia and Thailand. 14141
- TERTIARY PERIOD**  
A new species of Tertiary water bug from the Bechlejovice diatomites (Heteroptera, Belostomatidae). 14161
- TETRACHLOROETHYL)THIO)-4-CYCLOHEX-ENE-1,2-DICARBOXIMIDE, CISN-((1,1,2,2-**  
Three years of tests with new anti-peronosporic preparations. 14400
- TETRAHYMENA**  
Degradation of pure aflatoxin by *Tetrahymina pyriformis*. 14333
- TETRANYCHIDAE**  
Fine structure of leukocytes adhering to the cuticle of *Ascaris suum* larvae. II. Polymorphonuclear leukocytes. 14638
- TETRANYCHUS KANZAWAI**  
Studies on the insecticide resistance of the tea red spider mite, *Tetranychus kanzawai* Kishida. II. The mite resistance to phenkapton, estox, and kelthane in the tea growing areas in Japan. 14493

- TETRANYCHUS TELARIUS**  
Mites. 14531
- TETRANYCHUS URTICAE**  
Geotactic response of the two-spotted spider mite. *Tetranychus urticae* Koch (Acarina: Tetranychidae). 14137
- TETTIGONIIDAE**  
Artificial stimulations in encounter behavior of *Vestria viridis* (Redt.) (Orthoptera Tettigonidae Copiphorinae de La Trinite). 14232
- THEILERIA PARVA**  
Serological response in cattle to East Coast fever (*Theileria parva* infection) as measured by the indirect fluorescent antibody test. 14588
- THELAZIA RHODESII**  
Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634
- THELAZIASIS**  
Kerato-conjunctivitis in cattle in the plateau area of Northern Nigeria. A study of *Thelazia rhodesii* as a possible aetiological agent. 14634
- THIABENDAZOLE**  
Field trials on the efficacy of thiabendazole against *Haemonchus contortus* in West African dwarf forest sheep and goats. 14635
- THIAMINE**  
An interaction of dieldrin with thiamine. 14664
- THIAZOLYL)-BENZIMIDIZOLE, 2-(4-**  
Comparative anthelmintic efficiencies of parabendazole, thiabendazole, and phenothiazine in lambs. 14630
- THINNING (TREES)**  
Effect of silvicultural practices upon arthropod, annelid, and nematode populations in coniferous forest soil. 14317
- THIOCARBAMATES**  
Effects of *Cercospora* leaf spot and dates of harvest on sugar beet varieties with or without Maneb treatment. 14358
- Isolation of *Toxoplasma gondii* from swine and cattle. following pesticide treatments. 14558
- THUJA**  
Rooting of narrowleaf evergreen cuttings as influenced by various hormone treatments. (Abstract). 14318
- THYMELICUS LINEOLA**  
Oviposition sites and the viability of eggs of *Thymelicus lineola* (Ochs.) (Lepidoptera: Hesperidae). 14253
- THYMIDINE**  
A thymidine-induced sex-linked, sex-limited temperature-sensitive lethal and the significance of modifier genes in *Drosophila melanogaster*. 14292
- THYSANOPTERA**  
Pests of the grapevine. 14485
- TILLAGE**  
The European corn borer; how to control it. 14301
- Plant care on the North Sea coast. 14375
- Onion weed control on Mallee soils. 14518
- TIME**  
Effects of gamma irradiation on prickly pear cactus. 14325
- Degradation of pure aflatoxin by *Tetrahymina pyriformis*. 14333

- Virulence of uredial and aecial isolates of *Puccinia coronata* Corda f.sp. *avenae* identified in Canada from 1952 to 1966. 14359
- Yellow dwarf of pea and broadbean caused by milk-vetch dwarf virus. 14378
- On the longevity of Conidia of cucumber downy mildew fungus, with special reference to the influence of sunlight. 14382
- Anatomical studies of rice plant infected with bacterial leaf blight, with special reference to wilt symptom. 14460
- Transmission experiments with the latent Prunus-virus and the gall mite *Vasates foekuei* Nal. 14495
- TIPULA IRIDESCENT VIRUS**  
A serological comparison of some iridescent non-occluded insect viruses. 14193
- TISSUE CULTURE**  
Ecdysone and DNA synthesis in cultured wing disks of the wax moth, *Galleria mellonella*. 14250
- Development of the virus with inclusion bodies, of the Lepidoptera *Lymantia dispar* in cell cultures. 14275
- Attenuation of hog cholera virus in the carrier cell strains established from kidneys of pigs experimentally infected with the virulent virus. 14576
- Study of the practicability of various diagnostic methods in the demonstration of swine fever virus of high and low virulence in organs of experimentally infected pigs. 14595
- TISSUES**  
The effect of succinic acid 2,2-dimethyl hydrazide on stem and leaf tissues of *Chrysanthemum morifolium* Bright Golden Anne. (Abstract). 14324
- Effect of beta-acylphenylhydrazine derivatives on blast fungus upon leaves and in tissues of rice plants. 14459
- Pseudomonas* infections in mink with special reference to *Pseudomonas vasculitis* in pulmonary lesions. 14598
- Determination of insecticide residue in animal and plant tissues. IV: Determination of residual amount of Sumithion and some of its metabolites in fresh milk. 14659
- Calcium localization in *Hypomyces*-infected squash hypocotyls and effect of calcium on peccate lyase and tissue maceration. 14677
- TOBACCO**  
The effect of sodium replacement on the electroretinogram recorded from the cockroach ocellus. 14179
- Ecdysone and DNA synthesis in cultured wing disks of the wax moth, *Galleria mellonella*. 14250
- Sperm activation and migration in bed bugs. size in hypersensitive hosts in the presence of chloramphenicol. 14257
- The ultrastructure and physiology of the abdominal air-guide retractor muscles in the giant water bug, *Lethocerus*. 14277
- Lysozyme action in the cockroach--blood changes. while probing intercellularly. 14279
- The effect of inoculum concentration on virus multiplication in cucumber cotyledons. II. Cucumber mosaic and tobacco mosaic viruses. 14367



## SUBJECT INDEX

- An apparently two-factor dose-response dependence in lucerne mosaic virus assay. 14368
- Removal of pseudomonads from plant leaves and measurement of their in vivo beta-glucosidase synthesis. 14369
- Bean yellow mosaic and tobacco ringspot virus isolated from *Crotalaria* (*Crotalaria spectabilis*). 14388
- Strains of tobacco mosaic virus contained in cigarettes, with especial reference to the infection source for mosaic disease of tomato. 14389
- Breeding for disease resistance and yield improvement in flue-Cured tobacco. 14394
- Identification of a bacterial strain *Pseudomonas solanacearum* E. F. Sm. of tobacco (*Nicotiana tabacum* L.) in Colombia. 14396
- Is an early infection by *Peronospora tabacina* Adam controllable in the field. 14397
- Tobacco diseases in Venezuela, Costa Rico and Nicaragua. 14407
- Peroxidase isozymes in virus-infected plants. 14418
- Preliminary report on the amino acid composition of TMV-C protein. 14422
- Evidence of phenotypic mixing between two strains of tobacco mosaic virus. 14441
- Enhancement of tobacco rattle virus stable form infection by heterologous short particles. 14447
- Occurrence of *Phyllosticta* leaf spot on Florida cigar-wraper tobacco. 14456
- Economically important nematodes in Ontario--1966. 14516
- Blue light promotes symptom formation and virus multiplication in plants. 14669
- 2,4-D to ripen tobacco may be detriment to producer and industry. 14688
- TOBACCO MOSAIC VIRUS**
- The effect of sodium replacement on the electroretinogram recorded from the cockroach ocellus. 14179
- Sperm activation and migration in bed bugs. size in hypersensitive hosts in the presence of chloramphenicol. 14257
- The effect of inoculum concentration on virus multiplication in cucumber cotyledons. II. Cucumber mosaic and tobacco mosaic viruses. 14367
- Strains of tobacco mosaic virus contained in cigarettes, with especial reference to the infection source for mosaic disease of tomato. 14389
- Preliminary report on the amino acid composition of TMV-C protein. 14422
- Evidence of phenotypic mixing between two strains of tobacco mosaic virus. 14441
- TOLUENE**
- Preparation of the new fungicide heximide. 14703
- TOMATINE**
- Inheritance of resistance in tomato (*Lycopersicon* spp.) to the anthracnose pathogen *Colletotrichum coccodes*. 14437
- TOMATOES**
- Stimulation of flower bud abscission and concentration of fruit set in tomato, (Abstract). 14312
- Stimulation of tomato ripening by Amchem 66-329. (Abstract). 14313
- Identification of the virus causing papaw yellow crinkle with tomato big bud virus by transmission tests. 14365
- Strains of tobacco mosaic virus contained in cigarettes, with especial reference to the infection source for mosaic disease of tomato. 14389
- New tin complex compounds as plant protection fungicides. 14445
- Preparation of dehydrated tomato powder samples for Howard mold count. 14650
- TORTRICIDAE**
- Observations on the diapausal and post-diapausal, proterandric developmental events in caterpillars of *Sparganothis pilleriana* Schiff. (Lepidoptera: Tortricidae). 14259
- The scientific name for the fruit cup leaf roller. (Lep. Tortricidae). (A contribution to *Organoxenia*). 14285
- TORTRIX POSTVITTANA**
- Pests of the grapevine. 14485
- TOXICOLOGY**
- Relative efficacy of different insecticides, as contact poisons, to the larvae of the diamond-black moth, *Plutella maculipennis* Curtis (Lepidoptera: Plutellidae). 14122
- Plictran miticide-New approach to mite control. 14202
- Properties of leptinotarsin, a toxic hemolymph protein from the Colorado potato beetle. 14212
- Persistent toxicity of some systemic insecticides to little honey bees. 14260
- Some aspects of the etiology of enzootic icterus (geelsiekte) and tribulosis ovis (geeldikkop). 14589
- Guidelines for evaluating the properties of pesticides for safe use in the wildlife environment. 14652
- Organochlorine insecticide residues in complete prepared meals: A 12-month survey in S. E. England. geometrical isomers of chrysanthemic, pyrethric and related acids and optical isomers of cinerolone and allethrolone. 14657
- Two cases of urea poisoning in dairy herds. 14661
- Methyl bromide can be dangerous. 14663
- Fungitoxic action of higher alkyl compounds. I. Mechanism of fungitoxic action of alkylphenols. 14665
- Controlling effect of pentachlorobenzyl alcohol on rice blast. 14692
- Stability and effects of some pesticides in soil. 14697
- Aflatoxin detoxification: Hydroxydihydroaflatoxin B1. 14698
- 'Reduced volume' by how much? Why? Actual state of affairs. 14699
- TOXINS**
- Properties of leptinotarsin, a toxic hemolymph protein from the Colorado potato beetle. 14212
- Production of toxins and pectolytic enzymes by two isolates of *Sclerotium bataticola* Taub. and their role in pathogenesis. 14401
- Experiences with Patoran (metabromuron) on weed control in bean shrubs. 14526
- TRICHODERMA VIRIDE**
- Effect of phytotoxins from the decomposition of organic matter upon peanut seedling emergence. (Abstract). 14668
- TOXOPLASMA GONDII**
- Isolation of *Toxoplasma gondii* from swine and cattle. following pesticide treatments. 14558
- TOXOPTERA GRAMINUM**
- Identity of instars of apterous viviparae of *Rhopalosiphum fitchii* (Sanderson) and *Toxoptera graminum* (Rondani), (Aphididae, Homoptera). 14163
- TRAGOSOMA DEPSARIUM**
- Observations on wood-destroying insect living in the footbridge over Siikaneva bog. 14235
- TRANZSCHELIELLA**
- Rust of stone fruits. 14412
- TRAPS**
- A study of the population of insects emerging as adults from Spettigue's Pond at London, Ontario. 14144
- TREE DISEASES**
- A mild strain of tristeza virus in Hassaku trees (*Citrus hassaku* Hort. et Y. Tanaka) in Hiroshima prefecture. 14442
- Studies on dwarf disease of mulberry tree. XVI. On two strains. 14461
- Two important diseases of walnut trees. 14695
- TREE INJURIES**
- Studies on dwarf disease of mulberry tree. XVI. On two strains. 14461
- Hard-to-kill pests of fruit trees; the mites. 14488
- TREHALASE**
- Studies on a trchalase from a symbiont of the tropical cockroach, *Blaberus craniifer*--a suggested analytical enzyme. 14198
- TRIALATE**
- Control of weed grass. 14525
- Developmental trends in the chemical control of weeds in beets. 14536
- TRIAZINE**
- The control of wild foxtail grass in winter wheat as well as the prevention of weather trodden grain. 14539
- Influence of residues of some triazine herbicides upon wheat and weeds in wheat crops. 14653
- TRIAZINES**
- The etiology, including nutritional considerations, of passion fruit brown spot in Hawaii. 14342
- TRIBEC VIRUS**
- Multiplication of Tribec virus in chick embryo cell cultures: cytopathic changes and immunofluorescence. 14603
- TRIBULOSIS**
- Some aspects of the etiology of enzootic icterus (geelsiekte) and tribulosis ovis (geeldikkop). 14589
- TRICHLORFON**
- Asuntol and Neguvon in the fight against dog fleas. 14626
- TRICHODERMA**
- Effect of a varietal mixture on sugarcane root rot susceptibility and on the rhizosphere microflora. 14455
- TRICHODERMA VIRIDE**
- Selective vapor phase activity of chloronitro- and chlorobenzenes in soil. 14435

## SUBJECT INDEX

### TRICHODORUS

#### TRICHODORUS

Present knowledge on Phytophagous nematodes and their relations with virus diseases. 14514

#### TRICHOPHYTON VERRUCOSUM

A case of ovine dermatomycosis produced by *Trichophyton verrucosum*. 14584

#### TRICYCLOHEXYLHYDROXYTIN

Plictran miticide-New approach to mite control. 14202

#### TRIFOLIATE ORANGES

A color test for citrus exocortis in Japan. 14462

#### TRIOXYS

A further representative of the sub-species *Betuloxys* Mackauer (Hymenoptera: Braconidae, Aphidiinae). 14155

#### TRIPHENYLTIN ACETATE

Secondary effects of fungicides on barley. 14517

#### TRISTEZA

A mild strain of tristeza virus in Hassaku trees (*Citrus hassaku* Hort. et Y. Tanaka) in Hiroshima prefecture. 14442

#### TROPICAL MEDICINE

Furuncular Tumbu Fly Myiasis of man in Gabon, equatorial Africa. 14572

#### TRYPANOSOMA BRUCEI

The protection of a small group of Nigerian trade cattle from trypanosomiasis using samorin. 14580

#### TRYPANOSOMA CONGOLENSE

The protection of a small group of Nigerian trade cattle from trypanosomiasis using samorin. 14580

#### TRYPANOSOMA LEWISI

Respiratory activity of *Trypanosoma lewisi* during several phases of infection in the rat. 14643

*Trypanosoma lewisi*: Creatine phosphokinase, ornithine carbamyl transferase, ATPases, Pi, and glucose levels in the rat host. 14644

#### TRYPANOSOMA VIVAX

The protection of a small group of Nigerian trade cattle from trypanosomiasis using samorin. 14580

#### TRYPANOSOMIASIS

The protection of a small group of Nigerian trade cattle from trypanosomiasis using samorin. 14580

#### TRYPDENDRON LINEATUM

Investigations on the use of the parasitic fungus *Beauveria bassiana* in the control of pests on field and forest crops in Czechoslovakia. 14419

#### TRYPOXYLONINAE

Observations of the insect pests of the old shrine and the Buddhist temple wooden buildings and a few trypoxytonid wasps. 14244

#### TUBERCULINA

Overwintering of *Tuberculina maxima* on white pine blister rust cankers. 14472

#### TUBERCULOSIS

Tuberculosis in three herds with access to the same open sewer. 14546

Geographical distribution maps of animal diseases in Africa, 1966. 14575

Mycobacterium tuberculosis in macrophages: Effect of certain surfactants and other membrane-active compounds. 14671

#### TUMOR CELLS

Physiological genetics of melanotic tumors in *Drosophila melanogaster*. VI The tumorigenic effects of juvenile hormone-like substances. 14190

#### TURNIPS

Inheritance of split cotyledons in swede turnips (*Brassica napus*). 14326

Importance of industry and labor to plant care in farm management. 14331

#### TURTLES

Hemagglutination and hemolysis of erythrocytes of unrelated species of animals by the Blacksburg strain of Newcastle disease virus. 14615

#### TUSSILAGO FARFARA

Coltsfoot control with 2,4-DP on the stubble. 14521

#### TYLENCHULUS SEMIPENETRANS

A study on the correlation of citrus nematode population with decline of citrus. 14505

Control of citrus nematode, *Tylenchus semipenetrans*, with DBCP in established cyprus citrus groves. 14512

#### TYROSINE

Metabolism of aromatic compounds in healthy and rust-infected primary leaves of wheat. II. Studies with 1-phenylalanine-U-14C, 1-tyrosine-U-14C, and ferulate-U-14C. 14676

#### UDDERS

A histological study of the effects of enzootic abortion of ewes virus in the lactating bovine mammary gland. 14559

#### ULMUS AMERICANA

Polyphenols and discoloration in the elm disease investigated by histochemical techniques. 14361

#### ULTRAVIOLET RAYS

Degradation of pure aflatoxin by *Tetrahymena pyriformis*. 14333

Interaction between two races of *Piricularia oryzae* in lesion-formation in rice plants and accumulation of fluorescent compounds associated with infection. 14420

#### ULTRAVIOLET THERAPY

Some physical properties of purified neurotropic foot-and-mouth disease virus. 14586

#### UREA

The control of wild foxtail grass in winter wheat as well as the prevention of weather trodden grain. 14539

Two cases of urea poisoning in dairy herds. 14661

#### UREA COMPOUNDS

Chemical treatment the answer to fruit scald. 14466

#### UREA HERBICIDES

The determination of some substituted urea herbicide residues in soil by electron-capture gas chromatography. 14658

#### UREDINALES

Witches' broom of *Berberis*. 14395

Physiological and ecological studies on the over-summering and overwintering of the stripe rust of wheat and barley, *Puccinia striiformis* Westend. 14424

The cytology of infection structure development in urediospore germ tubes of *Uromyces phaseoli* var. *typica* (Pers.) Swint. 14681

Nucleus of fusion body and infection structure produced by uredospores of three rust fungi. 14685

#### UREDOSPORES

Electron microscopy of uredospores of *Melampsora lini* and of rust-infected flax. 14399

#### URINE

Excretion of aflatoxin in a lactating cow. *Drosophila melanogaster* to anesthesia. 14660

#### UROMYCES

Nucleus of fusion body and infection structure produced by uredospores of three rust fungi. 14685

#### UROMYCES PHASEOLI TYPICA

The cytology of infection structure development in urediospore germ tubes of *Uromyces phaseoli* var. *typica* (Pers.) Swint. 14681

#### URTICARIA

Skin diseases of horses. 14592

#### USTILAGINOIDEA VIRENS

Influence of hydrostatic pressure upon germinability of the spores of some rice-parasitic fungi effects of physical factors upon plant diseases. III. 14376

#### VACCINES

An immunity test in cattle to compare two contagious bovine pleuropneumonia vaccines. 14587

Antibody in experimentally infected sheep and antifoet-and-mouth disease vaccines. 14605

Verification of antibodies of Newcastle virus in rats inoculated with different types of experimental vaccines. 14609

Use of sodium alginate adjuvant in immunization against equine influenza. 14612

Vaccination against leptospirosis: Protection of hamsters and swine against renal leptospirosis by killed but intact gamma-irradiated or dihydrostreptomycin-exposed *Leptospira pomona*. 14617

#### VAPORS

Selective vapor phase activity of chloronitro- and chlorobenzenes in soil. 14435

#### VECTORS

Chenopodium as host to viruses transmitted from apple, pear and grapevine. 14356

#### VEGETABLES

Ecological studies on the soft-rot bacteria of vegetables. III. Application of immunofluorescent staining for the detection and the counting of *Erwinia arorideae* in soil. 14385

On *Fusarium oxysporum* f. sp. *lagcnariae* n. f. causing wilt of *Lagcnaria vulgaris* var. *hispidula*. 14404

Leafspot of *Cucurbita pepo* caused by *Alternaria cucumerina*. 14415

Insects of the season 1966 related to fruit, vegetables and ornamentals. 14483

#### VEGETATION

Vegetative and reproductive responses of highbush blueberry to succinic acid 2,2-dimethylhydrazide (Alar). 14314

Effects of gamma irradiation on prickly pear cactus. 14325

Vegetative and fruiting responses of pecan (*Carya illinoensis* Koch) to heading back and N-dimethylamino succinamic acid. (Abstract). 14332

#### VEIN BANDING

A veinbanding virus of groundnuts, *Arachis hypogaea* L. 14387

#### VENOMS

Effect of the venom of the black widow spider, *Latrodectus mactans* *tredecimguttatus*, on evoked action potentials in the isolated nerve cord of *Periplaneta americana*. 14195

# SUBJECT INDEX

## VIRUS DISEASES (PLANTS)

- Effect of *Loxosceles reclusa* Gertsch and Mulaik venom on *Heliothis virescens* (F.) larvae. oosterhof, g. 14248
- VENTURIA INAEQUALIS**  
Computation of results of crop protection experiments by the method of Townsend and Heuberger. 14392  
A low-volume postharvest spray of benomyl prevents ascospore production in apple leaves infected by *Venturia inaequalis*. 14405
- VERTICILLIUM**  
*Verticillium* spp. and associated fungi from certified potato seed tubers. 14346  
*Verticillium* wilt of cotton--the situation in the Namoi Valley. 14357
- VERTICILLIUM ALBO-ATRUM**  
The interrelationship of resistance and susceptibility of cotton to *Verticillium albo-atrum* and *Fusarium oxysporum* f. sp. *vasinfectum* as influenced by soil temperature. (abstract). 14339
- VESPA ORIENTALIS**  
The pheromone of the queen of the Oriental hornet, *Vespa orientalis*. 14214
- VETERINARY LABORATORIES**  
Lebanon. 14549
- VETERINARY MEDICINE**  
Piperazine-carbon disulfide complex. Drugs for veterinary use; drug efficacy study implementation. 14547
- VIOLA**  
Influence of *Zygotylenchus guevarai* (Tobar Jimenez, 1963) Braun and Loof, 1966, on some of its hosts. 14511
- VIOLET ROOT ROT**  
Soil condition and the violet and white root rot diseases of fruit trees. 14343
- VIROLOGY**  
The effect of inoculum concentration on virus multiplication in cucumber cotyledons. II. Cucumber mosaic and tobacco mosaic viruses. 14367  
An approach to the elucidation of host-parasite interaction. 14450  
Arbovirus studies in the Ohio-Mississippi basin, 1964--1967. VII. Lone star virus, a hitherto unknown agent isolated from the tick *Amblyomma americanum* (Linn.). 14582  
The temperature requirements for interferon production in cells stimulated by Newcastle disease virus or microbial agents in vitro. 14585  
Some physical properties of purified neurotropic foot-and-mouth disease virus. 14586  
Multiplication of Tribec virus in chick embryo cell cultures: cytopathic changes and immunofluorescence. 14603  
Virological, histopathological and histochemical behavior of the corioalantois of chick embryos inoculated with Aequi/Uruguay/540/1963 virus. 14619
- VIRULENCE**  
Virulence of uredial and aecial isolates of *Puccinia coronata* Corda f.sp. *avenae* identified in Canada from 1952 to 1966. 14359
- VIRUS A (POTATOES)**  
Virus A as a cause of streak on secondary infected eyestekclings of the potato. 14471
- VIRUS DISEASES (ANIMALS)**  
Adenine and related substances as potent feeding stimulants for the alfalfa weevil, *Hypera postica*. 14213  
Enhancement of infectivity of a mammalian virus preparation after injection into insects. 14268  
Bovine virus diarrhea in Italy. II. Reproduction of the disease. 14554  
Identification of hog-cholera virus in frozen pork imported from China. 14556  
A histological study of the effects of enzootic abortion of ewes virus in the lactating bovine mammary gland. 14559  
Occurrence of tick-borne encephalitis virus neutralizing antibody in aquatic birds in central Europe. 14565  
Some physical properties of purified neurotropic foot-and-mouth disease virus. 14586  
Diaplacentarian immunity to foot-and-mouth virus in nursing rats: correlation and regression. 14594  
Study of the practicability of various diagnostic methods in the demonstration of swine fever virus of high and low virulence in organs of experimentally infected pigs. 14595  
Evolution of the antibody curve in animals experimentally inoculated with Aequi/Uruguay/540/63. 14596  
Nairobi sheep disease: A study of its pathogenesis in sheep, goats and suckling mice. 14597  
Histopathologic and hematologic changes in moribund stages of chicks infected with T-virus. 14600  
Multiplication of Tribec virus in chick embryo cell cultures: cytopathic changes and immunofluorescence. 14603  
Lyophilizing foot-and-mouth disease virus at low drying temperature. 14604  
Antibody in experimentally infected sheep and antfoot-and-mouth disease vaccines. 14605  
A comparison of the haemagglutination-inhibition and neutralisation test in the assay of rinderpest antibodies in cattle. 14607  
Varification of antibodies of Newcastle virus in rats inoculated with different types of experimental vaccines. 14609  
Relationship of plaque size and virulence for chickens of 14 representative Newcastle disease virus stains. 14611  
Virological, histopathological and histochemical behavior of the corioalantois of chick embryos inoculated with Aequi/Uruguay/540/1963 virus. 14619  
Inhibition of host-cell protein and ribonucleic acid synthesis by newcastle disease virus. 14622  
Experimental aerosol transmission of yaba virus in monkeys. 14623
- VIRUS DISEASES (PLANTS)**  
The effect of sodium replacement on the electretinogram recorded from the cockroach ocellus. 14179  
Ultrastructure of the ileum of the European corn borer, *Ostrinia nubilalis*. 14207
- Ecdysone and DNA synthesis in cultured wing disks of the wax moth, *Galleria mellonella*. 14250  
Sperm activation and migration in bed bugs, size in hypersensitive hosts in the presence of chloramphenicol. 14257  
The ultrastructure and physiology of the abdominal air-guide retractor muscles in the giant water bug, *Lethocerus*. 14277  
Lysozyme action in the cockroach--blood changes, while probing intercellularly. 14279  
Nature and inheritance of resistance to red clover vein mosaic virus in *Pisum sativum*. (Abstract). 14345  
Ten years of investigations with potato virus in Hannover. 14347  
Internal brown spot--a condition in yams in Barbados. 14352  
The problem of sowbane mosaic virus contamination. 14354  
Studies on virus diseases of strawberries in the Western Cape Province. I. Degeneration of locally bred strawberry cultivars. 14355  
Chenopodium as host to viruses transmitted from apple, pear and grapevine. 14356  
A transmissible disorder of gladiolus flowers. 14360  
Lucerne bud mite recorded from New South Wales. 14364  
Identification of the virus causing papaw yellow crinkle with tomato big bud virus by transmission tests. 14365  
The effect of inoculum concentration on virus multiplication in cucumber cotyledons. II. Cucumber mosaic and tobacco mosaic viruses. 14367  
An apparently two-factor dose-response dependence in lucerne mosaic virus assay. 14368  
Evidence for the release of 28 S RNA from turnip yellow mosaic virus heated in vitro. 14370  
Soil-borne wheat mosaic virus from *Poa annua* L., a new host. 14377  
Yellow dwarf of pea and broadbean caused by milk-vetch dwarf virus. 14378  
A veinbanding virus of groundnuts, *Arachis hypogaea* L. 14387  
Bean yellow mosaic and tobacco ringspot virus isolated from *Crotalaria* (*Crotalaria spectabilis*). 14388  
Strains of tobacco mosaic virus contained in cigarettes, with especial reference to the infection source for mosaic disease of tomato. 14389  
Tobacco diseases in Venezuela, Costa Rico and Nicaragua. 14407  
An evidence for the multiplication of rice dwarf virus in the vector cell cultures inoculated in vitro. 14409  
Peroxidase isozymes in virus-infected plants. 14418  
Interaction between two races of *Piricularia oryzae* in lesion-formation in rice plants and accumulation of fluorescent compounds associated with infection. 14420

## SUBJECT INDEX

### VIRUS PRODUCTION

- Preliminary report on the amino acid composition of TMV-C protein. 14422
- Current status of in vitro synthesis of plant viruses. 14434
- Evidence of phenotypic mixing between two strains of tobacco mosaic virus. 14441
- A mild strain of tristeza virus in Hassaku trees (*Citrus hassaku* Hort. et Y. Tanaka) in Hiroshima prefecture. 14442
- Greenhouse testing of sugar beets for resistance to curly top. 14446
- Enhancement of tobacco rattle virus stable form infection by heterologous short particles. 14447
- An approach to the elucidation of host-parasite interaction. 14450
- Studies on dwarf disease of mulberry tree. XVI. On two strains. 14461
- A color test for citrus exocortis in Japan. 14462
- Morphology of cauliflower mosaic virus. 14464
- Radish enation mosaic virus. 14465
- Virus diseases of cereals in South Africa. II. Identification of two elongated plant viruses as strains of sugar cane mosaic virus. 14469
- Virus A as a cause of streak on secondary infected eyestecklings of the potato. 14471
- Several years' research on the investigations of virus in pears. 14473
- Note on the transmission of northern cereal mosaic virus by *Muellerianella fairmairei* (Perris). 14484
- Various problems on vectors of rice viruses. 14492
- Transmission experiments with the latent Prunus-virus and the gall mite *Vasates foekuei* Nal. 14495
- Further experiments regarding the clarification of the connection between the beet lacebug *Piesma quadratum* (Fieb) and the beet erinkle virus. 14499
- Present knowledge on Phytophagous nematodes and their relations with virus diseases. 14514
- Blue light promotes symptom formation and virus multiplication in plants. 14669
- VIRUS PRODUCTION**  
Bovine virus diarrhea in Italy. II. Reproduction of the disease. 14554
- VIRUS PURIFICATION**  
Ultrastructure of the ileum of the European corn borer, *Ostrinia nubilalis*. 14207
- VIRUS S**  
Virus A as a cause of streak on secondary infected cyestecklings of the potato. 14471
- VIRUS X**  
Ten years of investigations with potato virus in Hannover. 14347
- VIRUS Y**  
Ten years of investigations with potato virus in Hannover. 14347

### VIRUSES

- Electron microscopy of spindle-shaped inclusion viruses of Coloptera. 14184
- On the cross-inoculation of Chilo iridescent virus. CIV. 14206
- Isolation of viruses of the California encephalitis virus group from boreal *Aedes* mosquitoes. 14216
- Development of the virus with inclusion bodies, of the Lepidoptera *Lymantria dispar* in cell cultures. 14275
- Current status of in vitro synthesis of plant viruses. 14434
- Sex differences in embryonic response to *Eimeria tenella* infection. 14579
- VISCERA**  
Study of the practicability of various diagnostic methods in the demonstration of swine fever virus of high and low virulence in organs of experimentally infected pigs. 14595

### VISION

- The ability of colour distinction in the wood-ant *Formica polyctena* Forster. 14223

### VIVIPARITY

- Identity of instars of apterous viviparae of *Rhopalosiphum fitchii* (Sanderson) and *Toxoptera graminum* (Rondani), (Aphididae, Homoptera). 14163

### VOLUMETRIC ANALYSIS

- Titration of *Salmonella abortus-ovis* strains with chick embryos and white mice. 14561

- 'Reduced volume' by how much? Why? Actual state of affairs. 14699

### WALNUTS

- Two important diseases of walnut trees. 14695

### WARFARIN

- Warfarin treatment of mice bearing autochthonous tumors: Effect on spontaneous metastases. 14608

### WART

- Potato wart in Sweden and National measures for its control. 14707

### WATER

- Stimulation of tomato ripening by Amchem 66-329. (Abstract). 14313

### WATER POLLUTION

- Tuberculosis in three herds with access to the same open sewer. 14546
- Guidelines for evaluating the properties of pesticides for safe use in the wildlife environment. 14652

### WAX GLANDS

- Fatty acids, alcohols and hydrocarbons in the waxy covering of *Ceroplastes pseudocerciferus* Green, *Ceroplastes japonicus* Green and *Ceroplastes rubens* Maskell (Homoptera: Coccidae). 14269

### WEATHER

- Development of corn-growing along the Rhein through use of growth producing herbicides. 14523
- The control of wild foxtail grass in winter wheat as well as the prevention of weather trodden grain. 14539
- Biology of *Hyphantria cunea* Drury (Lepidoptera: arctiidae) in Japan. I. Notes on adult biology with references to the predation by birds. 14627

### WEED CONTROL

- Onion weed control on Mallee soils. 14518
- Monolinuron in increase of grain. 14520
- Chemicals that show--crops' co-existence with weeds is not necessary. 14530
- Stam F-34 can kill the weeds of Gora paddies. 14537
- Influence of residues of some triazine herbicides upon wheat and weeds in wheat crops. 14653

### WEEDS

- A new contribution to the study of Leafhopper fauna (Homoptera, Auchenorrhyncha). 14270
- Importance of industry and labor to plant care in farm management. 14331
- An alternative weed host for *Xanthomonas campestris*. 14476
- Occurrence and control of Haplodiplois equestris in Holland. 14496
- Monolinuron in increase of grain. 14520
- Development of corn-growing along the Rhein through use of growth producing herbicides. 14523
- Possibilities of weed control in corn with atrazine, taking special note of the control of couch-grass, wild oats and older weeds. 14524
- Spiny burr grass--a serious and increasing problem. 14571
- Influence of residues of some triazine herbicides upon wheat and weeds in wheat crops. 14653

### WESTERN EQUINE ENCEPHALOMYELITIS VIRUS

- Arbovirus studies in the Ohio-Mississippi basin, 1964--1967. V. *Trivittatus* and Western equine encephalomyelitis viruses. 14583

### WHEAT

- Moisture corrosion, a new corrosive method. 14330
- On the tolerance of wheat against *Septoria nodorum* Berk. 14348
- The importance of preceding crop-dependent shifts in the micro flora of the soil. I. The influence of soil fungi on the root development of wheat, peas, and rape. 14353
- Levels of shikimate and folate in primary leaves of wheat and in uredospores of leaf rust. 14372
- Cryopreservation and pathogenicity of selected isolates of *Colletotrichum*, *Rhizoctonia*, and *Phytophthora*. 14374
- Soil-borne wheat mosaic virus from *Poa annua* L., a new host. 14377
- Physiological and ecological studies on the over-summering and overwintering of the stripe rust of wheat and barley, *Puccinia striiformis* Westend. 14424
- Utilization of various forms of nitrogen by *Drechslera sorokiniana*, the pathogen causing foot rot disease in wheat. 14458
- The development of cehinulation in uredospores of wheat stem rust. 14463
- Simultaneous control of *Apera spica venti* and broad leaf weeds through soil herbicides. (Test results in upper bavaria 1965-1967). 14529

- Pre-emergence application of 2,4-D-ester to wheat (*Triticum vulgare*). 14534
- The control of wild foxtail grass in winter wheat as well as the prevention of weather trodden grain. 14539
- Development of *Caenorhabditis briggsae* and *Hymenolepis nana* in interchanged media. France. 14633
- Influence of residues of some triazine herbicides upon wheat and weeds in wheat crops. 14653
- The separation of the proteins of wheat by acrylamide gel electrophoresis, with special reference to mottled and unmottled wheat. 14667
- Metabolism of aromatic compounds in healthy and rust-infected primary leaves of wheat. II. Studies with 1-phenylalanine-U-14C, 1-tyrosine-U-14C, and ferulate-U-14C. 14676
- WHITE CLOVER**  
Influence of *Zygotylenchus guevarai* (Tobar Jimenez, 1963) Braun and Loof, 1966, on some of its hosts. 14511
- WHITE ROOT ROT**  
Soil condition and the violet and white root rot diseases of fruit trees. 14343
- WILDLIFE**  
Guidelines for evaluating the properties of pesticides for safe use in the wildlife environment. 14652
- WILDLIFE DISEASES**  
Contagious bovine pleuropneumonia in wildlife. 14613
- WILDLIFE PESTS**  
Musk, brown rats and harvest mice as pests in maize. 14541
- WILT**  
The interrelationship of resistance and susceptibility of cotton to *Verticillium albo-atrum* and *Fusarium oxysporum* f. sp. *vasinfectum* as influenced by soil temperature. (abstract). 14339
- WILT (COTTON)**  
*Verticillium* wilt of cotton--the situation in the Namoi Valley. 14357
- WILT DISEASE (PLANTS)**  
On *Fusarium oxysporum* f. sp. *lagenariae* n. f. causing wilt of *Lagenaria vulgaris* var. *hispida*. 14404
- Anatomical studies of rice plant infected with bacterial leaf blight, with special reference to wilt symptom. 14460
- WIND EROSION**  
Onion weed control on Mallee soils. 14518
- WINE**  
Study of the antifungal properties of 8-Hydroxyquinoline tartrate. 14651
- WINGS (INSECTS)**  
Does the beating of butterfly wings cause electrical phenomena. 14239
- Study on the density of the adult of the brown planthopper *Nilaparvata lugens* Stal. 14251
- The mechanism of coupling of the locust Light oscillator to oscillatory inputs. 14278
- WOOD BORERS**  
Economic effect and control of wood-boring insects in fruit trees. 14329
- WOOD-DESTROYING INSECTS**  
Observations on wood-destroying insect living in the footbridge over Siikaneva bog. 14235
- Observations of the insect pests of the old shrine and the Buddhist temple wooden buildings and a few trypoxylonid wasps. 14244
- WOUND-TUMOR VIRUS**  
Enhancement of infectivity of a mammalian virus preparation after injection into insects. 14268
- X-RAYS**  
Radiation sensitivity of *Drosophila* embryos in relation to age, in air and in nitrogen. 14208
- The action of X-rays on the osmotic pressure and the pH of the hemolymph of *Galleria mellonella* L. (Insecta Lepidoptera). 14242
- XANTHOMONAS**  
Bacterial leaf spot of cape gooseberry in Queensland. 14411
- An alternative weed host for *Xanthomonas campestris*. 14476
- XANTHOMONAS JUGLANDIS**  
Two important diseases of walnut trees. 14695
- XANTHOMONAS PHASEOLI**  
Two important bacterial diseases on beans. 14454
- XIPHINEMA**  
Present knowledge on Phytophagous nematodes and their relations with virus diseases. 14514
- YABA MONKEY TUMOR VIRUS**  
Experimental aerosol transmission of yaba virus in monkeys. 14623
- YAMS**  
Internal brown spot--a condition in yams in Barbados. 14352
- YELLOW DWARF**  
Yellow dwarf of pea and broadbean caused by milk-vetch dwarf virus. 14378
- YELLOW EDGE (STRAWBERRIES)**  
Studies on virus diseases of strawberries in the Western Cape Province. I. Degeneration of locally bred strawberry cultivars. 14355
- YELLOW MOSAIC**  
Bean yellow mosaic and tobacco ringspot virus isolated from *Crotalaria* (*Crotalaria spectabilis*). 14388
- ZINC**  
Evaluation and use of fungicides in commercial cultivation of barley in Colombia. 14436
- ZINC PROPYLENEBIS(DITHIOCARBAMATE)**  
Is an early infection by *Peronospora tabacina* Adam controllable in the field. 14397
- ZINEB**  
Is an early infection by *Peronospora tabacina* Adam controllable in the field. 14397
- Rust of stone fruits. 14412
- Two important diseases of walnut trees. 14695
- ZINGIBER OFFICINALE**  
Fungal foes that menace ginger crop. 14366
- ZIRAM**  
Isolation of *Toxoplasma gondii* from swine and cattle. following pesticide treatments. 14558
- ZOOGEOGRAPHY**  
Revision of Indo-Pakistan *Parisomias* Faust (Coleoptera, Curculionidae) with some notes on *Leptomias* Faust. 14123
- Raphidiidae (Insecta, Neuroptera). 154. Contribution to the series Results of the zoological investigations of Dr. Z. Kazab in Mongolia. 14124
- A survey of the distribution and present status of the wood ant, *Formica rufa* L. (Hym., Formicidae) in England and Wales. 14126
- Contribution to the knowledge of the neotropical Oribatid fauna. 5. Archeozetes. (Arach., Acari). 14127
- A new species of Ichneumonidae from Rumania. 14128
- An index-catalogue of the genus-group names of Oriental and Australasian Tachinidae (Diptera) and their type-species. 14129
- Contribution to the knowledge of the genus *Saprinus* (Col. Histeridae). II. 14130
- The existence of bark borers in Berlin (Lepid.). 14132
- Oribatid mite fauna in Sarobetsu Moor in northern Hokkaido, Japan. 14138
- Notes on the genus *Schyzops* Spinola, 1837 (Phyllocephalinae, Pentatomoidea, Heteroptera). *maritima* (Guer.). 14139
- A note on the genus *Pseudathyma* Staudinger with description of a new species (Lepidoptera: Nymphalidae). 14143
- Dragonfly catches from the Gifhorn area (A contribution to the Odonata fauna of Lower Saxony). 14145
- The present distribution of *Hylotrupes bajulus* L. (Col., Cerambycidae) in Norway and its abundance in some districts. 14146
- Leaf beetle larvae of the subfamily Eumolpinae and of *Syneta betulae* F. (Coleoptera, Chrysomelidae). 14149
- The occurrence of *Ectoedemia libwerdella* Zimm. in Western Germany (Lepidoptera, Nepticulidae). 14151
- The Icelandic form of *Carabus problematicus* Hbst. (Col. Carabidae). A statistic treatment of subspecies. 14152
- Contributions to the knowledge of the Heleide fauna (Dipt. Nemat.) of Berlin. 14157
- The Indo-Australian species of the ulitor-group of *Apanteles* Forster (Hymenoptera: Braconidae). 14159
- The Rhabdiphoridae (Orthoptera) of Australia. Part 7. *Pallidotettix*, a new genus from the Nullarbor Plain, south-western Australia. 14160
- Phycitinae from Turkey and Greece (Lep., Pyralidae). 14162
- A new species of the genus *Hcterothops* Steph. from Czechoslovakia (Col., Staphylinidae). 14167
- Contribution to the fauna of the Congo (Brazzaville). Mission A. Villiers and A. Descarpentries. XLVII. Homoptera Cercopidac and Fulgoroidea. 14169
- Coniopteryx remota* Banks, further description and lectotype designation (Neuroptera, Coniopterygidae). 14171

## SUBJECT INDEX

### ZYGAENIDAE

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Endophytus anemones (Hering) in Finland (Hym., Tenthredinidae). <span style="float: right;">14172</span></p> <p>Concerning some West German bees and digger wasps (Hym. Apoidea, Sphecoidea). <span style="float: right;">14176</span></p> <p>Some phase characteristics of the southern African form of the desert locust (Schistocerca gregaria (Forsk.)). <span style="float: right;">14187</span></p> <p>Key to the adult hymenopterous parasites of <i>Pulex</i> (Kearfoot), (Lepidoptera: Gelichiidae) of Quebec. <span style="float: right;">14231</span></p> <p>Blossom visitations of domestic Allantus species, and places where they are found. <span style="float: right;">14263</span></p> | <p><i>Brachymeria femorata</i> Panzer (Hymenoptera Chalcididae). <span style="float: right;">14267</span></p> <p>Powdery mildew of rubber in Papua. <span style="float: right;">14449</span></p> <p>Occurrence and control of Haplodiplosis equestris in Holland. <span style="float: right;">14496</span></p> <p>Geographical distribution maps of animal diseases in Africa, 1966. <span style="float: right;">14575</span></p> <p>Serological response in cattle to East Coast fever (<i>Theileria parva</i> infection) as measured by the indirect fluorescent antibody test. <span style="float: right;">14588</span></p> <p>Antibodies to Leptospiral serotypes in sera of North Queensland cattle. <span style="float: right;">14590</span></p> | <p>First records of eye-frequenting Lepidoptera from India. <span style="float: right;">14624</span></p> <p>Epizootiologic factors of <i>Fascioloides magna</i> (Trematoda) in Oregon and southern Washington. <span style="float: right;">14632</span></p> <p><b>ZYGAENIDAE</b><br/>           A new method of estimating population size, survivorship, and birth rate from capture-recapture data. <span style="float: right;">14237</span></p> <p><b>ZYGOTYLENCHUS</b><br/>           Influence of <i>Zygotylenchus guevarai</i> (Tobar Jimenez, 1963) Braun and Loof, 1966, on some of its hosts. <span style="float: right;">14511</span></p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## BIOGRAPHICAL INDEX

- Abdel-Gawad, H A**  
California Univ., Davis  
14300
- Abdel-Raheem, A**  
Texas A and M University, College Station  
14339
- Abdulla, A E D**  
Near East Animal Institute, Veterinary Research Division.; Ministry of Animal Resources, Khartoum, Sudan.  
14552
- Allcroft, R**  
Central Veterinary Laboratory, Weybridge  
14660
- Altman, J**  
Colorado State University, Fort Collins  
14504
- Andersen, F S**  
Statens Skadedyrlaboratorium, Lyngby, Denmark  
14177
- Anslow, R O**  
Wisconsin. university; Dept. of Veterinary Science, Madison  
14553
- Aragaki, M**  
Hawaii. agricultural Experiment Station, Honolulu  
14342
- Aslam, N A**  
London. commonwealth Institute of Entomology; Laboratoire de Biologie animale et generale, Dijon  
14123
- Aspöck, H**  
Vienna Univ., Austria; Hygiene-Inst.  
14124
- Attarian, A R**  
Delaware Valley College, Doylestown, Pa.  
14344
- Atwal, A S**  
Punjab Agricultural Univ., Ludhiana; Dept. of Zoology-Entomology  
14118
- Atwood, C E**  
Toronto Univ., Ontario; Dept. of Zoology  
14178
- Atwood, M W**  
Purdue University; Dept. of Biological Sciences, Fort Wayne, Ind.  
14179
- Avellini, G**  
Perugia Univ., Italy; Profilassi e Polizia Veterinaria  
14554
- Bagdasaryan, B A**  
Yerevan State Univ., USSR  
14125
- Baggett, J R**  
Oregon State Univ., Corvallis  
14345
- Baker, C R B**  
Ministry of Agriculture, Fisheries and Food, Harpenden., England; Plant Pathology Lab.  
14180
- Ballantyne, D J**  
Victoria Univ., Canada; Dept. of Biology  
14666
- Barber, J T**  
Cornell Univ., Ithaca, N. Y.; Lab. of Cell Physiology, Growth and Development  
14667
- Barile, M F**  
National Insts. of Health, Bethesda, Md.  
14555
- Bartha, R**  
Rutgers University, New Brunswick, N J; Bureau of Conservation and Environmental Science; Dept of Biochemistry and Microbiology  
14697
- Battelli, C**  
Istituto Zooprofilattici Sperimentali Di Foggia E Di Teramo  
14556
- Beaulaton, J A**  
Faculte de Sciences, Clermont-Ferrand, France; Centre Biologie cellulaire  
14181
- Beck, L**  
Ruhr-Univ., Bochum, West Germany; Inst. für Allgemeine Zoologie  
14127
- Beckman, C H**  
Rhode Island. agricultural Experiment Station, Kingston  
14346
- Bell, W J**  
Texas. university; Dept. of Zoology, Austin  
14182
- Benecke, F S**  
Department of Agriculture, Tamworth, Australia  
14183
- Bennett, D G**  
Purdue Univ., Lafayette, Ind.; Dept. of Veterinary Microbiology, Pathology, and Public Health  
14630
- Bergoin, M**  
C. N. R. S., Saint-Christol, France; Station de Recherches Cytopathologiques  
14184
- Bier, K**  
Munster. universitat; Zoologisches Institut  
14185
- Bindra, O S**  
Punjab Agricultural Univ., Ludhiana  
14505
- Borchardt, G**  
Pflanzenschutzamt Hannover  
14347
- Borkovec, A B**  
Agricultural Research Service; Entomology Research Div.  
14186
- Botha, D H**  
Plant and Pest Control, Pretoria, Transvaal  
14187
- Botha, D H**  
Plant Pest Control, Pretoria, Transvaal  
14188
- Bouyx, L**  
French Plant Protection Service  
14540
- Boyd, H W**  
Georgia Experiment Station  
14668
- Briolini, G**  
Bologna Univ., Italy; Istituto di Entomologia  
14480
- Broennimann, Eidgenossische landwirtschaftliche Versuchsanstalt, Zue; Rich-Oerlikon, Swit**  
14348
- Brown, B E**  
Canada. agriculture Research Institute, London  
14189
- Bryan, F L**  
U. S. Dept. of Health, Education, And Welfare, Georgia; Public Health Service  
14649
- Bryant, P J**  
California. university; Dept. of Organismic Biology, Irvine  
14190
- Burgess, T D**  
Guelph Univ., Ontario; Dept. of Animal Science  
14631
- Bushnell, W R**  
Agricultural Research Service; Crops Research Div.  
14349
- Busselet, M**  
Laboratoire de Zoologie et Biologie cellulaire, Clermont; Ferrand, France  
14191
- Butcher, J A**  
New Zealand Forest Service, Rotorua; Forest Research Inst.  
14350
- Buttiker, W**  
CIBA Ltd., Basel Switzerland  
14624
- Bwangamoi, O**  
University College, Nairobi, Kabete, Kenya; Faculty of Veterinary Science  
14557
- Cahdon, G A**  
Ohio Agriculture and Development Center, Wooster  
14302
- Casper, R**  
Institut für Viroserologie, Braunschweig, Germany; Biologische Bundesanstalt für Land-und Forstwirtschaft  
14669
- Catar, G**  
Komensky University Medical School; Dept. of Parasitology, Bratislava; Pont-de-la-Maye  
14558
- Cayrol, J C**  
Institut National de la Recherche Agronomique, Antibes; France; Station de Recherches sur les Nematodes  
14506
- Chaplin, M H**  
Michigan State Univ., East Lansing  
14303
- Chaves E, L E**  
Centro Nacional de Investigaciones Agropecuarias Tibaitata.; Bogota, Colombia  
14517
- Chenery, E M**  
Tea Research Inst. of Ceylon, Talawakele  
14304
- Chlyah, H**  
Centre National de la Recherche Scientifique, Es-sonnes.; France; Lab. du Phytotron  
14670
- Chohan, J S**  
Punjab Agricultural Univ., Ludhiana; Dept. of Botany and Plant Pathology  
14351
- Chute, H L**  
Maine Univ., Orono; Dept. of Animal Pathology  
14545
- Ciegler, A**  
U S Dept of Agriculture, Peoria, Ill; Agricultural Research Service; Northern Regional Research Laboratory  
14698
- Cincovic, T**  
Institute for Application of Nuclear Energy in; Agriculture, Beograd; Veterinary Medicine and Forestry  
14653
- Claudio, M Z**  
Philippines Univ. Coll. of Agriculture, Laguna; Dept. of Agronomy  
14507
- Corbiere, G**  
Marseille. institut de Neurophysiologie et; Psychophysiologie; Dept. du Comportement Animal  
14192
- Corner, A H**  
Canada Dept. of Agriculture, Hull, Quebec; Animal Diseases Research Institute; Animal Pathology Division, Health of Animals Branch  
14559
- Coursey, D G**  
Tropical Products Inst., England  
14352
- Crosskey, R W**  
Commonwealth Inst. of Entomology, London, England  
14129
- Crowe, M W**  
Kentucky Agricultural Experiment Station, Kentucky  
14661
- Cunningham, J C**  
Oxford University; Commonwealth Forestry Institute; Insect Pathology Unit  
14193
- Cutts, N A**  
Department of Agriculture, Australia; Hawkesbury Agricultural Coll.  
14194
- D'Ajello, V**  
Rome. istituto Superiore di Sanita; Dept. of Parasitology, Italy  
14195
- D'arcy Hart, P**  
National Inst. for Medical Research, Mill Hill, N. W. 7.; England  
14671
- Dahle, H K**  
Veterinary College of Norway, Oslo; Dept. of Microbiology and Immunology  
14560
- De Beaumont, J**  
Musee Zoologique, Lausanne, France  
14131
- Deshpande, B Y**  
MSSIDC, Bombay, India  
14196
- Dhawedkar, R**  
Chair of Microbiology, Sofia, Bulgaria; Faculty of Veterinary  
14561

## BIOGRAPHICAL INDEX

**Dickerson, G W**

- Dickerson, G W**  
New Mexico State Univ., Las Cruces  
14305
- Dinc, N**  
Zirai Mucadde Enstitusu Bag ve Meyve Hastaliklari, Diyar; Bakir  
14519
- Dinoor, A**  
Hebrew Univ., Rehovot, Israel; Dept. of Plant Pathology  
14306
- Dommert, A R**  
Missouri Univ., Columbia; Dept. of Veterinary Microbiology  
14563
- Domsch, K H**  
Biologische Bundesanstalt, Kiel-Kitzeberg; Institut fur Getreide-, Olfrucht- und Futterpflanzenkrank; Heiten  
14353
- Dorfmann, H**  
Berlin-Neukoelln, Germany  
14132
- Drechsler, C**  
Agricultural Research Service, Beltsville, Md.; Crops Research Div.  
14508
- Dutson, V J**  
Oregon State Univ., Corvallis; Dept. of Veterinary Medicine  
14632
- Eck, P**  
Rutgers Univ., New Brunswick, N. J.  
14308
- Edgerton, L J**  
Cornell University, Ithaca, N Y  
14309
- Ellegaard, E G**  
Purdue University; Dept. of Biological Sciences, Lafayette  
14284
- Elliott, M E**  
Canada Dept. of Agriculture, Ottawa; Plant Research Inst.  
14310
- Ellis, P E**  
Anti-locust Research Center, College House, Wright's Lane, London, W. 8, England  
14197
- Elmllig, I A**  
Institut voor Dierkunde, Ghent, Belgium  
14509
- Emmons, R W**  
California. state Dept. of Public Health; Viral and Rickettsial Disease Laboratory, Berkeley  
14564
- Enaizumi, M**  
Utsonomiya University; Faculty of Agriculture; Laboratory of Entomology  
14481
- Endo, R M**  
California Univ., Riverside; Dept. of Plant Pathology  
14672
- Engelbrecht, D J**  
Stellenbosch Univ., South Africa; Dept. of Microbiology  
14354
- Engelbrecht, D J**  
Fruit and Food Technology Research Inst., Stellenbosch, Cape Province  
14355
- Engelbrecht, P J**  
Viticulural-Ocnological Research Inst., Stellenbosch, Cape Province  
14356
- Ernek, E**  
Czechoslovak Academy of Sciences, Bratislava; Institute of Virology  
14565
- Eugster, C H**  
Zurich Univ., Switzerland; Organisch-Chemisches Inst.  
14673
- Evans, F W**  
Department of Agriculture, Grafton, Australia  
14625
- Evans, G**  
Department of Agriculture, Tamworth, Australia; Agricultural Research Station  
14357
- Exley, E M**  
Queensland Univ., Australia; Dept. of Entomology  
14133
- Exley, E M**  
Queensland Univ., Australia; Dept. of Entomology  
14134
- Exley, E M**  
Queensland Univ., Australia; Dept. of Entomology  
14135
- Ferrlere, C**  
Museum d' Histoire Naturelle, Geneve, Switzerland  
14136
- Flnco, D R**  
Minnesota Univ., St. Paul; Dept. of Veterinary Medicine  
14566
- Finker, R E**  
New Mexico State Univ., Clovis; Plains Branch Station  
14358
- Fisher, F M**  
Rice University; Dept. of Biology, Houston, Texas  
14198
- Fiskesjo, G**  
Lund. university; Institute of Genetics  
14674
- Fitzgerald, P R**  
Illinois Univ., Urbana; Coll. of Veterinary Medicine; Dept. of Veterinary Pathology and Hygiene  
14567
- Fleischmann, G**  
Canada Dept. of Agriculture, 25 Dafoe Road, Winnipeg,; Manitoba; Research Station  
14359
- Folkers, C**  
Ahmadu Bello University, Zaria, Northern Nigeria; Faculty of Veterinary Medicine; Div. of Parasitology  
14568
- Foot, W H**  
Canada Dept. of Agriculture, Ontario; Research Branch; Research Station  
14137
- Forsberg, J L**  
Illinois. natural History Survey. section of Botany and; Plant Pathology, Urbana  
14360
- Foster, N M**  
Agricultural Research Service, Denver, Colo.; Animal Disease and Parasite Research Div.  
14569
- Frear, D S**  
Department of Agriculture, Fargo, N. D.; Agricultural Research Service  
14675
- Fritsch, K**  
Pflanzenschutzamt Hannover, Bez.-stelle Nienburg  
14520
- Fritsch, K**  
Pflanzenschutzamt Hannover; Bezirksstelle Nienburg  
14521
- Fuchs, A**  
Lab. voor Fytopathologie, Binnenhaven 9, Wageningen,; Netherlands  
14676
- Fujikawa, T**  
University of Hokkaido, Sapporo, Japan.; Faculty of Agriculture; Institute of Applied Zoology  
14138
- Funt, R**  
Michigan State Univ., East Lansing  
14311
- Gahaldon, A**  
Cambridge. university; Dept. of Human Ecology, England  
14298
- Gagnon, C**  
Canada Dept. Of Forestry AND Rural Development, Quebec,; Forest Research Lab.  
14361
- Galofre, J**  
Enfermedades Parasitarias, Buenos Aires; Facultad de Agronomia y Veterinaria  
14626
- Galvez, G E**  
Centro Nacional de Investigaciones Agropecuarias,; Tibaitata, Bogota, Colombia  
14482
- Gambrell, C E**  
Clemson Univ., Columbia, S. C.  
14362
- Garrison, S A**  
Rutgers University, New Brunswick, N J  
14312
- Garrison, S A**  
Rutgers Univ., New Brunswick, N. J.  
14313
- Gerlach, W**  
Biologische Bundesanstalt fur Land und Forstwirtschaft,; Berlin Dahlem; Institut fur Mykologie  
14363
- Geyer-Duszynska, I**  
Geneve Univ., Switzerland; Station de Zoologie Experimentale  
14200
- Ghuri, M S K**  
London. commonwealth Institute of Entomology; Laboratoire de Morphologie experimentale, Talence  
14139
- Gibson, F A**  
Department of Agriculture, Rydalmere, Australia  
14364
- Goble, H W**  
Guelph Univ., Ontario; Dept. of Zoology  
14483
- Gordon, H T**  
California Univ., Berkeley; Div. of Entomology  
14201
- Gratzek, J B**  
Georgia Univ., Athens; School of Veterinary Medicine; Dept. of Microbiology and Preventive Medicine  
14570
- Gray, H E**  
Dow Chemical Company, Midland, Michigan; Agricultural Products Dept.  
14202
- Greber, R S**  
Queensland Dept. of Primary Industries, Australia; Div. of Plant Industry  
14365
- Green, K R**  
Department of Agriculture, Sydney, Australia  
14571
- Gressitt, J L**  
Bishop Museum, Honolulu, Hawaii  
14203
- Griffiths, G C D**  
East Barnet, 88a Avondale Avenue, England  
14140
- Gruhl, K**  
Wiesbaden, Germany  
14204
- Gruhl, K**  
Wiesbaden, Germany  
14205
- Gunther, S**  
Hospital Albert Schweitzer, Lambarene-gabon  
14572
- Gupta, G K**  
Agricultural Dept., Himachal Pradesh, India; Section of Plant Pathology  
14366
- Hama, H**  
Tokyo University of Education, Japan; Faculty of Agriculture  
14206
- Hancock, J G**  
California Univ., Berkeley, Calif.; Dept. of Plant Pathology  
14677
- Hansen, E L**  
Berkeley. clinical Pharmacology Research Institute, Calif.; Laboratoire de Zoologie, Montpellier  
14633
- Hapitan, J C**  
Rhode Island Univ., Kingston  
14314
- Hari, M N**  
Agromore Ltd., Bangalore  
14522
- Harris, W V**  
British Museum (Nat. Hist.), England; Termite Research Unit  
14141



# BIOGRAPHICAL INDEX

Koch, R

<b>Hasegawa, H</b> National Institute of Agricultural Sciences, Nishigahara.; Tokyo; Division of Entomology	14627	<b>Hsiao, T H</b> Utah. state University; Dept. of Zoology	14212	<b>Judd, W W</b> Univ., of Western Ontario, London; Dept. of Zoology	14144
<b>Hassemer, M</b> Wisconsin. university; Dept. of Entomology	14207	<b>Hsiao, T H</b> Utah. state University; Dept. of Zoology	14213	<b>Jurzitza, G</b> Ettlingen, Zehntwiesenstrasse 52, West Germany	14145
<b>Haupt, R J</b> Pflanzenschutzamt Bad Godesberg, Germany	14523	<b>Huhta, V</b> Helsinki Univ., Finland; Dept. of Zoology and Zoological Museum	14317	<b>Kabiersch,</b> Pflanzenschutzamt Hannover, West Germany; Bez- zirk Stelle Velzen	14380
<b>Havin, E</b> The Norwegian Radium Hospital, Oslo; Norsk Hydros Inst. for Cancer Research	14208	<b>Hwang, S W</b> American Type Culture Collection, Rockville, Maryland	14374	<b>Kabiersch,</b> Pflanzenschutzamt Hannover, Bez.-stelle Uelzen	14381
<b>Havranek, P</b> Vegetable Crops Research Institute, Olomouc, Czechoslovakia	14367	<b>Ihleemann, W</b> Leiter der Bez-stelle Bremervorde des Pflanz- enschutzamt; Tes Hannover	14375	<b>Kajiwara, T</b> National Institute of Agricultural Sciences, Nishigahara.; Kita-Ku, Tokyo, Japan	14382
<b>Havranek, P</b> Vegetable Crops Research Institute, Olomouc, Czechoslovakia	14368	<b>Ikan, R</b> Hebrew University; Dept. of Organic Chemistry, Jerusalem; Hertfordshire	14214	<b>Kalla, N R</b> Panjab. university; Dept. of Biophysics, Chan- dirah	14219
<b>Hedge, U C</b> University Biochemistry Laboratory, Madras, India	14209	<b>Ikegami, H</b> Gifu University, Gifu-ken, Japan	14376	<b>Kalra, A N</b> Indian Inst., of Sugarcane Research, Lucknow	14486
<b>Helson, G A</b> New Zealand. dept. of Agriculture; Entomology Division, Wellington	14210	<b>Ikeme, M M</b> Nigeria University; Dept. of Microbiology	14634	<b>Kaspers, H</b> Farbenfabriken Bayer Ag, Leverkusen, Germany; Biological Institute	14383
<b>Henner, J</b> Bundesanstalt fur Pflanzenschutz, Wien	14678	<b>Inaba, T</b> National Institute of Agricultural Sciences, Nishigahara.; Tokyo, Japan	14377	<b>Kasule, F K</b> University College, Salaam, Tanzania	14220
<b>Herfs, W</b> Biologische Bundesanstalt fur land- und Forst- wirtschaft.; Braunschweig; Institut fur pflan- zenschutzmittelpfung	14315	<b>Inouye, T</b> Okayama University, Kurashiki, Okayama, Japan; Ohara Institute for Agricultural Biology	14378	<b>Kees, H</b> Regierung von Oberbayern; Spezialberatung fur Pflanzenschutz	14528
<b>Herman, L J</b> American Museum of Natural History; Dept. of En- tomology, Wash. (City)	14211	<b>Irfan, M</b> Division Of Clinical Veterinary Sciences, Trinity College,	14635	<b>Kees, H</b> Spezialberatung fur Pflanzenschutz, Regierung von Oberbay; Ern	14529
<b>Hiebel, K</b> Landwirtschaftsamt Bad Kissengen	14524	<b>Irving, R M</b> Oklahoma State Univ., Stillwater	14318	<b>Kenaga, E E</b> Dow Chemical Company, Midland, Michigan; Agricultural Products Dept.	14652
<b>Hildebrand, D C</b> California University, Berkeley	14369	<b>Ishii, T</b> Hokkaido National Agricultural Experiment Sta- tion, Japan	14484	<b>Kernbach, K</b> Berlin, Germany	14221
<b>Hitchborn, J H</b> Agricultural Research Council, Huntingdon Road, Cambridge.; England; Virus Research Unit	14370	<b>Ishikura, H</b> Ministry of Agriculture and Forestry, Tokyo, Japan; Forest and Fisheries Research Council	14142	<b>Kernbach, K</b> Berlin, Germany	14222
<b>Hocking, D</b> Tropical Pesticides Research Institute, Arusha, Tanzania.	14371	<b>Iversen, J</b> Somon. state College, Calif.	14216	<b>Kerr, A</b> Glen Osmond. waite Agricultural Institute	14384
<b>Hogberg, K G</b> Research Laboratories of Ab Astra	14573	<b>Izawa, H</b> Kitasato Inst., Chiba Prefecture, Japan; Research Center for Veterinary Science	14576	<b>Kessler, S</b> Stanford. university School of Medicine; Dept. of Psychiatry, Calif.	14286
<b>Holbrook, A A</b> Agricultural Research Service, Beltsville, Md.; Beltsville Parasitological Lab.	14574	<b>Jackson, T H E</b> Kitale, Kapretwa, Box 129, Kenya	14143	<b>Khalsa, H G</b> Defence Research Labs. (materials), Kanpur, India	14647
<b>Hollis, J P</b> Louisiana State University, Baton Rouge	14510	<b>James, L F</b> Agricultural Research Service, Logan, Utah; Animal Disease and P I r asite Research Div.	14577	<b>Kieperheuer, J</b> Universitat Frankfurt; Zoologisches Institut	14223
<b>Hollomon, D W</b> Commonwealth Scientific and Industrial Research Organiza; Tion, P. O. Box 109, City, Canberra, Australia; Div. of Plant Industry	14372	<b>Jamieson, S</b> Department of Agriculture, Wellington, New Zea- land; Animal Hcalth Div.	14578	<b>Kikkawa, H</b> Osaka University, Osaka, Japan; Medical School; Dept. of Genetics	14287
<b>Hooks, R F</b> Michigan State Univ., East Lansing	14316	<b>Jander, R</b> Universitat Frankfurt; Zoologisches Institut	14217	<b>Kikumoto, T</b> Tohoku University, Sendai, Japan; Institute for Agricultural Research	14385
<b>Horino, O</b> Tokai-kinki National Agricultural Experiment Sta- tion	14373	<b>Jeffers, T K</b> Ottawa. animal Research Institute; Central Exper- imental Farm	14579	<b>Kimura, J</b> Aomori Apple Experiment Station, Kuroishi, Aomori, Japan	14386
<b>Horino, O</b> Tokai-kinki National Agricultural Experiment Sta- tion, Tsu.; Mie, Japan	14679	<b>Jewell, F F</b> Louisiana. polytechnic Institute; Dept. of Forestry, Ruston	14379	<b>Klessler, P J</b> Horticultural Research Inst., Pretoria, Transvaal	14387
<b>Horn, A V</b> Pflanzenschutzamt Hannover; Bezirksstelle Braunschweig	14525	<b>Jimenez, A T</b> Instituto lopez-Ncyra de Parasitologia, Granada, Spain; Seccion de Nematodologia	14511	<b>Knerer, G</b> Laboratoire D'Evolution, 105 bd. Raspail, Paris, France	14224
<b>Hornig, V O</b> Pflanzenschutzamt des Landes Schleswig-Holstein; Bezirksstelle fur Pflanzenschutz Lubeck	14526	<b>Jones, E L</b> Agricultural Coll. and Research Station, Yanco, Australia	14485	<b>Knudsen, P</b> Norwegian Forest Research Institute, Vollebekk, Norway	14146
		<b>Jones, J C</b> Maryland. univcrsity; Dept. of Entomology	14218	<b>Koch, R</b> Zoologisches Museum der Universitat Zurich, Switzerland	14225

## BIOGRAPHICAL INDEX

### Kok, O B

- Kok, O B**  
Orange Free State Univ., Bloemfontein; Dept. of Zoology 14147
- Kok, O B**  
Orange Free State Univ., Bloemfontein; Dept. of Zoology 14148
- Kokernot, R H**  
Illinois. university; Center for Zoonoses Research, Urbana 14226
- Kokernot, R H**  
Illinois. university; Center for Zoonoses Research, Urbana 14227
- Kokernot, R H**  
Illinois. university; Center for Zoonoses Research, Urbana 14581
- Kokernot, R H**  
Illinois. university; Center for Zoonoses Research, Urbana 14582
- Kokernot, R H**  
Illinois. university; Center for Zoonoses Research, Urbana 14583
- Kolar De, M B V**  
Catedra de Micologia Medica e Industrial, La Plata; Facultad de Ciencias Veterinarias 14584
- Komuro, Y**  
Institute for Plant Virus Research, Chiba, Japan 14388
- Komuro, Y**  
Institute for Plant Virus Research, Chiba, Japan 14389
- Kothari, K L**  
Udaipur Univ., India 14390
- Kraft, J M**  
U. S. dept. of Agriculture, agricultural Research Service; Crops Research Division, Prosser 14391
- Kremer, W F**  
Farbenfabriken Bayer Ag, Leverkusen, Germany; Biological Institute 14392
- Krinitz, B**  
Food and Drug Administration, 850 Third Ave., Brooklyn, N. Y. 11232 14650
- Krishnaswami, R**  
Indian Agricultural Research Inst., Coimbatore-3, Madras; Regional Research Centre 14319
- Kulshrestha, S K**  
D.a.v. College; Dept. of Zoology, Dehra Dun 14229
- Kunoh, H**  
Kyoto University, Kita-shirakawa, Kyoto, Japan; Laboratory of Plant Pathology 14393
- Kurcheva, G F**  
USSR Academy of Sciences, Moscow; Severtsov Inst. of Animal Morphology 14149
- Lackovic, V**  
Czechoslovak Academy of Sciences, Bratislava; Institute of Virology 14585
- Lagutenko, Yu P**  
USSR Academy of Sciences, Leningrad; Inst. of Zoology 14230
- Lamprecht, M P**  
Navorsingsinstituut vir Tabak, Rustenburg, Transvaal 14394
- Langer, H**  
Ruhr. universitat Bochum; Abteilung fur Biologie 14288
- Laplante, J P**  
Forest Research Laboratory, Sainte-foy, Quebec 14231
- Larson, J E**  
Forest Service, Berkeley, Calif; Pacific Southwest Forest and Range Experiment Station 14656
- Laurent, J**  
Faculte des Sciences agronomiques de l'Etat, Gembloux; Belgium; Lab. de Zoologie 14150
- Le Jamhre, L F**  
New York State Veterinary Coll., Ithaca; Dept. of Pathology 14636
- Lee, C C**  
King's College; Dept. of Biological Sciences, Wilkes-Barre 14637
- Lee, M S**  
Cornell Univ., Ithaca, N Y 14320
- Leroy, Y**  
New York Zoological Society, Trinidad; William Beebe Tropical Research Station 14232
- Liebermann, H**  
Friedrich-loeffler-institute Island of Riems; German Academy of Agricultural Sciences, Berlin 14586
- Liebermann, J**  
Instituto Nacional de Tecnologia Agropecuaria, Buenos Aires, Argentina 14233
- Lifschytz, E**  
Hebrew University; Laboratory of Genetics, Jerusalem; Institut fur Gemusekrankheiten, Fischenich 14289
- Lindley, E P**  
Barham Court, Barham Canterbury, Kent, England 14587
- Linnavuori, R**  
Raisio, Finland 14153
- Linsler, H**  
Justus Liebig Univ., Giessen, West Germany; Institut fur Pflanzenernahrung 14680
- Lohr, K F**  
Veterinary Research Laboratory, Kabete, Kenya 14588
- Lohweg, K**  
Hochschule fur Bodenkultur, Wien 14395
- Lorenz, R E**  
Berlin, Germany 14234
- Louw, G N**  
National Chemical Products Ltd., Germiston, Transvaal 14589
- Lozano T, J C**  
Instituto Colombiano Agropecuario, Colombia; Dept. de Agronomia 14396
- Lucas, M H**  
Queensland Dept. of Primary Industries, Australia; Div. of Animal Industries 14590
- Luders, W**  
Landesanstalt fur Pflanzenschutz, Stuttgart 14397
- Lyayster, Yu A**  
Leningrad Agricultural Inst., Pushkin, USSR 14154
- Macadam, J F**  
Department of Agriculture, Narrabri, Australia 14591
- Mackauer, M**  
Frankfurt am Main, Germany 14155
- Madhavan, K**  
Annamalai University; Dept. of Zoology, India 14236
- Mahan, J N**  
Agricultural Stabilization and Conservation Service; Washington, D. C. 14321
- Maheshwari, R**  
Delhi Univ., India; Dept. of Botany 14681
- Main, A R**  
North Carolina State University, Raleigh; Biochemistry Dept. 14700
- Manchanda, H R**  
Regional Fruit Research Station, Abohar 14398
- Mani, V S**  
Indian Agricultural Research Inst., New Delhi; Div. of Agronomy 14530
- Manly, B F J**  
Salford Univ., England; Dept. of Mathematics 14237
- Manocha, M S**  
Brock Univ., Saint Catharines, Ontario, Canada; Dept. of Biological Sciences 14399
- Maramoto, F**  
Hawaii Agricultural Experiment Station 14531
- Marbach, W**  
Department of Agriculture, Sydney, Australia 14592
- Martin, J L**  
Forest Insect Laboratory, Sault Ste. Marie, Ontario 14548
- Martinoli, A**  
Societa Solplant, Milan, Italy 14400
- Martynova, Ye F**  
Leningrad Univ., USSR; Dept. of Entomology 14156
- Masaki, S**  
Hirosaki University, Hirosaki, Japan; Faculty of Agriculture 14238
- Mathur, S B**  
Institute of Seed Pathology, Copenhagen, Denmark 14401
- Matsuura, K**  
Takeda Chemical Industries, Limited, Kyoto Herbal Garden; Kyoto, Japan; Research and Development Division 14402
- Matthews, F D**  
U. S. dept. of Agriculture, agricultural Research Service; Plant Quarantine Division, Miami 14403
- Mattus, G E**  
Virginia Polytechnic Inst., Blacksburg 14322
- Matuo, T**  
Shinshu University, Ueda, Nagano Pref, Japan.; Faculty of Textile Science 14404
- Mc Guire, J J**  
Rhode Island, Kingston 14323
- McGill, A E J**  
Shell Research Ltd.; Tunstall Laboratory, Sittingbourne 14657
- McIntosh, D L**  
Canada. dept. of Agriculture; Research Station, Summerland 14405
- McKeen, W E**  
Western Ontario, Univ., London, Canada; Dept. of Botany 14682
- McKinney, J D**  
U. S. dept. of Health, Education, and Welfare. food and; Drug Administration. bureau of Science; Atlanta Toxicology Branch 14701
- McKissick, G E**  
Ohio State Univ., Columbus; Dept. of Veterinary Pathology 14593
- McKone, C E**  
England. agricultural Research Council; Weed Research Organization, Oxford 14658
- McMurray, A L**  
North Carolina State Univ., Raleigh; Dept. of Horticultural Science 14683
- Mears, A D**  
Department of Agriculture, Sydney, Australia 14532
- Mell, R**  
Berlin, Germany 14239

BIOGRAPHICAL INDEX

Polychronopoulos, A G

- Menchaca, E S**  
Universidad de Buenos Aires; Enfermedades Infecciosas; Facultad de Agronomia y Veterinaria 14594
- Mestres, G**  
Institut National des Sciences Appliquees, Villeurbanne.; France; Lab. de Biologie 14242
- Meycling, A**  
State Veterinary Serum Laboratory, Copenhagen 14595
- Mhaikar, V G**  
Maharashtra Association for the Cultivation of Science.; Poona, India 14406
- Michel, H G**  
Landesanstalt fur Pflanzenschutz, Stuttgart 14489
- Mikkola, K**  
Helsinki Univ., Finland; Dept. of Zoology 14243
- Millar, E S**  
Wallaceville Animal Research Centre, New Zealand 14628
- Miller, C R**  
Florida. university; Institute of Food and Agricultural Sciences 14407
- Minamikawa, J**  
Laboratory of Japan Plant Protection Association, Kodaira.; Tokyo, Japan 14244
- Miric, M**  
Institut of Plant Protection, Beograd 14408
- Misra, S S**  
Indian Agricultural Research Inst., New Delhi; Div. of Entomology 14490
- Mitchell, D**  
Western Reserve Univ., Cleveland, Ohio; Dept. of Biology 14684
- Mittlehner, A W**  
UNIROYAL Chemical, Bethany, Connecticut 14324
- Mitsubashi, J**  
National Institute of Agricultural Sciences, Nishigahara.; Kita-ku, Tokyo; Division of Entomology 14409
- Miyamoto, J**  
Sumitomo Chemical Co., Ltd. Konohana-ku, Osaka, Japan; Agricultural Chemicals Research Department 14659
- Moffat, R W**  
Dow Chemical Company 14533
- Moffett, M L**  
Queensland Dept. of Primary Industries, Australia; Div. of Plant Industry 14410
- Moffett, M L**  
Queensland Dept. of Primary Industries, Australia; Div. of Plant Industry 14411
- Monk, C D**  
Georgia Univ., Athens; Institute of Ecology; Department of Biology 14325
- Moran, V C**  
Rhodes Univ., Grahamstown, South Africa; Dept. of Zoology and Entomology 14491
- Moreira, R E S**  
Instituto de Higiene de la Facultad de Medicina; Servicio de Microbiologia del Consejo Dept., Montevideo 14596
- Morseth, D J**  
Pennsylvania. university School of Science; Centre de Recherches agronomiques de Provence, Antibes 14638
- Murray, M**  
Experimental Veterinary Medicine, Glasgcow, University 14639
- Murray, M D**  
Commonwealth Scientific and Industrial Research; Organization, Glebe, Australia; Div. of Animal Health 14629
- Naito, N**  
Kagawa University, Japan 14685
- Narda, R D**  
Paujab. agricultural University; Dept. of Genetics, Ludhiana 14290
- Nasu, S**  
National Institute of Agricultural Sciences, Tokyo, Japan 14492
- Nei, M**  
National Inst. of Radiological Sciences, Chiba, Japan; Div. of Genetics 14291
- Neindorff, U V**  
Berlin. Germany 14157
- Nel, P C**  
Pretoria Univ., Transvaal; Faculty of Agriculture 14534
- Nelson, G H**  
Kansas City College of Osteopathy and Surgery; Dept. of Anatomy, Missouri 14158
- Nicklaus, R**  
Konung Gustaf V:s Forskningsinstitut und aus der; Ohrenklinik des Karolinska Sjukhuset Stockholm 60, Schweden 14245
- Nishihara, N**  
National Institute of Animal Industry, Chiba, Japan 14415
- Nishihara, N**  
National Institute of Animal Industry, Aoba-cho, Chiba-shi.; Japan 14416
- Nixon, G E J**  
Commonwealth Inst. of Entomology, London, England 14159
- Nordau, C G**  
Institut Pasteur, Paris, France; Societe de Pathologie exotique 14247
- Nordstoga, K**  
Veterinary College of Norway, Oslo; Dept. of Pathology 14598
- Norman, S M**  
U. S. dept. of Agriculture. agricultural Research Service; Market Quality Research Division, Pomona, Calif. 14417
- Norment, B R**  
Mississippi. agricultural Experiment Station; Dept. of Entomology, State College 14248
- Novacky, A**  
Slovak Academy of Sciences, Ivanka, Czechoslovakia; Institute of Experimental Phytopathology and Entomology 14418
- Novak, I**  
Prague, Ruzyne, Czechoslovakia 14249
- Novak, V**  
Vykumny ustav leshnio hospodarstvi a myslivosti; Strnady, Na cvicisti 2, Prague 6, Czechoslovakia 14419
- Oberlander, H**  
Brandeis University; Dept. of Biology, Waltham, Mass. 14250
- Ogawa, S**  
Shimane University, Matsue, Japan.; College of Agriculture 14599
- Ogren, R E**  
Wilkes Coll., Wilkes-Barre, Pa. 14640
- Ogren, R E**  
Wilkes Coll., Wilkes-Barre, Pa. 14641
- Ohkubo, N**  
Kyoto University; Entonological Laboratory 14251
- Olson, L D**  
Missouri Univ., Columbia; Dept. of Veterinary Pathology 14600
- Orjuela J, N**  
Centro Nacional de Investigaciones Agropecuarias, tibatita; Ta , Bogota, Colombia 14421
- Osakabe, M**  
Ministry of Agriculture and Forestry, Kanaya, Shiz-noka.; Pref. Japan; Tea Research Station 14493
- Oshima, N**  
Institute for Plant Virus Research, Chiba, Japan 14422
- Otterbacher, A G**  
Illinois. university; Dept. of Horticulture, Urbana 14423
- Ozoe, S**  
Shimane Agricultural Experiment Station, Izumo, Japan 14424
- Padmanabhan, S Y**  
Central Rice Research Inst., Cuttack, India 14425
- Paetzholdt, M**  
Bezirksstelle fur Pflanzenschutz Rellingen, Germany 14426
- Palmer, T P**  
Department of Scientific and Industrial Research, Lincoln.; New Zealand; Crop Research Div. 14326
- Parkash, O**  
Vienna. universitat; Institut fur Allgemeine Biologie, Austria 14292
- Parochetti, J V**  
Purdue University, Lafayette, Indiana 14686
- Parsons, P A**  
La Trobe University; Dept. of Genetics, Victoria, Australia 14252
- Patino C, H**  
Bogota National Univ., Colombia; Facultad de Agronomia 14427
- Paulus, A O**  
California. university. agricultural Extension Service; Dept. of Plant Pathology, Riverside 14428
- Pengelly, D H**  
Guelph University, Ontario; Dept. of Zoology 14253
- Perisic, M**  
Belgrade and Institute of Plant Protection, Belgrade; Faculty of Agriculture 14429
- Perry, A S**  
U.S. Dept. of Health, Education, and Welfare, Savannah.; Georgia; Public Health Service 14119
- Pessacq, T P**  
Montevideo. instituto de Investigacion de Ciencias; Biologicas, Uruguay 14254
- Peterson, R S**  
St. John's College, Santa Fe, New Mexico 14430
- Philis, J**  
Cyprus. agriculture Research Institute, Nicosia 14512
- Phillips, D M**  
Washington Univ., St. Louis, Mo.; Dept. of Biology 14255
- Pilchard, E I**  
Illinois Univ., Urbana; Dept. of Veterinary Research 14601
- Pollack, F G**  
U. S. dept. of Agriculture. agricultural Research Service; Plant Industry Station, Beltsville 14431
- Polychronopoulos, A G**  
Ministry of Agriculture, Athens, Greece 14513

BIOGRAPHICAL INDEX

Popov, P A

**Popov, P A**  
 Institut für Pflanzenschutz-Kostinbrod, Bulgarien  
 14494

**Pounden, W D**  
 Ohio Agricultural Research and Development  
 Center, Wooster  
 14602

**Proeseler, G**  
 Deutsche Akademie der Landwirtschaftswis-  
 senschaften, Berlin; Institut für Phytopathologie  
 Aschersleben  
 14495

**Propp, G D**  
 Cornell University; Dept. of Entomology and Lim-  
 nology, Ithaca, N. Y.  
 14256

**Puro, J**  
 Turku. university; Dept. of Genetics, Finland  
 14293

**Rad, H V**  
 Jamal Mohamed College, Madras, India  
 14257

**Rajcani, J**  
 Czechoslovak Academy of Sciences, Bratislava; In-  
 stitute of Virology  
 14603

**Ramakrishnan, C**  
 Regional Research Station, Aduthurai, India  
 14542

**Ramalingam, M**  
 Agricultural Coll. and Research Inst., Coimbatore,  
 India  
 14432

**Ramyar, H**  
 Near East Animal Health Inst., Teheran, Iran  
 14604

**Read, P E**  
 Minnesota Univ., St. Paul  
 14327

**Rehacek, Z**  
 Czechoslovak Academy of Sciences, Prague 4;  
 Dept. of Biogenesis of National Products  
 14702

**Reichmann, M E**  
 Illinois Univ., Urbana; Dept., of Botany and  
 Chemistry  
 14434

**Reissig, M**  
 Johns Hopkins Univ., Baltimore, Md.; Dept. of  
 Pathobiology  
 14642

**Richards, A M**  
 New South Wales Univ., Sydney, Australia; Dept.  
 of Zoology  
 14160

**Richardson, L T**  
 Canada Dept. of Agriculture, University Sub Post  
 Office.; London, Ontario, Canada; Research  
 Branch  
 14435

**Riha, P**  
 Tschechoslowakische Entomologische  
 Gesellschaft, Prague  
 14161

**Rivenson, S**  
 Instituto Nacional de Tecnologia Agropecuaria; In-  
 stituto de Fiebre Aftosa  
 14605

**Robayo, G**  
 Centro Nacional de Investigaciones Agropecuarias  
 tibaita; Ta., Bogota, Colombia; Dept. de Investiga-  
 cion  
 14436

**Robbins, M**  
 Maryland Univ., College Park  
 14437

**Roberts, D H**  
 Central Veterinary Lab., Weybridge, England  
 14606

**Roeder, K D**  
 Tufts University; Dept. of Biology, Medford, Mass.  
 14258

**Roesler, U**  
 Bonn. zoologisches Forschungsinstitut; Museum A.  
 Koenig  
 14162

**Rose, A H**  
 Canada Dept. of Forestry and Rural Development;  
 Insect and Disease Survey Section  
 14120

**Rotmistrov, M N**  
 T. G. Shevchenko State Univ., USSR; Dept. of  
 Microbiology and Antibiotics  
 14651

**Rowe, L W**  
 Federal Dept. Of Veterinary Research, Vom,  
 Nigeria, And; Institute for Tropical And Protozoan  
 Diseases, Utrecht.; Holland.  
 14607

**Russ, K**  
 Bundesanstalt für Pflanzenschutz, Wien  
 14259

**Ryan, J J**  
 National Cancer Institute, Bethesda, Md.  
 14608

**Sachs, R M**  
 California Univ., Davis  
 14328

**Saini, M L**  
 Punjab Agricultural Univ., Ludhiana, India  
 14260

**Sakai, M**  
 Takeda Chemical Industries, Limited, Ichijoji,  
 Sakyo-ku.; Kyoto; Kyoto Herbal Garden; Research  
 and Development Division  
 14261

**Sakai, R K**  
 Michigan. state University; Atomic Energy Com-  
 mission Research Laboratory, East Lansing  
 14294

**Salema, R**  
 Oporto Univ., Portugal; Inst. of Botany  
 14687

**Saliba, L J**  
 Malta Royal Univ., Merchants St., Valletta; Dept.  
 of Biology  
 14329

**Sana, D L**  
 Commonwealth Inst. of Biological Control, Dacca,  
 Pakistan  
 14163

**Sanchez, G**  
 New Mexico Inst. of Tech., Socorro; Dept. of  
 Biology  
 14643

**Sanchez, G**  
 New Mexico Inst. of Tech., Socorro; Dept. of  
 Biology  
 14644

**Sandhu, S S**  
 Punjab Agricultural Univ., Jullundur Cantt; Sugar-  
 cane Research Station  
 14440

**Sarkar, S**  
 Tubingen. max-Planck Institut für Biologie  
 14441

**Sasakawa, M**  
 Kyoto Prefectural Univ., Japan  
 14121

**Sasaki, A**  
 Citrus-branch of Hiroshima Agricultural Experi-  
 ment Station.; Hiroshima, Japan  
 14442

**Sato, N**  
 Hokkaido Agricultural Experiment Station Hits-  
 jigaoka, Sap; Poro. Japan  
 14443

**Scapin, R M**  
 Universidad Nacional de La Plata; Facultad de  
 Ciencias  
 14609

**Schadler, M**  
 Ruhr-University of Bochum; Dept. of Cell  
 Physiology  
 14262

**Schaefer, R L**  
 Delaware Valley College, Doylestown, Pa.  
 14444

**Schalm, O W**  
 California Univ., Davis; Dept. of Clinical Pathology  
 14610

**Schloer, G M**  
 Justus Liebig Univ., Giessen, Germany; Inst. of  
 Virology  
 14611

**Schmidt, E**  
 Bonn am Rhein, Germany  
 14263

**Schmidt, H**  
 Pflanzenschutzamt des Landes Schleswig-holstein;  
 Bezirksstelle Kappeln und Husum  
 14536

**Schmutterer, H**  
 Tropeninstitut der Universitaet Giessen; Abt.  
 Phytopathologic und Angewandte Entomologie  
 14499

**Schneider, C L**  
 Agricultural Research Service, East Lansing,  
 Mich.; Crops Research Div.  
 14446

**Schoenherr, J**  
 Frankfurt, Germany  
 14264

**Schonbeck, H**  
 Bundesanstalt für Pflanzenschutz, Wien  
 14550

**Schrader, E**  
 Pflanzenschutzamt Hannover  
 14330

**Scudder, G G E**  
 British Columbia Univ., Vancouver  
 14164

**Sehnal, F**  
 Czechoslovak Academy of Sciences; Entomologi-  
 cal Institute, Prague  
 14265

**Seinhorst, J W**  
 Instituut voor Plantenziektenkundig Onderzoek,  
 Wageningen.; Netherlands  
 14515

**Semancik, J S**  
 California University, Riverside; Dept of Plant  
 Pathology  
 14447

**Settele, L**  
 Erwinstrasse 78, Freiburg I/Br, West Germany  
 14166

**Shanahan, G J**  
 Department of Agriculture, Rydalmcre, Australia;  
 Div. of Science  
 14295

**Sharma, M L**  
 Sherbrooke University, Quebec; Faculty of  
 Science; Dept. of Biology  
 14266

**Shaw, D E**  
 Dept. of Agriculture, Port Moresby, Papua; Stock  
 and Fisheries  
 14449

**Shechmeister, I L**  
 Southern Illinois Univ., Carbondale; Dept. of  
 Microbiology  
 14612

**Shifrine, M**  
 U. S. Dept. of Agriculture, Agricultural Research  
 Service.; Animal Disease and Parasite Research  
 Division, Plum Island; Animal Disease Laboratory,  
 Greenport, Long Island, New York  
 14613

**Shishiyama, J**  
 Kyoto University, Kyoto, Japan  
 14450

**Shoemaker, R A**  
 Canada Dept. of Agriculture, Ottawa; Plant  
 Research Inst.  
 14451

**Shtenberg, A I**  
 USSR. academy of Medical Sciences; Laboratory  
 of Toxic Chemicals, Moscow  
 14662

**Sikka, H C**  
 Rutgers - The State University, New Brunswick,  
 New Jersey  
 14689

**Simon, H R**  
 Neu-Isenburg, Germany  
 14267

**Simpson, G R**  
 New South Wales Dept. of Public Health, Aus-  
 tralia; Div. of Occupational Health  
 14663

**Slifkin, M**  
 Allegheny General Hospital, Pittsburgh, Pa.; Dept.  
 of Microbiology  
 14615

**Small, E**  
 Illinois Univ., Urbana; Coll. of Veterinary  
 Medicine  
 14616

## BIOGRAPHICAL INDEX

Woodring, J P

- Smerlis, E**  
Canada, dept. of Fisheries and Forestry; Forest Research Laboratory, Quebec 14453
- Smetana, A**  
Tschechoslowakische Entomologische Gesellschaft, Prague; Czechoslovakia 14167
- Snyder, J W**  
Eureka Coll., Ill. 14645
- Sonmezalp, S**  
Bolge Zirai Karantina Mudurlugunde, Istanbul 14454
- Spendloue, R S**  
Utah State University Logan; Dept of Bacteriology and Public Health 14268
- Spltz, F**  
French Institute of Agronomic Research; Small Vertebrates Lab. 14543
- Srinivasan, K V**  
Sugarcane Breeding Inst., Coimbatore, India 14455
- Stalheim, O H V**  
Agricultural Research Service, Ames, Iowa; National Animal Disease Lab. 14617
- Stavely, J R**  
U. S. dept. of Agriculture, agricultural Research Service; Crops Research Division, Beltsville 14456
- Stone, W S**  
Texas Univ., Austin; Dept. of Zoology 14296
- Storey, J B**  
Texas A and M Univ., College Station 14332
- Stover, R H**  
Tela Railroad Company (A Subsidiary of the United Fruit; Company), La Lima, Honduras 14457
- Strassen, R Z**  
Forschungs-Institut Senckenberg, Frankfurt, West Germany 14168
- Subba Rao, M S**  
Agricultural Research Inst., Kanke, India 14537
- Subramanian, C V**  
Centre for Advanced Studies in Botany; Madras Univ., India 14458
- Sumi, H**  
Sankyo Company, Limited, Shiga, Japan; Agricultural Chemicals Research Laboratories 14690
- Sumi, H**  
Sankyo Company Limited, Shiga, Japan; Agricultural Chemicals Research Laboratories 14691
- Sumi, H**  
Sankyo Company Limited, Shiga, Japan; Agricultural Chemicals Research Laboratories 14692
- Sumina, I**  
Takeda Chemical Industries, Limited, Kyoto Herbal Garden; Kyoto, Japan; Research and Development Division 14459
- Tabei, H**  
Kyushu Agricultural Experiment Station, Chikugo, Fukuoka,; Japan 14460
- Tahama, Y**  
Kumamoto Sericultural Experiment Station, Vcki, Kumamoto,; Japan 14461
- Tamaki, Y**  
Agricultural Chemicals Inspection Station, Kodaira-shi,; Japan 14269
- Tanaka, S**  
Tamagawa University, Machida-shi, Tokyo, Japan 14462
- Tanasijevic, N**  
Faculty of Agriculture, Beograd 14270
- Tatsuyama, K**  
Shimane University, Matsue, Japan; Shimane Agricultural College 14693
- Teunisson, D J**  
U S Dept of Agriculture, New Orleans; Agricultural Research Service; Southern Utilization Research and Development Division 14333
- Thomas, J B**  
Forest Research Laboratory, Sault Ste. Marie, Ontario 14170
- Thomas, P L**  
Canada Dept. of Agriculture, Winnipeg, Manitoba; Research Station 14463
- Thompson, W H**  
Department of Agriculture, Werribee, Australia 14618
- Tinsley, I J**  
Oregon State Univ., Corvallis; Dept. of Agricultural Chemistry 14664
- Tochihara, H**  
Institute For Plant Virus Research, Chiba, Japan 14464
- Tochihara, H**  
Institut for Plant Virus Research, Chiba, Japan 14465
- Tomasevic, B**  
Institute for Plant Protection, Belgrade, Yugoslavia 14501
- Tomic, A**  
Institute for Adriatic Cultures and Karst, Split 14502
- Tompkins, D R**  
Washington State Univ., Puyallup 14334
- Torii, T**  
Kyushu University, Fukuoka, Japan; Faculty of Agriculture 14271
- Touzeau, J**  
Protection des Vegetaux, Bordeaux, France 14272
- Townshend, J L**  
Canada Dept. of Agriculture, Vineland Station, Ontario; Research Station 14516
- Tukey, L D**  
Pennsylvania State Univ., University Park 14467
- Tullio, V**  
Osservatorio per le Malattie delle Piante, Modena, Italy 14273
- Uesugi, Y**  
National Institutes of Agricultural Sciences, Tokyo, Japan 14665
- Unrath, C R**  
Michigan State Univ., East Lansing 14335
- Upadhyay, R**  
Hindu University, India; College of Agriculture, Banaras 14468
- Ushatinskaya, R S**  
USSR Academy of Sciences, Moscow; A. N. Severtzov Inst. of Animal Morphology 14274
- Valenza, F**  
Societa SOLPLANT, Milan, Italy 14538
- Vallone, E F**  
Istituto de Higicne de la Facultad, Medicina 14619
- Verma, A N**  
Punjab Agricultural Univ., Ludhiana; Dept. of Zoology-Entomology 14122
- Vickery, V R**  
McGill Univ., Quebec 14276
- Vinze, V L**  
Hindustan Antibiotics Ltd., Pimpri, Poona 18, India 14694
- Vivian, G W**  
New Zealand Leather and Shoe Research Association 14551
- Von Wechmar, M B**  
Stellenbosch Univ., Capc Province 14469
- Wagner, E**  
Hamburg, Germany 14173
- Walcott, B**  
Australian National University; Research School of Biological Sciences, Canberra 14277
- Waldron, I**  
California University, Berkeley; Department of Zoology 14278
- Ward, E W B**  
Canada Dept. of Agriculture, University Sub P. O., London; Research Institute 14336
- Webster, R K**  
California Univ., Davis; Dept. of Plant Pathology 14696
- Weiler, N**  
Pflanzenschutzamt Frankfurt Am Main 14539
- Wells, H D**  
U. S. dept. of Agriculture, agricultural Research Service; Crops Research Division, Tifton 14470
- Wenzl, H**  
Bundesanstalt fur Pflanzenschutz, Wien 14471
- Wescott, R B**  
Missouri Univ., Columbia; School of Veterinary Medicine 14646
- West, R R**  
U. S. Bureau of Sport Fisheries and Wildlife, Denver, Colo; Federal Center 14337
- Wharton, D R A**  
U. S. army. natick Laboratories; Pioneering Research Laboratory, Mass. 14279
- Wichmand, H**  
Danish Pest Infestation Lab. 14544
- Wicker, E F**  
U. S. Dept. of Agriculture, Moscow, Idaho; Forest Service; Forestry Sciences Laboratory 14472
- Wigger, E A**  
Pflanzenschutzamt Hannover 14473
- Wilbert, G G**  
New Mexico State Univ., Las Cruces 14338
- Wild, T F**  
Animal Virus Rsearch Inst., Pirbright, England 14620
- Williams, R B**  
May and Baker Ltd.; Veterinary Research Division, Ongar, England 14621
- Wilson, D E**  
Rensselaer Polytechnic Inst., Troy, N. Y.; Dept. of Biology 14622
- Wolf, H**  
Plettenberg (Westf.), Germany 14174
- Wolf, H**  
Plettenberg (Westf.), Germany 14175
- Wolf, H**  
Plettenburg, Germany 14176
- Wolfe, L G**  
Ohio State Univ., Columbus 14623
- Wollman, C**  
Texas Univ., Austin; Dept. of Botany 14474
- Woodring, J P**  
Louisiana. state University; Dept of Zoology 14280

## BIOGRAPHICAL INDEX

### Wutscher, H K

Wutscher, H K  
 U S Dept of Agriculture, Weslaco, Texas 14475

Yagi, N  
 Tokyo University of Agriculture, Japan 14281

Young, J M  
 New Zealand. dept. of Scientific and Industrial

Research; Plant Diseases Division 14476

Zemskaya, A A  
 Epidemiological and Microbiological Inst. N. F. Gamalci.; AMI SSSR, Moscow 14282

Zenner J, I

Centro Nacional de Investigaciones Agropecuarias Tibaitata.; Bogota, Columbia; Programa de Entomologia 14283

Zucker, M  
 Connecticut Agricultural Experiment Station, New Haven; Dept Plant Pathology and Botany 14477

## AUTHOR INDEX

Abdel-Gawad, H A	14300	Brunton, R B	14337	Duthoit, J-L	14184	Gunther, S	14572
Abdel-Raheem, A	14339	Bryan, F L	14649	Dutson, V J	14632	Gupta, G K	14366
Abdulla, A E D	14552	Bryant, P J	14190	Eck, P	14308	Gustafson, D P	14593
Aeschliman, T	14612	Buening, G M	14570	Edgerton, L J	14309	Haglund, W A	14391
Agrawal, P C	14537	Burgess, P A	14258	Edwards, J S	14265	Hahn, J S	14469
Akai, S	14373	Burgess, T D	14631	El-Zayat, M M	14477	Hall, B J	14428
14393, 14679		Burrows, B	14277	Ellgaard, E G	14284	Hama, H	14206
Albert, L S	14323	Bushnell, W R	14349	Elliott, M E	14310	Hampton, R E	14418
Alexopoulos, C J	14474	Busselet, M	14191	Ellis, P E	14197	Hancock, J G	14677
Alhassan, S A	14510	Butcher, J A	14350	Elmiligy, I A	14509	Hansen, E L	14633
Allan, W C	14631	Butler, E E	14696	Embabi, M S	14510	Hansen, R P	14216
Allcroft, R	14660	Buttiker, W	14624	Emmons, R W	14564	14611	
Allen, P J	14681	Bwangamoi, O	14557	Enaizumi, M	14481	Hapitan, J C	14314
Altman, J	14504	Cahdon, G A	14302	Endo, R M	14672	Hari, M N	14522
Ambekar, G R	14694	Calisher, C H	14582	Engel, H	14541	Harris, W V	14141
Andersen, F S	14177	Calnaido, D	14500	Engelbrecht, D J	14354	Hartstirn, W	14360
Anderson, A L	14374	Canto, R M	14596	14355		Hasegawa, H	14627
Angell, F F	14437	14619		Engelbrecht, P J	14356	Hassemer, M	14207
Anslow, R O	14553	Caporale, G	14556	Epstein, B	14609	Hattori, I	14246
Appel, K R	14445	Carlisle, D B	14197	Ernek, E	14565	Haupt, R J	14523
Aragaki, M	14342	Carski, T R	14555	Eugster, C H	14673	Havin, E	14208
Arajarvi, P	14293	Casper, R	14669	Evans, F W	14625	Havraneck, P	14367
Arami, T	14343	Castrucci, G	14554	Evans, G	14357	14368	
Aslam, N A	14123	Catar, G	14558	Ewing, E E	14320	Hayes, J	14226
Aspock, H	14124	Cayrol, J C	14506	Exley, E M	14133	14227, 14582, 14583	
Aspock, U	14124	Celli, G	14480	14134, 14135		Hedge, U C	14209
Attarian, A R	14344	Chadha, K L	14505	Falk, R	14289	Helson, G A	14210
Atwal, A S	14118	Chan, D H M	14226	Farus, D E	14358	Henner, J	14678
Atwood, C E	14178	14583		Ferriere, C	14136	Herfs, W	14315
14224		Chaplin, M H	14303	Finco, D R	14566	Hering, M	14285
Atwood, M W	14179	Chaudhary, J P	14118	Finker, R E	14358	Herman, L J	14211
Avellini, G	14554	Chaves E, L E	14517	Fisher, F M	14198	Hiebel, K	14524
Bagdasaryan, B A	14125	Chema, S	14597	Fiskesjo, J	14674	Hildebrand, D C	14369
Baggett, J R	14345	Chenery, E M	14304	Fitzgerald, P R	14567	Hildebrandt, A C	14681
Baker, C R B	14180	Chhabra, H K	14505	Fleischmann, G	14306	Hill, D P	14559
Bakke, A	14146	Chlyah, H	14670	14359		Hirai, T	14450
Ballantyne, D J	14666	Chohan, J S	14351	Folkers, C	14568	Hitchborn, J H	14370
Bannister, G L	14559	Chute, H L	14545	Foott, W H	14137	Hocking, D	14371
Barber, J T	14667	Ciegler, A	14698	Ford, R	14546	Hogberg, K G	14573
Barden, E S	14545	Cilli, V	14554	Forsberg, J L	14360	Holbrook, A A	14574
Barile, M F	14555	Cincovic, T	14653	Foster, N M	14569	Holkova, R	14558
Barrett, K E J	14126	Clark, J M	14434	Fourcaud, A	14699	Hollis, J P	14510
Barrett, W L	14297	Claudio, M Z	14507	Fouse, D C	14417	Hollomon, D W	14372
Barry, C K	14217	Colucci, A V	14642	Fowler, D L	14321	Holmberg, C	14707
Bartha, R	14697	Constantineanu, M J	14128	Fraenkel, G	14212	Hooks, R F	14316
Bateman, J V	14602	Converse, R H	14374	Francki, R I B	14250	Hopkins, H P	14701
Battelli, C	14556	Corbiere, G	14192	14277		Horino, O	14373
Bauza, C A	14619	Corner, A H	14559	Frank, N A	14602	14679	
Baver, S	14585	Coursey, D G	14352	Frear, D S	14675	Horn, A V	14525
Beaulaton, J A	14181	Craft, C C	14417	Fritzsch, K	14520	Hornig, V O	14526
Beck, L	14127	Crosskey, R W	14129	14521		Houston, B A	14618
Beck, S D	14207	Crowe, M W	14661	Fuchs, A	14372	Howard, F L	14346
Beckman, C H	14346	Cunningham, D J	14337	14676		Hoyscer, V C	14327
Bell, D K	14470	Cunningham, J C	14193	Fujikawa, T	14138	Hsiao, T H	14212
Bell, W J	14182	Cutts, N A	14194	Fukaya, M	14199	14213	
Benecke, F S	14183	D'Ajello, V	14195	Fukunaga, K	14665	Hudec, K	14565
Benitez, D G	14511	D'arcy Hart, P	14671	Funt, R	14311	Huhta, V	14317
Bennett, D G	14630	Dahle, H K	14560	Fye, R L	14186	Hwang, S W	14374
Bergendi, L	14558	Dahlgren, G	14130	Gabaldon, A	14298	Ihlemann, V W	14527
Bergmann, E D	14214	Davide, R G	14507	Gagnon, C	14361	Ihlemann, W	14375
Bergolin, M	14184	Davidson, T R	14518	Galofre, J	14626	Ikan, R	14214
14275		Davis, N T	14257	Galvez, G E	14482	Ikegami, H	14376
Berntzen, A K	14633	De Beaumont, J	14131	Gambrell, C E	14362	Ikeme, M M	14634
Bettini, S	14195	De Silva, R L	14304	Gammel, J	14213	Imaizumi, Y	14291
Bhatti, D S	14440	14384		Gams, W	14353	Inaba, T	14377
Bier, K	14185	DeFoliart, G R	14216	Garrison, S A	14312	Ingelheim, Rhien	14445
Blindra, O S	14505	14553		14313		Inouye, T	14378
Binns, W	14577	DelGiudice, R A	14555	Garza, G	14332	Irfan, M	14635
Blrd, L S	14339	Deshpande, B Y	14196	Gera, S D	14439	Irving, R M	14318
Blydenstein, J	14602	Devauchelle, G	14184	Gerlach, W	14363	Isaac, P K	14463
Boehringer, C H S	14445	Devlin, V	14564	Gershmann, M	14545	Ishay, J	14214
Boero, J	14626	Dhawedkar, R	14561	Gervet, J	14192	Ishii, T	14484
Bohn, G W	14428	Dick, B	14562	Geyer-Duszynska, I	14200	Ishikura, H	14142
Bonatto De, P C	14584	Dickerson, G W	14305	Ghauri, M S K	14139	Isokoski, M	14299
Boozer, E L	14701	Dimopoulos, G T	14563	Gibbs, C J	14555	Ito, F	14599
Borchardt, G	14347	Dinc, N	14519	Gibson, F A	14364	ito, Y	14627
14363		Dinoor, A	14306	Giunchi, P	14480	Iversen, J	14216
Borecky, L	14585	Diplock, P T	14591	Goble, H W	14483	Iwaki, M	14388
Borgonovi, A	14479	Doctor, V M	14694	Gordon, H T	14201	14389	
Borkovec, A B	14186	Domermuth, C H	14613	Gottlieb, R	14214	Iwata, Y	14382
Botha, D H	14187	Dommert, A R	14563	Gralheer, H	14586	Izawa, H	14576
14188		Domsch, K H	14353	Gramenzi, F	14556	Jackson, T H E	14143
Bouyx, L	14540	Dondero, D V	14564	Gratzek, J B	14570	Jafri, A M	14446
Boyd, H W	14668	Donoho, C W	14302	Gray, H E	14202	Jain, N C	14610
Boyd, K R	14226	Dorfmann, H	14132	Greber, R S	14365	James, L F	14577
14227, 14583		Drechsler, C	14508	Green, K R	14571	Jamieson, S	14578
Brandy, C A	14581	Drees, H	14307	Greenhalg, W J	14309	Jander, R	14217
Briolini, G	14480	14706		Gresikova, M	14603	Jayaraman, V	14542
Broennimann, G	14348	Dueck, J	14349	Gressitt, J L	14203	Jean, E	14213
Brousseau, G E	14284	Duggan, R E	14654	Griffiths, G C D	14140	Jeffers, T K	14579
Brown, B E	14189	Dusanic, D G	14643	Gruhl, K	14204	Jensen, D D	14268
Brown, F	14620	14644		14205		Jewell, F F	14379

AUTHOR INDEX

Jimenez, A T

Jimenez, A T	14511	Larson, J E	14656	Millar, E S	14628	Patino C, H	14427
Johnson, A J	14574	Lasmanis, J	14610	Miller, C H	14683	Paulus, A O	14428
Johnson, F M	14296	Laurent, L	14150	Miller, C R	14407	Pavgl, M S	14468
Johnson, W O	14318	Lavolette, P	14242	Miller, J H	14637	Pedro, J R	14479
Jones-Davies, W J	14580	Le Jambre, L F	14636	Minamikawa, J	14244	Peedin, G F	14688
Jones, E L	14485	Lee, C C	14637	Miric, M	14408	Pengelly, D H	14253
Jones, J C	14218	Lee, M S	14320	Misra, S S	14490	Perie, N M	14568
Jones, R H	14569	Lennette, E H	14564	Mitchell, D	14684	Perisic, M	14429
Judd, W W	14144	Leroy, Y	14232	Mitchell, N	14682	Perry, A S	14119
Jurzlitz, G	14145	Ley, H L	14547	Mittlehner, A W	14324	Pessaco, T P	14254
Kablersch, J	14380	Liebermann, H	14586	Mitsuhashi, J	14409	Peterson, R E	14698
14381		Liebermann, J	14233	Mitsuata, K	14378	Peterson, R S	14430
Kajiwara, T	14382	Lifschytz, E	14289	Miyamoto, J	14659	Phillis, J	14512
Kajiyama, M B	14447	Lindley, E P	14552	Moffat, R W	14533	Phillips, D M	14255
Kalla, N R	14219	14587		Moffett, M L	14410	Pieper, G R	14656
Kalra, A N	14486	Lindner, E	14151	14411		Pilchard, E I	14601
Kamburov, G	14561	Lindroth, C H	14152	Monk, C D	14325	Pollack, F G	14431
Kammlade, W G	14612	Lindvall, S	14573	Moran, V C	14491	Polychronopoulos, A G	14513
Kanazawa, Y	14422	Linnavuori, R	14153	Moreira, R E S	14596	Ponis, D	14273
Kapoor, S P	14351	Linsler, H	14680	14619		Popov, P A	14494
Karppinen, E	14317	Liu, D P	14218	Moretini, B	14554	Potter, C	14657
Kaspers, H	14383	Liu, S K	14645	Morris, C V	14216	Pounden, W D	14602
Kasule, F K	14220	Lloyd, M K	14660	Morris, J A	14555	Powell, D	14423
Katsul, N	14443	Lohr, K F	14588	Morseth, D J	14638	Pramer, D	14689
Kawai, S	14269	Lohwag, K	14395	Mozier, J	14631		
Kees, H	14284	Lola, J E	14279	Mugera, G M	14597	Proeseler, G	14495
14528, 14529		Long, C	14342	Muller, W	14185	Propp, G D	14256
Kenaga, E E	14652	Lorenz, R E	14234	Murayama, D	14207	Puro, J	14293
Kenworthy, A L	14303	Louw, G N	14589	Murphy, A M	14446	Rad, H V	14257
14316, 14335		Low, D G	14566	Murray, M	14639	Radivojevic, B	14227
Kernbach, K	14221	Lower, H F	14488	Murray, M D	14629	Rajcani, J	14603
14222		Lownsbey, B F	14513	Nagai, T	14189	Ramakrishnan, C	14542
Kerr, A	14384	Loytyniemi, K	14235	Naito, N	14685	Ramalingam, M	14432
Kessler, S	14286	Lozano T, J C	14396	Nakagami, K	14690	Ramyar, H	14604
Ketcham, A S	14608	Lucas, J A W	14219	14692		Ratsch, H C	14656
Kevan, D K	14276	Lucas, M H	14590	Nakajima, T	14599	Read, P E	14327
Khair, J	14306	Luders, W	14397	Nakata, S	14342	Reddy, D B	14433
Khalsa, H G	14647	Luedke, A J	14569	Nakayama, R M	14338	Regenmortel, M H V	14354
Khurana, A D	14260	Lyayster, Yu A	14154	Narda, R D	14290	Rhacek, Z	14702
Kleperheuer, J	14223	Macadam, J F	14591	Nardi, E	14556	Rei Do Rego Barros, A	14448
Kikkawa, H	14287	Mackauer, M	14155	Nasu, S	14409	Reichmann, M E	14434
Kikumoto, T	14385	Macrae, R	14562	14492		Reiling, T P	14391
Kimura, J	14386	Madden, G	14332	Nei, M	14291	Reissig, M	14642
Kincaid, R R	14456	Madden, P A	14574	Neindorff, U V	14157	Rhodes, W H	14362
Klrk, J K	14655	Madhavan, K	14236	Nel, P C	14534	Ribbert, D	14288
Kirkham, W W	14614	Mahan, J N	14321	Nelson, G H	14158	Richards, A M	14160
Kissel, J	14213	Maheshwari, R	14681	Nicklaus, R	14245	Richardson, L T	14435
Kltamura, Y	14402	Main, A R	14700	Nigam, B S	14647	Riha, P	14161
Klessler, P J	14387	Mainland, C	14308	Nishihara, N	14415	Rijsten, E G R	14496
Kllng, J M	14614	Manchanda, H R	14398	14416		Ristic, M	14616
Knapp, S E	14632	Mancheva, N	14561	Nixon, G E J	14159	Ritter, M	14506
Knerer, G	14224	Mani, V S	14530	Nomura, K	14246	Rivenson, S	14605
Knudsen, P	14146	Manly, B F J	14237	Nordau, C G	14247	Robayo, G	14436
Koch, R	14225	Mann, N S	14440	Nordstoga, K	14560	Robbins, M	14437
Kojima, K I	14296	Manocha, M S	14399	14598		Roberts, B A	14660
Kok, O B	14147	Maramoto, F	14531	Norman, S M	14417	Roberts, D H	14606
14148		Marbach, W	14592	Norment, B R	14248	Robertson, J A	14333
Kokernot, R H	14226	Martin, J L	14548	Norton, R A	14334	Robinson, J	14657
14227, 14581, 14582, 14583		Martlnoli, A	14400	Novacky, A	14418	Roeder, K D	14258
Kolar De, M B V	14584	Martynova, Ye F	14156	Novak, I	14249	Roessler, U	14162
Komuro, Y	14388	Masaki, S	14238	Novak, V	14419	Rohringer, R	14372
14389		Masamune, T	14443	Nuorteva, P	14299	14676	
Kondo, Y	14690	Masler, L	14585	Nurminen, M	14317	Romani, R J	14300
14691, 14692		Mathur, S B	14401	Oberlander, H	14250	Rose, A H	14120
Kothari, K L	14390	Matsuura, K	14402	Oftedal, P	14208	Rosenbusch, R F	14570
Kouwenhoven, B	14607	14459		Ogawa, S	14599	Ross, J P J	14588
Koyama, N	14281	Matthews, F D	14403	Ogren, R E	14640	Rotmistrov, M N	14651
Kozaka, T	14420	Mattus, G E	14322	14641		Rout, G	14497
Kozuch, O	14565	Matuo, T	14404	Ohata, K	14420	Rowe, L W	14607
Kradel, J	14190	Mauro, A	14195	Ohkuho, N	14251	Rowell, J B	14349
Kraft, J M	14391	Mc Guire, J J	14323	Olson, L D	14600	Royer, C	14213
Krausman, E M	14672	McAlister, R O	14198	Onoe, T	14685	Ruegg, J C	14262
Kremer, F W	14487	McGill, A E J	14657	Orjuela, J, N	14421	Russ, K	14259
Kremer, W F	14392	McIntosh, D L	14405	Orjuela N, Y	14517	Ryan, J J	14608
Krinitz, B	14650	McKeen, W E	14682	Orjuela, J	14436	Rybakova, M N	14662
Krishnamurthy, C S	14432	McKinney, J D	14701	Orth, K	14573	Ryugo, K	14328
Krishnaswamy, R	14319	McKissick, G E	14593	Osakabe, M	14493	Sachs, R M	14328
Kugelberg, O	14228	McKone, C E	14658	Osgood, J	14428	Sahni, V M	14439
Kull, H	14568	McMurray, A L	14683	Oshima, N	14422	Saini, M L	14260
Kukalova, J	14161	Mears, A D	14532	Otterbacher, A G	14423	Saito, Y	14377
Kulshrestha, S K	14229	Mehrotra, N K	14505	Owusu, G K	14277	Sakai, M	14261
Kunoh, H	14393	Mel'nikov, N N	14703	Ozoe, S	14424	Sakai, R K	14294
Kurcheva, G F	14149	Mell, R	14239	Padmanahhan, S Y	14425	Sakamoto, M	14385
Kuroda, M	14599	Menchaca, E S	14594	Paetzholdt, M	14426	Salema, R	14687
LaBrecque, G C	14186	Merisud, A K	14240	Palmer, T P	14326	Saliba, L J	14329
Lackovic, V	14585	Merisuo, A K	14241	Papadopoulos, O	14216	Samborski, D J	14676
Lagutenko, Yu P	14230	Mestres, G	14242	14553		Samsinakova, A	14419
Lalho, K	14299	Meyer, J	14536	Papavizas, G C	14374	Sana, D L	14163
Lamprecht, M P	14394	Meyling, A	14595	Parkash, O	14292	Sanchez, G	14643
Langer, H	14288	Mhalskar, V G	14406	Parochetti, J V	14686	14644	
Lanzilotta, R P	14697	Michel, H G	14489	Parr, M J	14237	Sandhu, G S	14122
Laplante, J P	14231	Mikkola, K	14243	Parsons, P A	14252	Sandhu, S S	14440



AUTHOR INDEX

Zych, C C

Sang, J H	14190	Simpson, C J	14280	Taylor, G A	14312	Vickery, V R	14276
Sarkar, S	14441	Simpson, G R	14663	Teakle, D S	14411	Vikberg, V	14172
Sasakawa, M	14121	Sims, E T	14362	Tempelis, C H	14226	Vinson, S B	14248
Sasaki, A	14442	Sinzar, B	14653	Teunisson, D J	14333	Vinze, V L	14694
Sato, N	14443	Skrynik, E M	14651	Thafvelin, B	14573	Vivian, G W	14551
Sato, Y	14659	Slifkin, M	14615	Thirugnanasuntharan,	14500	Volodkovich, S D	14703
Saunders, C N	14549	Small, E	14616	Thomas, J B	14170	Von Wechmar, M B	14469
Scandalios, J G	14294	Smerlis, E	14453	Thomas, P L	14463	Vukovits, G	14695
Scapin, R M	14609	Smetana, A	14167	Thompson, L	14615	Wagenbach, G E	14579
Schadler, M	14262	Smith, R	14682	Thompson, P H	14553	Wagner, E	14173
Schaefer, R L	14444	Snyder, J W	14645	Thompson, W H	14553	Walcott, B	14277
Schalm, O W	14610	Soekawa, M	14576	14618		Waldron, I	14278
Schicke, P	14445	Sohi, B S	14118	Thomson, W W	14672	Ward, E W B	14336
Schjerner-Thiesen, K	14595	Sonmezalp, S	14454	Thurston, H D	14396	Warren, G F	14686
Schloer, G M	14611	Soulshy, E J L	14638	14436		Wasserburger, H J	14503
Schmidt, E	14263	Spendloue, R S	14268	Tinsley, I J	14664	Waterworth, H E	14431
Schmidt, H	14536	Spitz, F	14543	Tinsley, T W	14193	Webster, R K	14696
Schmutterer, H	14499	Srinivasan, K V	14455	Tjeder, B	14171	Weiler, N	14539
Schneider, C L	14446	Stalheim, O H V	14617	Tochihara, H	14464	Wells, H D	14470
Schneiderman, H A	14236	Stanghellini, M E	14677	14465		Wells, J M	14472
Schnell, R	14288	Stannard, L J	14582	Tomasevic, B	14501	Wendland, E J	14528
Schoenherr, J	14264	Stavely, J R	14456	Tominic, A	14502	14529	
Schonbeck, H	14550	Steenkamp, C W P	14589	Tomiyama, K	14443	Wenzl, H	14471
Schrader, E	14330	Steenkamp, E L	14589	Tompkins, D R	14334	Wescott, R B	14646
Schroder, L	14445	Steiger, G	14262	Torii, T	14271	West, R R	14337
Schroth, M N	14369	Stessel, G J	14346	Torrado, C	14626	Wexler, H	14608
Schulz, J T	14163	Steward, F C	14667	Tosi, H C	14596	Wharton, D R A	14279
Scudder, G G E	14164	Stohr, W	14331	14619		Wheeler, M R	14296
Segura, M	14605	Stojanovic, D	14429	Touzeau, J	14272	Whitcomb, R F	14268
Sehnal, F	14265	Stone, W S	14296	Townshend, J L	14516	Wichmand, H	14544
Seinhorst, J W	14515	Storey, J B	14332	Traub, E	14604	Wicker, E F	14472
Seltmann, H	14688	Stover, R H	14457	Tsai, J D	14345	Wigger, E A	14473
Semancik, J S	14447	Strassen, R Z	14168	Tugwell, B L	14466	Wilbert, G G	14338
Senapati, B	14497	Subba Rao, M S	14537	Tukey, L D	14467	Wild, T F	14620
Sequeira, A S	14594	Subramanian, C V	14458	Tullio, V	14273	Will, R L	14227
Settele, L	14166	Sugawara, M	14207	Tung, D A	14294	Williams, R B	14621
Shanahan, G J	14295	Suggs, J E	14701	Tyagi, P D	14458	Wilson, D E	14622
Shanmuganathan, N	14448	Sukhorukova, Z A	14651	Uesugi, Y	14665	Wolf, H	14174
Shanmugasundaram, E	14209	Sumi, H	14690	14175, 14176		14175, 14176	
Sharma, M L	14266	14691, 14692		Ullerich, F H	14288	Wolfe, L G	14623
Shaw, D E	14449	Sumina, I	14402	Unrath, C R	14335	Wolfwinkel, L D	14356
Shaw, J N	14632	14459		Unterstenhofer, G	14392	Wollman, C	14474
Shaw, M	14399	Suzuki, S	14659	Upadhyay, R	14468	Wood, H L	14667
14684		Svampa, G	14273	Urban, S	14565	Woodring, J P	14280
Shechmeister, I L	14612	Svarc, S	14702	Ushatinskaya, R S	14274	Wutscher, H K	14475
Shepard, H H	14321	Synave, H	14169	Usui, Y	14402	Yagi, N	14281
Shibuya, F	14428	Tabel, H	14460	Uthne, K	14573	Yamamoto, I	14404
Shiffrine, M	14613	Tahama, Y	14461	Vago, C	14184	Yamamoto, M	14599
Shishiyama, J	14450	Takagi, I	14376	14275		Yamazaki, S	14121
Shoemaker, R A	14451	Takahi, Y	14690	Valenza, F	14538	Young, J M	14476
Shroff, C C	14452	14691, 14692		Vallone, E F	14596	Yudovskaya, T K	14703
Shtenberg, A I	14662	Tamaki, Y	14269	14619		Zakin, M M	14605
Shutak, V G	14314	Tanaka, S	14462	Valpas, A	14317	Zavada, J	14368
14323		Tanasijevic, N	14270	Van Praagh, T	14257	Zel, M	14519
Sierra, C M	14511	Tashjian, R J	14645	Vasilevskaya, I A	14651	Zemskaya, A A	14282
Sikka, H C	14689	Tatsuyama, K	14599	Vaz De Arruda, H	14479	Zenner J, I	14283
Sikl, D	14585	14693		Velayutham, B	14542	Zucker, M	14477
Simon, H R	14267	Tauber, C A	14256	Verma, A N	14122	Zwart, D	14607
Simpson, C F	14614	Tauber, M J	14256	Verma, B R	14366	Zych, C C	14423



## ORGANIZATIONAL INDEX

- Agricultural Experiment Station, Baton Rouge, La.  
Dept. of Veterinary Science  
14563
- Agricultural Research Inst. of the Karoo Region, Middelburg, Cape Province  
14589
- Agricultural Research Service  
Entomology Research Div.  
14301
- Agricultural Research Service, Logan, Utah  
Animal Disease and Parasite Research Div.  
14567
- Animal Medical Center, New York, N.Y.  
14645
- Atomic Energy Commission  
14325
- California State Dept of Public Health, Berkley  
Viral and Rickettsial Disease Laboratory  
14268
- California Univ., Davis  
Dept. of Nematology  
14513
- Canada Dept. of Agriculture, Winnipeg, Manitoba  
Research Station  
14676
- Canada Dept. of Agriculture, 25 Dafoe Road, Winnipeg, Manitoba; Research  
14372
- Case Western Reserve University  
Developmental Biology Center, Cleveland, Ohio  
14236, 14265
- Connecticut university  
Dept. of Zoology  
14257
- Consumer Protection and Environmental Health Service,  
Houston, Tex.; Aedes aegypti Eradication Program  
14297
- Czechoslovak Academy of Sciences, Bratislava  
Institute of Virology  
14367, 14368
- East African Veterinary Research Organisation  
14613
- England. national Institute of Agricultural Botany,  
Cambridge  
14218
- Florida Univ., Gainesville  
Dept. veterinary Science  
14614
- Food and Drug Administration  
14655
- France. faculte des Sciences  
Laboratoire de Zoologie experimentale, Bordeaux  
14139
- Fruit and Food Technology Research Inst., Stellenbosch,  
Cape Province  
14356
- Ghana Academy of Sciences, Achimota  
Animal Research Institute  
14635
- Glasgow Univ., Scotland  
Dept. of Zoology  
14220
- Glaxo Laboratories, Ltd., Greenford, Middlesex,  
England.  
Institute for Tropical and Protozoan Diseases,  
14607
- Government Agricultural Coll., Kanpur, India  
14490
- Harvard Medical School, Boston, Mass.  
Dept. of Anatomy  
14255
- Illinois. university  
Dept. of Entomology  
14212
- Imperial Chemical Industries Limited  
Jealott's Hill Research Station, Berkshire, England  
14258
- Indian Agricultural Research Inst., New Delhi-12  
Div. of Genetics  
14319
- Indian Council of Agricultural Research, New Delhi  
14215
- Institut fur Bakteriologie, Berlin-Dahlem  
14340
- Instituto Colombiano Agropecuario  
Programa de Entomologia  
14153
- Interafrican Bureau for Animal Health  
14575
- Iowa State Univ., Ames  
Dept. of Veterinary Hygiene  
14570
- Iowa. university  
Dept. of Zoology  
14284
- Kansas Univ., Lawrence  
Dept. of Microbiology  
14643, 14644
- Kuala Lumpur. rubber Research Institute of  
Malaya  
14479
- Max-Planck-Inst. fuer Virusforschung, Tuebingen,  
Germany  
14622
- Ministry of Agriculture, Fisheries and Food,  
England  
14546, 14549, 14562
- Minnesota Univ., Saint Paul  
Cooperative Rust Lab.  
14349
- Museu Nacional, Rio de Janeiro, Brazil  
14384
- Nairobi. University College  
Faculty of Veterinary Science; Pathology Dept.  
14639
- National Research Council  
14682
- National Science Foundation  
14369
- New South Wales Dept. of Agriculture, Australia  
Biology Branch  
14412, 14413, 14414
- Oregon. university  
Dept. of Biology  
14277
- Panjab. university  
Dept. of Zoology, Chandigarh  
14219, 14290
- Pennsylvania. university  
Dept. of Biology, Philadelphia  
14182
- Pest Control, 9800 Detroit Avenue, Cleveland,  
Ohio  
14648
- Plant Protection Research Inst., Pretoria,  
Transvaal  
14387
- Principal Veterinary Officer, Ministry of Animal  
and  
Forest Resources, Private Mail Bag No.2005,  
Kaduna, Northern; Nigeria.  
14580
- Purdue Univ., Lafayette, Ind.  
School of Veterinary Science and Medicine;  
Dept. of Microbiology, Pathology and  
Public Health  
14593
- Rubber Research Inst. of Malaya, Kuala Lumpur,  
Malaysia  
14438, 14498, 14535
- Saskatchewan Univ., Saskatoon, Canada  
Dept. of Biology  
14399, 14684
- Secretariat du Service d' Identification des  
Entomophages  
14165
- St. John's College  
School of Entomology, Agra  
14229
- Sussex. university School of Biology, England  
14190
- Talawakele. tea Research Institute, Ceylon  
14448, 14500
- Toronto Univ., Ontario  
14224
- U S Food and Drug Administration  
14547, 14654
- U. S. Dept. of Agriculture  
U. S. Dept. of Health, Education, and Welfare  
14705
- U. S. Dept. of Agriculture, Logan, Utah  
Forest Service; Intermountain Forest and Range  
Experiment Station  
14430
- UNDP/SF-FAO and Government of Sudan  
Ministry of Animal  
Resources Project-near East Animal Health In-  
stitute.  
14552
- UNDP/SF-FAO and Government of Sudan,  
Ministry of Animal  
Resources Project-near East Animal Health In-  
stitute  
14587
- Venezuela. ministerio de Sanidad y Asistencia  
Social  
Direccion de Malaria y Saneamiento Am-  
biental; Caracas  
14298
- Wisconsin Univ., Madison  
Dept. of Plant Pathology  
14681
- Wisconsin Univ., Madison  
Dept. of Veterinary Science  
14611
- Wisconsin. university  
Dept. of Poultry Science and Zoology  
14579
- Wisconsin. university  
Dept. of Veterinary Science, Madison  
14216
- Zentral-Forschungsinstitut fur  
Pflanzenproduktion, Prague,  
Czechoslovakia  
14249





U.S. DEPARTMENT OF AGRICULTURE  
WASHINGTON, D.C. 20250

OFFICIAL BUSINESS



POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF AGRICULTURE

To stop mailing  or to change your  
address  send this sheet with new  
address to Pesticides Information  
Center, National Agricultural Library,  
Washington, D.C. 20250.