

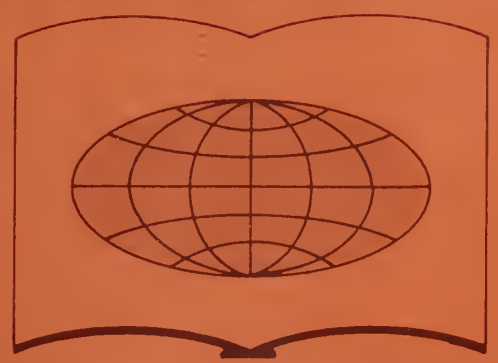
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# Pesticides DOCUMENTATION BULLETIN

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Volume 4

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JUNE 21, 1968



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U.S. DEPARTMENT OF AGRICULTURE

# PESTICIDES DOCUMENTATION BULLETIN

A BI-WEEKLY PUBLICATION OF

U. S. DEPARTMENT OF AGRICULTURE

Volume 4

June 21, 1968

Number 13

## OBJECTIVES AND SCOPE

The Pesticides Documentation Bulletin is compiled by the Pesticides Information Center, the first of its kind to be established within a national library. It is a bi-weekly index to the literature on pests and their control and the impact on the economy and man's total environment. The index includes literature on diseases, insects, nematodes, parasites, weeds, and other pests affecting plants, animals, man, our natural resources, and other values in man's environment. Literature on biological, chemical, cultural, ecological, mechanical, and integrated methods of pest control will be included. Special emphasis is given to the literature on the toxicological, physiological and epidemiological aspects of pests and their control by chemical and nonchemical 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

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## ACKNOWLEDGMENT

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## TABLE OF CONTENTS

Items	Page
<b>BIBLIOGRAPHY (Citations)</b>	
10 ENTOMOLOGY	1
Systematics	1
Physiology and Biochemistry	3
Genetics	9
Medical Entomology	10
20 CROP PROTECTION	11
Diseases	11
Arthropods	12
Nematodes	14
Weeds	14
Other Pests	15
30 LIVESTOCK PROTECTION	15
Diseases	15
Arthropods	17
Parasites	17
40 COMMODITY PROTECTION	18
Storage Diseases	*
Arthropods	18
Rodents and Other Pests	*
Microbial Contamination	18
50 ENVIRONMENTAL CONTAMINATION	19
55 RESIDUES	19
60 TOXICOLOGY	20
65 PLANT PHYSIOLOGY & BIOCHEMISTRY	21
70 CHEMISTRY	22
80 ENGINEERING	22
90 INDUSTRY	*
Economics	*
Education	*
Regulations	*
SUBJECT INDEX	23
BIOGRAPHICAL INDEX	53
AUTHOR INDEX	55
ORGANIZATIONAL INDEX	57

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## 10 ENTOMOLOGY

## Systematics

- 13709-68  
STERIPHODON DONCASTERI, A NEW SPECIES OF EURYGENIINI, WITH  
A REVIEW OF THE INDIAN SPECIES OF STERIPHODON ABEILLE  
(COLEOPTERA: ANTHICIDAE).  
M Abdullah  
Beitr Entomol 17(3/4):329-335  
1967 421 B392  
Insect taxonomy, Steriphodon.
- 13710-68  
STUDIES OF EUROPEAN AND ASIA MINOR SPECIES OF THE GENUS  
RAPHIDIA L. (INSECTA, RAPHIIDIOIDEA). (GE )  
H Aspöck O Aspöck  
Schweiz Entomol Ges Mitt 39(1/2):33-48  
15 Sep 1966 420 SW6  
Raphidia.  
Includes n. spp.
- 13711-68  
A NEW MARYLAND RECORD OF THELOHANIA (NOSEMATIDAE:  
MICROSCOPIDIA).  
W W Barnes R W Dewey  
J Invertebrate Pathol 9(3):354-356  
Sep 1967 421 J826  
Aedes canadensis, Larvae, Thelohania inimica.  
Abstract
- 13712-68  
SOME ORTHOPTEROID INSECTS OF THE ORDERS BLATTODEA,  
ORTHOPTERA AND DERMAPTERA FROM AFGHANISTAN. (RUS )  
G Ya Fei-Bienko  
Acta Ent Bohemoslov 64(6):407-438, REP.  
20 Nov 1967 420 C33  
Dermaptera, Drymapedes, Microdryadusa, Orthoptera.  
English summary.  
includes 2 n.g. and 13 n.sp.
- 13713-68  
ATHYSANELLA ATTENUATA AND A CLOSELY RELATED NEW SPECIES  
FROM KANSAS (HOMOPTERA: CICADELLIDAE).  
H D Blocker  
Kans Entomol Soc J 40(4):576-578  
Oct 1967 420 K13  
Agropyron smithi, Athysanella attenuata, Athysanella redacta,  
Cicadellidae, Insect taxonomy.  
Abstract
- 13714-68  
SOME INTERESTING RHOPALOCERA FROM EASTERN SPAIN. (FR )  
F Bolland  
Lambillionea 66(5/6):44-45  
25 Apr 1967 420 N15  
Rhopalocera.
- 13715-68  
ELECTRON MICROSCOPY OF THE STRIPED BORDER OF THE MIDGUT  
CELLS OF JAVESSELLA PELLICIDA (P.) (HOMOPTERA, DELPHACIDAE).  
J Brack O Kralik  
Acta Ent Bohemoslov 64(3):173-174  
1967 420 C33  
Cells, Delphacidae, Electron microscopy, Insect histology,  
Intestines, Javesella pellicida.
- 13716-68  
FIELD OBSERVATIONS ON TWENTY-EIGHT BROODS OF FLOODWATER  
MOSQUITOES RESULTING FROM CONTROLLED FLOODINGS OF A NATURAL  
HABITAT IN THE TENNESSEE VALLEY.  
S G Breelano E Pickard  
Mosquito News 27(3):343-358 REP  
Sep 1967 421 M85  
Culicidae, Insect adaptation, Insect behavior, Insect ecology,  
Metamorphosis, Watershed management.
- 13717-68  
A PORTABLE ASPIRATOR FOR COLLECTING MOSQUITOES.  
H D Carver  
Mosquito News 27(3):428-429  
Sep 1967 421 M85  
Culicidae, Insect collecting equipment, Suction traps.
- 13718-68  
PREDICTING INFLOXES OF AEDES VEXANS INTO URBAN AREAS.  
J L Clarke F C Wray  
Mosquito News 27(2):156-163 REP  
Jun 1967 421 M85  
Aedes vexans, Chemical control (insects), Culicidae,  
Insect migration, Insect outbreak forecasting,  
Insect physiology, Weather.  
Abstract: An empirical curve showing the relationship between the rate of development of the aquatic stages of Aedes vexans and average daily temperature was derived from mosquito light-trap data and weather data.
- 13719-68  
ANOPHELES EARLEI VARGAS, AN ADDITION TO THE CHECKLIST OF  
NEW JERSEY MOSQUITOES.  
W J Crans  
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Anopheles earlei, Culicidae.
- 13720-68  
SOME DISTINCTIONS BETWEEN THE LARVAE AND PUPAE OF THE  
EMPIDIDAE AND DOLICHOPODIDAE (DIPTERA).  
C E Dyte  
Roy Entomol Soc London Proc Ser A Gen Entomol  
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26 Sep 1967 420 LR4PA  
Dolichopodidae, Empididae, Insect morphology, Larvae, Pupae.  
Abstract
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FIRST RECORD OF PAUROPODA IN CULTIVATED LANDS AT GIZA  
REGION.  
A H El-Kifl  
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1966 420 EG9  
Pauropoda.
- 13722-68  
ERINOCOCCUS, A NEW GENUS FOR LIRONIASTRI OF PRIESNER AND  
ROSNY (HOMOPTERA: COCCOIDEA-PSEUDOCOCCOIDEA).  
Y M Ezzat  
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Erinococcus.  
Described, 1935, in Phenacoccus.
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AEGYPTOCOCCUS, A NEW GENUS FOR INERMIS OF HALL (HYMENOPTERA:  
COCCOIDEA-PSEUDOCOCCOIDEA).  
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Aegyptococcus.  
Described by Hall, 1925, in Phenacoccus; genotype of  
Rorchsenius, Micrococcus, 19479
- 13724-68  
ANOPHELES STEPSENSI LISTON IN EGYPT, OAR.  
A M Gad  
Mosquito News 27(2):171-174 REP  
Jun 1967 421 M85  
Anopheles stephensi, Insect ecology, Zoogeography.
- 13725-68  
IN VITRO PHAGOCYTOSIS OF NOSEMA APIS SPORES BY HONEY-BEE  
HEMOCYTES.  
M Gilliam H Shimanki  
J Invertebrate Pathol 9(3):387-389  
Sep 1967 421 J826  
Apis mellifera, Blood cells, Nosema apis, Phagocytosis.  
Abstract
- 13726-68  
MORPHOLOGY OF THE INTERNAL REPRODUCTIVE ORGANS OF THE  
NAVEL ORANGEWORM, PARAHY ELOIS TRANSITELLA.  
G Haniotakis P M Summers  
Fla Entomol 51(1):1-9 REP  
Mar 1968 420 P662  
Insect morphology, Parahyelois transitella, Phycitidae,  
Reproductive organs.  
Abstract
- 13727-68  
NEW DOLICHOPODIDAE FROM CANADA, MEXICO, AND THE WESTERN  
UNITED STATES (DIPTERA).  
P C Harston



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Dolichopodidae, Insect taxonomy, Zoogeography.

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(FR)  
C Bertulot  
Lambillionea 66(5/6):42-43  
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Somatina hcmbergi.

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THEOPHILEA CYLINDRICOLLIS PIC, A LONGICORN NEW FOR CENTRAL  
EUROPE (COL., CERAMBYCIDAE). (GE )  
L Heyrovsky  
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1967 420 C33  
Cerambycidae, Insect taxonomy, Theophilea, Zoogeography.

13730-68

ON ALPINE ROSE- AND GRASS-INFESTING SPECIES OF METOPOLO-  
PHIUM MOROVILKO, 1914, WITH DESCRIPTIONS OF TWO NEW SPECIES  
(HOMOPTERA, APHIDIDAE).  
D Hille Ris Laubers  
Schweiz Entomol Ges Mitt 39(1/2):103-117  
15 Sep 1966 420 S46  
Aphididae, Grasses, Metopolophium, Rosa.  
Includes *M. montanum* and *M. alpinum*, n. spp.

13731-68

COLONIZATION OF CHIRONOMUS PLUMOSUS (DIPTERA:  
CHIRONOMIDAE).  
W L Hilsenhoff R F Narf  
Mosquito News 27(3):363-366 BEP  
Sep 1967 421 M85  
Chironomidae, Chironomus plumosus, Insect rearing.

13732-68

TAXONOMIC REVIEW: MIRIDAE OF THE NEVADA TEST SITE AND THE  
WESTERN UNITED STATES.  
B R Knight  
Brigham Young Univ Sci Bull Biol Ser 9(3):282 P  
03 Jan 1968 500 B76  
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CICADELLIDAE).  
W J Knight  
Brit Mus (Natur Hist) Entomol Bull Suppl 21(3):99-201 REP  
1968 420 B773  
Cicadellidae, Homoptera, Insect taxonomy, Taxonomy,  
Zoogeography.  
Abstract: The genus *Dikraneura* consists of thirty-three  
species and is predominantly Nearctic in distribution  
with only three species, *D. variata* Hardy, *D. aridella*  
(Sahlberg) and *D. denticulata* sp. n., occurring in the  
Palaeartic region. Two major groups, separated on the  
basis of male genitalia, each with several species-  
complexes, can be recognized.

13734-68

A NEW SUBSPECIES OF CYNANDRA OPIS DBUBY. (FR )  
M Lagnel  
Lambillionea 66(3-4):23-25  
20 Apr 1967 420 N15  
Cynandra opis bernardii.

13735-68

NOTES ON THE BIOLOGY AND DISTRIBUTION OF SOME DELAWARE  
MOSQUITOES.  
B W Lake  
Mosquito News 27(3):324-331 MAPS, REP  
Sep 1967 421 M85  
Culicidae, Zoogeography.  
Abstract: Two new Delaware records, *O. alba* and *A.*  
*fitchii*, are reported and new locality records for three  
rare species *P. howardii*, *A. aurifer* and *A. infirmatus*  
are listed for the State. Notes on the biology of *A.*  
*grossbecki* and *A. thibaulti*, as well as locality data,  
are included and a first observation of mating of *A.*  
*thibaulti* is described.

13736-68

LABORATORY OBSERVATIONS ON CERTAIN MOSQUITO LARVAL  
PREDATORS.  
F C Lee  
Mosquito News 27(3):332-338 REP  
Sep 1967 421 M85

Biological control (insects), Culicidae, Larvae,  
Predaceous insects.

Abstract: The number of immature mosquitoes consumed by  
predators depends upon several factors, including the  
following: the kind of predators; the size of the preda-  
tors; the size of the prey; the state of hunger and the  
activity of the predators; and probably many other  
factors.

13737-68

SPECIES NEW FOR THE BELGIAN FAUNA. (FR )  
A Legrain  
Lambillionea 66(3-4):17-18. (CONT.)  
20 Apr 1967 420 N15  
Schrankia humidalis.

13738-68

A NEW SPECIES OF THE PSEUDOSCORPION GENUS PAROBISUM FROM  
UTAH (ARACHNIDA, CHELONETHIDA, NEOBISIIDAE).  
W B Mchmore  
Amer Midland Natur 79(2):531-534 REF  
Apr 1968 410 M58  
Arachnida, Chelonehida, Taxonomy.  
Abstract: The new species, *Parobisum utahensis*, is  
similar to *P. vanclavei* (Hoff) from Colorado, and  
intermediate in size and proportions between the forms  
known from Oregon and from California. The morphology  
of the cheliceral flagellum is compared with that of some  
other neobisiine species and genera.

13739-68

PHYTOSEIIDAE OF SAND-PINE LITTER.  
M H Munn  
Fla Entomol 51(1):37-44 REF  
Mar 1968 420 P662  
Forest litter, Mites, Phytoseiidae, Pinus clausa.  
Abstract

13740-68

NOTES ON CECIDOMYIIDAE. I.  
W Nijvelot  
Entomol Ber 27(1):8-14 REF  
01 Jan 1967 420 N38B  
Cecidomyiidae.

13741-68

RESEARCH NOTES ON AEDES AEGYPTI FEEDING ON THE EASTERN  
GARTER SNAKE THAMNOPHIS SIRTALIS SIRTALIS.  
W G Pearson B A Harrison  
Mosquito News 27(2):199  
Jan 1967 421 M85  
*Aedes aegypti*, Feeding, Insect behavior, Snakes.

13742-68

THE INSECT INHABITANTS OF UNDISTURBED CATTLE DROPPINGS IN  
NORTHERN CALIFORNIA.  
J H Poorbaugh J R Anderson J P Burger  
Calif Vector Views 15(3):17-36 REP  
Mar 1968 449.8 C12  
Cattle, Peces, Habitats, Haematobia irritans, Insects,  
*Musca autumnalis*, Natural control (insects).  
*Rhagothrips irritans* and *Musca autumnalis* populations  
may be due to scarcity of natural enemies in cowpats.  
Abstract

13743-68

THE EFFECT OF CERTAIN INSECTICIDES ON THE ENTOMOGENOUS  
FUNGI BEAUVERIA BASSIANA AND METARRHIZIUM ANISOPLIAE.  
N V Ramarate Urs H C Govindu K S Shivashankara Shastry  
J Invertebrate Pathol 9(3):398-403 REP  
Sep 1967 421 JB26  
*Beauveria bassiana*, Benzene hexachloride, DDT, Endrin,  
Entomogenous fungi, Insecticides, Malathion,  
*Metarrhizium anisopliae*, Parathion, Phosphamidon.  
Abstract

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ACABINA TROMBIDIIDAE OF MADAGASCAR. (FR )  
P Robauy  
Paris Mus Nat Hist Natur Bull 38(5):629-637  
1966 410.9 P213  
Insect taxonomy, Malagasy Republic, Mites, Trombidiidae.

13745-68

CONTRIBUTION TO THE KNOWLEDGE OF THE CHINESE COLLEMBOLA  
(APTERYGOTA). (GE )  
J Rusek  
Acta Ent Bohemoslov 64(3):184-194  
1967 420 C33  
Chinogastrura, Collembola.



- Chiefly n. spp. and includes *Chinogastrura* n. g.
- 13746-68  
ICONOGRAPHY OF LEPIDOPTERA EGGS IN THE BELGIUM FAUNA. (FR )  
L G Sarlet  
Lambillionea 66(3-4):28-329 (CONT.)  
20 Apr 1967 420 N15  
Insect eggs, Lepidoptera.
- 13747-68  
SCULPTURING OF THE EGGS OF THE LEPIDOPTERA FAUNA OF BELGIUM. (FR )  
L G Sarlet  
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Hesperiidae, Insect eggs, Pyrgids.
- 13748-68  
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R P Schoepfner B H Whitsel  
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Carbon dioxide, Ceratopogonidae, Insect traps,  
Leptoconops torrens.
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1. MOEL HEROG.  
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Animal ecology, Lichenes, Musci, Oribatei, Zoogeography.
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Coleoptera, Curculionidae, Insect identification.
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P Stys  
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Heteroptera, Medocostes, Medocostidae.  
Includes *M. carayoni*, also a n.sp.
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TYPE SPECIMENS OF CHIRONOMIDAE (DIPTERA) IN THE CORNELL UNIVERSITY COLLECTION.  
J E Sublette  
Kans Entomol Soc J 40(4):477-564 REF  
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Chironomidae, Insect taxonomy.  
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- 13756-68  
TARAMIDAE OF MARYLAND.  
P H Thompson  
Amer Entomol Soc Trans 93(4):463-519, MAP REF  
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Surveys, Taramidae.  
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Includes *P. maai* n. sp.
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S J Van Ooststroom  
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Diptera, Syrphidae.  
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Pieris, Scales (insects).
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I J Wyatt  
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Cecidomyiidae, Heteropezini, Heteropezina, Larvae, Miasmor castaneae, Reproduction.
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tributed between the abdomen and the head plus thorax.  
3. Based on information obtained from studies of sub-  
strate specificity, eserine inhibition, and the influence  
of substrate concentration, pH, and temperature on activi-  
ty, the enzyme was tentatively classified as an acetyl-  
cholinesterase.  
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light, the levels of AChE were relatively constant  
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Biological assay, Dimethyl-hexyl benzoic acid compounds, p-(1,5-, Hormones, Insects, Neodysdercus intermedius, Pyrrhocoris apterus.  
Abstract
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THE NATURE OF CYSTS FOUND IN PDPAE AND ADULTS OF NEODIPRION SWAINEL.  
W A Smirnoff  
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Mar 1968 421 C16  
Cysts, Neodiprion swainel, Pupae.  
Abstract: Cysts are neither thorial or virogenous. They are sometimes found in pupal intestinal cavity or adult abdominal cavity. Cell proliferation did not occur, but cell precipitation and membrane formation did.
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DEVELOPMENT OF RESISTANCE IN THE SILKWORM, BOMBYX MORI, TO PERORAL INFECTION OF A CYTOPLASMIC-POLYHEDROSIS VIRUS.  
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J Invertebrate Pathol 9(4):474-479 REF  
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- Bombyx mori*, Caterpillars, Insect disease resistance, Polybedroses.  
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H Watanabe  
J Invertebrate Pathol 9(4):570-571  
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Blood plasma, Electropboresis, Hyphantria cunea, Insect diseases, Polybedroses, Proteins.
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R E Webb F F Smith  
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Apholate, Beans, Chemosterilants, *Epilachna varivestis*, Fertility.  
Abstract
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STUDIES OF THE REMOLYMPH OF THE BEE (*APIS MELLIFICA* L.).  
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*Apis mellifera*, Blood plasma.
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C M Williams  
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Biological assay, Ecdysone, Hormones, Pupae, *Samia cynthia*.  
Abstract: Six ecdysones of plant origin are compared with synthetic alpha-ecdysone in terms of their ability to provoke normal or abnormal development of diapausing pupae and isolated pupal abdomens of *Samia cynthia*. The activity of the seven materials ranks in the following descending order: cyasterone, ponasterone B, ponasterone A, ponasterone C, alpha-ecdysone, beta-ecdysone, and inokosterone. All seven materials provoked adult development when injected in critical doses. All materials except alpha-ecdysone caused abnormal development with excessive doses. Abnormal development is correlated with a telescoping of the early events in adult differentiation, followed by the precocious deposition of new cuticle. Sensitivity to excessive ecdysone or to juvenile hormone disappears simultaneously at about the 60th hour after the initiation of development. Excessive ecdysone apparently interferes with the cytological expression and implementation of genetic instructions for forming a normal moth. This action is compared to that of juvenile hormone.
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RESPIRATORY ENVIRONMENTS OF GRAIN-INPESTING WEEVILS. I. COMPARISON OF COLTDRE-JAR AND LABORATORY REARING-ROOM ATMOSPHERES.  
J R Williams D A Wilhur  
J Econ Entomol 61(2):345-348  
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Atmosphere, Carbon dioxide, Oxygen, *Sitophilus zeamais*, Storage, Wheat.  
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O L Wood R W Stark  
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C G Wright  
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MOSES OF BALANCE IN THE POLYMORPHISM OF PHILAENDS SPDMARIDS (L.) (*HOMOPTERA*).  
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Genes, Insect genetics, *Philaenus spumarius*, Polymorphism.  
Abstract: Populations of *P. spumarius* display different gene frequency equilibrium in different northern European areas.
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POPULATION GENETICS IN THE AMERICAN TROPICS. III. THE GENETIC ROLE OF HETEROZYGOUS INDIVIDUALS IN VARIOUS COLOMBIAN POPULATIONS OF *D. MELANOGASTER*.  
H F Hoenigsberg L E Castro L A Granobles  
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*Drosophila melanogaster*, Insect genetics, Insect populations.  
Abstract: This article presents data on the quantity lethals and semilethals, and of quasinormals (subvitals, normals, and supervitals) present in natural populations from various environments in Colombia. Environmental differences permit some fundamental conclusions regarding the different population structures in their wild habitats in connection with the amount of genetic "load" in each niche. The authors compute the total "load" and the "drastic" component of it. Moreover, the amount of "drastic" genes which are eliminated through homozygosity and through heterozygosity is calculated from the available data.
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A GROSS ANALYSIS OF TWO OOT-RESISTANT HOUSE FLY STRAINS.  
R F Hoyer F W Plapp Jr  
J Econ Entomol 59(3):495-501  
Jun 1966 421 J822  
DDT, *Musca domestica*.
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A T Olive  
Entomol Soc Wash Proc 69(4):303-306  
Dec 1967 420 W27



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Aphididae, Chromosomes, Dactynotus.

13871-68

TWO TYPES OF SESAMEX-SUPPRESSIBLE RESISTANCE IN THE HOUSE-FLY.

F J Oppenoorth  
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THE PRESENT STATUS OF LOW VOLUME (LV) AIB SPRAYS FOR CALIFORNIA MOSQUITO CONTROL.

W E Burgoyne N B Akesson T E Mulhern K Phillips  
Mosquito News 27(3):398-407 REF  
Sep 1967 421 M85Aerial spraying, Chemical control (insects), Culicidae,  
Insecticide application.

13873-68

SOME FACTORS AFFECTING KILL OF THE STABLE FLY, STOMOXYS CALCITRANS (L.), WITH INSECTICIDAL THERMAL AEROSOLS.

B W Clements A J Fogers  
Mosquito News 27(3):374-377 REF  
Sep 1967 421 M85Chemical control (insects), Insecticidal aerosols, Naled,  
Stomoxys calcitrans.

13874-68

BLOOD MEAL SIZE OF LEPTOCOONOPS KERTESZI (DIPTERA: CERATOPOGONIDAE).

J D Faulk  
Mosquito News 27(3):424 REF  
Sep 1967 421 M85Blood, Ceratopogonidae, Feeding, Insect behavior,  
Leptoconops kerteszi, Rabbits.

13875-68

SUMMARY OF RECENT ABSTRACTS. III. MALABIA.

H M Gilles  
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Mar 1968 448.8 T752  
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13876-68

THIOKOL SWAMP SPRAYE EQUIPPED WITH AUTOMATIC COMPRESSED AIR SPRAYING UNITS FOR APPLYING GRANULE AND LIQUID INSECTICIDES.

J H Kimball A H Thompson  
Mosquito News 27(3):420-422  
Sep 1967 421 M85Chemical control (insects), Culicidae, Marshes,  
Spraying equipment, Vehicles.

13877-68

MANATEES AS A NATURALISTIC BIOLOGICAL MOSQUITO CONTROL METHOD.

J P MacIaren  
Mosquito News 27(3):387-393 REF  
Sep 1967 421 M85Biological control (insects), Biological control (weeds),  
Culicidae, Manatees, Weeds.

13878-68

CULICOIDES CONTROL IN THE CANAL ZONE BY WATER MANAGEMENT.

J P MacIaren J L Hawkins W F Mubdoch B G Bush  
Mosquito News 27(4):513-519  
Dec 1967 421 M85

Culicoides, Insect control, Water treatment.

13879-68

CIMEX HEMIPTERUS (FABR.) FROM BATS IN COLOMBIA, SOUTH AMERICA (HEMIPTERA: CIMICIDAE).

C J Marinkelle  
Entomol Soc Wash Proc 69(2):179-180  
Jun 1967 420 W27  
Bats, Cimex hemipterans.

13880-68

BITE OF TICK ATTACHMENT TO A WHITE-TAILED FAWN.

G G Montgomery  
Amer Midland Natur 79(2):528-530 REF  
Apr 1968 410 M58Deer, Dermacentor variabilis, Ecology, Insect behavior,  
Parasitism.

Abstract: A total of 59 American dog ticks (Dermacentor variabilis) attached to a free-ranging, tame, white-tailed deer fawn (Odocoileus virginianus) during a 26-day period in July, 1964. The hourly rate of tick attachment was almost four times as great between evening and morning collections as between morning and evening collections.

13881-68

VIRUS OF THE CALIFORNIA ENCEPHALITIS COMPLEX: ISOLATION FROM CULICETA INORNATA.

O Morqante J A Sheanchnk  
157(3789):692-693 REF  
11 Aug 1967California encephalitis, Culicidae, Culiceta inornata,  
Insect vectors, Mammals.  
Abstract

13882-68

YELLOW FEVER MOSQUITOES. IN: SMITH, C. W. INSECT COLONIZATION AND MASS PRODUCTION. QL497.S6.

B B Morlan  
585-599 REF  
1966

Aedes aegypti, Insect rearing.

13883-68

OVICIDAL ACTIVITY OF ALIPHATIC AMINES AND PETROLEUM OIL AGAINST TWO SPECIES OF MOSQUITOES.

M S Mulla M P B Chandhary  
J Econ Entomol 61(2):510-515  
Apr 1968 421 J822Amines, Anopheles albimanus, Chemical control (insects),  
Culex pipiens quinquefasciatus, Kerosine, Ovicides.  
Abstract

13884-68

RESIDUAL ACTIVITY OF DIAZINON AND LINDANE FOR CONTROL OF LOXOSCELES RECLUSA.

B B Norment T L Pate  
J Econ Entomol 61(2):574-575  
Apr 1968 421 J822

Diazinon, Lindane, Loxosceles reclusa, Spiders.

13885-68

BIOLOGY OF CULEX TARSALIS DURING THE SPRING SEASON IN OREGON IN RELATION TO WESTERN ENCEPHALITIS VIRUS.

W A Bnsh C H Tempelis  
Mosquito News 27(3):307-315 REF  
Sep 1967 421 M85Culex tarsalis, Insect biology, Insect vectors,  
Western equine encephalomyelitis virus.

13886-68

SEASONAL VARIATIONS IN THE SUSCEPTIBILITY OF CULEX PIPPIENS L. TO DDT AND DIELDRIN.

M W Service  
Mosquito News 27(3):338-342 REF  
Sep 1967 421 M85Chemical control (insects), Culex pipiens pipiens, Ddt,  
Dieldrin, Insecticide resistant insects, Variance analysis.

13887-68

SUSCEPTIBILITY STUDIES ON ANOPHELES CULICIFACIES WITH DDT AND DIELDRIN IN GUJARAT STATE, INDIA.

A M Shalaby  
J Econ Entomol 61(2):533-541  
Apr 1968 421 J822Anopheles culicifacies, Chemical control (insects), Ddt,  
Dieldrin, Insecticide resistant insects.  
Abstract

13888-68

EVALUATION OF PENTHION AND BAYGON MIXTURES FOR CONTROL OF ADULT AEDES AEGYPTI (L.) WHEN APPLIED AS THERMAL-FOG.

O E Shipp W E Bazeltine  
Mosquito News 27(2):144-149 REF  
Jun 1967 421 M85Aedes aegypti, Chemical control (insects), Penthion,  
Insecticidal aerosols, Isopropoxyphenyl methylcarbamate, o-  
Pesticide mixtures.



13889-68

## COLONIZATION STUDIES OF LEPTOCOONOPS KERTESZI, BITING GNATS.

R U Sjogren J D Foulk  
 Mosquito News 27(3):394-397 REF  
 Sep 1967 421 M85

Ceratopogonidae, Feeding, Insect behavior, Insect rearing, Leptoconops kerteszi, Reproduction.

Abstract: Certain aspects of the biology of *L. kerteszi* biting gnats were studied in the laboratory. Adult gnats gnats contained in clothfloor feeding chambers readily fed on rabbits, mice, man and baby chicks. Field-collected females had mated before feeding. Egg production from a rabbit blood meal averages 70-75 eggs per female, and an egg-to-adult generation was obtained in a damp sand-vermiculite-alfalfa meal rearing mixture in approximately three weeks at 90 F. and r. h. 80 percent. No viable eggs were produced by blooded virgin females. Matings between newly-emerged adults contained in 2 cu. ft. volume plastic containers were not observed. Males swarm afield and larger mating chambers may be the answer to successful laboratory colonization.

13890-68

## LITERATURE REFERENCES TO MOSQUITOES AND MOSQUITO-BORNE DISEASES.

8 Sollers-Riedel  
 Mosquito News 27(2):250-262 REF  
 Jan 1967 421 M85

Animal diseases, Bibliography, Culicidae, Human diseases, Insect vectors.

13891-68

## VERSATILE MOSQUITO TRAP.

K M Scherman R P Simmet  
 Mosquito News 27(3):412-417 REF  
 Sep 1967 421 M85

Culicidae, Insect collecting equipment, Insect traps.

13892-68

## A LOW COST AIRBOAT FOR USE IN MOSQUITO CONTROL.

A H Thompson  
 Mosquito News 27(3):417-419 REF  
 Sep 1967 421 M85

Boats, Culicidae, Insect control.

## 20 CROP PROTECTION

13893-68

## REDUCTION OF CORN VIRUS DISEASE INCIDENCE AND CONTROL OF SOUTHWESTERN CORN BORER WITH SYSTEMIC INSECTICIDES.

A J Keaster M L Fairchild  
 J Econ Entomol 61(2):367-369  
 Apr 1968 421 J822

Chemical control (insects), Corn, Insecticides, Systemic insecticides, Virus diseases (plants), Zea mays grandisella.  
 Abstract

13894-68

## PESTICIDES: PLANT PROTECTION. SB951.V6.

M G Voronkov  
 163 P.  
 1967

Pest control, Pesticides, Plant protection.

## Diseases

13895-68

## KHARCHIA-65 A NEW RUST-RESISTANT WHEAT FOR SALINE AREAS.

S M Gandhi M P Bhatnagar  
 Indian Farming 17(1):7,8,26  
 Mar 1968 22 IN283

Crop varieties, Plant disease resistance, Rust (wheat), Saline soils, Wheat.

13896-68

## HERITABLE ALBINISM IN SPHACELOTHECA REILIANA.

P M Halisky  
 Phytopathology 51(6):407-409  
 Jun 1961 464.8 P56

Albinism, Sphacelotheca reiliana, Sphacelotheca reiliana.

13897-68

## THE SPRAY WARNING SCHEME FOR CONTROL OF SUGAR BEET YELLOWS IN ENGLAND; SUMMARY OF RESULTS BETWEEN 1959-66.

R Hull  
 Plant Pathol 17(1):1-11 REF  
 Mar 1968 464.8 P692

Aphis fabae, Insect outbreak forecasting, Myzus persicae, Spraying, Sugar beets, Virus diseases (plants), Yellows (sugar beets).

Abstract: Systemic sprays should be used during May and June when aphid vector population reaches 0.25 per plant. aphid infestation and yellows incidence are not proportional

13898-68

## COMPARATIVE SURVIVAL OF REHYDRATED AND NONREHYDRATED WHEAT STEM RUST UREDOSPORES ON DRY LEAF SURFACES.

C R Leathers  
 Phytopathology 51(6):410-411  
 Jun 1961 464.8 P56

Leaves, Stem rust (wheat), Uredospores, Uredospores, Wheat.

13899-68

## AN ASSOCIATION OF STEM RUST AND CROWN RUST RESISTANCE IN JOSTRAIN OATS.

R I H McKenzie J W Martens D J Samborski  
 Can J Genet Cytol 10(1):190-195 REF  
 Mar 1968 443.8 C16

Crown rust (oats), Fungus diseases (plants), Plant disease resistance, Puccinia coronata, Puccinia graminis, Stem rust (oats).

Abstract

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Plasmodiophora brassicae, Rape, Soil fungi.  
Reliable for forecasting disease incidence in susceptible  
Brassica.
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Alcohols, Fungi, Feaches, Sclerotinia fructicola, Spores.
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W C Price A E Martinez D A Roberts  
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Coconuts, Lethal yellowing (coconuts),  
Plant disease transmission.
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THE ROLE OF LIGHT IN SPORE GERMINATION AND SPORIDIAL  
PRODUCTION OF THE WHEAT SMUT FUNGUS, TILLETIA CARIES (DC.)  
TUL. (GE )  
K Schauz  
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Fungus diseases (plants), Light, Spore germination,  
Stinking smut (wheat), Tilletia caries, Wheat.  
English and German summaries  
Abstract: In Tilletia caries, light hastens spore germina-  
tion and increases the number of spores which germinate.  
Light is required for two different steps, formation of  
germ tubes and sporidial development. Stimulation of spore  
germination is photoinductive; but best sporidial develop-  
ment occurs in continuous light of high intensity. High  
germination is induced when the light exposure occurs be-  
tween the 3rd and 6th day after the spores were sowed on  
the medium. Best sporidia production results when the  
spores were irradiated at the 5th day or later. As in  
nearly all photoresponses in fungi, blue light is more ef-  
fective than green. No significant difference exists be-  
tween the red light and dark experiments.
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Ascochyta, Aspergillus, Fungus diseases (plants), Fusarium,  
Phoma, Root rot (clover), Subterranean clover.  
Purple Patch a popular name applied to a root-rotting dis-  
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M A Siddiq  
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Crop varieties, Genes, Leaf curl, Plant disease resistance,  
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Abstract: A dominant gene, and minor modifier genes,  
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- Arthropods**
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R S Berger  
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TESTS IN GUINEA PIGS.  
P H Clark M M Cole  
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Chemical control (insects), Guinea pigs, Insecticides,  
Xenopsylla cheopis.  
Abstract
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INSECTICIDES.  
T C Cleveland G L Smith  
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Chemical control (insects), Cotton, Insecticides,  
Lygus lineolaris.
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APHID TRAPPING WITH BLACK-LIGHT LAMPS.  
B F Coon  
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Insect vectors, Light traps, Macrosiphum avenae,  
Rhopalosiphum maidis, Rhopalosiphum padi, Schizaphis graminum,  
Ultraviolet rays, Yellow dwarf (harley).  
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C B Dominick  
J Econ Entomol 61(2):483-484  
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Chemical control (insects), Insecticides,  
Manduca quinquemaculata, Manduca sexta, Tobacco.  
Abstract
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CHEMICAL CONTROL OF CHRYSANTHEMUM LEAF MINER AND SOME  
OBSERVATIONS ON VARIETAL PREFERENCE.  
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Chemical control (insects), Chrysanthemum, Insecticides,  
Phytomyza atricornis.
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POPULATIONS OF BOLL WEEVIL IN SELECTED FIELDS IN ARIZONA  
IN 1965 AND 1966.  
R E Pyle  
J Econ Entomol 61(2):377-380, MAP  
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Anthonomus grandis, Cotton, Insect populations.  
Abstract

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ALTERNATIVES TO DDT FOR THE CONTROL OF THE PEA MOTH ON DRY BARVESTING PEAS.  
H J Gould T J Legowski  
Plant Pathol 17(1):31-35  
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Chemical control (insects), Chlorinated hydrocarbons, Ddt, Fenthion, Insecticides, Laspeyresia nigricana, Methylothio-3,5-xylyl methylcarbamate, 4-, Peas.  
Abstract:Fenthion known as Supracide and Bayer 37344 reduced pod infestation by over 90 percent. Other sprays gave little or no control.
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INSECTICIDAL CONTROL OF MARCA TESTUALIS ON COWPEA IN NIGERIA.  
M L Jerath  
J Econ Entomol 61(2):413-416  
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Carbaryl, Chemical control (insects), Cowpeas, Dieldrin, Marca testualis, Nigeria, Phosphamidon.  
Abstract
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MITES OF CRATAEGUS AND AMELANCHIER IN HOOD RIVER VALLEY, OREGON.  
C D Jorgensen  
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Pest and predaceous species  
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METHOD OF LARCRATCEY SCREENING OF PEANUT GERM PLASM FOR RESISTANCE TO THE LESSER COBNSTALK BORER.  
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Apolate, Baits, Chemical control (insects), Chemosterilants, Diazinon, Drosophila melanogaster, Tomatoes.  
Abstract
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C L Massey  
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Dendroctonus pseudotsugae, Dirhabdilaimus carolinensis, Forest insects, Hyllobius pales, Mikoletzkyia pierci, Misticinae, Misticinus mustus, Nematodes, Pachylobius picivorus, Paurodontidae, Pseudhalenchus hyllobii, Taxonomy.  
Abstract
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Conotrachelus nenuphar, Insect dissemination, Plant injuries, Sour cherries, Statistical analysis.  
Abstract
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VERTICAL-PULL TECHNIQUE FOR EVALUATING TOLERANCE OF CORN ROOT SYSTEMS TO NORTHERN AND WESTERN CORN ROOTWORMS.  
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A NEW SALIX-INFESTING CHAITOPHORUS FROM SASKATCHEWAN (HOMOPTERA: APHIDIDAE).  
W B Richards  
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Aphididae, Forest insects, Insect taxonomy, Salix.  
Abstract
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EVALUATION OF SYSTEMIC INSECTICIDES INCORPORATED IN THE SOIL FOR CONTROL OF LEPIDOPTERODS LARVAE OF COLE CROPS IN SOUTHERN CALIFORNIA.  
H H Shorey R L Bale  
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Broccoli, Cabbage, Cauliflower, Chemical control (insects), Insecticides, Pesticide application, Pieris rapae, Plutella maculipennis, Soils, Systemic insecticides, Trichoplusia ni.  
Abstract
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LABELING LARVAE OF THE ELM SAWFLY WITH P32.  
J D Stein  
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Cimbex americana, Larvae, Leaves, Phosphorus isotopes, Radioactive tracers, Salix alba.  
Ingestion of radioactive foliage  
Abstract
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USE OF CHEMICAL DEFOLIANTS ON PEACH TREES IN INTEGRATED PROGRAM TO SUPPRESS POPULATIONS OF GREEN PEACH APHIDS.  
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Defoliants, Integrated control (insects), Myzus persicae, Peaches, Predaceous insects, Sodium chlorate, Syrphidae, Tributyl phosphorotrithioate, S,S,S-  
Abstract
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E S Dsua  
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Busseola fusca, Corn, Crop yields, Insect populations, Larvae, Plant physiology.



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Crops, Insect pests.

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SUGAR-CANE MOTH BREEDS AT TANGANYIKA PLANTING COMPANY,  
ARUSHA-CHINI, TANZANIA, 1966--1967.  
J N Waiyaki  
Arusha Trop Pesticides Res Inst Misc Rep 615, 14 P. REP  
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Chemical control (insects), Chilo zonellus, Eldana saccharina,  
Insect biology, Sesamia calamistis, Sugarcane.

13937-6E

EFFECTS OF SOIL FERTILITY ON ABUNDANCE OF GREEN PEACH  
APHIDS ON MARYLAND TOBACCO.  
A W Woldridge F F Harrison  
J Econ Entomol 61(2):387-391  
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Insect populations, Myzus persicae, Soil fertility, Tobacco.  
Abstract

## Nematodes

13938-6E

CHANGES ASSOCIATED WITH PARASITISM IN NEMATODES. I.  
MORPHOLOGY AND PHYSIOLOGY OF PREPARASITIC AND PARASITIC  
LARVAE OF MELOIDOGYNE JAVANICA.  
A F Bird  
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Aug 1967 448.8 J824  
Meloidogyne javanica, Plant nematodes.  
Abstract

13939-6E

CONTROL OF THE SOD WEBWORMS CRAMBUS TETREBELLUS, C.  
TRISECTUS, AND C. MUTABILIS, IN KENTUCKY.  
B C Pass  
J Econ Entomol 59(1):19-21  
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Kentucky, Sod webworms.

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A TECHNIQUE FOR ISOLATING AND MAINTAINING CULTURES OF  
MELOIDOGYNE.  
J R Shepperson W C Jordan  
Helminthol Soc Wash Proc 35(1):106-108 REP  
Jan 1968 436.9 H36  
Begonia, Meloidogyne incognita, Nematology, Plant nematodes,  
Tomatoes.  
Abstract: Pure cultures can be established in aerial organs  
of Begonia and tomato plants. By inoculating stems with  
glass capillary tubes containing sterile eggs or larvae,  
several generations of the nematodes are produced in a  
single host plant. worms that develop in aerial organs are  
not exposed to soil-borne contaminants. Egg sacs that  
protrude through the stem epidermis are easily accessible  
and can be removed from the plant with forceps. Midribs of  
Begonia plants support growth of nematodes and produce a  
copious supply of material for various investigations.

13941-6E

A SCIL POPULATION STUDY OF DITYLENCHUS DIPSACI (KOHN)  
FILIPJEV IN AN ALFALFA FIELD.  
S-t Tseng K B Allred G D Griffin  
Helminthol Soc Wash Proc 35(1):57-62 REP  
Jan 1968 436.9 H36  
Alfalfa, Ditylenchus dipsaci, Nematodes, Population,  
Soil microorganisms.  
Abstract: A population of Ditylenchus dipsaci showed a  
seasonal fluctation in Millville silt loam collected from  
an alfalfa field. Peak populations occurred when the soil  
temperature was approximately 15 C, and the greater the  
deviation from this temperature, the smaller the nematode  
population. Nematodes approached their peak at the 10-40  
cm levels 2-3 weeks later than those at 0-10 cm, when

temperatures were well below 15 C in the fall and above  
15 C at the 0-10 cm level. This significant time lag at  
10-40 cm might indicate a nematode migration toward a more  
desirable temperature.

## Weeds

13942-6E

A TOP FARMER LOOKS AT HERBICIDES.  
B B Barnes  
Agr Chem 23(2):16-1B  
Feb 1968 381 AG8  
Chemical control (weeds), Herbicides, Spraying equipment,  
Weed control.

13943-6E

THE IDENTIFICATION OF WEED SEEDLINGS OF FARM AND GARDEN  
SR613 .G7C42.  
R J Chancellor  
88 P. OXFORD, BLACKWELL  
1966  
Gardens, Habitats, Seedlings, Weeds.

13944-6E

SCREENING OF PHYTOPHAGOUS INSECTS FOR BIOLOGICAL CONTROL OF  
WEEDS.  
P Barris B Zwolfer  
Can Entomol 100(3):295-303 REP  
Mar 1968 421 C16  
Beneficial insects, Biological control (weeds).  
Abstract: It is necessary to demonstrate the host  
specificity of an exotic phytophagous insect before intro-  
ducing it for the biological control of a weed. The  
'starvation test' made on economic plants is considered  
inadequate. It is proposed that studies include the follow-  
ing: (1) the insect's biology, host-plant records, and  
adaptations, (2) plants attacked by related insects, (3) lab  
host range of the insect, (4) chemical or physical basis of  
host-plant recognition, (5) starvation tests, (6) insects  
potential effectiveness for weed control.

13945-6E

THE CINNABAR MOTH, TYRIA JACOBABAEAE, FOR CONTROL OF TANSY  
BAGWORT.  
R B Hawkes  
J Econ Entomol 61(2):499-501  
Apr 1968 421 J822  
Arctiidae, Beneficial insects, Biological control (weeds),  
Poisonous plants, Senecio jacobaea, Tyria jacobaeae, Weeds.  
Abstract

13946-6E

HERBICIDES OR OAT COMPANION CROPS FOR ALFALFA ESTABLISHMENT  
AND FORAGE YIELDS.  
C A Knst  
Agron J 60(2):151-154 REP  
Mar 1968 4 AM34P  
Alfalfa, Chemical control (weeds), Crop yields, Forage plants,  
Herbicides, Oats.  
Abstract: Alfalfa was established with herbicides in 1964,  
1965, and 1966. The object was to determine forage yields  
obtained from a pure alfalfa stand in the seeding year and to  
compare them with yields obtained from oat companion  
crops removed at an immature stage for silage or hay.  
Alfalfa established with herbicides was comparatively  
unproductive during the seeding year and much higher  
forage yields were obtained when alfalfa was established  
with an oat companion crop and both harvested as forage.



## Other Pests

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 METAL HOSE SIMPLIFIES BIRD BAIT APPLICATION.  
 D Liet  
 Pest Contr 35(11):50  
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 Attractants, Baits, Bird control, Metal hose, Pigeons.

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 EFFECTS OF OXYTOCIN ADMINISTERED DURING THE DRY PERIOD ON THE SUCCEEDING LACTATION.  
 G M Gorman E W Swanson  
 J Dairy Sci 51(1):60-66 REP  
 Jan 1968 44.8 J822  
 Cattle, Lactation, Oxytocin.  
 Abstract: Oxytocin treatment produced milk let-down and delayed regression of udder size in dry cows. After parturition, milk yields of treated cows were below those of their pair mates.

## Diseases

- 13949-68  
 INTESTINAL PROTOZOAN INFECTIONS IN DOGS.  
 R B Burrows W G Lillis  
 Amer Vet Med Ass J 150(8):880-883 REP  
 15 Apr 1967 41.8 AM3  
 Dogs, Infectious diseases, Intestines, Protozoa, Surveys.  
 Abstract: A survey was made of intestinal protozoa harbored by 600 stray dogs from central New Jersey. Over one-third had *Giardia canis*, one-fifth had *Trichomonas hominis*, over one-fifth had 1 or 2 species of coccidia (*Isospora bigemina*, *Isospora canis*, or *Isospora rivolta*), and 6 dogs had aebic infections (5 *Entamoeba histolytica*, 1 *Entamoeba hartmanni*).
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 ANTIMICROBIAL EFFECT OF COCOA ON SALMONELLAE.  
 P F Busta M L Speck  
 Appl Microbiol 16(2):424-425  
 Feb 1968 448.3 AP5  
 Bactericides, Cocoa, *Salmonella gallinarum*, *Salmonella typhimurium*.
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 PSEUDOCOWPOX IN DAIRY CATTLE.  
 N F Cheville D J Shey  
 Amer Vet Med Ass J 150(8):855-861 REP  
 15 Apr 1967 41.8 AM3  
 Cattle, Diagnosis, Electron microscopy, Pseudocowpox.  
 Abstract: Pseudocowpox (paravaccinia) virus infection was diagnosed in a herd of lactating cattle. Pox lesions developed rapidly, then ulcerated and became infected with bacteria and fungi. Rapid diagnosis was accomplished by electron microscopic examination of vesicular fluid and ultra-thin sections of vesicular areas within the lesion. Virns obtained from lesions produced cytopathic changes in primary bovine kidney cell cultures and caused pox lesions in cattle infected experimentally. The virus did not infect rabbits or chicken embryos.
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 TETRALOGY OF FALLOT IN THE DOG.  
 D R Clark J N Ross R L Hamlin C R Smith  
 Amer Vet Med Ass J 152(5):462-471 REP  
 01 Mar 1968 41.8 AM3  
 Abnormalities, Dogs, Heart.  
 Abstract: Tetralogy of Fallot, a complex congenital malformation of the heart, has been diagnosed recently in 4 young dogs. In 2 of these, the diagnoses were later confirmed by postmortem examination. The affected dogs had signs similar to those described in children with tetralogy of Fallot: (1) limited tolerance to exercise, (2) poor physical development, (3) cyanosis, and (4) polycythemia.

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Jan 1968 389.8 J82  
Ascaridia galli, Calcium, Chicks, Lysine.  
Abstract
- 13954-68  
PARTIAL PDRIFICATION OF THE ORGANISM OF PSITTACOSIS GROWN IN CHICKEN EMBRYO YOLK SAC.  
W G Dorsey W N Shirley W C Patrick  
Appl Microbiol 16(1):166-167  
Jan 1968 448.3 AP5  
Chick embryos, Culture media, Miyagawanella group viruses, Psittacosis, Yolk sac.
- 13955-68  
BLOOD CONCENTRATIONS OF STYDIES IN CATTLE OF A SUSTAINED-RELEASE FORM OF SULFAMETHAZINE.  
T Elliscn S F Scheidy S Tucker G C Scott C B Bucy  
Amer Vet Med Ass J 150(6):629-633 REF  
15 Mar 1967 41.8 AM3  
Blood analysis, Cattle, Drug therapy, Sulfamethazine.  
Abstract: A sustained-release form of sulfamethazine was investigated in beef and dairy cattle. Effects of production-batch and animal variabilities indicate this is a useful form that will produce and maintain effective therapeutic blood levels as long as 5 days. Concomitant treatment with sulfamethazine in both parenteral and sustained-release forms established high blood levels, as well as prolonged maintenance of therapeutic levels after a single dose.
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J B Emery A Y Elliott C E Bordt G B Burch E E Kugel  
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Dogs, Rabies virus, Tissue culture, Viral vaccines.
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F Fishburn D C Kelley  
Amer Vet Med Ass J 151(1):45-46  
D1 Jul 1967 41.8 AM3  
Horses, Sporotrichosis, Sporotrichum schenckii.
- 13958-68  
FACTORS AFFECTING THE DEVELOPMENT OF NUTRITIONAL MUSCULAR DYSTROPHY IN NORTHERN ONTARIO.  
M Hidirgölcü K J Jenkins  
Can J Anim Sci 48(1):7-14 REF  
Apr 1968 41.8 C163  
Animal nutrition, Calves, Deficiency diseases, Muscular dystrophy.  
Abstract
- 13959-68  
THE PRODUCTION OF A BASIC IMMUNITY AGAINST PULP KIDNEY DISEASE.  
B C Jansen  
Onderstepoort J Vet Res 34(1):65-80 REF  
Apr 1967 41.8 ON1  
Antigens, Enterotoxemia, Immunization, Sheep.  
Abstract: A single dose of alum-precipitated epsilon toxoid (AET) produces transitory immunity to susceptible sheep. Maximum immunity results from two 90 Lf injections. The time interval may be two to six weeks.
- 13960-68  
BACTERIAL ENDOCARDITIS IN A DOG.  
K L Jeffery  
Amer Vet Med Ass J 151(11):1453-1455 REF  
01 Dec 1967 41.8 AM3  
Bacteria, Diagnosis, Dogs, Endocarditis, Penicillin, Therapeutics.  
Abstract: Bacterial endocarditis was diagnosed antemortem in a dog on the basis of clinical signs and laboratory findings. A positive diagnosis was made at necropsy when the patient did not respond to treatment.
- 13961-68  
BIOCHEMICAL AND PATHOLOGICAL EFFECTS OF AFLATOXIN POISONING IN DUCKLINGS.  
T Juszkiewicz J Stec B Stefaniak Z Bakalska Z Madejski  
Vet Rec 81(12):297-298 REF  
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Aflatoxin, Biochemistry, Ducklings, Poisoning.
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BOVINE TUBERCULOSIS ERADICATION IN WISCONSIN.  
A R McLaughlin  
Amer Vet Med Ass J 151(10):1343-1346 REF  
15 Nov 1967 41.8 AM3  
Cattle, Mycobacterium bovis, Serodiagnosis, Surveys, Tuberculin, Tuberculosis.  
Abstract: A survey of bovine tuberculosis eradication activities in Wisconsin revealed that trace-back testing was more efficient than routine testing in locating bovine tuberculosis. Some of the reactors found by routine testing were probably sensitized by organisms other than Mycobacterium bovis. Causes of heterospecific tuberculin sensitivity are briefly discussed.
- 13963-68  
DRETHROADENOCYSTITIS IN THE MALE CAT.  
F W Meier  
Amer Vet Med Ass J 151(8):1059-1071 REF  
15 Oct 1967 41.8 AM3  
Animal histology, Cats, Cystitis, Pseudomonas, Sulfuric acid, Urogenital system.  
Abstract: Eleven cases of lower urinary tract disease in male cats were clinically investigated. Pseudomonas was isolated and culturally identified in every case. A method of differentiating between obstructive and nonobstructive forms of disease was based on palpable characteristics of the urinary bladder. Necropsy findings and lesions in this disease and characteristics of pseudomonas organisms are compatible. Treatment with a wire loop and sulfuric acid solution was successful.
- 13964-68  
SYSTEMIC CANDIDIASIS IN CALVES ON PROLONGED ANTIBIOTIC THERAPY.  
J H L Mills B S Birth  
Amer Vet Med Ass J 150(8):862-870 REF  
15 Apr 1967 41.8 AM3  
Antibiotics, Calves, Candida albicans, Moniliasis.  
Abstract: Two young calves developed systemic candidiasis in association with repeated antibiotic therapy. The fungus (Candida albicans) was identified histologically in lesions in the liver, lungs, brain, kidneys, and forestomachs and recovered in pure culture from some of these organs. A 3rd calf had mycotic lesions confined to the pharynx and esophagus.
- 13965-68  
INCREASED SUSCEPTIBILITY TO BACTERIAL ENDOTOXIN OF PIGS WITH IRON-DEFICIENCY ANEMIA.  
J C Osborne J W Davis  
Amer Vet Med Ass J 152(11):1630-1632 REF  
01 Jun 1968 41.8 AM3  
Anemia, Baby pigs, Escherichia coli, Iron, Mortality, Toxins.  
Abstract: Nursing pigs made anemic by withholding supplemental iron for 28 days after birth were no more susceptible to the lethal action of bacterial endotoxin than their littermates given iron. Four pigs given iron dextran intramuscularly at 3 days of age were not anemic and survived a dose of Escherichia coli endotoxin that was lethal to 3 of 4 anemic littermates not given iron.
- 13966-68  
CRYPTOCOCCOSIS IN A DOG.  
B A Price B D Powers  
Amer Vet Med Ass J 150(9):988-993 REF  
01 May 1967 41.8 AM3  
Cryptococcosis, Cryptococcus neoformans, Dogs.
- 13967-68  
FETAL ANKYLOSIS IN HORSES ASSOCIATED WITH HYBRID SUDAN PASTURE.  
J T Prichard J L Voss  
Amer Vet Med Ass J 150(8):871-873 REF  
15 Apr 1967 41.8 AM3  
Ankylosis, Dystocia, Fetal death, Foals, Horses, Poisonous plants, Sorghum vulgare sudanense.  
Abstract: Seven Appaloosa mares, of varying ages and previously bred to the same stallion, at various stages of pregnancy were allowed to graze on a hybrid Sudan grass pasture. Four mares had dystocia at term and gave birth to dead foals with ankylosis of the joints. Two mares gave birth to normal full-term live foals. One mare developed posterior ataxia soon after grazing on the pasture and aborted. The 11-year-old stallion involved had bred approximately 200 mares previously, with no abnormal foals among the offspring.

PAGE 16

- 1396R-68  
MAGNESIUM DEFICIENCY SYNDROMES.  
W A Rader  
49(4):69-71 REF  
Apr 1968 41.R N812  
Cattle, Oeficiency diseases, Magnesium.
- 13969-6R  
INCIDENCE OF LISTERIOSIS IN PENNSYLVANIA LIVESTOCK.  
J C Schwartz  
Amer Vet Med Ass J 151(11):1435-1437 MAP, REF  
01 Dec 1967 41.R AM3  
Cattle, Goats, Leptospirosis, Listeria monocytogenes,  
Listeriosis, livestock, Poultry, Rabbits, Swine.  
Abstract: Present laboratory records of animal cases of  
listeriosis represent mainly those cases within easy  
reach of the diagnostic laboratory. Of the 13 states and  
Ontario in the Northeastern Conference on Avian  
Diseases, Pennsylvania has reported most of the  
listeric infections in poultry.
- 13970-68  
BLASTOMYCOSIS WITH SECONDARY AMYLOIDOSIS IN THE DOG.  
R F Sherwood J C LeMay R A Castellanos  
Amer Vet Med Ass J 150(11):1377-1381 REF  
01 Jan 1967 41.8 AM3  
Amyloidosis, Animal histology, Autopsies, Blastomycosis, Oogs.  
Abstract: Pulmonary blastomycosis with secondary amyloido-  
sis of kidneys, liver, and spleen resulted in death of a  
dog. These diseases were diagnosed on postmortem examina-  
tion. Gross pathology finding showed enlarged lymph nodes  
at the base of the heart. Microscopically, large numbers of  
Blastomyces were seen in lungs, and mediastinal and ab-  
dominal lymph nodes. Amyloid depositions were found in the  
kidneys, liver, and spleen.
- 13971-68  
STUDIES ON THE ANTIGENIC STRUCTURE OF MYCOBACTERIA. II.  
ANTIGENIC STRUCTURE AND LIPOID FRACTIONS OF MYCOBACTERIUM  
AVIUM AND AVIUM-LIKE STRAINS.  
S Tubcly  
Acta Microbiol 14(4):317-322 REF  
1967 44.8 AC64  
Antigens, Lipids, Mycobacterium avium.  
Abstract
- 13972-68  
NOTICE OF WITHDRAWAL OF PETITION FOR FOOD ADDITIVES  
DIMETRIDAZOLE, RESERPINE.  
Fed Regist 33(121):921R  
21 Jun 1968 L1.451  
Blackhead, Dimetridazole, Feed additives, Reserpine, Turkeys.
- 13973-68  
NOTICE OF FILING OF PETITION FOR FOOD ADDITIVES  
CHLORTETRACYCLINE, PENICILLIN, SULFAMETHAZINE.  
Fed Regist 33(112):8513  
08 Jun 1968 L1.451  
Chlortetracycline, Feed additives, Penicillin, Sulfamethazine,  
Swine.
- 13974-68  
THE SEROLOGICAL RELATIONSHIP OF SOUTH AFRICAN BOVINE  
ENTEROVIRUS STRAINS (ECBO SA-I AND -II), AND THE GROWTH  
CHARACTERISTICS IN CELL CULTURE OF THE PROTOTYPE STRAIN  
(ECRO SA-I).  
D W Verwoerd R A Cellermann J Broekman K E Weiss  
Onderstepoort J Vet Res 34(1):41-52 REF  
Apr 1967 41.8 OM1  
Bovine enteroviruses, Cattle, Radioactive tracers,  
Serological tests.  
Abstract: the virus from cattle belongs to Weybridge sero-  
type 134. Growth characteristics were studied. Its repli-  
cative cycle and effect on host cell metabolism, using  
isotope-labelling technics, resemble other enteroviruses.  
Inhibitors of cellular RNA and protein synthesis are pro-  
duced normally even if virus is blocked by guanidine.
- 13975-68  
ISOLATION OF STREPTOCOCCUS EQUI FROM BURROS.  
W G Wiscup C Schroder N P Page  
Amer Vet Med Ass J 150(3):303-306 REF  
01 Feb 1967 41.8 AM3  
Abdomen, Asses, Livestock diseases, Lymph nodes,  
Streptococcus equi.  
Abstract: A slowly developing debilitating disease had  
lesions with caseation and calcification of the abdominal  
lymph glands. Streptococcus equi was routinely isolated  
from lesions. Several screening methods were evaluated.  
Culturing S. equi from nares exndate appeared reliable.
- The clinical syndrome and lesions associated with S. equi  
infection is different in burros than that (strangles) seen  
in horses.
- 13976-68  
ACUTE INFECTIOUS BOVINE RHINOTRACHEITIS AND SALMONELLOSIS  
IN A DAIRY HERD.  
G T Woods L E Hanson G H Swenson H E Rhoades  
Amer Vet Med Ass J 152(10):1530-1535 REF  
15 May 1968 41.8 AM3  
Antibodies, Cattle, Feces, Feed supplements, Milk,  
Rhinotracheitis, Salmonella typhimurium, Salmonellosis.  
Abstract: Infectious bovine rhinotracheitis (IBR) and  
Salmonella typhimurium infection occurred in 75 dairy  
cattle; 11 cows died and 12 aborted. The combination of the  
2 diseases was characterized by rapid onset, decreased  
milk production, profuse diarrhea, abortion, and death.  
Salmonella typhimurium was isolated from a dairy feed  
supplement, a bulk milk sample, and from rectal samples.  
Infectious bovine rhinotracheitis was diagnosed by a rise  
in antibody titer. Necropsy findings in a cow consisted  
primarily of ulcerations of the omasum and abomasum.

## Arthropods

- 13977-6R  
SOME NOTES ON PLEAS (SIPHONAPTERA) OF DOMESTIC ANIMALS IN  
NORTHERN TANZANIA (EAST AFRICA).  
J E Cooper  
Entomologist (London) 101(1257):43-46 REF  
Feb 1968 421 EN8  
Ctenocephalides canis, Ctenocephalides felis,  
Dipylidium caninum, Echinophaga gallinacea, Livestock,  
Parasitic insects, Pulex irritans, Tunga penetrans, Wildlife.
- 13978-68  
INSECTICIDES FOR CONTROL OF THE CATTLE TICK AND THE  
SOUTHERN CATTLE TICK ON CATTLE.  
R O Drummond S E Ernst J L Trevino O H Graham  
J Econ Entomol 61(2):467-470  
Apr 1968 421 J822  
Roophilus annulatus, Roophilus microplus, Cattle,  
Chemical control (insects), Insecticides.  
Abstract
- 13979-68  
CATTLE GRUB CONTROL BY DUST BAG APPLICATION OF COUMAPHOS  
IN SUMMER.  
J G Matthyse J E Lloyd J P Rutler K Tillapaugh  
J Econ Entomol 61(1):311-312  
Feb 1968 421 J822  
Butyl-2-chlorophenyl methyl methylphosphoramide, 4-tert-  
Cattle, Coumaphos, Dusting, Penthion, Hypoderma havis,  
Hypoderma lineatum.
- 13980-68  
FIELD TEST TO DETERMINE THE EFFECTIVENESS OF COUMAPHOS AS  
A FEED ADDITIVE TO CONTROL HOUSE FLY LARVA UNDER CAGED  
LAYERS.  
J S Simco J L Lancaster Jr  
J Econ Entomol 59(3):671-672  
Jun 1966 421 J822  
Caged layers, Coumaphos, Feed additives, Larvae, Larvicides,  
Musca domestica, Poultry, Systemic insecticides.

## Parasites

- 13981-68  
NEMATODIRUS OF DOMESTIC SHEEP, OVIS ARIES, IN THE UNITED  
STATES WITH A KEY TO THE SPECIES.  
W W Becklund M L Walker  
J Parasitol 53(4):777-781 REF  
Aug 1967 448.R J824  
Nematodirus, Sheep, Taxonomy.



30 13982-6B

## Abstract

13982-68

THE METABOLISM OF RADIOACTIVE FUMARIC ACID AND SOME OTHER SUBSTRATES BY WHOLE ADULT ECHINOCOCCUS GRANULOSUS (CESTODA).

C Bryaut D J Morseth  
 Compar Biochem Physiol 25(2):541-546 BEF  
 May 1968 444.8 C73

Carbon isotopes, Echinococcus granulosus, Fumaric acid, Metabolism, Radioactive tracers.

Abstract: The uptake of fumarate by adult Echinococcus granulosus does not conform to the model of transport based on the Michaelis-Menten theory. Fumarate is converted mainly to succinate, malate and alanine, which are formed in disproportionate amounts at high fumarate concentrations. Metabolic pathways, determined by the utilization of radioactive substrates, are similar to those described in the protozoa by other workers.

13983-68

THE ULTRASTRUCTURE OF THE ALIMENTARY TRACT OF THE SKIN-PENETRATING LARVA OF NIPPOSTRONGYLUS BRASILIENSIS (NEMATODA).

D L Lee  
 J Zool 154(1):9-18 BEF

Jau 1968 410.9 L84P  
 Cytology, Gastrointestinal system, Nematodes, Nippostrongylus brasiliensis.

Abstract: The structure of the alimentary tract of the third stage infective larva of Nippostrongylus brasiliensis has been described. The cuticle which lines the buccalcavity and oesophagus differs from that which lines the mouth and covers the external surface of the nematode. The oesophagus is a cellular structure and is not, as previously thought, a syncytium. The secretory granules of the oesophageal glands are surrounded by a multi-layered membrane which gives a myelinated appearance to the granules. The cells of the oesophago-intestinal junction are lined with cuticle and are presumably part of the stomodaeum. The intestine is thin walled and the cells bear short, widely spaced microvilli. The lumen of the intestine contains whorls of membranes which are probably phospholipid and could act as a food reserve for the larva. The rectum and anus are lined with cuticle.

13984-68

A COMPARATIVE STUDY OF THIAZENDAZOLE AND PHENOTHIAZINE AS ANTHELMINTICS FOR THE GASTROINTESTINAL NEMATODES OF THE GOAT.

A M M A Qadir  
 Ceylon Vet J 15(1):14-17  
 Mar 1967 41.8 C33

Anthelmintics, Gastrointestinal system, Goats, Nematodes, Phenothiazine, Thiazolyl-benzimidazole, 2-(4-, Thiazolyl)-benzimidazole, 2-(4-.

Abstract

13985-68

ECONOMIC LOSSES DUE TO PARASITIC DISEASES OF LIVESTOCK IN CEYLON.

F Seneviratna  
 Ceylon Vet J 15(1):5-8  
 Mar 1967 41.8 C33  
 Livestock, Parasitism.

## 40 COMMODITY PROTECTION

## Arthropods

13986-68

LABORATORY TESTS WITH DICHLOBVOS APPLIED AS A WHEAT PROTECTANT AGAINST RICE WEEVILS.

R L Kirkpatrick P K Hareju C V Cooper  
 J Econ Entomol 61(2):356-358  
 Apr 1968 421 J822

Chemical control (insects), Dichlorvos, Sitophilus oryzae, Stored products, Wheat.  
 Abstract

## Microbial Contamination

13987-68

COCONUT AND SALMONELLA INFECTION.

C P Schaffner K Mosbach V C Bibit C H Watson  
 Appl Microbiol 15(3):471-475, BEF  
 May 1967 448.3 AP5

Coconuts, Food contamination, Salmonella, Soil bacteria. Salmonella in soil contaminate raw, unprocessed coconuts. Pasteurization at 80 degrees C for 8-10 minutes kills the bacteria.



## 50 ENVIRONMENTAL CONTAMINATION

- 13988-68  
INITIAL SOIL PENETRATION BY INSECTICIDE EMULSIONS USED FOR  
SUBTERRANEAN TERMITES CONTROL.  
R R Beal F L Carter  
J Econ Entomol 61(2):380-383  
Apr 1968 421 J822  
Chlordane, Dieldrin, Emulsions, Heptachlor, Insecticides,  
Soil permeability, Termites.  
Abstract
- 13989-68  
THE EFFECT OF SIMAZINE ON SOIL MICROORGANISMS. (POL)  
D Kulinska  
Bocz Nank Roln 93(2):229-262 REF  
1967 20.5 B59  
Herbicides, Simazine, Soil microorganisms.  
English abstract  
Abstract
- 13990-68  
VIRUS--ROST SYSTEM FOR USE IN THE STUDY OF VIRUS REMOVAL.  
M S Shane S R Wilson C R Fries  
Amer Water Works Ass J 59(9):1184-1186 REF  
Sep 1967 292.9 AH32J  
Biological assay, Chlorine, Viruses, Water pollution,  
Water treatment.

## 55 RESIDUES

- 13991-68  
RESIDUE OF BENSULIDE IN TURFGRASS SOIL FOLLOWING ANNUAL  
TREATMENTS FOR CRABGRASS CONTROL.  
S W Ringbaw R E Schmidt  
Agron J 59(4):327-329 REF  
Jul 1967 4 AH34F  
Agrostis, Bensulide, Biological assay,  
Chemical control (weeds), Digitaria sanguinalis,  
Herbicide residues, Milo, Soil contamination, Soil properties,  
Turf.  
Abstract: A series of experiments was used to evaluate  
bensulide treatments in terms of crabgrass control, soil  
residue, leaching and effect on seedling establishment.  
Annual treatments gave continuous preemergence control of  
crabgrass in bentgrass turf. The turfgrass vigor was im-  
proved. Bensulide residue in soil was determined by  
measuring the root growth of milo.
- 13992-68  
THE SUSCEPTIBILITY OF HOUSE FLIES REARED UNDER VARIOUS PHOTO-  
PERIODS TO INSECTICIDE RESIDUES.  
A T Fernandez N M Randolpb  
J Econ Entomol 59(11):37-39  
Feb 1966 421 J822  
Insect rearing, Insecticide residues, Musca domestica,  
Photoperiodism.
- 13993-68  
PERSISTENCE AND BIOLOGICAL EFFECTS OF PARATHION RESIDUES  
IN WATERPOWL HABITATS.  
M S Nulla J O Keith F A Gunther  
J Econ Entomol 59(5):1085-1090  
Oct 1966 421 J822  
Aquatic birds, Habitats, Parathion, Rana catesbeiana Shaw.
- 13994-68  
STUDIES ON THE ADSORPTION OF ARSENITES BY A FEW TYPICAL  
INDIAN SOILS.  
D K Sundd O P Bansal  
Indian J Appl Chem 29(1):23-26  
1966 385 IN293  
Adsorption, Arsenites, Calcium, Insecticide residues, Ions,  
Magnesium, Sesquioxides, Soil contamination, Soils.  
Abstract: Adsorption influenced by sesquioxides, clay, and  
amount of exchangeable Ca and Mg cations in the soil.
- 13995-68  
NOTICE OF FILING OF PETITION REGARDING PESTICIDE CHEMICALS.  
Fed Regist 33(118):8856  
18 Jun 1968 L1.451  
Barley, Beans, Hay, Insecticide residues, Peanuts,  
Pesticide analysis, Phosphate, Straw, Tomatoes.
- 13996-68  
TOLERANCES AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE  
CHEMICALS IN OR ON RAW AGRICULTURAL COMMODITIES.  
1-METHOXYCARBONYL-1-PROPEN-2-YL DIMETHYLPHOSPHATE AND ITS  
BETA ISOMER.  
Fed Regist 33(121):9166-9167  
21 Jun 1968 L1.451  
Agricultural products, Insecticide residues, Isomers,  
Mevinphos, Tolerances.
- 13997-68  
FOOD ADDITIVES PERMITTED IN FOOD FOR HUMAN CONSUMPTION.  
1-METHOXYCARBONYL-1-PROPEN-2-YL DIMETHYLPHOSPHATE AND ITS  
BETA ISOMER.  
Fed Regist 33(120):9071  
20 Jun 1968 L1.451  
Insecticide residues, Isomers, Mevinphos, Parsley, Tolerances.
- 13998-68  
TOLERANCES AND EXEMPTIONS FROM TOLERANCES FOR PESTICIDE  
CHEMICALS IN OR ON RAW AGRICULTURAL COMMODITIES. DELETION  
OF REQUIREMENT TO ANALYZE CARROT TOPS FOR PESTICIDE  
RESIDUES.  
Fed Regist 33(118):8816  
18 Jun 1968 L1.451  
Carrots, Pesticide residues, Regulation (pesticides).

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NOTICE OF FILING OF PETITION REGARDING PESTICIDE CHEMICALS.  
Fed Regist 33(118):8857  
18 Jun 1968 L1.451  
Dicamba, Grasses, Hay, Herbicide residues, Metabolites,  
Pesticide analysis.

## 60 TOXICOLOGY

14000-68

LABORATORY EVALUATION OF PROMISING SYSTEMIC INSECTICIDES IN  
GUINEA PIGS AGAINST ORIENTAL RAT FLEAS.  
P H Clark M M Cole  
J Econ Entomol 58(1):83-87  
Feb 1965 421 J822  
Guinea pigs, Insecticides, Xenopsylla cheopis.

14001-68

TOXICITY STUDIES ON CYCLODIENE-SUSCEPTIBLE AND CYCLODIENE  
RESISTANT STRAINS OF THE CABBAGE MAGGOT.  
C R Harris J L Hitchon  
J Econ Entomol 59(3):650-654  
Jun 1966 421 J822  
Hylemya brassicae, Resistance, Susceptibility.

14002-68

THE EFFECT OF WARFARIN ON PLASMA CLOTTING TIME IN WILD BOUSE  
MICE (MUS MUSCULUS L.).  
P P Rowe R Redfern  
J Hyg 66(1):159-174 REP  
Mar 1968 449.8 J82  
Bishydroxycoumarin, Blood coagulation, Mice, Rodenticides,  
Warfarin.

14003-68

REPULSION OF GREEN SUNFISH BY CERTAIN CHEMICALS.  
R C Summerfelt W M Lewis  
Water Pollut Contr Fed J 39(12):2D30-2038 REP  
Dec 1967 293.8 SE8  
Chemicals, Fish, Insect repellents, Insecticides, Pesticides.

## 65 PLANT PHYSIOLOGY AND BIOCHEMISTRY

- Soil microorganisms, Trichoderma.
- 14011-68  
SALINITY TOLERANCE OF SEVEN VARIETIES OF CREEPING BENTGRASS,  
AGROSTIS PALUSTRIS HUDS.  
V B Youngner O R Lunt F Nudge  
Agron J 59(4):335-336 REF  
Jul 1967 4 AM34P  
Agrostis palustris, Calcium chloride, Crop varieties,  
Hydroponics, Sodium chloride, Turf.  
Abstract: Significant differences were observed for salinity tolerance among creeping bentgrass varieties grown in solution cultures. Top growth of all varieties decreased with increased salinity.
- 14004-68  
ERGOTAMINE PRODUCTION IN SUBMERGED CULTURE AND PHYSIOLOGY OF CLAVICEPS PURPUREA.  
A M Amici A Minghetti T Scotti C Spalla L Tognoli  
Appl Microbiol 15(3):597-602 REF  
May 1968 448.3 AP5  
Claviceps purpurea, Culture media, Ergotamine, Plant biochemistry, Plant physiology.  
A strain producing large amounts of peptide alkaloids was compared with three producing little. The first could also accumulate lipids and sterols, used much sucrose and citric acid simultaneously, but the others used sucrose or citric acid in quantities, or a little of both.
- 14005-68  
FACTORS IN PARAQUAT-INDUCED CHLOROSIS WITH PHASEOLUS FOLIAR TISSUES.  
D L Barnes J Q Lynd  
Agron J 59(4):364-366 REF  
Jul 1967 4 AM34P  
Beans, Biological assay, Chlorosis (plants), Light, Paraquat, Plant injuries, Temperature.  
Abstract: Relative phytotoxicity was determined by varying herbicide levels from 0 to 1.0 ppm ai with light intensity, temperature and reaction time. Reduction of extractable chlorophyll was closely related to increased paraquat concentrations. Increased time, temperature and light intensity accelerated chlorosis.
- 14006-68  
INTERACTION EFFECTS OF ATRAZINE AND CDAA, LINURON, AMIBEN, OR TRIFLURALIN ON SOYBEAN GROWTH.  
W G Espinoza R S Adams R Behrens  
Agron J 60(2):183-185  
Mar 1968 4 AM34P  
Amiben, Atrazine, Chloro-N,N-diallylacetamide, 2-, Herbicides, Linnuron, Plant injuries, Soybeans, Trifluralin.
- 14007-68  
ACCUMULATION OF SODIUM AND CALCIUM BY SEEDLINGS OF SOME CEREAL CROPS UNDER SALINE CONDITIONS.  
L Y George  
Agron J 59(4):297-299 REF  
Jul 1967 4 AM34P  
Barley, Calcium, Grain, Ions, Photometry, Plant biochemistry, Rice, Saline soils, Sodium, Wheat.  
Abstract: Rice accumulated more Na and Ca in both shoots and roots than either barley or wheat. Wheat accumulated more Na and less Ca shoots than barley whereas the roots have less Na and more Ca than barley.
- 14008-68  
PLANT UPTAKE OF 14C-DIURON IN MODIFIED SOIL.  
R G Rash  
Agron J 60(2):177-179 REF  
Mar 1968 4 AM34P  
Absorption, Chromatography, Clay soils, Diuron, Herbicides, Hydrogen-ion concentration, Metabolites, Oats, Plant translocation, Soil organic matter, Soil structure, Soil temperature.
- 14009-68  
PAPER CHROMATOGRAPHIC ANALYSIS AS A NEW TEST METHOD OF BACTERICIDAL SUBSTANCES IN PLANT EXTRACTS AND POSSIBLE RELATIONS OF THESE SUBSTANCES TO PLANT GROWTH INHIBITORS.  
(62  
B Soding K Dorffling  
Arch Mikrobiol 60(2):182-200 REF  
1968 442.8 AR26  
Chromatography, Peas, Plant extracts, Platanns, Serratia marcescens, Sunflowers.  
English and German summaries.
- 14010-68  
SOIL MICROBIAL DEGRADATION OF ALDRIN.  
C M In J R W Hiles C R Harris  
Life Sci 7(6):311-322 REF  
15 Mar 1968 442.8 L62  
Aldrin, Fusarin, Fenicillin, Plant metabolism,



## 70 CHEMISTRY

- 14012-68  
BEHAVIOR OF SYNTHETIC ORGANICS IN STRATIFIED IMPOUNDMENTS.  
J DeMarco J M Symons G G Boleck  
Amer Water Works Ass J 59(B):965-976 REF  
Aug 1967 292.9 AM32J  
Aquatic bacteria, Biochemistry, D, 2,4-, Detergents,  
Herbicide residues, Reservoirs, Water pollution.
- 14013-68  
INSECT SEX ATTRACTANTS. IX. CHEMICAL CONVERSION OF THE SEX  
ATTRACTANT OF THE CABBAGE LOOPER TO THE SEX PHEROMONE OF THE  
PALL ARMYWORM.  
M Jacobson C Harding  
J Econ Entomol 61(2):394-396  
Apr 1968 421 J822  
Hormones, Sex attractants, Spodoptera frugiperda, Synthesis,  
Trichoplusia ni.  
Abstract
- 14014-68  
BOLL WEEVIL SEX ATTRACTANT: ISOLATION STUDIES.  
J H Thelmsen D D Hardee J F Minyard A C Thompson R T Gast  
J Econ Entomol 61(2):470-474 REF  
Apr 1968 421 J822  
Absorption, Anthonomus grandis, Biological assay,  
Chromatography, Distillation, Sex attractants.  
Abstract
- 14015-68  
SYNTHESIS OF S35-((METHYLTHIO)ARYL) PHOSPHOTHIOLATES.  
S Y Yung A Begum R S Berger  
J Econ Entomol 61(2):569-570  
Apr 1968 421 J822  
Phosphorothioic acid esters, Radioactive tracers,  
Sulfur isotopes, Synthesis.

## 80 ENGINEERING

- 14016-68  
ATOMIZATION OF LOW-VOLUME MALATHION AERIAL SPRAY.  
D A Isler  
J Econ Entomol  
Jan 1966 421 J822  
Aerial spraying, Atomization, Malathion.
- 14017-68  
A METHOD OF RECOVERING EGGS OF THE WESTERN CORN ROOTWORM  
FROM THE SOIL.  
D E Lawson C T Weekman  
J Econ Entomol 59(3):657-659  
Jan 1966 421 J822  
Diabrotica virgifera, Eggs, Insect collecting equipment.
- 14018-68  
A DINITROBENZYLATING GRANULAR INSECTICIDES.  
M S Mulla  
Mosquito News 27(2):199-201 REF  
Jan 1967 421 H85  
Equipment, Insecticides.

## SUBJECT INDEX

## ANOPHELES COLICIFACIES

- ABDOMEN**  
Isolation of *Streptococcus equi* from burros. 13975
- ABNORMALITIES**  
Tetralogy of Fallot in the dog. 13952
- ABSORPTION**  
Plant uptake of <sup>14</sup>C-diuron in modified soil. 14008  
Boll weevil sex attractant: isolation studies. 14014
- AEBETA DOMESTICUS**  
The secretory activity of corpora allata during sexual maturation and imaginal diapause in *Gryllus domesticus* L and *Leptinotarsa decemlineata* Say. 13767
- ACBROMOFACIES NEMATOPHILUS**  
The nature of *Achromobacter nematophilus* as an insect pathogen. 13838
- ACYBTBOSIFROM PISUM**  
Effects of chemosterilants and growth regulators on the pea aphid fed an artificial diet. 13769
- ADSOBFTION**  
Studies on the adsorption of arsenites by a few typical Indian soils. 13994
- AEDES AEGYPTI**  
Research notes on *Aedes aegypti* feeding on the Eastern Garter snake *Thamnophis sirtalis sirtalis*. 13741  
Dynamics of *Aedes aegypti* distribution and density. seasonal fluctuations in the Americas. 13752  
Preliminary report on soluble antigen fluorescent antibody technique for identification of host source of mosquito blood meals. 13789  
Response of the yellow-fever mosquito to varying areas of human skin. 13814  
Uptake of E32 by yellow-fever mosquito larvae of equal age, and those pupating synchronously: its loss and transfer during development, mating, and oviposition. 13841  
Yellow fever mosquitoes. in: Smith, C. N. insect colonization and mass production. GL497.56. 13882  
Evaluation of fenthion and Baygon mixtures for control of adult *Aedes aegypti* (L.) when applied as thermal-fog. 13888
- AEDES CANADENSIS**  
A new Maryland record of *Thelohania* (Nosematidae: Microsporidia). 13711
- AEDES VEXANS**  
Predicting influxes of *Aedes vexans* into urban areas. 13718
- AEGYPTOCOCCUS**  
*Aegyptococcus*, a new genus for *inermis* of Hall (Hymoptera: Coccoidea-Pseudococcidae). 13723
- AERIAL INSECT CONTROL**  
Mutilation and survival of sterile oriental fruit flies and melon flies emerging in drop boxes. 13802
- AERIAL SPRAYING**  
Aerial application of insecticides for control of alfalfa weevil. 13834  
The present status of low volume (LV) air sprays for California mosquito control. 13872  
Atomization of low-volume malathion aerial spray. 14016
- AEROSOLS**  
Sterilization of codling moth by aerosol treatment with tepa. 13803
- AFLATOXIN**  
Biochemical and pathological effects of aflatoxin poisoning in ducklings. 13961
- AGRICULTURAL PRODUCTS**  
Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. 1-methoxycarbonyl-1-propen-2-yl dimethylphosphate and its beta isomer. 13996
- AGROPTYBON SMITHI**  
*Athysanella attenuata* and a closely related new species from Kansas (Homoptera: Cicadellidae). 13713
- AGROSTIS**  
Residue of bensulide in turfgrass soil following annual treatments for crabgrass control. 13991
- AGROSTIS PALUSTRIS**  
Salinity tolerance of seven varieties of creeping bentgrass, *Agrostis palustris* Huds. 14011
- ALABAMA AEGILLACEA**  
Sex pheromone of the cotton leafworm. 13909
- ALBINISM**  
Heritable albinism in *Sphacelotheca reiliana*. 13896
- ALCOHOLS**  
Effect of alcohols on spores of *Sclerotinia fructicola* and other peach fruit-rotting fungi in California. 13901
- ALDRIN**  
Soil microbial degradation of aldrin. 14010
- ALFALFA**  
A soil population study of *Ditylenchus dipsaci* (Kuhn) Filipjev in an alfalfa field. 13941  
Herbicides or oat companion crops for alfalfa establishment and forage yields. 13946
- AMIBEN**  
Interaction effects of atrazine and CDAA, linuron, amiben, or trifluralin on soybean growth. 14006
- AMINES**  
Ovicidal activity of aliphatic amines and petroleum oil against two species of mosquitoes. 13883
- AMINO ACIDS**  
Free amino acids and derivatives in eggs of *Drosophila*, *Culex* and *Phormia*. 13777  
The free amino acids in the haemolymph of the maturing adult boll weevil, *Anthonomus grandis* Boheman. 13830
- AMINO COMPOUNDS**  
Free amino acids and derivatives in eggs of *Drosophila*, *Culex* and *Phormia*. 13777
- AMYLOIDOSIS**  
Blastomycosis with secondary amyloidosis in the dog. 13970
- ANEMIA**  
Increased susceptibility to bacterial endotoxin of pigs with iron-deficiency anemia. 13965
- ANIMAL DISEASES**  
Literature references to mosquitoes and mosquito-borne diseases. 13890
- ANIMAL ECOLOGY**  
Studies on the moss mites of *Snowdonia* (Acari: Oribatei). 1. Moel Hebog. 13749
- ANIMAL HISTOLOGY**  
Urethroadenocystitis in the male cat. 13963  
Blastomycosis with secondary amyloidosis in the dog. 13970
- ANIMAL NUTRITION**  
Factors affecting the development of nutritional muscular dystrophy in northern Ontario. 13958
- ANKYLOSIS**  
Fetal ankylosis in horses associated with hybrid Sudan pasture. 13967
- ANOPHELES**  
Summary of recent abstracts. III. malaria. 13875
- ANOPHELES ALBIMANUS**  
Ovicidal activity of aliphatic amines and petroleum oil against two species of mosquitoes. 13883
- ANOPHELES COLICIFACIES**  
Susceptibility studies on *Anopheles colicifacies* with DDT and dieldrin in Gujarat State, India. 13887

SUBJECT INDEX

ANOPHELES EARLEI

- ANOPHELES EARLEI  
Anopheles earlei Vargas, an addition to the checklist of New Jersey mosquitoes. 13719 1. blood smear from the adult. 13859
- ANOPHELES QUADRIMACULATUS  
Preliminary report on soluble antigen fluorescent antibody technique for identification of host source of mosquito blood meals. 13789 The inheritance of abdominal coloration in the Carnio-Egyptian honeybee hybrid (Hymenoptera: Apidae). 13865
- ANOPHELES STEPHENSI  
Anopheles stephensi Liston in Egypt, UAR. 13724
- ANTHELMINTICS  
A comparative study of thiabendazole and phenothiazine as anthelmintics for the gastrointestinal nematodes of the goat. 13984
- ANTHONOMUS GRANDIS  
Cholinesterase in boll weevils, Anthonomus grandis Boheman. I. Distribution and some properties of the crude enzyme. 13772
- The free amino acids in the haemolymph of the maturing adult boll weevil, Anthonomus grandis Boheman. 13830
- Toxicity of five carbamate insecticides to the two-spotted spider mite and larvae of the southern armyworm and tobacco budworm. 13862
- Populations of boll weevil in selected fields in Arizona in 1965 and 1966. 13916
- Boll weevil sex attractant: isolation studies. 14014
- ANTIBIOTICS  
Further studies of effects of antibiotics and other compounds on fecundity and mortality of the two-spotted spider mite. 13801
- Systemic candidiasis in calves on prolonged antibiotic therapy. 13964
- ANTIBODIES  
Acute infectious bovine rhinotracheitis and Salmonellosis in a dairy herd. 13976
- ANTIGENS  
Preliminary report on soluble antigen fluorescent antibody technique for identification of host source of mosquito blood meals. 13789
- The production of a basic immunity against pulp kidney disease. 13959
- Studies on the antigenic structure of mycobacteria. II. antigenic structure and lipid fractions of Mycobacterium avium and avium-like strains. 13971
- APHIDIDAE  
On alpine rose- and grass-infesting species of Metopolophium Moravilko, 1914, with descriptions of two new species (Homoptera, Aphididae). 13730
- A lightweight, weather-resistant field insect cage. 13837
- Chromosomes of the aphid genus Dactynotus (Homoptera). 13870
- A new salix-infesting Chaitophorus from Saskatchewan (Homoptera: Aphididae). 13930
- APHIS FABAE  
The spray warning scheme for control of sugar beet yellows in England; summary of results between 1959-66. 13897
- APHOLATE  
Histochemical effects of apholate on the reproductive organs of southern corn rootworm. 13828
- Fertility of eggs of Mexican bean beetles from females mated alternately with normal and apholate-treated males. 13858
- Suppression of populations of Drosophila melanogaster in tomato field plots with chemosterilant baits. 13924
- APIS MELLIFERA  
In vitro phagocytosis of Nosema apis spores by honey-bee hemocytes. 13725
- Studies of the hemolymph of the bee (Apis mellifica L.).
- APPLES  
A comparison of the toxicity of various carbamate, organophosphorus and organochlorine compounds to the codling moth SB951.G7. 13793
- Influence of the proportion of fruiting to non-fruiting clusters on the distribution of insect predators on apple trees. 13824
- Influence of photoperiod, temperature, and food on initiation of diapause in the apple maggot. 13840
- AQUATIC BACTERIA  
Behavior of synthetic organics in stratified impoundments. 14012
- AQUATIC BIRDS  
Persistence and biological effects of parathion residues in waterfowl habitats. 13993
- ARACHNIDA  
A new species of the pseudoscorpion genus Parobisium from Utah (Arachnida, Chelonethida, Neobisiidae). 13738
- ARCTIIDAE  
The cinnabar moth, Tyria jacobaeae, for control of tansy ragwort. 13945
- ARSENITES  
Studies on the adsorption of arsenites by a few typical Indian soils. 13994
- ASCARIDIA GALLI  
Effect of levels of calcium and lysine upon the growth of Ascaridia galli in chicks. 13953
- ASCOCHYTA  
Fungi associated with Purple Patch of subterranean clover in western Australia. 13905
- ASPERGILLUS  
Fungi associated with Purple Patch of subterranean clover in western Australia. 13905
- ASSES  
Isolation of Streptococcus equi from burros. 13975
- ASTALA CONFEDERATA  
A new Ateleute from the United States (Hymenoptera: Ichneumonidae). 13853
- ATELEUTE CAROLINA  
A new Ateleute from the United States (Hymenoptera: Ichneumonidae). 13853
- ATHYSANELLA ATTENUATA  
Athysanella attenuata and a closely related new species from Kansas (Homoptera: Cicadellidae). 13713
- ATHYSANELLA REDACTA  
Athysanella attenuata and a closely related new species from Kansas (Homoptera: Cicadellidae). 13713
- ATMOSPHERE  
Respiratory environments of grain-infesting weevils. I. comparison of culture-jar and laboratory rearing-room atmospheres. 13861
- ATOMIZATION  
Atomization of low-volume malathion aerial spray. 14016
- ATRAZINE  
Interaction effects of atrazine and CDAA, linuron, amiben, or trifluralin on soybean growth. 14006
- ATTRACTANTS  
Male pheromones of Culex quinquefasciatus, C. tarsalis, and C. pipiens that attract females of these species. 13791
- Metal hose simplifies bird bait application. 13947
- AUTOGRAPHIA BILOBA  
Specificity of the cabbage looper sex attractant. 13768



SOBJECT INDEX

BLACKHEAO

<b>AUTOGRAPHIA CALIFORNICA</b>		<b>BIOCHEMISTRY</b>	
Temperature-induced wing malformation in alfalfa loopers and variegated cutworms.	13848	Cholinesterase in boll weevils, <i>Anthonomus grandis</i> Boheman. I. Distribution and some properties of the crude enzyme.	13772
<b>AUTOPSIES</b>		Conjugation of 1-naphtbol and p-nitrophenol in flies: formation of glucoside-6-phosphates.	13805
Blastomycosis with secondary amyloidosis in the dog.	13970	Seasonal lipid content of bagworm larvae.	13806
<b>AZARIBIONE, 6-</b>		Isolation of a sex pheromone of the European corn borer.	13816
Effect of 6-azauridine on the development of the ovaries in the house fly <i>Musca domestica</i> L. (Diptera).	13844	Histochemical effects of apholate on the reproductive organs of southern corn rootworm.	13828
<b>BABY PIGS</b>		Effect of 6-azauridine on the development of the ovaries in the house fly <i>Musca domestica</i> L. (Diptera).	13844
Increased susceptibility to bacterial endotoxin of pigs with iron-deficiency anemia.	13965	Site of viral RNA synthesis within the midgut cells of the silkworm, <i>Bombyx mori</i> , infected with cytoplasmic-polyhedrosis virus.	13857
<b>BACILLOS THURINGIENSIS</b>		Biochemical and pathological effects of aflatoxin poisoning in ducklings.	13961
On the shape and structure of the crystal in two strains of <i>Bacillus thuringiensis</i> .	13795	Behavior of synthetic organics in stratified impoundments.	14012
<b>BACTERIA</b>		<b>BIOLOGICAL ASSAY</b>	
Bacterial endocarditis in a dog.	13960	Specificity of the cabbage looper sex attractant.	13768
<b>BACTERICIDES</b>		Synthetic chemical sex stimulants for codling moth.	13773
Antimicrobial effect of cocoa on salmonellae.	13950	Isolation of a sex pheromone of the European corn borer.	13816
<b>BAITS</b>		Natural and synthetic materials with insect hormone activity. 3. juvenile hormone activity of derivatives of p-(1,5-dimethyl-hexyl) benzoic acid.	13849
Systemic insecticides for control of oriental rat fleas: bait tests with hooded white rats.	13778	Ecdysone and ecdysone-analogues: their assay and action on diapausing pupae of the cynthia silkworm.	13860
An evaluation of baits for cockroaches.	13829	Virus--host system for use in the study of virus removal.	13990
Suppression of populations of <i>Drosophila melanogaster</i> in tomato field plots with chemosterilant baits.	13924	Residue of bensulide in turfgrass soil following annual treatments for crabgrass control.	13991
Metal base simplifies bird bait application.	13947	Factors in paraquat-induced chlorosis with <i>Phaseolus foliar</i> tissues.	14005
<b>BARLEY</b>		Boll weevil sex attractant: isolation studies.	14014
Notice of filing of petition regarding pesticide chemicals.	13995	<b>BIOLOGICAL CONTROL (INSECTS)</b>	
Accumulation of sodium and calcium by seedlings of some cereal crops under saline conditions.	14007	Laboratory observations on certain mosquito larval predators.	13736
<b>BATS</b>		Field tests with a nuclear polybedral virus against the bollworm and tobacco budworm, 1964-1966.	13826
<i>Cimex hemipterus</i> (Fabr.) from bats in Colombia, South America (Hemiptera: Cimicidae).	13879	Manatees as a naturalistic biological mosquito control method.	13877
<b>BEANS</b>		<b>BIOLOGICAL CONTROL (WEEDS)</b>	
The stages of <i>Spanogonicus albofasciatus</i> and their development (Hemiptera: Miridae).	13832	Manatees as a naturalistic biological mosquito control method.	13877
Fertility of eggs of Mexican bean beetles from females mated alternately with normal and apholate-treated males.	13858	Screening of phytophagous insects for biological control of weeds.	13944
Notice of filing of petition regarding pesticide chemicals.	13995	The cinnabar moth, <i>Tyria jacobaeae</i> , for control of tansy ragwort.	13945
Factors in paraquat-induced chlorosis with <i>Phaseolus foliar</i> tissues.	14005	<b>BIRD CONTROL</b>	
<b>BEAUVERIA BASSIANA</b>		Metal base simplifies bird bait application.	13947
The effect of certain insecticides on the entomogenous fungi <i>Beauveria bassiana</i> and <i>Metarhizium anisopliae</i> .	13743	<b>BISHYDROXYCOUMARIN</b>	
<b>BEGONIA</b>		The effect of warfarin on plasma clotting time in wild house mice ( <i>Mus musculus</i> L.).	14002
A technique for isolating and maintaining cultures of <i>Meloidogyne</i> .	13940	<b>BLACKBERRIES</b>	
<b>BENEFICIAL INSECTS</b>		<i>Rubus</i> viruses and virus diseases. (Abstract).	13908
Screening of phytophagous insects for biological control of weeds.	13944	<b>BLACKHEAO</b>	
The cinnabar moth, <i>Tyria jacobaeae</i> , for control of tansy ragwort.	13945	Notice of withdrawal of petition for food additives dimetridazole, reserpine.	13972
<b>BENSULIDE</b>			
Residue of bensulide in turfgrass soil following annual treatments for crabgrass control.	13991		
<b>BENZENE BEXACHLORIDE</b>			
The effect of certain insecticides on the entomogenous fungi <i>Beauveria bassiana</i> and <i>Metarhizium anisopliae</i> .	13743		
<b>BIBLIOGRAPHY</b>			
Entomological bibliography of Baja California. z5859.m6T7.	13757		
Literature references to mosquitoes and mosquito-borne diseases.	13890		

SUBJECT INDEX

<b>BLASTOMYCOSIS</b>			
<b>BLASTOMYCOSIS</b> Blastomycosis with secondary amyloidosis in the dog.	13970	<b>BOTYL-2-CBLOBOPHENYL METHYL METHYLPHOSPHOBAMIDATE, 4-TEBT-</b> Cattle grub control by dust bag application of conmaphos in summer.	13979
<b>BLATTIDAE</b> Results of 1966 NFCA-SPONSORED research at VPI on cockroach control.	13794	<b>CABBAGE</b> Evaluation of systemic insecticides incorporated in the soil for control of lepidopterous larvae of cole crops in southern California.	13931
An evaluation of baits for cockroaches.	13829	<b>CAGED LAYERS</b> Field test to determine the effectiveness of conmaphos as a feed additive to control house fly larva under caged layers.	13980
The kind of cockroaches we find in North Carolina.	13864	<b>CALCIUM</b> Effect of levels of calcium and lysine upon the growth of <i>Ascaridia galli</i> in chicks.	13953
<b>BLISSUS IMSULABIS</b> Structure of organophosphorus compounds in relation to control of the southern chinch bug.	13813	Studies on the adsorption of arsenites by a few typical Indian soils.	13994
<b>BLOOD</b> Preliminary report on soluble antigen fluorescent antibody technique for identification of host source of mosquito blood meals.	13789	Accumulation of sodium and calcium by seedlings of some cereal crops under saline conditions.	14007
Blood meal size of <i>Leptoconops kerteszi</i> (Diptera: Ceratopogonidae).	13874	<b>CALCIUM CBLOBIDE</b> Salinity tolerance of seven varieties of creeping bentgrass, <i>Agrostis palustris</i> Huds.	14011
<b>BLOOD ANALYSIS</b> Blood concentration studies in cattle of a sustained-release form of sulfasethazine.	13955	<b>CALIFORNIA ENCEPHALITIS</b> Virus of the California encephalitis complex: isolation from <i>Culiseta inornata</i> .	13881
<b>BLOOD CELLS</b> In vitro phagocytosis of <i>Nosema apis</i> spores by honey-bee hemocytes.	13725	<b>CALLIPHORA VICINA</b> Development of the fat body in <i>Calliphora erythrocephala</i> Meig. larva.	13780
<b>BLOOD CHEMISTRY</b> The free amino acids in the haemolymph of the maturing adult boll weevil, <i>Anthonomus grandis</i> Boheman.	13830	Phototactic choice between two white light sources of various intensity in blowfly, <i>Calliphora erythrocephala</i> Meig.	13823
<b>BLOOD COAGULATION</b> The effect of warfarin on plasma clotting time in wild house mice ( <i>Mus musculus</i> L.).	14002	<b>CALVES</b> Factors affecting the development of nutritional muscular dystrophy in northern Ontario.	13958
<b>BLOOD PLASMA</b> Electrophoretic separation of the hemolymph proteins in the fall webworm, <i>Hyphantria cunea</i> , infected with a nuclear-polyhedrosis virus.	13856	Systemic candidiasis in calves on prolonged antibiotic therapy.	13964
Studies of the hemolymph of the bee ( <i>Apis mellifica</i> L.). 1. blood smear from the adult.	13859	<b>CANDIDA ALBICANS</b> Systemic candidiasis in calves on prolonged antibiotic therapy.	13964
<b>BOATS</b> A low cost airboat for use in mosquito control.	13892	<b>CAPNODIS TENEBRIONIS</b> New data to the biology of <i>Capnodis tenebrionis</i> L. (Coleoptera).	13843
<b>BOMBYX MORI</b> Immunofluorescence studies on <i>Bombyx mori</i> ovarian tissue cultures infected with nuclear-polyhedrosis virus.	13817	<b>CARBAMATES</b> A comparison of the toxicity of various carbamate, organophosphorus and organochlorine compounds to the codling moth SB951.G7.	13793
Development of resistance in the silkworm, <i>Bombyx mori</i> , to peroral infection of a cytoplasmic-polyhedrosis virus.	13855	Toxicity of five carbamate insecticides to the two-spotted spider mite and larvae of the southern armyworm and tobacco budworm.	13862
Site of viral RNA synthesis within the midgut cells of the silkworm, <i>Bombyx mori</i> , infected with cytoplasmic-polyhedrosis virus.	13857	<b>CABBABYL</b> Insecticidal control of <i>Marna testulalis</i> on cowpea in Nigeria.	13918
<b>BOOPHILUS ANNULATUS</b> Insecticides for control of the cattle tick and the southern cattle tick on cattle.	13978	<b>CARBON DIOXIDE</b> An improved carbon dioxide sticky cylinder trap.	13748
<b>BOOPHILUS MICROELUS</b> Insecticides for control of the cattle tick and the southern cattle tick on cattle.	13978	Respiratory environments of grain-infesting weevils. i. comparison of culture-jar and laboratory rearing-room atmospheres.	13861
<b>BOVINE ENTEROVIRUSES</b> The serological relationship of South African bovine enterovirus strains (ECBO SA-I and -II), and the growth characteristics in cell culture of the prototype strain (ECBO SA-I).	13974	<b>CARBON ISOTOPES</b> The metabolism of radioactive fumaric acid and some other substrates by whole adult <i>Echinococcus granulosus</i> (Cestoda).	13982
<b>BROCCOLI</b> Pulsed ultrasonic sound for control of oviposition by cabbage looper moths.	13835	<b>CARPOCAPSA POMONELLA</b> Synthetic chemical sex stimulants for codling moth.	13773
Evaluation of systemic insecticides incorporated in the soil for control of lepidopterous larvae of cole crops in southern California.	13931	A comparison of the toxicity of various carbamate, organophosphorus and organochlorine compounds to the codling moth SB951.G7.	13793
<b>BUSSEOLA FUSCA</b> Effect of varying populations of <i>Busseola fusca</i> larvae on the growth and yield of maize.	13934	Sterilization of codling moth by aerosol treatment with tepa.	13803

## SUBJECT INDEX

		CHEMICAL CONTROL (INSECTS)	
Laboratory and field cage studies of the effects of gamma radiaticn on cooling moths.	13804	Ceratopogonidae).	13874
<b>CARBOYS</b>		Colonization studies of <i>Leptoconops kerteszi</i> , biting gnats.	13889
Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. deletion of requirement to analyze carrot tops for pesticide residues.	13998	<b>CECOTHIRIPS PRIESNERI</b> A new species of Cerothrids Hood from Madagascar (Thysanoptera).	13836
<b>CATERPILLARS</b>		<b>CELOMETRIDA</b> A new species of the pseudoscorpion genus <i>Parohisium</i> from Utah (Arachnida, Chelonethida, Neohisididae).	13738
The hilding mechanisms of the caterpillars of <i>Pumea casta</i> Fall. (Lepidoptera, Psychidae).	13796	<b>CHEMICAL CONTROL (INSECTS)</b> Predicting influxes of <i>Aedes vexans</i> into urban areas.	13718
The nature of <i>Achromobacter nematophilus</i> as an insect pathogen.	13838	Systemic insecticides for control of oriental rat fleas: bait tests with hooded white rats.	13778
Development of resistance in the silkworm, <i>Bombyx mori</i> , to peroral infection of a cytoplasmic-polyhedrosis virus.	13855	Results of 1966 NPCA-SPONSORED research at VPI on cockroach control.	13794
Site of viral RNA synthesis within the midgut cells of the silkworm, <i>Bombyx mori</i> , infected with cytoplasmic-polyhedrosis virus.	13857	Update on research at USDA:S Forest Service Gulfport Laboratory.	13811
<b>CATS</b>		Structure of organophosphorus compounds in relation to control of the southern chinch bug.	13813
Urethroadenocystitis in the male cat.	13963	Studies of insecticide resistance in Florida mosquitoes.	13842
<b>CATTLE</b>		The present status of low volume (LV) air sprays for California mosquito control.	13872
The insect inhabitants of undisturbed cattle droppings in northern California.	13742	Some factors affecting kill of the stable fly, <i>Stomoxys calcitrans</i> (L.), with insecticidal thermal aerosols.	13873
Effects of oxytocin administered during the dry period on the succeeding lactation.	13948	Thiokol Swamp Spryte equipped with automatic compressed air spraying units for applying granule and liquid insecticides.	13876
Pseudocowpox in dairy cattle.	13951	Ovicidal activity of aliphatic amines and petroleum oil against two species of mosquitoes.	13883
Blood concentration studies in cattle of a sustained-release form of sulfamethazine.	13955	Seasonal variations in the susceptibility of <i>Culex pipiens</i> L. to DDT and dieldrin.	13886
Bovine tuberculosis eradication in Wisconsin.	13962	Susceptibility studies on <i>Anopheles culicifacies</i> with DDT and dieldrin in Gujarat State, India.	13887
Magnesium deficiency syndromes.	13968	Evaluation of fenthion and Baygon mixtures for control of adult <i>Aedes aegypti</i> : (L.) when applied as thermal-fog.	13888
Incidence of listeriosis in Pennsylvania livestock.	13969	Reduction of corn virus disease incidence and control of southwestern corn horer with systemic insecticides.	13893
The serological relationship of South African bovine enterovirus strains (ECRO SA-I and -II), and the growth characteristics in cell culture of the prototype strain (ECRO SA-I).	13974	Systemic insecticides for control of oriental rat fleas. tests in guinea pigs.	13910
Acute infectious bovine rhinotracheitis and Salmonellosis in a dairy herd.	13976	Control of the tarnished plant bug on cotton with several insecticides.	13911
Insecticides for control of the cattle tick and the southern cattle tick on cattle.	13978	Evaluation of experimental insecticides for control of hornworms on tobacco.	13914
Cattle grub control by dust bag application of coumaphos in summer.	13979	Chemical control of chrysanthemum leaf miner and some observations on varietal preference.	13915
<b>CAULIFLOWER</b>		Alternatives to DDT for the control of the pea moth on dry harvesting peas.	13917
Evaluation of systemic insecticides incorporated in the soil for control of lepidopterous larvae of cole crops in southern California.	13931	Insecticidal control of <i>Maruca testulalis</i> on cowpea in Nigeria.	13918
<b>CECIDOMYIIDAE</b>		Suppression of populations of <i>Drosophila melanogaster</i> in tomato field plots with chemosterilant baits.	13924
Notes on Cecidomyiidae. i.	13740	Evaluation of systemic insecticides incorporated in the soil for control of lepidopterous larvae of cole crops in southern California.	13931
Pupal paedogenesis in the Cecidomyiidae (Diptera). 3. a reclassification of the Heteropezini.	13763	Studies on chemical control and general biology of sugarcane moth borers at Tanganyika Planting Company, Arusha-Chini, Tanzania, 1966-1967.	13936
<b>CELL NUCLEUS</b>		Insecticides for control of the cattle tick and the southern cattle tick on cattle.	13978
Experiments on nuclear transplantation in <i>Drosophila melanogaster</i> . preliminary report.	13790	Laboratory tests with dichlorvos applied as a wheat protectant against rice weevils.	13986
<b>CELLS</b>			
Electron microscopy of the striated border of the midgut cells of <i>Javesella pellucida</i> (F.) (Homoptera, Delphacidae).	13715		
Cytogenetic and cellular basis of chemically induced sterility in insects. in: Principles of insect chemosterilization, G. C. LaReegue and C. N. Smith, ed. S959-L3.	13821		
<b>CERAMBYCIDAE</b>			
<i>Theophilea cylindricollis</i> Pic, a longicorn new for Central Europe (Col., Cerambycidae).	13729		
<b>CERATOPOGONIDAE</b>			
An improved carbon dioxide sticky cylinder trap.	13748		
Blood meal size of <i>Leptoconops kerteszi</i> (Diptera):			



SUBJECT INDEX

CHEMICAL CONTROL (WEEDS)

CHEMICAL CONTROL (WEEDS)

- A top farmer looks at herbicides. 13942  
 Herbicides or oat companion crops for alfalfa establishment and forage yields. 13946  
 Residue of bensulide in turfgrass soil following annual treatments for crabgrass control. 13991

CHEMICALS

- Repulsion of green sunfish by certain chemicals. 14003

CHEMOSTERILANTS

- Effects of chemosterilants and growth regulators on the pea aphid fed an artificial diet. 13769  
 Chemosterilization of male pear psylla with tepa. 13812  
 Laboratory procedures. in: Principles of insect chemosterilization, G. C. LaBrecque and C. M. Smith, ed. S959.L3. 13819  
 Principles of insect chemosterilization. S959.L3. 13820  
 Cytogenetic and cellular basis of chemically induced sterility in insects. in: Principles of insect chemosterilization, G. C. LaBrecque and C. M. Smith, ed. S959.L3. 13821  
 Fertility of eggs of Mexican bean beetles from females mated alternately with normal and apholate-treated males. 13858  
 Suppression of populations of *Drosophila melanogaster* in tomato field plots with chemosterilant baits. 13924

CHEMMS LABICIATUS

- The life history and morphology of *Adelges lariciatus* (Homoptera: Ehyllixeridae). 13779

CHICK EMBRYOS

- Partial purification of the organism of psittacosis grown in chicken embryo yolk sac. 13954

CHICKENS

- Preliminary report on soluble antigen fluorescent antibody technique for identification of host source of mosquito blood meals. 13789

CHICKS

- Effect of levels of calcium and lysine upon the growth of *Ascaridia galli* in chicks. 13953

CILO ZCHELLUS

- Studies on chemical control and general biology of sugar-cane moth borers at Tanganyika Planting Company, Arusha-Chini, Tanzania, 1966--1967. 13936

CHINOGASTRURA

- Contribution to the knowledge of the Chinese Collembola (Apterygota). 13745

CHIRONOMIDAE

- Colonization of *Chironomus plumosus* (Diptera: Chironomidae). 13731

- Type specimens of Chironomidae (Diptera) in the Cornell University collection. 13755

CHIRONOMUS FLUOSUS

- Colonization of *Chironomus plumosus* (Diptera: Chironomidae). 13731

CHLORDANE

- Initial soil penetration by insecticide emulsions used for subterranean termite control. 13988

CHLORINATED HYDROCARBONS

- A comparison of the toxicity of various carbamate, organophosphorus and organochlorine compounds to the codling moth S951.C7. 13793

- Update on research at USDA: Forest Service Gulfport Laboratory. 13811

- Alternatives to DDT for the control of the pea moth on dry harvesting peas. 13917

CHLORINE

- Virus--host system for use in the study of virus removal. 13990

CHLORO-N,N-DIALLYLACETAMIDE, 2-

- Interaction effects of atrazine and CDAA, linnron, asiben, or trifluralin on soybean growth. 14006

CHLOROETHYL TRIMETHYLAMMONIUM CHLORIDE, 2-

- Effects of chemosterilants and growth regulators on the pea aphid fed an artificial diet. 13769

CHLOROSIS (PLANTS)

- Factors in paraquat-induced chlorosis with Phaseolus foliar tissues. 14005

CHLORTETRACYCLINE

- Notice of filing of petition for food additives chlortetracycline, penicillin, sulfamethazine. 13973

CHOLINESTERASES

- Cholinesterase in boll weevils, *Anthonomus grandis* Boheman. I. Distribution and some properties of the crude enzyme. 13772

CHROMATOGRAPHY

- Isolation of a sex pheromone of the European corn borer. 13816  
 Plant uptake of <sup>14</sup>C-diuron in modified soil. 14008  
 Paper chromatographic analysis as a new test method of bactericidal substances in plant extracts and possible relations of these substances to plant growth inhibitors. 14009

- Boll weevil sex attractant: isolation studies. 14014

CHROMOSOMES

- Chromosomes of the aphid genus *Dactynotus* (Homoptera). 13870

CHRYSANTHEMUM

- Chemical control of chrysanthemum leaf miner and some observations on varietal preference. 13915

CICADELLIDAE

- Athysanella attenuata* and a closely related new species from Kansas (Homoptera: Cicadellidae). 13713

- A revision of the Holarctic genus *Dikranetra* (Homoptera: Cicadellidae). 13733

CIMEX AMERICANA

- Labeling larvae of the elm sawfly with P32. 13932

CIMEX HEMIPTERUS

- Cimex hemipterus* (Fabr.) from bats in Colombia, South America (Hemiptera: Cimicidae). 13879

CLAVICEPS PURPUREA

- Ergotamine production in submerged culture and physiology of *Claviceps purpurea*. 14004

CLAY SOILS

- Plant uptake of <sup>14</sup>C-dinron in modified soil. 14008

CLUBROOT (BRASSICA)

- Soil testing for club root in Devon and Cornwall. 13900

COCCINELLA SEPTEPUNCTATA

- The biology and life history of *Nosema tracheophila* sp n (Protozoa: Cnidospora: Microsporidea) found in *Coccinella septempunctata* Linnaeus (Coleoptera: Coccinellidae). 13774

COCOA

- Antimicrobial effect of cocoa on salmonellae. 13950

COCONUTS

- Mechanical transmission of coconut lethal yellowing. 13903

- Coconut and Salmonella infection. 13987

COLD

- The effect of heat, cold, and prolonged storage on a granulosis virus of *Pieris brassicae*. 13781

## SUBJECT INDEX

		CULICIDAE
<b>COLEOPTERA</b>		
Keys for the identification of Polish insects. XIX. coleoptera. part 98h. curculionidae, Otiiorhynchinae, Brachyderinae.	13751	
The species of the form genus <i>Sporotrichum</i> Link on insects.	13786	
<b>COLLEMBOLA</b>		
Contribution to the knowledge of the Chinese Collembola (Apterygota).	13745	
<b>CONIFERAE</b>		
Distribution and hosts of some horntails (Siricidae) in British Columbia.	13926	
<b>COMPTABACHELUS MENOPBAE</b>		
Distribution of plum curculio injury in a sour cherry orchard and sampling procedures for determining the extent of injury.	13928	
<b>CCBN</b>		
A five-year study of potential western corn rootworm resistance to diazinon and phorate in Nebraska.	13766	
Development of Anguonnois grain moths in kernels of wheat, sorghum, and corn as affected by site of feeding.	13815	
Reduction of corn virus disease incidence and control of southwestern corn borer with systemic insecticides.	13893	
Vertical-pull technique for evaluating tolerance of corn root systems to northern and western corn rootworms.	13929	
Effect of varying populations of <i>Busseola fusca</i> larvae on the growth and yield of maize.	13934	
<b>COBPOBA ALLATA</b>		
The secretory activity of corpora allata during sexual maturation and imaginal diapause in <i>Gryllus domesticus</i> L and <i>Leptinotarsa decemlineata</i> Say.	13767	
Influence of corpus allatum on reproduction of female <i>Iphita lineata</i> Stal (Hemiptera).	13839	
<b>COTTON</b>		
Field tests with a nuclear polyhedral virus against the bollworm and tobacco budworm, 1964-1966.	13826	
The stages of <i>Spanogonicus alhofasciatus</i> and their development (Hemiptera: Miridae).	13832	
Control of the tarnished plant bug on cotton with several insecticides.	13911	
Populations of holl weevil in selected fields in Arizona in 1965 and 1966.	13916	
<b>COUMAPHOS</b>		
Cattle grub control by dust bag application of coumaphos in summer.	13979	
Field test to determine the effectiveness of coumaphos as a feed additive to control house fly larva under caged layers.	13980	
<b>COMPEAS</b>		
Insecticidal control of <i>Maruca testulalis</i> on cowpea in Nigeria.	13918	
<b>CRATAEGUS</b>		
Bites of <i>Crataegus</i> and <i>Amelanchier</i> in Hood River Valley, Oregon.	13919	
<b>CBEMATOGASTER LINEOLATA</b>		
Comparative studies on the behaviour of three species of ants (Hymenoptera: Formicidae). i. prey finding, capture, and transport.	13765	
<b>CROP VARIETIES</b>		
Kharchia-65 a new rust-resistant wheat for saline areas.	13895	
Genetics of resistance to cotton-leaf curl in Sakel cotton ( <i>Gossypium barbadense</i> ).	13906	
Method of laboratory screening of peanut germ plasma for resistance to the lesser cornstalk borer.	13922	
Salinity tolerance of seven varieties of creeping bentgrass,		
<i>Agrostis palustris</i> Huds.		14011
<b>CBOP YIELDS</b>		
Effect of varying populations of <i>Busseola fusca</i> larvae on the growth and yield of maize.		13934
Herbicides or oat companion crops for alfalfa establishment and forage yields.		13946
<b>CBOPS</b>		
Observations on crop pests in the Sudan in 1966/1967.		13935
<b>CROWN RUST (OATS)</b>		
An association of stem rust and crown rust resistance in Jostrain oats.		13899
<b>CBYPTOCOCCOSIS</b>		
Cryptococcosis in a dog.		13966
<b>CBYPTOCOCCUS NEOFORMANS</b>		
Cryptococcosis in a dog.		13966
<b>CRYSTALLOGRAPHY</b>		
On the shape and structure of the crystal in two strains of <i>Bacillus thuringiensis</i> .		13795
<b>CTENOCEPHALIDES CANIS</b>		
Some notes on fleas (Siphonaptera) of domestic animals in Northern Tanzania (East Africa).		13977
<b>CTENOCEPHALIDES FELIS</b>		
Some notes on fleas (Siphonaptera) of domestic animals in Northern Tanzania (East Africa).		13977
<b>CUCUJIDAE</b>		
Effects of dietary lipids on survival and development of the saw-toothed grain beetle, <i>Oryzaephilus surinamensis</i> (L.) (Coleoptera: Silvanidae).		13782
<b>CULEX PIPPIENS</b>		
Male pheromones of <i>Culex quinquefasciatus</i> , <i>C. tarsalis</i> , and <i>C. pipiens</i> that attract females of these species.		13791
<b>CULEX PIPPIENS PIPPIENS</b>		
Seasonal variations in the susceptibility of <i>Culex pipiens</i> L. to DDT and dieldrin.		13886
<b>CULEX PIPPIENS QUINQUEFASCIATUS</b>		
Free amino acids and derivatives in eggs of <i>Drosophila</i> , <i>Culex</i> and <i>Phormia</i> .		13777
Metabolism of insecticides by <i>Culex pipiens quinquefasciatus</i> . i. in vivo metabolism of DDT by larvae.		13810
Effect of gamma irradiation on female <i>Culex pipiens quinquefasciatus</i> .		13851
Ovicidal activity of aliphatic amines and petroleum oil against two species of mosquitoes.		13883
<b>CULEX QUINQUEFASCIATUS</b>		
Male pheromones of <i>Culex quinquefasciatus</i> , <i>C. tarsalis</i> , and <i>C. pipiens</i> that attract females of these species.		13791
<b>CULEX TARSALIS</b>		
Male pheromones of <i>Culex quinquefasciatus</i> , <i>C. tarsalis</i> , and <i>C. pipiens</i> that attract females of these species.		13791
Biology of <i>Culex tarsalis</i> during the spring season in Oregon in relation to western encephalitis virus.		13885
<b>CULICIDAE</b>		
Field observations on twenty-eight broods of floodwater mosquitoes resulting from controlled floodings of a natural habitat in the Tennessee Valley.		13716
A portable aspirator for collecting mosquitoes.		13717
Predicting influxes of <i>Aedes vexans</i> into urban areas.		13718
<i>Anopheles earlei</i> Vargas, an addition to the checklist of New Jersey mosquitoes.		13719
Notes on the biology and distribution of some Delaware mosquitoes.		13735
Laboratory observations on certain mosquito larval predators.		13736

## SUBJECT INDEX

## CULICOIDES

- Plisticphora caecorum* sp n, a microsporidian of *Culiseta inornata* (Diptera: Culicidae) from Louisiana. 13776
- Preliminary report on soluble antigen fluorescent antibody technique for identification of host source of mosquito blood meals. 13789
- A simple method of mosquito ovary dissection. 13827
- Studies of insecticide resistance in Florida mosquitoes. 13842
- The present status of low volume (LV) air sprays for California mosquito control. 13872
- Thiokol Swamp Spryte equipped with automatic compressed air spraying units for applying granule and liquid insecticides. 13876
- Manatees as a naturalistic biological mosquito control method. 13877
- Virus of the California encephalitis complex: isolation from *Culiseta inornata*. 13881
- Literature references to mosquitoes and mosquito-borne diseases. 13890
- Versatile mosquito trap. 13891
- A low cost airboat for use in mosquito control. 13892

## CULICOIDES

- Culicoides control in the Canal Zone by water management. 13878

## CULISETA INCENATA

- Plisticphora caecorum* sp n, a microsporidian of *Culiseta inornata* (Diptera: Culicidae) from Louisiana. 13776
- Virus of the California encephalitis complex: isolation from *Culiseta inornata*. 13881

## CULTURE MEDIA

- Partial purification of the organism of psittacosis grown in chicken embryo yolk sac. 13954
- Ergotamine production in submerged culture and physiology of *Claviceps purpurea*. 14004

## CURCULIONIDAE

- Keys for the identification of Polish insects. XIX. Coleoptera. part 98h. curculionidae, Otiorhynchinae, Brachyderinae. 13751

## CYCOPHAGINAE

- Redescription of Cycophaginae from Ceylon and India, with designation of lectotypes, and a world catalogue of the Otitesellini (Hymenoptera Chalcidoidea, Torymidae). 13762

## CYNANDRA OPIS BERNAEDI

- A new subspecies of *Cynandra opis* Drury. 13734

## CYSTITIS

- Urethroadenocystitis in the male cat. 13963

## CYSTS

- The nature of cysts found in pupae and adults of *Neodiprion swaini*. 13850

## CYTOGENETICS

- Cytogenetic and cellular basis of chemically induced sterility in insects. in: Principles of insect chemosterilization, G. C. LaRrecque and C. N. Smith, ed. S959.L3. 13821

## CYTOLOGY

- The ultrastructure of the alimentary tract of the skin-penetrating larva of *Nippostrongylus brasiliensis* (Nematoda). 13983

## D, 2,4-

- Behavior of synthetic organics in stratified impoundments. 14012

## DACTYNOTUS

- Chromosomes of the aphid genus *Dactynotus* (Homoptera). 13870

- DACUS CUCURBITAE**  
Mutilation and survival of sterile oriental fruit flies and melon flies emerging in drop boxes. 13802

- DACUS DORSALIS**  
Mutilation and survival of sterile oriental fruit flies and melon flies emerging in drop boxes. 13802

## DDT

- The effect of certain insecticides on the entomogenous fungi *Beauveria bassiana* and *Metarhizium anisopliae*. 13743

- Causes of resistance to DDT in a diazinon-selected and a DDT-SELECTED strain of house flies. 13783

- Metabolism of insecticides by *Culex pipiens quinquefasciatus*. i. in vivo metabolism of DDT by larvae. 13810

- A gross analysis of two DDT-RESISTANT house fly strains. 13869

- Two types of sesame-suppressible resistance in the house fly. 13871

- Seasonal variations in the susceptibility of *Culex pipiens* L. to DDT and dieldrin. 13886

- Susceptibility studies on *Anopheles culicifacies* with DDT and dieldrin in Gujarat State, India. 13887

- Alternatives to DDT for the control of the pea moth on dry harvesting peas. 13917

## DEER

- Rate of tick attachment to a white-tailed fawn. 13880

## DEFICIENCY DISEASES

- Factors affecting the development of nutritional muscular dystrophy in northern Ontario. 13958

- Magnesium deficiency syndromes. 13968

## DEFOLIANTS

- Use of chemical defoliants on peach trees in integrated program to suppress populations of green peach aphids. 13933

## DELPHACIDAE

- Electron microscopy of the striated border of the midgut cells of *Javesella pellucida* (F.) (Homoptera, Delphacidae). 13715

## DENDROCTONUS PSEUDOTSUGAE

- Nematodes associated with tree-infesting insects. paurodontidae new family and Histicinae new subfamily with a description of one new genus and four new species. 13925

## DERMACENTOR VARIABILIS

- Rate of tick attachment to a white-tailed fawn. 13880

## DERMAPTERA

- Some Orthopteroid insects of the orders Blattoptera, Orthoptera and Dermaptera from Afghanistan. 13712

## DETERGENTS

- Behavior of synthetic organics in stratified impoundments. 14012

## DIABROTICA LONGICORNIS

- Vertical-pull technique for evaluating tolerance of corn root systems to northern and western corn rootworms. 13929

## DIABROTICA UNDECIMPUNCTATA ROWARDI

- Histochemical effects of apholate on the reproductive organs of southern corn rootworm. 13828

## DIABROTICA VIRGIPERA

- A five-year study of potential western corn rootworm resistance to diazinon and phorate in Nebraska. 13766

- Vertical-pull technique for evaluating tolerance of corn root systems to northern and western corn rootworms. 13929

- A method of recovering eggs of the western corn rootworm from the soil. 14017



## SUBJECT INDEX

ECBIDNOPHAGA GALLINACEA

- DIAGNOSIS**  
Pseudocowpox in dairy cattle. 13951  
Bacterial endocarditis in a dog. 13960
- DIALEURODES CITRI**  
El Salvador. Occurrence of *Dialeurodes citri* on gardenia. 13923
- DIATRAEA SACCHARALIS**  
Improved xenic diets for rearing the sugarcane horer in Puerto Rico. 13854
- DIAZINON**  
A five-year study of potential western corn rootworm resistance to diazinon and phorate in Nebraska. 13766  
Causes of resistance to DOT in a diazinon-selected and a DDT-SELECTED strain of house flies. 13783  
Effect of post-treatment temperature on toxicity of insecticides to resistant and susceptible house flies. 13784  
Residual activity of diazinon and lindane for control of *Loxosceles reclusa*. 13884  
Suppression of populations of *Drosophila melanogaster* in tomato field plots with chemosterilant baits. 13924
- DICAMBA**  
Notice of filing of petition regarding pesticide chemicals. 13999
- DICHLORO-2,2-BIS(P-CHLOROPHENYL) ETHYLENE, 1,1-**  
Two types of sesame-suppressible resistance in the house-fly. 13871
- DICHLORVOS**  
An evaluation of baits for cockroaches. 13829  
Laboratory tests with dichlorvos applied as a wheat protectant against rice weevils. 13986
- DIELDRI**  
Seasonal variations in the susceptibility of *Culex pipiens* L. to DDT and dieldrin. 13886  
Susceptibility studies on *Anopheles culicifacies* with DDT and dieldrin in Gujarat State, India. 13887  
Insecticidal control of *Marnca testulalis* on cowpea in Nigeria. 13918  
Initial soil penetration by insecticide emulsions used for subterranean termite control. 13988
- DIET**  
Effects of chemosterilants and growth regulators on the pea aphid fed an artificial diet. 13769  
Two semiartificial oviposition media for the smaller European elm bark beetle. 13792  
Mortality and survival of sterile oriental fruit flies and melon flies emerging in drop boxes. 13802  
Improved xenic diets for rearing the sugarcane horer in Puerto Rico. 13854
- DIGITARIA SANGUINALIS**  
Residue of bensulide in turfgrass soil following annual treatments for crabgrass control. 13991
- DIMETHYL-HEXYL) BENZOIC ACID COMPOUNDS, P-(1,5-**  
Natural and synthetic materials with insect hormone activity. 3. Juvenile hormone activity of derivatives of p-(1,5-dimethyl-hexyl) benzoic acid. 13849
- DIMETRIDAZOLE**  
Notice of withdrawal of petition for food additives dimetridazole, reserpine. 13972
- DIPTERA**  
Hover-flies in the Leyden botanical garden (Dipt., Syrph.). 13759  
Conjugation of 1-naphthol and p-nitrophenol in flies: formation of glucoside-6-phosphates. 13805
- DIPYLIDIDM CANINUM**  
Some notes on fleas (Siphonaptera) of domestic animals in Northern Tanzania (East Africa). 13977
- DIRRABDILAIMDS CAROLINENSIS**  
Nematodes associated with tree-infesting insects. paurodontidae new family and Misticinae new subfamily with a description of one new genus and four new species. 13925
- DISSECTION**  
A simple method of mosquito ovary dissection. 13827
- DISTILLATION**  
Boll weevil sex attractant: isolation studies. 14014
- DITYLENCHDS DIPSACI**  
A soil population study of *Ditylenchus dipsaci* (Kuhn) Filipjev in an alfalfa field. 13941
- DIURON**  
Plant uptake of <sup>14</sup>C-diuron in modified soil. 14008
- DODECENYL ACETATE, CIS-7-**  
Specificity of the cabbage looper sex attractant. 13768
- DOGS**  
Intestinal protozoan infections in dogs. 13949  
Tetralogy of Fallot in the dog. 13952  
A tissue-culture, modified live-virus, rabies vaccine for dogs: report on development and clinical trial. 13956  
Bacterial endocarditis in a dog. 13960  
Cryptococcosis in a dog. 13966  
Blastomycosis with secondary amyloidosis in the dog. 13970
- DOLICHOPODIDAE**  
Some distinctions between the larvae and pupae of the Empididae and Dolichopodidae (Diptera). 13720  
New Dolichopodidae from Canada, Mexico, and the western United States (Diptera). 13727
- DROSOPHILA MELANOGASTER**  
Free amino acids and derivatives in eggs of *Drosophila*, *Culex* and *Phormia*. 13777  
Experiments on nuclear transplantation in *Drosophila melanogaster*. preliminary report. 13790  
Population genetics in the American tropics. III. The genetic role of heterozygous individuals in various Colombian populations of *D. melanogaster*. 13868  
Suppression of populations of *Drosophila melanogaster* in tomato field plots with chemosterilant baits. 13924
- DRUG THERAPY**  
Blood concentration studies in cattle of a sustained-release form of sulfamethazine. 13955
- DRYNAPEDES**  
Some Orthopteroid insects of the orders Blattoptera, Orthoptera and Dermaptera from Afghanistan. 13712
- DDCKLINGS**  
Biochemical and pathological effects of aflatoxin poisoning in ducklings. 13961
- DUSTING**  
Cattle grub control by dust bag application of coumaphos in summer. 13979
- DYSTOCIA**  
Petal ankylosis in horses associated with hybrid Sudan pasture. 13967
- ECDYSONE**  
Ecdysone and ecdysone-analogues: their assay and action on diapausing pupae of the cynthia silkworm. 13860
- ECHIDNOPHAGA GALLINACEA**  
Some notes on fleas (Siphonaptera) of domestic animals in Northern Tanzania (East Africa). 13977

SUBJECT INDEX

<b>ECRINOCOCCUS GRANULOSUS</b>			
<b>ECRINOCOCCUS GRANULOSUS</b> The metaclisma of radioactive fumaric acid and some other substrates by whole adult <i>Echinococcus granulosis</i> (Cestoda).	13982		
<b>ECOLOGY</b> Autoecology and reproductive capacity of <i>Macrocheles muscaedomesticae</i> (Scopoli) (Acari: Mesostigmata).	13787		
Rate of tick attachment to a white-tailed fawn.	13880		
<b>EGGS</b> A method of recovering eggs of the western corn rootworm from the soil.	14017		
<b>ELASMOPELUS LIGNOSELLUS</b> Method of laboratory screening of peanut germ plasma for resistance to the lesser cornstalk borer.	13922		
<b>ELDANA SACCHARINA</b> Studies on chemical control and general biology of sugarcane moth borers at Tanganyika Planting Company, Arusha-Chini, Tanzania, 1966--1967.	13936		
<b>ELECTRON MICROSCOPY</b> Electron microscopy of the striated border of the midgut cells of <i>Javesella pellucida</i> (F.) (Homoptera, Delphacidae).	13715		
On the shape and structure of the crystal in two strains of <i>Bacillus thuringiensis</i> .	13795		
Pseudocowpox in dairy cattle.	13951		
<b>ELECTROPHORESIS</b> Electrophoretic separation of the hemolymph proteins in the fall webworm, <i>Hyphantria cunea</i> , infected with a nuclear-polyhedrosis virus.	13856		
<b>ELEDDES</b> Colonization and mass production of the false wireworm <i>Eleddes suturalis</i> .	13799		
<b>EMPIDIDAE</b> Some distinctions between the larvae and pupae of the Empididae and Dolichopodidae (Diptera).	13720		
<b>EMULSIONS</b> Initial soil penetration by insecticide emulsions used for subterranean termite control.	13988		
<b>ENDOCARDIITIS</b> Bacterial endocarditis in a dog.	13960		
<b>ENDRIN</b> The effect of certain insecticides on the entomogenous fungi <i>Beauveria bassiana</i> and <i>Metarhizium anisopliae</i> .	13743		
<b>ENTEBOXEMIA</b> The production of a basic immunity against pulp kidney disease.	13959		
<b>ENTOMOGENOUS FUNGI</b> The effect of certain insecticides on the entomogenous fungi <i>Beauveria bassiana</i> and <i>Metarhizium anisopliae</i> .	13743		
<b>ENTOMOLGY</b> Entomological bibliography of Baja California. z5859.m6T7.	13757		
<b>EPILACHNA VARIVESTIS</b> Fertility of eggs of Mexican bean beetles from females mated alternately with normal and apholate-treated males.	13858		
<b>EQUIPMENT</b> A unit for formulating granular insecticides.	14018		
<b>ERGOTAMINE</b> Ergotamine production in submerged culture and physiology of <i>Claviceps purpurea</i> .	14004		
<b>ERINOCOCCUS</b> <i>Erinococcus</i> , a new genus for limoniastri of Priesner and Hcsny (Homoptera: Coccoidea-Pseudococcidae).	13722		
<b>ESCHERICHIA COLI</b> Increased susceptibility to bacterial endotoxin of pigs with iron-deficiency anemia.	13965		
<b>ETHYL METHANESULFONATE</b> An isoflavone-deficient mutant in <i>Trifolium subterraneum</i> induced by ethyl methane-sulfonate.	13866		
<b>EVALUATION</b> A comparison of the toxicity of various carbamate, organo-phosphorus and organochlorine compounds to the codling moth SB951.G7.	13793		
<b>FAT BODY</b> Development of the fat body in <i>Calliphora erythrocephala</i> Meig. larva.	13780		
<b>PECES</b> The insect inhabitants of undisturbed cattle droppings in northern California.	13742		
Acute infections of ovine rhinotracheitis and <i>Salmonellosis</i> in a dairy herd.	13976		
<b>FEED ADDITIVES</b> Notice of withdrawal of petition for food additives dimetridazole, reserpine.	13972		
Notice of filing of petition for food additives chlortetracycline, penicillin, sulfamethazine.	13973		
Field test to determine the effectiveness of coumaphos as a feed additive to control house fly larva under caged layers.	13980		
<b>FEED SUPPLEMENTS</b> Acute infectious ovine rhinotracheitis and <i>Salmonellosis</i> in a dairy herd.	13976		
<b>FEEDING</b> Research notes on <i>Aedes aegypti</i> feeding on the Eastern Garter snake <i>Thamnophis sirtalis sirtalis</i> .	13741		
Development of Angoumois grain moths in kernels of wheat, sorghum, and corn as affected by site of feeding.	13815		
Observations on feeding and movement of tobacco hornworm larvae.	13825		
Feeding of horseflies (Diptera: Tabanidae) on plant juices.	13845		
Blood meal size of <i>Leptoconops kerteszi</i> (Diptera: Ceratopogonidae).	13874		
Colonization studies of <i>Leptoconops kerteszi</i> , biting gnats.	13889		
<b>PENTHION</b> Evaluation of fenitron and Baygon mixtures for control of adult <i>Aedes aegypti</i> : (L.) when applied as thermal-fog.	13888		
Alternatives to DDT for the control of the pea moth on dry harvesting peas.	13917		
Cattle grub control by dust bag application of coumaphos in summer.	13979		
<b>FERTILITY</b> Gamma irradiation of the tobacco budworm: sterilization, competitiveness, and observations on reproductive biology.	13788		
Further studies of effects of antibiotics and other compounds on fecundity and mortality of the two-spotted spider mite.	13801		
Some effects of three triphenyltin compounds on the fertility and longevity of Japanese beetles.	13818		
Fertility of eggs of Mexican bean beetles from females mated alternately with normal and apholate-treated males.	13858		
<b>PETAL DEATH</b> Petal ankylosis in horses associated with hybrid Sudan pasture.	13967		
<b>FICUS</b> Redescription of <i>Sycophaginae</i> from Ceylon and India, with designation of lectotypes, and a world catalogue of the Otitesellini (Hymenoptera Chalcidoidea, Torysidae).	13762		

SUBJECT INDEX

GUINEA PIGS

<b>FISH</b>		Fungi associated with Purple Patch of subterranean clover in western Australia.	13905
Repulsion of green sunfish by certain chemicals.	14003		
<b>FLUORESCENT ANTIBODY TECHNIC</b>		<b>FUSARIDM</b>	
Preliminary report on soluble antigen fluorescent antibody technique for identification of host source of mosquito blood meals.	13789	Fungi associated with Purple Patch of subterranean clover in western Australia.	13905
Immunofluorescence studies on Bombyx mori ovarian tissue cultures infected with nuclear-polybedrosis virus.	13817	Soil microbial degradation of aldrin.	14010
<b>FOALS</b>		<b>FUSARIDM OXYSPORDM F. CONGLUTINAM</b>	
Petal ankylosis in horses associated with hybrid Sudan pasture.	13967	Studies on resistance in radish to Fusarium oxysporum f. conglutinans.	13902
<b>FOOD CONTAMINATION</b>		<b>GALLERIA MELLONELLA</b>	
Cocoon and Salmonella infection.	13987	The nature of Acrobacter nematophilus as an insect pathogen.	13838
<b>FOOD PLANTS</b>		<b>GAMMA RAYS</b>	
Distribution and hosts of some horn-tails (Siricidae) in British Columbia.	13926	Gamma irradiation of the tobacco budworm: sterilization, competitiveness, and observations on reproductive biology.	13788
<b>FORAGE PLANTS</b>		Laboratory and field cage studies of the effects of gamma radiation on cooling moths.	13804
Herbicides or oat companion crops for alfalfa establishment and forage yields.	13946	Effect of gamma irradiation on female Culex pipiens quinquefasciatus.	13851
<b>FOREST INSECTS</b>		<b>GARDENIA</b>	
Pests of poplars and preventive and curative methods of control. SB608.P775D3.	13913	El Salvador. Occurrence of Dialeurodes citri on gardenia.	13923
Nematodes associated with tree-infesting insects. paurodontidae new family and Misticiinae new subfamily with a description of one new genus and four new species.	13925	<b>GARDENS</b>	
Distribution and hosts of some horn-tails (Siricidae) in British Columbia.	13926	The identification of weed seedlings of farm and garden SB613 .G7C42.	13943
A new salix-infesting Chaitophorus from Saskatchewan (Homoptera: Aphididae).	13930	<b>GASTROINTESTINAL SYSTEM</b>	
<b>FOREST LITTER</b>		The ultrastructure of the alimentary tract of the skin-penetrating larva of Nippostrongylus brasiliensis (Nematoda).	13983
Phytoseiidae of sand-pine litter.	13739	A comparative study of thiabendazole and phenothiazine as anthelmintics for the gastrointestinal nematodes of the goat.	13984
<b>FORMICA OBSCURIVENTRIS</b>		<b>GENES</b>	
Comparative studies on the behaviour of three species of ants (Hymenoptera: Formicidae). i. prey finding, capture, and transport.	13765	Modes of balance in the polymorphism of Philaenus spumarius (L.) (Homoptera).	13867
<b>FORMICIDAE</b>		Genetics of resistance to cotton-leaf curl in Sakel cotton (Gossypium barbadense).	13906
Comparative studies on the behaviour of three species of ants (Hymenoptera: Formicidae). i. prey finding, capture, and transport.	13765	<b>GLYCOSIDE-6-PHOSPHATES</b>	
An introduction to the behavior of ants. QL568.f758.	13852	Conjugation of 1-naphthol and p-nitrophenol in flies: formation of glucoside-6-phosphates.	13805
<b>FRUIT</b>		<b>GOATS</b>	
Influence of the proportion of fruiting to non-fruiting clusters on the distribution of insect predators on apple trees.	13824	Incidence of listeriosis in Pennsylvania livestock.	13969
New data to the biology of Capnodis tenebrionis L. (Coleoptera).	13843	A comparative study of thiabendazole and phenothiazine as anthelmintics for the gastrointestinal nematodes of the goat.	13984
<b>FUMARIC ACID</b>		<b>GRAIN</b>	
The metabolism of radioactive fumaric acid and some other substrates by whole adult Echinococcus granulosus (Cestoda).	13982	Accumulation of sodium and calcium by seedlings of some cereal crops under saline conditions.	14007
<b>FUMEA CASTA</b>		<b>GRAIN MOISTURE</b>	
The building mechanisms of the caterpillars of Fumea casta Pall. (Lepidoptera, Psychidae).	13796	Some observations on Oryzaephilus surinamensis L. (Col., Silvanidae) in a temperature-moisture gradient.	13764
<b>FUNGI</b>		<b>GRANULOSES</b>	
The species of the form genus Sporotrichum Link on insects.	13786	The effect of heat, cold, and prolonged storage on a granulosis virus of Pieris brassicae.	13781
Effect of alcohols on spores of Sclerotinia fructicola and other peach fruit-rotting fungi in California.	13901	<b>GRASSES</b>	
<b>FUNGUS DISEASES (PLANTS)</b>		On alpine rose- and grass-infesting species of Metopolophium moravilko, 1914, with descriptions of two new species (Homoptera, Aphididae).	13730
An association of stem rust and crown rust resistance in Jostrain oats.	13899	Notice of filing of petition regarding pesticide chemicals.	13999
Soil testing for club root in Devon and Cornwall.	13900	<b>GUINEA PIGS</b>	
The role of light in spore germination and sporidial production of the wheat smut fungus, Tilletia caries (DC.) Tul.	13904	Systemic insecticides for control of oriental rat fleas. tests in guinea pigs.	13910
		Laboratory evaluation of promising systemic insecticides in guinea pigs against oriental rat fleas.	14000



SUBJECT INDEX

HABITATS

HABITATS			
The insect inhabitants of undisturbed cattle droppings in northern California.	13742	Interaction effects of atrazine and CDA, linnron, amiben, or trifluralin on soybean growth.	14006
The identification of weed seedlings of farm and garden SEP613 .G7C42.	13943	Plant uptake of 14C-dinron in modified soil.	14008
Persistence and biological effects of parathion residues in waterfowl habitats.	13993	HESPEBIIDAE	
		Sculpturing of the eggs of the Lepidoptera fauna of Belgium.	13747
HABITATS		HETEROPEZINI	
The insect inhabitants of undisturbed cattle droppings in northern California.	13742	Pupal paedogenesis in the Cecidomyiidae (Diptera). 3. a reclassification of the Heteropezini.	13763
Effect of temperature on predation of horn fly larvae by the larvae of Spbaeridina scarataeoides.	13770	HETEROPEZULA	
Horn fly dispersal.	13809	Pupal paedogenesis in the Cecidomyiidae (Diptera). 3. a reclassification of the Heteropezini.	13763
HAY		HETEROPEZA	
Notice of filing of petition regarding pesticide chemicals.	13995	Medocostidae—a new family of Cimicomorphan Heteroptera based on a new genus and two new species from tropical Africa. i. descriptive part.	13753
Notice of filing of petition regarding pesticide chemicals.	13999	HOMOPEZA	
		A revision of the Holarctic genus Dikraneura (Homoptera: Cicadellidae).	13733
HEART		HORMONES	
Tetralogy of Fallot in the dog.	13952	Isolation of a sex pheromone of the European corn borer.	13816
HEAT			
The effect of heat, cold, and prolonged storage on a granulosis virus of Pieris brassicae.	13781	Natural and synthetic materials with insect hormone activity. 3. juvenile hormone activity of derivatives of p-(1,5-dimethyl-hexyl) benzoic acid.	13849
Batch, larval development, and adult longevity of four lepidoptercus species after thermal treatment of eggs.	13798	Ecdysone and ecdysone-analogues: their assay and action on diapausing pupae of the cyathia silkworm.	13860
HELIOTHIS VIRESCENS		Insect sex attractants. ix. chemical conversion of the sex attractant of the cabbage looper to the sex pheromone of the fall armyworm.	14013
Gamma irradiation of the tobacco budworm: sterilization, competitiveness, and observations on reproductive biology.	13788	HOBSES	
Effect of ultraviolet irradiation on egg hatch, subsequent larval development, and adult longevity of the tobacco budworm and the bollworm.	13797	Sporotrichosis in a horse.	13957
Hatch, larval development, and adult longevity of four lepidoptercus species after thermal treatment of eggs.	13798	Fetal ankylosis in horses associated with hybrid Sadan pasture.	13967
Field tests with a nuclear polyhedral virus against the bollworm and tobacco budworm, 1964-1966.	13826	HOST SPECIFICITY	
Toxicity of five carbamate insecticides to the two-spotted spider mite and larvae of the southern armyworm and tobacco budworm.	13862	The life history of Ips calligraphus (Coleoptera: Scolytidae) with notes on its biology in California.	13863
HELIOTHIS ZEA		HUMAN DISEASES	
Effect of ultraviolet irradiation on egg hatch, subsequent larval development, and adult longevity of the tobacco budworm and the bollworm.	13797	Literature references to mosquitoes and mosquito-borne diseases.	13890
Hatch, larval development, and adult longevity of four lepidopterous species after thermal treatment of eggs.	13798	HUMANS	
Field tests with a nuclear polyhedral virus against the bollworm and tobacco budworm, 1964-1966.	13826	Response of the yellow-fever mosquito to varying areas of human skin.	13814
HEPTACHLOR		HYDROGEN-ION CONCENTRATION	
Re-population of Thysanoptera in areas previously treated with aldrin, heptachlor, and dieldrin.	13831	Plant uptake of 14C-diuron in modified soil.	14008
Initial soil penetration by insecticide emulsions used for subterranean termite control.	13988	HYDROPHONICS	
HEBICIDE RESIDUES		Salinity tolerance of seven varieties of creeping bentgrass, Agrostis palnstris Huds.	14011
Residue of bensulide in turfgrass soil following annual treatments for crabgrass control.	13991	HYLENYA ANTIQUA	
Notice of filing of petition regarding pesticide chemicals.	13999	Pregnancy of mating by the female onion maggot adult.	13771
Behavior of synthetic organics in stratified impoundments.	14012	HYLENYA BBASSICAE	
HERBICIDES		Toxicity studies on cyclodiene-susceptible and cyclodiene resistant strains of the cabbage maggot.	14001
A top farmer looks at herbicides.	13942	HYLOBIUS PALES	
Herbicides or oat companion crops for alfalfa establishment and forage yields.	13946	Nematodes associated with tree-infesting insects. paurodontidae new family and Histiciniinae new subfamily with a description of one new genus and four new species.	13925
The effect of simazine on soil microorganisms.	13989	HYPEBA POSTICA	
		Aerial application of insecticides for control of alfalfa weevil.	13834
		HYPBANTHIA CUNEA	
		Electrophoretic separation of the hemolymph proteins in the fall webworm, Hyphantria cunea, infected with a nuclear-polyhedrosis virus.	13856

SDBJECT INDEX

INSECT DISSEMINATION

<b>HYPODERMA BOVIS</b> Cattle grub control by dust bag application of coumaphos in summer.	13979	New data to the biology of <i>Capnodis tenebrionis</i> L. (Coleoptera).	13843
<b>HYPODERMA LINEATUM</b> Cattle grub control by dust bag application of coumaphos in summer.	13979	Biology of <i>Culex tarsalis</i> during the spring season in Oregon in relation to western encephalitis virus.	13885
<b>ICHTHEMIDAE</b> A new <i>Atelente</i> from the United States (Hymenoptera: Ichneumonidae).	13853	Studies on chemical control and general biology of sugar-cane moth borers at Tanganyika Planting Company, Arusha-Chini, Tanzania, 1966--1967.	13936
<b>IMMUNIZATION</b> The production of a basic immunity against plup kidney disease.	13959	<b>INSECT CAGES</b> Mutilation and survival of sterile oriental fruit flies and melon flies emerging in drop boxes.	13802
<b>INFECTION DISEASES</b> Intestinal protozoan infections in dogs.	13949	A lightweight, weather-resistant field insect cage.	13837
<b>INSECT ABNORMALITIES</b> Temperature-induced wing malformation in alfalfa loopers and variegated cutworms.	13848	<b>INSECT COLLECTING EQUIPMENT</b> A portable aspirator for collecting mosquitoes.	13717
<b>INSECT ADAPTATION</b> Field observations on twenty-eight broods of floodwater mosquitoes resulting from controlled floodings of a natural habitat in the Tennessee Valley.	13716	Versatile mosquito trap.	13891
<b>INSECT ANATOMY</b> Morphology of the internal reproductive organs of the navel orangeworm, <i>Paratylenchus transitella</i> .	13800	A method of recovering eggs of the western corn rootworm from the soil.	14017
Copulation and sperm induction by normal and palpless male linyphiid spiders.	13847	<b>INSECT CONTROL</b> Laboratory procedures. in: Principles of insect chemosterilization, G. C. LaBrecque and C. N. Smith, ed. S959.L3.	13819
An introduction to the behavior of ants. QL568.f758.	13852	Principles of insect chemosterilization. S959.L3.	13820
<b>INSECT BEHAVIOR</b> Field observations on twenty-eight broods of floodwater mosquitoes resulting from controlled floodings of a natural habitat in the Tennessee Valley.	13716	Cytogenetic and cellular basis of chemically induced sterility in insects. in: Principles of insect chemosterilization, G. C. LaBrecque and C. N. Smith, ed. S959.L3.	13821
Research notes on <i>Aedes aegypti</i> feeding on the Eastern Garter snake <i>Thamnophis sirtalis sirtalis</i> .	13741	The kind of cockroaches we find in North Carolina.	13864
Seasonal changes in daily activity periods of the sweetclover weevil.	13775	Callicoides control in the Canal Zone by water management.	13878
The life history and morphology of <i>Adelges lariciatus</i> (Homoptera: Phylloxeridae).	13779	A low cost airboat for use in mosquito control.	13892
Male pheromones of <i>Culex quinquefasciatus</i> , <i>C. tarsalis</i> , and <i>C. pipiens</i> that attract females of these species.	13791	Pests of poplars and preventive and curative methods of control. SB608.P775D3.	13913
The building mechanisms of the caterpillars of <i>Pumea casta</i> Pall. (Lepidoptera, Psychidae).	13796	<b>INSECT DISEASE RESISTANCE</b> Development of resistance in the silkworm, <i>Bombyx mori</i> , to peroral infection of a cytoplasmic-polyhedrosis virus.	13855
Response of the yellow-fever mosquito to varying areas of human skin.	13814	<b>INSECT DISEASES</b> The biology and life history of <i>Nosema tracheophila</i> sp n (Protozoa: Cnidospora: Microsporidea) found in <i>Coccinella septempunctata</i> Linnaeus (Coleoptera: Coccinellidae).	13774
Phototactic choice between two white light sources of various intensity in blowfly, <i>Calliphora erythrocephala</i> Meig.	13823	<i>Plistophora caecorum</i> sp n, a microsporidian of <i>Caliseta inornata</i> (Diptera: Culicidae) from Louisiana.	13776
Observations on feeding and movement of tobacco hornworm larvae.	13825	The effect of heat, cold, and prolonged storage on a granulosis virus of <i>Pieris brassicae</i> .	13781
An evaluation of baits for cockroaches.	13829	The species of the form genus <i>Sporotrichum</i> Link on insects.	13786
Feeding of horseflies (Diptera: Tabanidae) on plant juices.	13845	Immunofluorescence studies on <i>Bombyx mori</i> ovarian tissue cultures infected with nuclear-polyhedrosis virus.	13817
An introduction to the behavior of ants. QL568.f758.	13852	Field tests with a nuclear polyhedral virus against the bollworm and tobacco budworm, 1964-1966.	13826
The kind of cockroaches we find in North Carolina.	13864	The nature of <i>Achromobacter nematophilus</i> as an insect pathogen.	13838
Blood meal size of <i>Leptoconops kerteszi</i> (Diptera: Ceratopogonidae).	13874	Electrophoretic separation of the hemolymph proteins in the fall webworm, <i>Hyphantria cunea</i> , infected with a nuclear-polyhedrosis virus.	13856
Rate of tick attachment to a white-tailed fawn.	13880	Site of viral RNA synthesis within the midgut cells of the silkworm, <i>Bombyx mori</i> , infected with cytoplasmic-polyhedrosis virus.	13857
Colonization studies of <i>Leptoconops kerteszi</i> , biting gnats.	13889	<b>INSECT DISSEMINATION</b> Horn fly dispersal.	13809
<b>INSECT BIOLOGY</b> A preliminary study of the life history of the broad-necked root borer in Rhode Island.	13785	Distribution of plum curculio injury in a sour cherry orchard and sampling procedures for determining the extent of injury.	13928
Biology of <i>Tipula paludosa</i> ; growth of the larva in the field.	13822		

## SUBJECT INDEX

## INSECT ECOLOGY

## INSECT ECOLOGY

Field observations on twenty-eight broods of floodwater mosquitoes resulting from controlled floodings of a natural habitat in the Tennessee Valley. 13716

*Anopheles stephensi* Liston in Egypt, UAR. 13724

Biology of *Tipula paludosa*; growth of the larva in the field. 13822

## INSECT EGGS

Iconography of Lepidoptera eggs in the Belgium fauna. 13746

Sculpturing of the eggs of the Lepidoptera fauna of Belgium. 13747

Free amino acids and derivatives in eggs of *Drosophila*, *Culex* and *Phormia*. 13777

Experiments on nuclear transplantation in *Drosophila melanogaster*. preliminary report. 13790

Effect of ultraviolet irradiation on egg hatch, subsequent larval development, and adult longevity of the tobacco budworm and the bollworm. 13797

Hatch, larval development, and adult longevity of four lepidopterous species after thermal treatment of eggs. 13798

Influence of photoperiod, temperature, and food on initiation of diapause in the apple maggot. 13840

Effect of gamma irradiation on female *Culex pipiens quinquefasciatus*. 13851

## INSECT GENETICS

The inheritance of abdominal coloration in the Carnio-Egyptian honeybee hybrid (*Bymenoptera*: *Apidae*). 13865

Modes of balance in the polymorphism of *Philaenus spumarius* (L.) (*Homoptera*). 13867

Population genetics in the American tropics. III. The genetic role of heterozygous individuals in various Colombian populations of *D. melanogaster*. 13868

## INSECT HISTOLOGY

Electron microscopy of the striated border of the midgut cells of *Javesella pellucida* (F.) (*Homoptera*, *Delphacidae*). 13715

Morphology of the internal reproductive organs of the navel orangeworm, *Paratylois transitella*. 13800

Histochemical effects of apholate on the reproductive organs of southern corn rootworm. 13828

## INSECT IDENTIFICATION

Keys for the identification of Polish insects. XIX. *Coleoptera*. part 98b. *Curculionidae*, *Otiorhynchinae*, *Brachyderinae*. 13751

The kind of cockroaches we find in North Carolina. 13864

## INSECT METABOLISM

Metabolism of insecticides by *Culex pipiens quinquefasciatus*. I. *in vivo* metabolism of DDT by larvae. 13810

## INSECT MIGRATION

Predicting influxes of *Aedes vexans* into urban areas. 13718

## INSECT MORPHOLOGY

Some distinctions between the larvae and pupae of the *Empididae* and *Dolichopodidae* (*Diptera*). 13720

Morphology of the internal reproductive organs of the navel orangeworm, *Paratylois transitella*. 13726

Morphology of the internal reproductive organs of the navel orangeworm, *Paratylois transitella*. 13800

Temperature conditions and maternal effect as modifying factors in the photoperiod control of the seasonal form in *Polytonia c-anreus* (*Lepidoptera*, *Nymphalidae*). 13807

Temperature conditions and maternal effect as modifying factors in the photoperiod control of the seasonal form in *Polytonia c-anreus* (*Lepidoptera*, *Nymphalidae*). 13808

## INSECT MUTATION

An isoflavone-deficient mutant in *Trifolium subterraneum* induced by ethyl methane-sulphonate. 13866

## INSECT NUTRITION

The stages of *Spanogonicus albifasciatus* and their development (*Hemiptera*: *Miridae*). 13832

Temperature-induced wing malformation in alfalfa loopers and variegated cutworms. 13848

## INSECT OUTBREAK FORECASTING

Predicting influxes of *Aedes vexans* into urban areas. 13718

The spray warning scheme for control of sugar beet yellows in England; summary of results between 1959-66. 13897

## INSECT PESTS

New data to the biology of *Capnodis tenebrionis* L. (*Coleoptera*). 13843

*Neomarasmia suspicalis* Wkr a new pyralid leaf-roller of sugarcane in India. 13920

Observations on crop pests in the Sudan in 1966/1967. 13935

## INSECT PHYSIOLOGY

Predicting influxes of *Aedes vexans* into urban areas. 13718

The secretory activity of corpora allata during sexual maturation and imaginal diapause in *Gryllus domesticus* L and *Leptinotarsa decemlineata* Say. 13767

Development of the fat body in *Calliphora erythrocephala* Meig. larva. 13780

Effects of dietary lipids on survival and development of the saw-toothed grain beetle, *Oryzaephilus surinamensis* (L.) (*Coleoptera*: *Silvanidae*). 13782

Gamma irradiation of the tobacco budworm: sterilization, competitiveness, and observations on reproductive biology. 13788

Effect of ultraviolet irradiation on egg hatch, subsequent larval development, and adult longevity of the tobacco budworm and the bollworm. 13797

Hatch, larval development, and adult longevity of four lepidopterous species after thermal treatment of eggs. 13798

Development of Argonnois grain moths in kernels of wheat, sorghum, and corn as affected by site of feeding. 13815

The stages of *Spanogonicus albifasciatus* and their development (*Hemiptera*: *Miridae*). 13832

Influence of photoperiod, temperature, and food on initiation of diapause in the apple maggot. 13840

Uptake of P32 by yellow-fever mosquito larvae of equal age, and those pupating synchronously: its loss and transfer during development, mating, and oviposition. 13841

Effect of 6-azauridine on the development of the ovaries in the house fly *Musca domestica* L. (*Diptera*). 13844

Influence of temperatures and light regimens on diapause of *Samia cynthia pyeri*. 13846

Site of viral RNA synthesis within the midgut cells of the silkworm, *Bombyx mori*, infected with cytoplasmic-polyhedrosis virus. 13857

## INSECT POLLINATORS

Insect visitors to flowers of blue lupine, *Lupinus angustifolius*. 13921

## INSECT POPULATIONS

Dynamics of *Aedes aegypti* distribution and density. seasonal fluctuations in the Americas. 13752

Population genetics in the American tropics. III. The genetic role of heterozygous individuals in various Colombian populations of *D. melanogaster*. 13868

Populations of boll weevil in selected fields in Arizona in 1965 and 1966. 13916

Effect of varying populations of *Busseola fusca* larvae



## SUBJECT INDEX

## INSECTICIDES

- on the growth and yield of maize. 13934
- Effects of soil fertility on abundance of green peach aphids on Maryland tobacco. 13937
- INSECT REARING**
- Colonization of *Chironomus plumosus* (Diptera: Chironomidae). 13731
- Colonization and mass production of the false wireworm *Eleodes suturalis*. 13799
- Chemosterilization of male pear psylla with tepa. 13812
- Improved xenic diets for rearing the sugarcane borer in Puerto Rico. 13854
- Yellow fever mosquitoes. in: Smith, C. n. insect colonization and mass production. 9L497.56. 13882
- Colonization studies of *Leptoconops kerteszi*, biting gnats. 13889
- The susceptibility of house flies reared under various photo-periods to insecticide residues. 13992
- INSECT REARING EQUIPMENT**
- Two semiartificial oviposition media for the smaller European elm bark beetle. 13792
- INSECT REPELLENTS**
- Repulsion of green sunfish by certain chemicals. 14003
- INSECT TAXONOMY**
- Steriphodon doncasteri*, a new species of Eurygeniini, with a review of the Indian species of *Steriphodon* Ahelle (Coleoptera: Anthicidae). 13709
- Athysanella attenuata* and a closely related new species from Kansas (Homoptera: Cicadellidae). 13713
- New Dolichopodidae from Canada, Mexico, and the western United States (Diptera). 13727
- Theophilea cylindricollis* Pic, a longicorn new for Central Europe (Col., Cerambycidae). 13729
- A revision of the Holarctic genus *Dikraneura* (Homoptera: Cicadellidae). 13733
- Acarina Thrombidiidae of Madagascar. 13744
- Type specimens of Chironomidae (Diptera) in the Cornell University collection. 13755
- A new Ateleute from the United States (Hymenoptera: Ichneumonidae). 13853
- A new salix-infesting Chaitophorns from Saskatchewan (Homoptera: Aphididae). 13930
- INSECT TRAPS**
- An improved carbon dioxide sticky cylinder trap. 13748
- Versatile mosquito trap. 13891
- INSECT VECTORS**
- Summary of recent abstracts. III. malaria. 13875
- Virus of the California encephalitis complex: isolation from *Culiseta inornata*. 13881
- Biology of *Culex tarsalis* during the spring season in Oregon in relation to western encephalitis virus. 13885
- Literature references to mosquitoes and mosquito-borne diseases. 13890
- Aphid trapping with black-light lamps. 13912
- INSECTICIDAL AEROSOLS**
- Some factors affecting kill of the stable fly, *Stomoxys calcitrans* (L.), with insecticidal thermal aerosols. 13873
- Evaluation of fenitrothion and Baygon mixtures for control of adult *Aedes aegypti*: (L.) when applied as thermal-fog. 13888
- INSECTICIDE APPLICATION**
- The present status of low volume (LV) air sprays for California mosquito control. 13872
- INSECTICIDE RESIDUES**
- The susceptibility of house flies reared under various photo-periods to insecticide residues. 13992
- Studies on the adsorption of arsenites by a few typical Indian soils. 13994
- Notice of filing of petition regarding pesticide chemicals. 13995
- Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. 1-methoxycarbonyl-1-propen-2-yl dimethylphosphate and its beta isomer. 13996
- Food additives permitted in food for human consumption. 1-methoxycarbonyl-1-propen-2-yl dimethylphosphate and its beta isomer. 13997
- INSECTICIDE RESISTANT INSECTS**
- A five-year study of potential western corn rootworm resistance to diazinon and phorate in Nebraska. 13766
- Causes of resistance to DDT in a diazinon-selected and a DDT-SELECTED strain of house flies. 13783
- Effect of post-treatment temperature on toxicity of insecticides to resistant and susceptible house flies. 13784
- Studies of insecticide resistance in Florida mosquitoes. 13842
- Two types of sesamex-suppressible resistance in the house-fly. 13871
- Seasonal variations in the susceptibility of *Culex pipiens* L. to DDT and dieldrin. 13886
- Susceptibility studies on *Anopheles culicifacies* with DDT and dieldrin in Gujarat State, India. 13887
- INSECTICIDES**
- The effect of certain insecticides on the entomogenous fungi *Beauveria bassiana* and *Metarhizium anisopliae*. 13743
- Systemic insecticides for control of oriental rat fleas: bait tests with hooded white rats. 13778
- Effect of post-treatment temperature on toxicity of insecticides to resistant and susceptible house flies. 13784
- Results of 1966 NPCA-SPONSORED research at VPI on cockroach control. 13794
- Metabolism of insecticides by *Culex pipiens quinquefasciatus*. I. in vivo metabolism of DDT by larvae. 13810
- Structure of organophosphorus compounds in relation to control of the southern chinch bug. 13813
- An evaluation of baits for cockroaches. 13829
- Aerial application of insecticides for control of alfalfa weevil. 13834
- Reduction of corn virus disease incidence and control of southwestern corn borer with systemic insecticides. 13893
- Systemic insecticides for control of oriental rat fleas. tests in guinea pigs. 13910
- Control of the tarnished plant bug on cotton with several insecticides. 13911
- Evaluation of experimental insecticides for control of hornworms on tobacco. 13914
- Chemical control of chrysanthemum leaf miner and some observations on varietal preference. 13915
- Alternatives to DDT for the control of the pea moth on dry harvesting peas. 13917
- Evaluation of systemic insecticides incorporated in the soil for control of lepidopterous larvae of cole crops in south-

## SUBJECT INDEX

## INSECTS

- ern California. 13931 KALE  
Soil testing for club root in Devon and Cornwall. 13900
- Insecticides for control of the cattle tick and the southern cattle tick on cattle. 13978 KENTUCKY  
Control of the sod webworms *Crambus teterrellus*, *C. trisectus*, and *C. nuntialis*, in Kentucky. 13939
- Initial soil penetration by insecticide emulsions used for subterranean termite control. 13988
- Laboratory evaluation of promising systemic insecticides in guinea pigs against oriental rat fleas. 14000 KEOSINE  
Ovicidal activity of aliphatic amines and petroleum oil against two species of mosquitoes. 13883
- Repulsion of green sunfish by certain chemicals. 14003 LACTATION  
Effects of oxytocin administered during the dry period on the succeeding lactation. 13948
- A unit for formulating granular insecticides. 14018
- INSECTS LAND SETTLEMENT  
Colonization and mass production of the false wireworm *Eleodes suturalis*. 13799
- The insect inhabitants of undisturbed cattle droppings in northern California. 13742
- Entomological bibliography of Baja California. z5B59-m6T7. 13757 LABVAE  
A new Maryland record of *Thelobania* (Nosematidae: Microsporidia). 13711
- Insects and their world. ed. 2. gL463.04. 13B33  
Some distinctions between the larvae and pupae of the Empididae and Dolichopodidae (Diptera). 13720
- Natural and synthetic materials with insect hormone activity. 3. Juvenile hormone activity of derivatives of p-(1,5-dimethyl-hexyl) benzoic acid. 13849  
Laboratory observations on certain mosquito larval predators. 13736
- INTEGRATED CONTROL (INSECTS)  
Use of chemical defoliant on peach trees in integrated program to suppress populations of green peach aphids. 13933  
Pupal paedogenesis in the Cecidomyiidae (Diptera). 3. a reclassification of the *Heteropezini*. 13763
- INTESTINES Hatch, larval development, and adult longevity of four lepidopterous species after thermal treatment of eggs. 13798  
Metabolism of insecticides by *Culex pipiens quinquefasciatus*. I. in vivo metabolism of DDT by larvae. 13810
- Electron microscopy of the striated border of the midgut cells of *Javesella pellucida* (F.) (Homoptera, Delphacidae). 13715  
Biology of *Tipula paludosa*; growth of the larva in the field. 13822
- Site of viral RNA synthesis within the midgut cells of the silkworm, *Bombyx mori*, infected with cytoplasmic polyhedrosis virus. 13857  
Observations on feeding and movement of tobacco hornworm larvae. 13825
- Intestinal protozoan infections in dogs. 13949  
Influence of photoperiod, temperature, and food on initiation of diapause in the apple maggot. 13840
- IONS  
Studies on the adsorption of arsenites by a few typical Indian soils. 13994  
Optake of P32 by yellow-fever mosquito larvae of equal age, and those pupating synchronously: its loss and transfer during development, mating, and oviposition. 13841
- Accumulation of sodium and calcium by seedlings of some cereal crops under saline conditions. 14007  
Neosarasia suspicalis Wkr a new pyralid leaf-roller of sugarcane in India. 13920
- IPHITA LIMBATA  
Influence of corpus allatum on reproduction of female *Iphta limbata* Stal (Hemiptera). 13839  
Labeling larvae of the elm sawfly with P32. 13932
- IPS CALLIGRAPHUS  
Two semiarificial oviposition media for the smaller European elm bark beetle. 13792  
Effect of varying populations of *Busseola fusca* larvae on the growth and yield of maize. 13934
- The life history of *Ips calligraphus* (Coleoptera: Scolytidae) with notes on its biology in California. 13863  
Field test to determine the effectiveness of conaaphos as a feed additive to control house fly larva under caged layers. 13980
- IRON  
Increased susceptibility to bacterial endotoxin of pigs with iron-deficiency anemia. 13965
- ISOFLAVONE  
An isoflavone-deficient mutant in *Trifolium subterraneum* induced by ethyl methane-sulphonate. 13866  
LARVICIDES  
Field test to determine the effectiveness of conaaphos as a feed additive to control house fly larva under caged layers. 13980
- ISOMERS  
Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. 1-methoxycarbonyl-1-propen-2-yl dimethylphosphate and its beta isomer. 13996  
LASPEYRESIA NIGRICANA  
Alternatives to DDT for the control of the pea moth on dry harvesting peas. 13917
- Food additives permitted in food for human consumption. 1-methoxycarbonyl-1-propen-2-yl dimethylphosphate and its beta isomer. 13997  
LEAF CUBI  
Genetics of resistance to cotton-leaf curl in Sakel cotton (*Gossypium barbadense*). 13906
- ISOPROPOXYPHENYL METHYLCABBANATE, O-  
Evaluation of fenthion and Baygon mixtures for control of adult *Aedes aegypti*: (L.) when applied as thermal-fog. 13888  
LEAVES  
Comparative survival of rehydrated and nonrehydrated wheat stem rust uredospores on dry leaf surfaces. 13898
- JAVESSELLA PELLUCIDA  
Electron microscopy of the striated border of the midgut cells of *Javesella pellucida* (F.) (Homoptera, Delphacidae). 13715  
Labeling larvae of the elm sawfly with P32. 13932
- Enumeration of Microlepidoptera encountered in the Warsaw region. 13760  
Hatch, larval development, and adult longevity of four

## SUBJECT INDEX

MANDUCA SEXTA

- lepidopteron species after thermal treatment of eggs. 13798
- LEPTINOTARSA DECEMLINEATA**  
The secretory activity of corpora allata during sexual maturation and imaginal diapause in *Gryllus domesticus* L and *Leptinotarsa decemlineata* Say. 13767
- LEPTOCOONOPS KERTESZI**  
Blood meal size of *Leptoconops kerteszi* (Diptera: Ceratopogonidae). 13874  
Colonization studies of *Leptoconops kerteszi*, biting gnats. 13889
- LEPTOCOONOPS TORRENS**  
An improved carbon dioxide sticky cylinder trap. 13748
- LEPTOSPIRIBOSIS**  
Incidence of listeriosis in Pennsylvania livestock. 13969
- LETSAL YELLOWING (COCONUTS)**  
Mechanical transmission of coconut lethal yellowing. 13903
- LETTUCE**  
Pulsed ultrasonic sound for control of oviposition by cabbage looper moths. 13835
- LICHENES**  
Studies on the moss mites of *Snowdonia* (Acari: Crihatei). 1. Moel Hebog. 13749
- LIGHT**  
Seasonal changes in daily activity periods of the sweetclover weevil. 13775  
Phototactic choice between two white light sources of various intensity in blowfly, *Calliphora erythrocephala* Meig. 13823  
Influence of temperatures and light regimens on diapause of *Samia cynthia pryeri*. 13846  
The role of light in spore germination and sporidial production of the wheat smut fungus, *Tilletia caries* (DC.) Tul. 13904  
Factors in paraguay-induced chlorosis with *Phaseolus foliar* tissues. 14005
- LIGHT TRAPS**  
Aphid trapping with black-light lamps. 13912
- LINDANE**  
Effect of post-treatment temperature on toxicity of insecticides to resistant and susceptible house flies. 13784  
Residual activity of diazinon and lindane for control of *Loxosceles reclusa*. 13884
- LINURON**  
Interaction effects of atrazine and CDAA, linuron, ashen, or trifluralin on soybean growth. 14006
- LINYPHIA TRIANGULABIS**  
Copulation and sperm induction by normal and palpless male linyphiid spiders. 13847
- LIPIDS**  
Effects of dietary lipids on survival and development of the saw-toothed grain beetle, *Oryzaephilus surinamensis* (L.) (Coleoptera: Silvanidae). 13782  
Seasonal lipid content of hawworm larvae. 13806  
Studies on the antigenic structure of mycobacteria. II. antigenic structure and lipid fractions of *Mycobacterium avium* and avium-like strains. 13971
- LIPOKOPHILA CHINAI**  
*Lipokophila chinai* gen n sp n; a new genus of Flokiophilidae (Aeteroptera) from Brazil. 13754
- LISTERIA MONOCYTOGENES**  
Incidence of listeriosis in Pennsylvania livestock. 13969
- LISTERIOSIS**  
Incidence of listeriosis in Pennsylvania livestock. 13969
- LIVESTOCK**  
Incidence of listeriosis in Pennsylvania livestock. 13969  
Some notes on fleas (Siphonaptera) of domestic animals in Northern Tanzania (East Africa). 13977  
Economic losses due to parasitic diseases of livestock in Ceylon. 13985
- LIVESTOCK DISEASES**  
Isolation of *Streptococcus equi* from huros. 13975
- LONGEVITY**  
Effect of ultraviolet irradiation on egg hatch, subsequent larval development, and adult longevity of the tobacco budworm and the hollworm. 13797  
Hatch, larval development, and adult longevity of four lepidopteron species after thermal treatment of eggs. 13798  
Some effects of three triphenyltin compounds on the fertility and longevity of Japanese beetles. 13818
- LOXOSCELES RECLUSA**  
Residual activity of diazinon and lindane for control of *Loxosceles reclusa*. 13884
- LUPINUS ANGUSTIFOLIUS**  
Insect visitors to flowers of blue lupine, *Lupinus angustifolius*. 13921
- LYGUS LINEOLARIS**  
Control of the tarnished plant bug on cotton with several insecticides. 13911
- LYMPH NODES**  
Isolation of *Streptococcus equi* from huros. 13975
- LYSINE**  
Effect of levels of calcium and lysine upon the growth of *Ascaridia galli* in chicks. 13953
- MACROCHELES MUSCAE DOMESTICAE**  
Autoecology and reproductive capacity of *Macrocheles muscaedomesticae* (Scopoli) (Acari: Mesostigmata). 13787
- MACROSIPHUM AVENAE**  
Aphid trapping with black-light lamps. 13912
- MAGNESIUM**  
Magnesium deficiency syndromes. 13968  
Studies on the adsorption of arsenites by a few typical Indian soils. 13994
- MADAGASCAR REPUBLIC**  
Acarina Thrombidiidae of Madagascar. 13744
- MALARIA**  
Summary of recent abstracts. III. malaria. 13875
- MALATHION**  
The effect of certain insecticides on the entomogenous fungi *Beauveria bassiana* and *Metarhizium anisopliae*. 13743  
Atomization of low-volune malathion aerial spray. 14016
- MALEIC HYDRAZIDE**  
Effects of chemosterilants and growth regulators on the pea aphid fed an artificial diet. 13769
- MAMMALS**  
Virus of the California encephalitis complex: isolation from *Caliseta inornata*. 13881
- MANATEES**  
Manatees as a naturalistic biological mosquito control method. 13877
- MANDUCA QUINQUEMACULATA**  
Evaluation of experimental insecticides for control of hornworms on tobacco. 13914
- MANDUCA SEXTA**  
Observations on feeding and movement of tobacco hornworm larvae. 13825  
Evaluation of experimental insecticides for control of hornworms on tobacco. 13914



SUBJECT INDEX

<b>MABSHES</b>			
<b>MABSRRES</b>	Thiokol Swamp Spryte equipped with automatic compressed air spraying units for applying granule and liquid insecticides.	13876	
<b>MABUCA TESTDIALIS</b>	Insecticidal control of <i>Maruca testulalis</i> on cowpea in Nigeria.	13918	
<b>MEDOCOSTES</b>	Medocostidae—a new family of Cimicomorphan Heteroptera based on a new genus and two new species from tropical Africa. i. descriptive part.	13753	
<b>MEDOCOSTIDAE</b>	Medocostidae—a new family of Cimicomorphan Heteroptera based on a new genus and two new species from tropical Africa. i. descriptive part.	13753	
<b>MELOIDOGYNE INCGNHITA</b>	A technique for isolating and maintaining cultures of <i>Meloidogyne</i> .	13940	
<b>MELOIDOGYNE JAVANICA</b>	Changes associated with parasitism in nematodes. i. morphology and physiology of parasitic and parasitic larvae of <i>Meloidogyne javanica</i> .	13938	
<b>METABOLISM</b>	The metabolism of radioactive fumaric acid and some other substrates by whole adult <i>Echinococcus granulosis</i> (Cestoda).	13982	
<b>METABOLITES</b>	Notice of filing of petition regarding pesticide chemicals.	13999	
	Plant uptake of <sup>14</sup> C-diuron in modified soil.	14008	
<b>METAL HOSE</b>	Metal hose simplifies bird bait application.	13947	
<b>METANOHEBCSIS</b>	Field observations on twenty-eight broods of floodwater mosquitoes resulting from controlled floodings of a natural habitat in the Tennessee Valley.	13716	
	Temperature conditions and maternal effect as modifying factors in the photoperiodic control of the seasonal form in <i>Polytonia c-aureum</i> (Lepidoptera, nymphalidae).	13808	
	The stages of <i>Spanogonicus albofasciatus</i> and their development (Hemiptera: Miridae).	13832	
<b>METARHIZIUM ANISOPLIAE</b>	The effect of certain insecticides on the entomogenous fungi <i>Beauveria bassiana</i> and <i>Metarhizium anisopliae</i> .	13743	
<b>METHYLTHIO-3,5-DIYL METHYL CARBAMATE, 4-</b>	Alternatives to DDT for the control of the pea moth on dry harvesting peas.	13917	
<b>METOPOLCPRIUM</b>	On alpine rose- and grass-infesting species of <i>Metopopolcium</i> Morovilko, 1914, with descriptions of two new species (Homoptera, Aphididae).	13730	
<b>MEVINPHCS</b>	Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. 1-methoxycarbonyl-1-propen-2-yl dimethylphosphate and its beta isomer.	13996	
	Food additives permitted in food for human consumption. 1-methoxycarbonyl-1-propen-2-yl dimethylphosphate and its beta isomer.	13997	
<b>MIASTOB CASTANEAE</b>	Prupal paedogenesis in the Cecidomyiidae (Diptera). 3. a reclassification of the <i>Heteropezini</i> .	13763	
<b>MICE</b>	The effect of warfarin on plasma clotting time in wild house mice ( <i>Mus musculus</i> L.).	14002	
<b>MICRODREYMATOSA</b>	Some Orthopteroid insects of the orders Blattoptera, Orthoptera and Dermaptera from Afghanistan.	13712	
<b>MIKOLETZKYA PIERCI</b>	Nematodes associated with tree-infesting insects. paurodontidae new family and Misticiniinae new subfamily with a description of one new genus and four new species.	13925	
<b>MILK</b>	Acute infectious bovine rhinotracheitis and Salmonellosis in a dairy herd.	13976	
<b>MILO</b>	Residue of bensulide in turfgrass soil following annual treatments for crabgrass control.	13991	
<b>MIRIDAE</b>	Taxonomic review: Miridae of the Nevada test site and the western United States.	13732	
	The stages of <i>Spanogonicus albofasciatus</i> and their development (Hemiptera: Miridae).	13832	
<b>MISTICINIINAE</b>	Nematodes associated with tree-infesting insects. paurodontidae new family and Misticiniinae new subfamily with a description of one new genus and four new species.	13925	
<b>MISTICIUS MDSTDS</b>	Nematodes associated with tree-infesting insects. paurodontidae new family and Misticiniinae new subfamily with a description of one new genus and four new species.	13925	
<b>MITES</b>	Phytoseiidae of sand-pine litter.	13739	
	Acarina Thrombidiidae of Madagascar.	13744	
	Influence of the proportion of fruiting to non-fruiting clusters on the distribution of insect predators on apple trees.	13824	
	Mites of <i>Crataegus</i> and <i>Amelanchier</i> in Hood River Valley, Oregon.	13919	
<b>MIYAGAWANELLA GROUP VIBUSES</b>	Partial purification of the organism of psittacosis grown in chicken embryo yolk sac.	13954	
<b>MONILIASIS</b>	Systemic candidiasis in calves on prolonged antibiotic therapy.	13964	
<b>MONKEYS</b>	Preliminary report on soluble antigen fluorescent antibody technique for identification of host source of mosquito blood meals.	13789	
<b>MORTALITY</b>	Effects of dietary lipids on survival and development of the saw-toothed grain beetle, <i>Oryzaephilus surinamensis</i> (L.) (Coleoptera: Silvanidae).	13782	
	Effect of post-treatment temperature on toxicity of insecticides to resistant and susceptible house flies.	13784	
	Further studies of effects of antibiotics and other compounds on fecundity and mortality of the two-spotted spider mite.	13801	
	Mutilation and survival of sterile oriental fruit flies and melon flies emerging in drop boxes.	13802	
	Toxicity of five carbamate insecticides to the two-spotted spider mite and larvae of the southern armyworm and tobacco budworm.	13862	
	Increased susceptibility to bacterial endotoxin of pigs with iron-deficiency anemia.	13965	
<b>MUSCA AETHEALIS</b>	The insect inhabitants of undisturbed cattle droppings in northern California.	13742	
<b>MUSCA DOMESTICA</b>	Causes of resistance to DOT in a diazinon-selected and DDT-SELECTED strain of house flies.	13783	
	Effect of post-treatment temperature on toxicity of insecticides to resistant and susceptible house flies.	13784	

SUBJECT INDEX

ORTHOPTERA

- Conjugation of 1-naphthol and p-nitrophenol in flies: formation of glucoside-6-phosphates. 13805
- Laboratory procedures. in: Principles of insect chemosterilization, G. C. LaBrecque and C. N. Smith, ed. S959.L3. 13819
- Effect of 6-azauridine on the development of the ovaries in the house fly *Musca domestica* L. (Diptera). 13844
- A gross analysis of two DDT-RESISTANT house fly strains. 13869
- Two types of sesamer-suppressible resistance in the house-fly. 13871
- Field test to determine the effectiveness of coumaphos as a feed additive to control house fly larva under caged layers. 13980
- The susceptibility of house flies reared under various photoperiods to insecticide residues. 13992
- MOSCI**  
Studies on the moss mites of *Snowdonia* (Acari: Oribatei). 1. Moel Hehog. 13749
- MOSCOLAB DYSTROPHY**  
Factors affecting the development of nutritional muscular dystrophy in northern Ontario. 13956
- MYCOBACTERIUM AVIUM**  
Studies on the antigenic structure of mycobacteria. ii. antigenic structure and lipid fractions of *Mycobacterium avium* and avium-like strains. 13971
- MYCOBACTERIUM BOVIS**  
Bovine tuberculosis eradication in Wisconsin. 13962
- MYMICA AMERICANA**  
Comparative studies on the behaviour of three species of ants (Hymenoptera: Formicidae). i. prey finding, capture, and transport. 13765
- MYZUS PERSICAE**  
The spray warning scheme for control of sugar beet yellows in England; summary of results between 1959-66. 13897
- Use of chemical defoliant on peach trees in integrated program to suppress populations of green peach aphids. 13933
- Effects of soil fertility on abundance of green peach aphids on Maryland tobacco. 13937
- NALED**  
Some factors affecting kill of the stable fly, *Stomoxys calcitrans* (L.), with insecticidal thermal aerosols. 13873
- NAPHTHOL**  
Conjugation of 1-naphthol and p-nitrophenol in flies: formation of glucoside-6-phosphates. 13805
- NATURAL CONTROL (INSECTS)**  
The insect inhabitants of undisturbed cattle droppings in northern California. 13742
- NEBRASKA**  
A five-year study of potential western corn rootworm resistance to diazinon and phorate in Nebraska. 13766
- Seasonal changes in daily activity periods of the sweetclover weevil. 13775
- NEMATODES**  
The nature of *Achromoacter nematophilus* as an insect pathogen. 13838
- Nematodes associated with tree-infesting insects. paurodontidae new family and Misticinae new subfamily with a description of one new genus and four new species. 13925
- A soil population study of *Ditylenchus dipsaci* (Kuhn) Filipjev in an alfalfa field. 13941
- The ultrastructure of the alimentary tract of the skin-penetrating larva of *Nippostrongylus brasiliensis* (Nematoda). 13983
- A comparative study of thiabendazole and phenothiazine as anthelmintics for the gastrointestinal nematodes of the goat. 13984
- NEMATODIRUS**  
*Nematodirus* of domestic sheep, *Ovis aries*, in the United States with a key to the species. 13981
- NEMATOLOGY**  
A technique for isolating and maintaining cultures of *Meloidogyne*. 13940
- NEODIPTRION SWAINEI**  
The nature of cysts found in pupae and adults of *Neodiptrion swainei*. 13850
- NEODYSDEBUS INTERMEDIOS**  
Natural and synthetic materials with insect hormone activity. 3. juvenile hormone activity of derivatives of p-(1,5-dimethyl-hexyl) benzoic acid. 13849
- NEOMARASMA SUSPICALIS**  
*Neomarasma suspicalis* Wkr a new pyralid leaf-roller of sugarcane in India. 13920
- NEOPLECTANA**  
The nature of *Achromoacter nematophilus* as an insect pathogen. 13838
- NIGERIA**  
Insecticidal control of *Maruca testulalis* on cowpea in Nigeria. 13918
- NIPPOSTONGYLUS BRASILIENSIS**  
The ultrastructure of the alimentary tract of the skin-penetrating larva of *Nippostrongylus brasiliensis* (Nematoda). 13983
- NITROBENZOL**  
Conjugation of 1-naphthol and p-nitrophenol in flies: formation of glucoside-6-phosphates. 13805
- NOSEMA APIS**  
In vitro phagocytosis of *Nosema apis* spores by honey-bee hemocytes. 13725
- NOSEMA TRACHEOPHILA**  
The biology and life history of *Nosema tracheophila* sp n (Protozoa: Cnidospora: Microsporidea) found in *Coccinella septempunctata* Linnaeus (Coleoptera: Coccinellidae). 13774
- NUCLEIC ACIDS**  
Effect of 6-azauridine on the development of the ovaries in the house fly *Musca domestica* L. (Diptera). 13844
- NYMPHALIDAE**  
Temperature conditions and maternal effect as modifying factors in the photoperiod control of the seasonal form in *Polytonia c-aureum* (Lepidoptera, Nymphalidae). 13807
- Temperature conditions and maternal effect as modifying factors in the photoperiodic control of the seasonal form in *Polytonia c-aureum* (Lepidoptera, nymphalidae). 13808
- OATS**  
Herbicides or oat companion crops for alfalfa establishment and forage yields. 13946
- Plant uptake of 14C-diuron in modified soil. 14008
- ORGANOPHOSPHORUS COMPOUNDS**  
A comparison of the toxicity of various carbamate, organophosphorus and organochlorine compounds to the codling moth SB951.67. 13793
- Structure of organophosphorus compounds in relation to control of the southern chinch bug. 13813
- ORIBATEI**  
Studies on the moss mites of *Snowdonia* (Acari: Oribatei). 1. Moel Hehog. 13749
- ORTHOPTERA**  
Some Orthopteroid insects of the orders Blattoptera, Orthoptera and Dermaptera from Afghanistan. 13712

SUBJECT INDEX

<b>ORYZAEPHILUS SURINAMENSIS</b>			
<b>ORYZAEPHILUS SURINAMENSIS</b>		<b>PARATRION</b>	
Some observations on <i>Oryzaephilus surinamensis</i> L. (Col., Silvanidae) in a temperature-moisture gradient.	13764	The effect of certain insecticides on the entomogenous fungi <i>Beauveria bassiana</i> and <i>Metarhizium anisopliae</i> .	13743
Effects of dietary lipids on survival and development of the saw-toothed grain beetle, <i>Oryzaephilus surinamensis</i> (L.) (Coleoptera: Silvanidae).	13782	Persistence and biological effects of parathion residues in waterfowl habitats.	13993
<b>OSTRINIA NUBILALIS</b>		<b>PARSLEY</b>	
Isolation of a sex pheromone of the European corn borer.	13816	Food additives permitted in food for human consumption. 1-methoxycarbonyl-1-propen-2-yl dimethylphosphate and its beta isomer.	13997
<b>OTITESSELLINI</b>		<b>PAURODONTIDAE</b>	
Redescription of Sycophaginae from Ceylon and India, with designation of lectotypes, and a world catalogue of the Otitesellini (Hymenoptera Chalcidoidea, Torymidae).	13762	Nematodes associated with tree-infesting insects. paurodontidae new family and Misticiniinae new subfamily with a description of one new genus and four new species.	13925
<b>OVARIES</b>		<b>PAUROPODA</b>	
Immunofluorescence studies on <i>Bombyx mori</i> ovarian tissue cultures infected with nuclear-polyhedrosis virus.	13817	First record of Panopoda in cultivated lands at Giza Region.	13721
A simple method of mosquito ovary dissection.	13827	<b>PEACHES</b>	
Effect of 6-azauridine on the development of the ovaries in the house fly <i>Musca domestica</i> L. (Diptera).	13844	Effect of alcohols on spores of <i>Sclerotinia fructicola</i> and other peach fruit-rotting fungi in California.	13901
<b>OVICIDES</b>		Use of chemical defoliant on peach trees in integrated program to suppress populations of green peach aphids.	13933
Ovicidal activity of aliphatic amines and petroleum oil against two species of mosquitoes.	13883	<b>PEANUTS</b>	
<b>OVIPOSITORS</b>		Verticillium wilt resistance in peanuts ( <i>Arachis hypogaea</i> ).	13907
A comparison of the toxicity of various carbamate, organophosphorus and organochlorine compounds to the codling moth SB951.G7.	13793	Method of laboratory screening of peanut germ plasma for resistance to the lesser cornstalk borer.	13922
<b>OVULATICN</b>		Notice of filing of petition regarding pesticide chemicals.	13995
Two semiartificial oviposition media for the smaller European elm bark beetle.	13792	<b>PEAS</b>	
Pulsed ultrasonic sound for control of oviposition by cabbage looper moths.	13835	Alternatives to DDT for the control of the pea moth on dry harvesting peas.	13917
Effect of gamma irradiation on female <i>Culex pipiens quinquefasciatus</i> .	13851	Paper chromatographic analysis as a new test method of bactericidal substances in plant extracts and possible relations of these substances to plant growth inhibitors.	14009
<b>OxODEC-TRANS-ENOIC ACID, 9-</b>		<b>PECTINOPHORA GOSSYPIELLA</b>	
Effects of chemosterilants and growth regulators on the pea aphid fed an artificial diet.	13769	Hatch, larval development, and adult longevity of four lepidopterous species after thermal treatment of eggs.	13798
<b>OXYGEN</b>		<b>PENICILLIN</b>	
Respiratory environments of grain-infesting weevils. I. comparison of culture-jar and laboratory rearing-room atmospheres.	13861	Bacterial endocarditis in a dog.	13960
<b>OXYTOCIN</b>		Notice of filing of petition for food additives chlortetracycline, penicillin, sulfamethazine.	13973
Effects of oxytocin administered during the dry period on the succeeding lactation.	13948	<b>PENICILLIUM</b>	
<b>PACHYLOEIVUS FICIVORUS</b>		Soil microbial degradation of aldrin.	14010
Nematodes associated with tree-infesting insects. paurodontidae new family and Misticiniinae new subfamily with a description of one new genus and four new species.	13925	<b>PERIDROMA SAUCIA</b>	
<b>PARAMYELOIS TRANSITELLA</b>		Temperature-induced wing malformation in alfalfa loopers and variegated cutworms.	13848
Morphology of the internal reproductive organs of the navel orangeworm, <i>Paramyelois transitella</i> .	13726	<b>PERIPLANETA BRUNNEA</b>	
Morphology of the internal reproductive organs of the navel orangeworm, <i>Paramyelois transitella</i> .	13800	Results of 1966 NPCA-SPONSORED research at VPI on cockroach control.	13794
<b>PARAQUAT</b>		<b>PEST CONTROL</b>	
Factors in paraquat-induced chlorosis with <i>Phaseolus foliar</i> tissues.	14005	Pesticides: plant protection. SB951.V6.	13894
<b>PARASITIC INSECTS</b>		<b>PESTICIDE ANALYSIS</b>	
A new Ateleute from the United States (Hymenoptera: Ichneumonidae).	13853	Notice of filing of petition regarding pesticide chemicals.	13995
Some notes on fleas (Siphonaptera) of domestic animals in Northern Tanzania (East Africa).	13977	Notice of filing of petition regarding pesticide chemicals.	13999
<b>PARASITISM</b>		<b>PESTICIDE APPLICATION</b>	
Rate of tick attachment to a white-tailed fawn.	13880	Laboratory procedures. in: Principles of insect chemosterilization. G. C. LaBrecque and C. N. Smith, ed. SB959.L3.	13819
Economic losses due to parasitic diseases of livestock in Ceylon.	13985	Evaluation of systemic insecticides incorporated in the soil for control of lepidopterous larvae of cole crops in southern California.	13931



- PESTICIDE MIXTURES**  
Evaluation of fenthion and Baygon mixtures for control of adult *Aedes aegypti*: (L.) when applied as thermal-fog. 13888
- PESTICIDE RESIDUES**  
Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. deletion of requirement to analyze carrot tops for pesticide residues. 13998
- PESTICIDES**  
Pesticides: plant protection. SE951.V6. 13894  
Repulsion of green sunfish by certain chemicals. 14003
- PHARMACIA**  
Conjugation of 1-naphthol and p-nitrophenol in flies: formation of glucoside-6-phosphates. 13805
- PHAGOCYTOSIS**  
In vitro phagocytosis of *Nosema apis* spores by honey-bee hemocytes. 13725
- PHALANGIDA**  
Contribution to the knowledge of the daddy longlegs fauna of the Soviet Central Asia (Arach., Opiliones). 13750
- PHENOTHIAZINE**  
A comparative study of thiabendazole and phenothiazine as anthelmintics for the gastrointestinal nematodes of the goat. 13984
- PHEROMONES**  
Male pheromones of *Culex quinquefasciatus*, *C. tarsalis*, and *C. pipiens* that attract females of these species. 13791
- PHILAENUS SPONABUS**  
Modes of balance in the polymorphism of *Philaenus spumarius* (L.) (Homoptera). 13867
- PHOMA**  
Fungus associated with Purple Patch of subterranean clover in western Australia. 13905
- PHORATE**  
A five-year study of potential western corn rootworm resistance to diazinon and phorate in Nebraska. 13766  
Notice of filing of petition regarding pesticide chemicals. 13995
- PHORMIA BEGIANA**  
Free amino acids and derivatives in eggs of *Drosophila*, *Culex* and *Phormia*. 13777
- PHOSPHAMIDON**  
The effect of certain insecticides on the entomogenous fungus *Beauveria bassiana* and *Metarhizium anisopliae*. 13743  
Insecticidal control of *Marna testulalis* on cowpea in Nigeria. 13918
- PROSPHOTHIOIC ACID ESTERS**  
Synthesis of S35-(methylthio)aryl phosphorothioates. 14015
- PROSPHOBOS ISOTOPES**  
Uptake of P32 by yellow-fever mosquito larvae of equal age, and those pupating synchronously: its loss and transfer during development, mating, and oviposition. 13841  
Labeling larvae of the elm sawfly with P32. 13932
- PROTEIN**  
Accumulation of sodium and calcium by seedlings of some cereal crops under saline conditions. 14007
- PHOTOPERIODISM**  
Temperature conditions and maternal effect as modifying factors in the photoperiodic control of the seasonal form in *Polygonia c-aureum* (Lepidoptera, Nymphalidae). 13807  
Temperature conditions and maternal effect as modifying factors in the photoperiodic control of the seasonal form in *Polygonia c-aureum* (Lepidoptera, nymphalidae). 13808  
Influence of photoperiod, temperature, and food on initiation of diapause in the apple maggot. 13840  
The susceptibility of house flies reared under various photoperiods to insecticide residues. 13992
- PHOTOTROPISM**  
Phototactic choice between two white light sources of various intensity in blowfly, *Calliphora erythrocephala* Meig. 13823
- PHYCITIDAE**  
Morphology of the internal reproductive organs of the navel orangeworm, *Parasa eois transitella*. 13726
- PHYSIOLOGY**  
Autoecology and reproductive capacity of *Macrocheles muscaedomesticae* (Scopoli) (Acari: Mesostigmata). 13787
- PHYTOMYZA ATHICORHIS**  
Chemical control of chrysanthemum leaf miner and some observations on varietal preference. 13915
- PHYTOSEIIDAE**  
Phytoseiidae of sand-pine litter. 13739
- PIERIS**  
Supplementary data on the androconial scales of some Holarctic species *Pieris* (Lepidoptera). 13761
- PIERIS BRASSICAE**  
The effect of heat, cold, and prolonged storage on a granulosis virus of *Pieris brassicae*. 13781
- PIERIS RAPAE**  
Evaluation of systemic insecticides incorporated in the soil for control of lepidopteran larvae of cole crops in southern California. 13931
- PIGEONS**  
Metal hose simplifies bird bait application. 13947
- PINUS**  
The life history of *Ips calligraphus* (Coleoptera: Scolytidae) with notes on its biology in California. 13863
- PINUS CLAOUSA**  
Phytoseiidae of sand-pine litter. 13739
- PINUS STROBOS**  
Seasonal lipid content of hagworm larvae. 13806
- PLANT BIOCHEMISTRY**  
Ergotamine production in submerged culture and physiology of *Claviceps purpurea*. 14004  
Accumulation of sodium and calcium by seedlings of some cereal crops under saline conditions. 14007
- PLANT DISEASE RESISTANCE**  
Kharchia-65 a new rust-resistant wheat for saline areas. 13895  
An association of stem rust and crown rust resistance in Jostrain oats. 13899  
Genetics of resistance to cotton-leaf curl in Sakel cotton (*Gossypium barbadense*). 13906  
Verticillium wilt resistance in peanuts (*Arachis hypogaea*). 13907
- PLANT DISEASE TRANSMISSION**  
Mechanical transmission of coconut lethal yellowing. 13903
- PLANT EXTRACTS**  
Feeding of horseflies (Diptera: Tabanidae) on plant juices. 13845  
Paper chromatographic analysis as a new test method of bactericidal substances in plant extracts and possible relations of these substances to plant growth inhibitors. 14009
- PLANT GENETICS**  
Genetics of resistance to cotton-leaf curl in Sakel cotton (*Gossypium barbadense*). 13906
- PLANT GROWTH INHIBITORS**  
Effects of chemosterilants and growth regulators on the pea aphid fed an artificial diet. 13769
- PLANT INJURIES**  
Distribution of plum curculio injury in a sour cherry orchard and sampling procedures for determining the extent of injury. 13928

SUBJECT INDEX

PLANT METABOLISM

- Factors in paraquat-induced chlorosis with *Phaseolus foliar* tissues. 14005
- Interaction effects of atrazine and CDAA, linuron, alar, or trifluralin on soybean growth. 14006
- PLANT METABOLISM**  
Soil microbial degradation of aldrin. 14010
- PLANT NEMATODES**  
Changes associated with parasitism in nematodes. i. morphology and physiology of parasitic and parasitic larvae of *Meloidogyne javanica*. 1393B
- A technique for isolating and maintaining cultures of *Meloidogyne*. 13940
- PLANT PEST RESISTANCE**  
Method of laboratory screening of peanut germ plasma for resistance to the lesser cornstalk borer. 13922
- PLANT PHYSIOLOGY**  
Effect of varying populations of *Busseola fusca* larvae on the growth and yield of maize. 13934
- Ergotamine production in submerged culture and physiology of *Claviceps purpurea*. 14004
- PLANT PROTECTION**  
Pesticides: plant protection. SB951.V6. 13894
- PLANT TRANSLOCATION**  
Plant uptake of <sup>14</sup>C-diuron in modified soil. 14008
- PLASMODIOPHYTES BRASSICAE**  
Soil testing for club root in Devon and Cornwall. 13900
- PLATANUS**  
Paper chromatographic analysis as a new test method of bactericidal substances in plant extracts and possible relations of these substances to plant growth inhibitors. 14009
- PLISTOPHYTES CAECORUM**  
*Plistophora caecorum* sp. n., a microsporidian of *Culiseta inornata* (Diptera: Culicidae) from Louisiana. 13776
- PLORICPHILIDAE**  
*Lipokophila chinai* gen. n. sp. n.; a new genus of Plokophilidae (Aeteroptera) from Brazil. 13754
- PLUTELLA MACULIPENNIS**  
Evaluation of systemic insecticides incorporated in the soil for control of lepidopterous larvae of cole crops in southern California. 13931
- POISONING**  
Biochemical and pathological effects of aflatoxin poisoning in ducklings. 13961
- POISONOUS PLANTS**  
The cinnabar moth, *Tyria jacchaeae*, for control of tansy ragwort. 13945
- Petal ankylosis in horses associated with hybrid Sudan pasture. 13967
- POLYGONIA C-AUREUM**  
Temperature conditions and maternal effect as modifying factors in the photoperiod control of the seasonal form in *Polygonia c-aureum* (Lepidoptera, Nympthalidae). 13807
- Temperature conditions and maternal effect as modifying factors in the photoperiodic control of the seasonal form in *Polygonia c-aureum* (Lepidoptera, nympthalidae). 13808
- POLYBEBDOSES**  
Immunofluorescence studies on *Bombyx mori* ovarian tissue cultures infected with nuclear-polyhedrosis viruses. 13817
- Field tests with a nuclear polyhedral virus against the hollyhock and tobacco budworm, 1964-1966. 13826
- Development of resistance in the silkworm, *Bombyx mori*, to peroral infection of a cytoplasmic-polyhedrosis virus. 13855
- Electrophoretic separation of the hemolymph proteins in the fall webworm, *Hyphantria cunea*, infected with a nuclear-polyhedrosis virus. 13856
- Site of viral RNA synthesis within the midgut cells of the silkworm, *Bombyx mori*, infected with cytoplasmic-polyhedrosis virus. 13857
- POLYMORPHISM**  
Modes of balance in the polymorphism of *Philaenus spumarius* (L.) (Homoptera). 13867
- POPILLIA JAPONICA**  
Some effects of three triphenyltin compounds on the fertility and longevity of Japanese beetles. 13818
- POPULATION**  
A soil population study of *Ditylenchus dipsaci* (Kuhn) Filipjev in an alfalfa field. 13941
- POPULUS**  
Pests of poplars and preventive and curative methods of control. SB608.P775D3. 13913
- POULTRY**  
Incidence of listeriosis in Pennsylvania livestock. 13969
- Field test to determine the effectiveness of conmaphos as a feed additive to control house fly larva under caged layers. 13980
- PREDACEOUS INSECTS**  
Laboratory observations on certain mosquito larval predators. 13736
- Effect of temperature on predation of horn fly larvae by the larvae of *Sphaeridina scarabaeoides*. 13770
- Influence of the proportion of fruiting to non-fruiting clusters on the distribution of insect predators on apple trees. 13824
- Use of chemical defoliants on peach trees in integrated program to suppress populations of green peach aphids. 13933
- PREDACEOUS MITES**  
Autoecology and reproductive capacity of *Macrocheles muscaedomesticae* (Scopoli) (Acari: Mesostigmata). 13787
- PRIONUS LATICOLLIS**  
A preliminary study of the life history of the broad-necked root borer in Rhode Island. 13785
- PBODENIA EBIDANIA**  
Toxicity of five carbamate insecticides to the two-spotted spider mite and larvae of the southern armyworm and tobacco budworm. 13862
- PROTEINS**  
Electrophoretic separation of the hemolymph proteins in the fall webworm, *Hyphantria cunea*, infected with a nuclear-polyhedrosis virus. 13856
- PROTOZOA**  
Intestinal protozoan infections in dogs. 13949
- PSENYLUS MAAI**  
Contribution to the knowledge of the Bornean *Psenini* (Bymenoptera, Sphecidae). 13758
- PSEUDALENCRUS BYLOBII**  
Nematodes associated with tree-infesting insects. paurodontidae new family and Misticiniinae new subfamily with a description of one new genus and four new species. 13925
- PSEUDOCOWPOX**  
Pseudocowpox in dairy cattle. 13951
- PSEUDOMONAS**  
Urethroadenocystitis in the male cat. 13963
- PSEUDOPUSIA INCLUDENS**  
Specificity of the cabbage looper sex attractant. 13768
- PSITTACOSIS**  
Partial purification of the organism of psittacosis grown in chicken embryo yolk sac. 13954
- PSYCHIDAE**  
The building mechanisms of the caterpillars of *Pnaea casta* Fall. (Lepidoptera, Psychidae). 13796

SUBJECT INDEX

			RHINOTRACHEITIS
A new Ateleute from the United States (Hymenoptera: Ichneumonidae).	13853	(Cestoda).	13982
PSYLLA PYRICICLIA Chemosterilization of male pear psylla with tepa.	13812	Synthesis of S35-((methylthio)aryl) phosphorothioates.	14015
PUCCINIA CORONATA An association of stem rust and crown rust resistance in Jostrain oats.	13899	RADISHES Studies on resistance in radish to Fusarium oxysporum f. conglutinans.	13902
PUCCINIA GRAMINIS An association of stem rust and crown rust resistance in Jostrain oats.	13899	RANA CATESBEIANA SHAW Persistence and biological effects of parathion residues in waterfowl habitats.	13993
PUERTO RICO Improved xenic diets for rearing the sugarcane borer in Puerto Rico.	13854	RAPE Soil testing for club root in Devon and Cornwall.	13900
PULEX IERITANS Some notes on fleas (Siphonaptera) of domestic animals in Northern Tanzania (East Africa).	13977	RAPHIDIA Studies of European and Asia Minor species of the genus Raphidia L. (Insecta, Raphidioidea).	13710
PUPAE Some distinctions between the larvae and pupae of the Empididae and Dolichopodidae (Diptera).	13720	RASPBERRIES Rubus viruses and virus diseases. (Abstract).	13908
The nature of cysts found in pupae and adults of Neodiprion swainei.	1385D	RATS Systemic insecticides for control of oriental rat fleas: bait tests with hooded white rats.	13778
Ecdysone and ecdysone-analogues: their assay and action on diapausing pupae of the Cynthia silkworm.	13860	REGULATION (PESTICIDES) Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. deletion of requirement to analyze carrot tops for pesticide residues.	13998
PUBINES Further studies of effects of antibiotics and other compounds on fecundity and mortality of the two-spotted spider mite.	13801	REPRODUCTION Pupal paedogenesis in the Cecidomyiidae (Diptera). 3. a reclassification of the Heteropezini.	13763
PYRALIDAE Neorassia snspicalis Wkr a new pyralid leaf-roller of sugarcane in India.	13920	Autoecology and reproductive capacity of Macrocheles muscaedomesticae (Scopoli) (Acari: Mesostigmata).	13787
PYRGUS Sculpturing of the eggs of the Lepidoptera fauna of Belgium.	13747	Gamma irradiation of the tobacco budworm: sterilization, competitiveness, and observations on reproductive biology.	13788
PYRIMIDINES Further studies of effects of antibiotics and other compounds on fecundity and mortality of the two-spotted spider mite.	13801	Influence of corpus allatum on reproduction of female Iphita limbata Stal (Hemiptera).	13839
PYRRHOCCERIS APTERUS Natural and synthetic materials with insect hormone activity. 3. juvenile hormone activity of derivatives of p-(1,5-dimethyl-hexyl) benzoic acid.	13849	Uptake of P32 by yellow-fever mosquito larvae of equal age, and those pupating synchronously: its loss and transfer during development, mating, and oviposition.	13841
QUANTITATIVE ANALYSIS The free amino acids in the haemolymph of the maturing adult boll weevil, Anthonomus grandis Boheman.	13830	Colonization studies of Leptoconops kerteszi, biting gnats.	13889
QUERCUS Feeding of horseflies (Diptera: Tabanidae) on plant juices.	13845	REPRODUCTIVE ORGANS Morphology of the internal reproductive organs of the navel orangeworm, Paratyelois transitella.	13726
RABBITS Blood meal size of Leptoconops kerteszi (Diptera: Ceratopogonidae).	13874	Morphology of the internal reproductive organs of the navel orangeworm, Paratyelois transitella.	13800
Incidence of listeriosis in Pennsylvania livestock.	13969	Histochemical effects of apholate on the reproductive organs of southern corn rootworm.	13828
RABIES VIRUS A tissue-culture, modified live-virus, rabies vaccine for dogs: report on development and clinical trial.	13956	Copulation and sperm induction by normal and palpless male linyphiid spiders.	13847
RACHIFLUSIA OU Specificity of the cabbage looper sex attractant.	13768	RESERPINE Notice of withdrawal of petition for food additives dimetridazole, reserpine.	13972
RADIOACTIVE TRACERS Uptake of P32 by yellow-fever mosquito larvae of equal age, and those pupating synchronously: its loss and transfer during development, mating, and oviposition.	13841	RESERVOIRS Behavior of synthetic organics in stratified impoundments.	14012
Labeling larvae of the elm sawfly with P32.	13932	RESISTANCE Toxicity studies on cyclodiene-susceptible and cyclodiene resistant strains of the cabbage maggot.	14001
The serological relationship of South African bovine enterovirus strains (ECBO SA-I and -II), and the growth characteristics in cell culture of the prototype strain (ECBO SA-I).	13974	REVIEWS Summary of recent abstracts. III. malaria.	13875
The metabolism of radioactive fumaric acid and some other substrates by whole adult Echinococcus granulosus		RHAGOLETIS POMONELLA Influence of photoperiod, temperature, and food on initiation of diapause in the apple maggot.	13840
		RHINOTRACHEITIS Acute infectious bovine rhinotracheitis and Salmonellosis in a dairy herd.	13976



SUBJECT INDEX

BEOPALOCEFA			
BEOPALOCEFA	Some interesting Rhopalocera from eastern Spain.	13714	SCREWAWKIA BOMBIUALIS Species new for the Belgian fauna. 13737
BEOPALOSIFBHM MAIDIS	Aphid trapping with black-light lamps.	13912	SCLEBOTINIA PROCTICOLA Effect of alcohols on spores of Sclerotinia fructicola and other peach fruit-rotting fungi in California. 13901
BEOPALOSIFBHM PADI	Aphid trapping with black-light lamps.	13912	SCOLYTOS MOLTISTRIATUS Two semiartificial oviposition media for the smaller European elm bark beetle. 13792
RICE	Accumulation of sodium and calcium by seedlings of some cereal crops under saline conditions.	14007	SECRETION The secretory activity of corpora allata during sexual maturation and imaginal diapause in Gryllus domesticus L and Leptinotarsa decemlineata Say. 13767
BNA VIRUSES	Site of viral BNA synthesis within the midgut cells of the silkworm, Bombyx mori, infected with cytoplasmic-polyhedrosis virus.	13857	SEEDLINGS The identification of weed seedlings of farm and garden sB613 .G7C42. 13943
BOUENNICIDES	The effect of warfarin on plasma clotting time in wild house mice (Mus musculus L.).	14002	SERECIO JACOBAAE The cinnabar moth, Tyria jacobaeae, for control of tansy ragwort. 13945
ROOT ROT (CLCVEE)	Fungi associated with Purple Patch of subterranean clover in western Australia.	13905	SEBODIAGNOSIS Bovine tuberculosis eradication in Wisconsin. 13962
ROOTS	Vertical-pull technique for evaluating tolerance of corn root systems to northern and western corn rootworms.	13929	SEBIOLOGICAL TESTS The serological relationship of South African bovine enterovirus strains (ECBO SA-I and -II), and the growth characteristics in cell culture of the prototype strain (ECBO SA-I). 13974
ROSA	On alpine rose- and grass-infesting species of Metopolophium Moravilko, 1914, with descriptions of two new species (Homoptera, Aphididae).	13730	SERRATIA MARCESCENS Paper chromatographic analysis as a new test method of bactericidal substances in plant extracts and possible relations of these substances to plant growth inhibitors. 14009
RUST (WHEAT)	Kharchia-65 a new rust-resistant wheat for saline areas.	13895	SERVICEBERRIES Mites of Crataegus and Amelanchier in Hood River Valley, Oregon. 13919
SALINE SOILS	Kharchia-65 a new rust-resistant wheat for saline areas.	13895	SESAMEX Two types of sesame-suppressible resistance in the house-fly. 13871
	Accumulation of sodium and calcium by seedlings of some cereal crops under saline conditions.	14007	SESAMIA CALAMISTIS Studies on chemical control and general biology of sugar-cane moth borers at Tanganyika Planting Company, Arnsba-Chini, Tanzania, 1966--1967. 13936
SALIX	A new salix-infesting Chaitophorus from Saskatchewan (Homoptera: Aphididae).	13930	SESEQUIOXIUDES Studies on the adsorption of arsenites by a few typical Indian soils. 13994
SALIX ALBA	Labeling larvae of the elm sawfly with P32.	13932	SEX ATTRACTANTS Specificity of the cabbage looper sex attractant. 13768 Synthetic chemical sex stimulants for codling moth. 13773 Isolation of a sex pheromone of the European corn borer. 13816 Sex pheromone of the cotton leafworm. 13909 Insect sex attractants. IX. Chemical conversion of the sex attractant of the cabbage looper to the sex pheromone of the fall armyworm. 14013 Roll weevil sex attractant: isolation studies. 14010
SALMONELLA	Coconut and Salmonella infection.	13987	SEX BEHAVIOR Frequency of mating by the female onion maggot adult. 13771 Gamma irradiation of the tobacco budworm: sterilization, competitiveness, and observations on reproductive biology. 13788 Copulation and sperm induction by normal and palpless male linyphiid spiders. 13847
SALMONELLA GALLINARUM	Antimicrobial effect of cocoa on salmonellae.	13950	SHEEP The production of a basic immunity against pulp kidney disease. 13959 Newatodirus of domestic sheep, Ovis aries, in the United States with a key to the species. 13981
SALMONELLA TYPHIMURIUM	Antimicrobial effect of cocoa on salmonellae.	13950	
	Acute infectious bovine rhinotracheitis and Salmonellosis in a dairy herd.	13976	
SALMONELLCSIS	Acute infectious bovine rhinotracheitis and Salmonellosis in a dairy herd.	13976	
SAMIA CYNTHIA	Ecdysone and ecdysone-analogues: their assay and action on diapausing pupae of the Cynthia silkworm.	13860	
SAMIA CYNTHIA PRYEBI	Influence of temperatures and light regimens on diapause of Samia Cynthia pryebi.	13846	
SAPREBA CALCAEMIA	Pests of poplars and preventive and curative methods of control. sB608.P775U3.	13913	
SCALES (INSECTS)	Supplementary data on the androconial scales of some Holarctic species Pieris (Lepidoptera).	13761	
SCHIZAPHIS GRAMINOM	Aphid trapping with black-light lamps.	13912	

SUBJECT INDEX

SPOROTRICHUM SCRENCKII

<b>SIMAZINE</b> The effect of simazine on soil microorganisms.	13989	<b>SOIL TEMPERATURE</b> Plant uptake of 14C-dinron in modified soil.	14008
<b>SIRICIDAE</b> Distribution and hosts of some horntails (Siricidae) in British Columbia.	13926	<b>SOILS</b> Evaluation of systemic insecticides incorporated in the soil for control of lepidopterous larvae of cole crops in southern California.	13931
<b>SITONA CYLINDRICOLLIS</b> Seasonal changes in daily activity periods of the sweetclover weevil.	13775	Studies on the adsorption of arsenites by a few typical Indian soils.	13994
<b>SITOPHILUS ORIZAE</b> Laboratory tests with dichlorvos applied as a wheat protectant against rice weevils.	13986	<b>SOMATINA ROMBERGI</b> A new Somatina from the Congo (Lepidoptera Geometridae).	13728
<b>SITOPHILUS ZEAMMAIS</b> Respiratory environments of grain-infesting weevils. i. comparison of culture-jar and laboratory rearing-room atmospheres.	13861	<b>SORGHUM</b> Development of Angoumois grain moths in kernels of wheat, sorghum, and corn as affected by site of feeding.	13815
<b>SITOTROGA CEREAELELLA</b> Development of Angoumois grain moths in kernels of wheat, sorghum, and corn as affected by site of feeding.	13815	<b>SORGHUM VULGARE SUDANENSE</b> Pet al ankylosis in horses associated with hybrid Sudan pasture.	13967
<b>SKIN</b> Response of the yellow-fever mosquito to varying areas of human skin.	13814	<b>SOUND WAVES</b> Pulsed ultrasonic sound for control of oviposition by cabbage looper moths.	13835
<b>SNAKES</b> Research notes on Aedes aegypti feeding on the Eastern Garter snake Thamnophis sirtalis sirtalis.	13741	<b>SOUR CHERRIES</b> Insect injury to sour cherries in the absence of insecticide sprays.	13927
<b>SOD WEBWORMS</b> Control of the sod webworms Crambus teterrellus, C. trisetus, and C. mutabilis, in Kentucky.	13939	Distribution of plum curculio injury in a sour cherry orchard and sampling procedures for determining the extent of injury.	13928
<b>SODIUM</b> Accumulation of sodium and calcium by seedlings of some cereal crops under saline conditions.	14007	<b>SOYBEANS</b> Interaction effects of atrazine and COAA, linuron, amiben, or trifluralin on soybean growth.	14006
<b>SODIUM CHLORATE</b> Use of chemical defoliant on peach trees in integrated program to suppress populations of green peach aphids.	13933	<b>SPANOGONUS ALBOFASCIATUS</b> The stages of Spanogonicus albofasciatus and their development (Hemiptera: Miridae).	13832
<b>SODIUM CHLORIDE</b> Salinity tolerance of seven varieties of creeping bentgrass, Agrostis palustris Ruds.	14011	<b>SPHACLOTRECA REILIANA</b> Heritable albinism in Sphacelotheca reiliana.	13896
<b>SOIL BACTERIA</b> Coconut and Salmonella infection.	13987	<b>SPHAEERIDIUM SCARABAEOIDES</b> Effect of temperature on predation of horn fly larvae by the larvae of Sphaeridium scarabaeoides.	13770
<b>SOIL CONTAMINATION</b> Residue of bensulide in turfgrass soil following annual treatments for crabgrass control.	13991	<b>SPECIDAE</b> Contribution to the knowledge of the Bornean Psenini (Hymenoptera, Sphecidae).	13758
Studies on the adsorption of arsenites by a few typical Indian soils.	13994	<b>SPIIDERS</b> Copulation and sperm induction by normal and palpless male linyphiid spiders.	13847
<b>SOIL FERTILITY</b> Effects of soil fertility on abundance of green peach aphids on Maryland tobacco.	13937	Residual activity of diazinon and lindane for control of Loxosceles reclusa.	13884
<b>SOIL FUNGI</b> Soil testing for club root in Devon and Cornwall.	13900	<b>SPOOPTERA EXIGUA</b> Hatch, larval development, and adult longevity of four lepidopterous species after thermal treatment of eggs.	13798
<b>SOIL MICROORGANISMS</b> A soil population study of Uitylenchus dipsaci (Kuhn) Filipjev in an alfalfa field.	13941	<b>SPODOPTERA FRUGIPERDA</b> Insect sex attractants. ix. chemical conversion of the sex attractant of the cabbage looper to the sex pheromone of the fall armyworm.	14013
The effect of simazine on soil microorganisms.	13989	<b>SPORE GERMINATION</b> The role of light in spore germination and sporidial production of the wheat smut fungus, Tilletia caries (DC.) Tul.	13904
Soil microbial degradation of aldrin.	14010	<b>SPORES</b> Effect of alcohols on spores of Sclerotinia fructicola and other peach fruit-rotting fungi in California.	13901
<b>SOIL ORGANIC MATTER</b> Plant uptake of 14C-diuron in modified soil.	14008	<b>SPOROTRICHOSIS</b> Sporotrichosis in a horse.	13957
<b>SOIL PERMEABILITY</b> Initial soil penetration by insecticide emulsions used for subterranean termite control.	13988	<b>SPOROTRICHUM</b> The species of the form genus Sporotrichum Link on insects.	13786
<b>SOIL PROPERTIES</b> Residue of bensulide in turfgrass soil following annual treatments for crabgrass control.	13991	<b>SPOROTRICHUM SCRENCKII</b> Sporotrichosis in a horse.	13957
<b>SOIL STRUCTURE</b> Plant uptake of 14C-diuron in modified soil.	14008		

SUBJECT INDEX

<b>SPRAYING</b>			
<b>SPRAYING</b>			
Field tests with a nuclear polyhedral virus against the bollworm and tobacco budworm, 1964-1966.	13B26	clover in western Anstralia.	13905
The spray warning scheme for control of sugar beet yellows in England; summary of results between 1959-66.	13B97	<b>SUCTION TRAPS</b>	
		A portable aspirator for collecting mosquitoes.	13717
<b>SPRAYING EQUIPMENT</b>		<b>SUGAR BEETS</b>	
Thickol Swamp Spryte equipped with automatic compressed air spraying units for applying granule and liquid insecticides.	13B76	The spray warning scheme for control of sugar beet yellows in England; summary of results between 1959-66.	13897
A top farmer looks at herbicides.	13942	<b>SUGARCANE</b>	
		Neosarassia suspicalis Wkr a new pyralid leaf-roller of sugarcane in India.	13920
<b>STATISTICAL ANALYSIS</b>		Studies on chemical control and general biology of sugar-cane moth borers at Tanganyika Planting Company, Arusha-Chini, Tanzania, 1966--1967.	13936
Distribution of plm curculio injury in a sour cherry orchard and sampling procedures for determining the extent of injury.	13928	<b>SULFAMETHAZINE</b>	
Vertical-pull technique for evaluating tolerance of corn root systems to northern and western corn rootworms.	13929	Blood concentration studies in cattle of a sustained-release form of sulfamethazine	13955
		Notice of filing of petition for food additives chlortetracycline, penicillin, sulfamethazine.	13973
<b>STEM RUST (OATS)</b>		<b>SULFUR ISOTOPES</b>	
An association of stem rust and crown rust resistance in Jostrain oats.	13B99	Synthesis of S35-((methylthio)aryl) phosphorothioates.	14015
<b>STEM RUST (WHEAT)</b>		<b>SULFURIC ACID</b>	
Comparative survival of rehydrated and nonrehydrated wheat stem rust uredospores on dry leaf surfaces.	13B98	Urethroadenocystitis in the male cat.	13963
<b>STERILITY</b>		<b>SUNFLOWERS</b>	
Cytogenetic and cellular basis of chemically induced sterility in insects. in: Principles of insect chemosterilization, G. C. LaBrecque and C. N. Smith, ed. S959.L3.	13B21	Paper chromatographic analysis as a new test method of bactericidal substances in plant extracts and possible relations of these substances to plant growth inhibitors.	14009
Effect of gamma irradiation on female Culex pipiens quinquefasciatus.	13B51	<b>SURVEYS</b>	
<b>STABILIZATION</b>		Tabanidae of Maryland.	13756
Effect of ultraviolet irradiation on egg hatch, subsequent larval development, and adult longevity of the tobacco budworm and the bollworm.	13797	Intestinal protozoan infections in dogs.	13949
Sterilization of codling moth by aerosol treatment with tepa.	13B03	Bovine tuberculosis eradication in Wisconsin.	13962
<b>STERIPHODON</b>		<b>SUSCEPTIBILITY</b>	
Steriphodon doncasteri, a new species of Eurygeniini, with a review of the Indian species of Steriphodon Aheille (Coleoptera: Anthicidae).	13709	Toxicity studies on cyclodiene-susceptible and cyclodiene resistant strains of the cabbage maggot.	14001
<b>STINKING SMUT (WHEAT)</b>		<b>SWINE</b>	
The role of light in spore germination and sporidial production of the wheat smut fungus, Tilletia caries (DC.) Tul.	13904	Incidence of listeriosis in Pennsylvania livestock.	13969
<b>STOMOXYS CALCITRANS</b>		Notice of filing of petition for food additives chlortetracycline, penicillin, sulfamethazine.	13973
Some factors affecting kill of the stable fly, Stomoxys calcitrans (L.), with insecticidal thermal aerosols.	13B73	<b>SYCOBYCTES RELIGIOSAE</b>	
<b>STORAGE</b>		Redescription of Sycophaginae from Ceylon and India, with designation of lectotypes, and a world catalogue of the Otitesellini (Hymenoptera Chalcidoidea, Torymidae).	13762
The effect of heat, cold, and prolonged storage on a granulosis virus of Pieris brassicae.	13781	<b>SYNTHESIS</b>	
Respiratory environments of grain-infesting weevils. I. comparison of culture-jar and laboratory rearing-room atmospheres.	13B61	Insect sex attractants. IX. chemical conversion of the sex attractant of the cabbage looper to the sex pheromone of the fall armyworm.	14013
<b>STORED PRODUCTS</b>		Synthesis of S35-((methylthio)aryl) phosphorothioates.	14015
Some observations on Oryzaephilus surinamensis L. (Col., Silvanidae) in a temperature-moisture gradient.	13764	<b>SYRPHIDAE</b>	
Development of Angoumois grain moths in kernels of wheat, sorghum, and corn as affected by site of feeding.	13B15	Hover-flies in the Leyden botanical garden (Dipt., Syrph.).	13759
Laboratory tests with dichlorvos applied as a wheat protectant against rice weevils.	13B86	Use of chemical defoliant on peach trees in integrated program to suppress populations of green peach aphids.	13933
<b>STRAW</b>		<b>SYSTEMIC INSECTICIDES</b>	
Notice of filing of petition regarding pesticide chemicals.	13995	Reduction of corn virus disease incidence and control of southwestern corn borer with systemic insecticides.	13B93
<b>STREPTOCOCCUS EQUI</b>		Evaluation of systemic insecticides incorporated in the soil for control of lepidopterous larvae of cole crops in southern California.	13931
Isolation of Streptococcus equi from burros.	13975	Field test to determine the effectiveness of coumaphos as a feed additive to control house fly larva under caged layers.	13980
<b>SUBTERRANEAN CLOVER</b>		<b>TABANIDAE</b>	
An isoflavone-deficient mutant in Trifolium subterraneum induced by ethyl methane-sulphonate.	13B66	Tabanidae of Maryland.	13756
Fungi associated with Purple Patch of subterranean			



SUBJECT INDEX

TRICROPLDSIA NI

<b>TABANIDS</b>		<b>THERAPEUTICS</b>	
Feeding of horseflies (Diptera: Tabanidae) on plant juices.	13845	Bacterial endocarditis in a dog.	13960
<b>TAXONOMY</b>		<b>THIAZOLYL-BENZIMIDIZOLE, 2-(4-</b>	
A revision of the Holarctic genus <i>Dikraneura</i> (Homoptera: Cicadellidae).	13733	A comparative study of thiabendazole and phenothiazine as anthelmintics for the gastrointestinal nematodes of the goat.	13984
A new species of the pseudoscorpion genus <i>Parohisium</i> from Utah (Arachnida, Chelonethida, Neohisipiidae).	13738	<b>THYRIDOPTERYX</b>	
Nematodes associated with tree-infesting insects. paurodontidae new family and Misticiinae new subfamily with a description of one new genus and four new species.	13925	Seasonal lipid content of bagworm larvae.	13806
Nematodirus of domestic sheep, <i>Ovis aries</i> , in the United States with a key to the species.	13981	<b>TILLETIA CARIES</b>	
<b>TEMPERATURE</b>		The role of light in spore germination and sporidial production of the wheat smut fungus, <i>Tilletia caries</i> (DC.) Tul.	13904
Effect of temperature on predation of horn fly larvae by the larvae of <i>Sphaeridium scarabaeoides</i> .	13770	<b>TIPULA PALUDOSA</b>	
Seasonal changes in daily activity periods of the sweetclover weevil.	13775	Biology of <i>Tipula paludosa</i> ; growth of the larva in the field.	13822
Effect of post-treatment temperature on toxicity of insecticides to resistant and susceptible house flies.	13784	<b>TISSUE CULTURE</b>	
Temperature conditions and maternal effect as modifying factors in the photoperiod control of the seasonal form in <i>Polygona c-anreum</i> (Lepidoptera, Nymphalidae).	13807	Immunofluorescence studies on <i>Bombyx mori</i> ovarian tissue cultures infected with nuclear-polyhedrosis virus.	13817
Temperature conditions and maternal effect as modifying factors in the photoperiodic control of the seasonal form in <i>Polygona c-anreum</i> (Lepidoptera, nymphalidae).	13808	A tissue-culture, modified live-virus, rabies vaccine for dogs: report on development and clinical trial.	13956
Influence of photoperiod, temperature, and food on initiation of diapause in the apple maggot.	13840	<b>TOBACCO</b>	
Influence of temperatures and light regimens on diapause of <i>Samia cynthia pyperi</i> .	13846	Observations on feeding and movement of tobacco hornworm larvae.	13825
Temperature-induced wing malformation in alfalfa loopers and variegated cutworms.	13848	A lightweight, weather-resistant field insect cage.	13837
Factors in paraquat-induced chlorosis with <i>Phaseolus foliar</i> tissues.	14005	Evaluation of experimental insecticides for control of hornworms on tobacco.	13914
<b>TEMPERATURE GRADIENTS</b>		Effects of soil fertility on abundance of green peach aphids on Maryland tobacco.	13937
Some observations on <i>Oryzaephilus surinamensis</i> L. (Col., Silvanidae) in a temperature-moisture gradient.	13764	<b>TOLERANCES</b>	
<b>TENEBRIO MOLITOR</b>		Tolerances and exemptions from tolerances for pesticide chemicals in or on raw agricultural commodities. 1-methoxycarbonyl-1-propen-2-yl dimethylphosphate and its beta isomer.	13996
The species of the form genus <i>Sporotrichum</i> Link on insects.	13786	Food additives permitted in food for human consumption. 1-methoxycarbonyl-1-propen-2-yl dimethylphosphate and its beta isomer.	13997
<b>TEPA</b>		<b>TOMATOES</b>	
Sterilization of codling moth by aerosol treatment with tepa.	13803	Suppression of populations of <i>Drosophila melanogaster</i> in tomato field plots with chemosterilant baits.	13924
Chemosterilization of male pear psylla with tepa.	13812	A technique for isolating and maintaining cultures of <i>Meloidogyne</i> .	13940
<b>TERMITES</b>		Notice of filing of petition regarding pesticide chemicals.	13995
Update on research at DSDA: S Forest Service Gulfport Laboratory.	13811	<b>TORYMIDAE</b>	
Initial soil penetration by insecticide emulsions used for subterranean termite control.	13988	Redescription of <i>Sycophaginae</i> from Ceylon and India, with designation of lectotypes, and a world catalogue of the Otitesellini (Hymenoptera Chalcidoidea, Torymidae).	13762
<b>TETRANYCIDS DETICAE</b>		<b>TOXICITY</b>	
Further studies of effects of antibiotics and other compounds on fecundity and mortality of the two-spotted spider mite.	13801	A comparison of the toxicity of various carbamate, organo-phosphorus and organochlorine compounds to the codling moth S8951.G7.	13793
Toxicity of five carbamate insecticides to the two-spotted spider mite and larvae of the southern armyworm and tobacco budworm.	13862	<b>TOXINS</b>	
<b>THELOHANIA INIMICA</b>		Increased susceptibility to bacterial endotoxin of pigs with iron-deficiency anemia.	13965
A new Maryland record of <i>Thelohania</i> (Nosematidae: Microsporida).	13711	<b>TRIDTYL PHOSPHOROTHIOATE, S,S,S-</b>	
<b>THEOPHILEA</b>		Use of chemical defoliant on peach trees in integrated program to suppress populations of green peach aphids.	13933
<i>Theophilea cylindricollis</i> Pic, a longicorn new for Central Europe (Col., Cerambycidae).	13729	<b>TRICHODERMA</b>	
		Soil microbial degradation of aldrin.	14010
		<b>TRICHOPLDSIA NI</b>	
		Specificity of the cabbage looper sex attractant.	13768
		Pulsed ultrasonic sound for control of oviposition by cabbage looper moths.	13835
		Evaluation of systemic insecticides incorporated in the soil for control of lepidopterous larvae of cole crops in southern California.	13931

SUBJECT INDEX

TRIFLURALIN

- Insect sex attractants. ix. chemical conversion of the sex attractant of the cabbage looper to the sex pheromone of the fall armyworm. 14013
- TRIFLURALIN**  
Interaction effects of atrazine and CDAA, linuron, amiben, or trifluralin on soybean growth. 14006
- TRIPHENYLITIN ACETATE**  
Some effects of three triphenyltin compounds on the fertility and longevity of Japanese beetles. 13818
- TRIPHENYLITIN CHLORIDE**  
Some effects of three triphenyltin compounds on the fertility and longevity of Japanese beetles. 13818
- TRIPHENYLITIN HYDROXIDE**  
Some effects of three triphenyltin compounds on the fertility and longevity of Japanese beetles. 13818
- THRASIDIDAE**  
Acarina Thrasididae of Madagascar. 13744
- TUBERCULIN**  
Bovine tuberculosis eradication in Wisconsin. 13962
- TUBERCULOSIS**  
Bovine tuberculosis eradication in Wisconsin. 13962
- TUNGA PENETRANS**  
Some notes on fleas (Siphonaptera) of domestic animals in Northern Tanzania (East Africa). 13977
- TURF**  
Residue of bensulide in turfgrass soil following annual treatments for crabgrass control. 13991  
Salinity tolerance of seven varieties of creeping bentgrass, *Agrostis palustris* Huds. 14011
- TURKEYS**  
Notice of withdrawal of petition for food additives dimetridazole, reserpine. 13972
- TYRIA JACOBIAEAE**  
The cinnabar moth, *Tyria jacobaeae*, for control of tansy ragwort. 13945
- ULTRASONIC WAVES**  
Pulsed ultrasonic sound for control of oviposition by cabbage looper moths. 13835
- ULTRAVIOLET RAYS**  
Effect of ultraviolet irradiation on egg hatch, subsequent larval development, and adult longevity of the tobacco budworm and the bollworm. 13797  
Aphid trapping with black-light lamps. 13912
- UREDOSPORES**  
Comparative survival of rehydrated and nonrehydrated wheat stem rust uredospores on dry leaf surfaces. 13898
- UROGENITAL SYSTEM**  
Urethroadenocystitis in the male cat. 13963
- VARIANCE ANALYSIS**  
Seasonal variations in the susceptibility of *Culex pipiens* L. to DDT and dieldrin. 13886
- VEHICLES**  
Tbiokol Swamp Spryte equipped with automatic compressed air spraying units for applying granule and liquid insecticides. 13876
- VERTICILLIUM WILT**  
*Verticillium* wilt resistance in peanuts (*Arachis hypogaea*). 13907
- VIRAL VACCINES**  
A tissue-culture, modified live-virus, rabies vaccine for dogs: report on development and clinical trial. 13956
- VIRUS DISEASES (PLANTS)**  
Reduction of corn virus disease incidence and control of southwestern corn borer with systemic insecticides. 13893  
The spray warning scheme for control of sugar beet yellows in England; summary of results between 1959-66. 13897
- Bonus viruses and virus diseases. (Abstract). 13908
- VIRUSES**  
Viruses--host system for use in the study of virus removal. 13990
- WARFARIN**  
The effect of warfarin on plasma clotting time in wild house mice (*Mus musculus* L.). 14002
- WATER POLLUTION**  
Viruses--host system for use in the study of virus removal. 13990  
Behavior of synthetic organics in stratified impoundments. 14012
- WATER TREATMENT**  
Culicoides control in the Canal Zone by water management. 13878
- WATERSHED MANAGEMENT**  
Field observations on twenty-eight broods of floodwater mosquitoes resulting from controlled floodings of a natural habitat in the Tennessee Valley. 13716
- WEATHER**  
Predicting influxes of *Aedes vexans* into urban areas. 13718
- WEED CONTROL**  
A top farmer looks at herbicides. 13942
- WEEDS**  
Manatees as a naturalistic biological mosquito control method. 13877  
The identification of weed seedlings of farm and garden SB613 .G7C42. 13943  
The cinnabar moth, *Tyria jacobaeae*, for control of tansy ragwort. 13945
- WESTERN EQUINE ENCEPHALOMYELITIS VIRUS**  
Biology of *Culex tarsalis* during the spring season in Oregon in relation to western encephalitis viruses. 13885
- WHEAT**  
Development of Angoumois grain moths in kernels of wheat, sorghum, and corn as affected by site of feeding. 13815  
Respiratory environments of grain-infesting weevils. i. comparison of culture-jar and laboratory rearing-room atmospheres. 13861  
Kharcbia-65 a new rust-resistant wheat for saline areas. 13895  
Comparative survival of rehydrated and nonrehydrated wheat stem rust uredospores on dry leaf surfaces. 13898  
The role of light in spore germination and sporidial production of the wheat smut fungus, *Tilletia caries* (DC.) Tul. 13904  
Laboratory tests with diclorvos applied as a wheat protectant against rice weevils. 13986  
Accumulation of sodium and calcium by seedlings of some cereal crops under saline conditions. 14007
- WILDLIFE**  
Some notes on fleas (Siphonaptera) of domestic animals in Northern Tanzania (East Africa). 13977
- XENOPYLLA CBEOPIS**  
Systemic insecticides for control of oriental rat fleas: bait tests with hooded white rats. 13778  
Systemic insecticides for control of oriental rat fleas. tests in guinea pigs. 13910  
Laboratory evaluation of promising systemic insecticides in guinea pigs against oriental rat fleas. 14000

## SUBJECT INDEX

## ZOOGEOGRAPHY

- YELLOW DWARF (HABLEY)**  
Aphid trapping with black-light lamps. 13912
- YELLOWS (SUGAR BEETS)**  
The spray warning scheme for control of sugar beet yellows in England; summary of results between 1959-66. 13897
- YOLK SAC**  
Partial purification of the organism of psittacosis grown in chicken embryo yolk sac. 13954
- ZEADIAEAE GRANDIOSELLA**  
Reduction of corn virus disease incidence and control of southwestern corn borer with systemic insecticides. 13893
- ZOOGEOGRAPHY**
- Anopheles stephensi Liston in Egypt, UAR. 13724
- New Dolicopodidae from Canada, Mexico, and the western United States (Diptera). 13727
- Theophilea cylindricollis Pic, a longicorn new for Central Europe (Col., Cerambycidae). 13729
- A revision of the Holarctic genus Dikraneura (Homoptera: Cicadellidae). 13733
- Notes on the biology and distribution of some Delaware mosquitoes. 13735
- Studies on the moss mites of Suedonia (Acari: Oribatei).  
1. Moel Hebog. 13749
- Dynamics of Aedes aegypti distribution and density. seasonal fluctuations in the Americas. 13752
- El Salvador. Occurrence of Dialeurodes citri on gardenia. 13923
- Distribution and hosts of some horn-tails (Siricidae) in British Columbia. 13926





## BIOGRAPHICAL INDEX

Price, R A

Aspöck, H Universität Wien Hygiene-Institut	13710	University of California, Davis Baraston, F C	13800
Barnes, D I Oklahoma Agricultural Experiment Station, Stillwater	14005	D. S. Communicable Disease Center, Greeley, Colorado Ecological Investigations Program Disease Ecology Section	13727
Bingham, S W Virginia Polytechnic Institute, Blacksburg Dept. of Plant Pathology and Physiology	13991	Harris, P Canada Dept. of Agriculture, Belleville, Ontario Research Institute	13944
Breelano, S G Tennessee Valley Authority, Muscle Shoals, Alabama Division of Health and Safety Reservoir Ecology Branch	13716	Ridaka, T Tokyo University of Agriculture and Technology, Fuchu Laboratory of Biology	13808
Bryant, C Australian National University, Canberra Dept. of Zoology	13982	Hilsehoff, W L University of Wisconsin, Madison Boenigsberg, H F	13731
Bull, D L U. S. Dept. of Agriculture, College Station, Texas Agricultural Research Service Entomology Research Division	13772	Universidad de Los Andes, Bogota, Colombia Instituto de Genética	1386B
Burgoyne, W E University of California, Davis	13872	Bull, B Broom's Barn Experimental Station, Higman, England	13897
Burrows, R B Burroughs Wellcome and Company (U. S. A.) Inc., Tuckahoe, Wellcome Research Laboratories	13949	Jansen, B C Veterinary Research Institute, Onderstepoort, South Africa	13959
Carver, H D Memphis and Shelby County Health Dept., Tennessee Bureau of Sanitary Engineering Insect Vector Control	13717	Jeffery, K L Leawood Animal Hospital, Kansas City, Missouri	13960
Cheville, N F U. S. Dept. of Agriculture, Ames, Iowa National Animal Disease Laboratory	13951	Jnszkiewicz, T Veterinary Research Institute, Pulawy, Poland Dept. of Pharmacology and Toxicology	13961
Clark, D R Ohio State University, Columbus College of Veterinary Medicine Dept. of Veterinary Physiology and Pharmacology	13952	Kimball, J B Orange County Mosquito Abatement District, Florida	13876
Clarke, J L Clark Outdoor Spraying Company, La Grange, Ill.	1371B	Knight, W J British Museum of Natural History, London	13733
Clements, B W Florida State Board of Health, Panama City West Florida Arthropod Research Laboratory	13873	Knst, C A Wisconsin Agricultural Experiment Station, Madison Dept. of Agronomy	13946
Crans, W J Butgers - The State University, New Brunswick, New Jersey Dept. of Entomology and Economic Zoology	13719	Lake, B W University of Delaware, Newark Dept. of Entomology and Applied Ecology	13735
DeMarco, J Federal Water Pollution Control Administration, Cincinnati Cincinnati Water Research Laboratory	14012	Leathers, C B Arizona State University, Tempe Dept. of Botany	13898
El-Bashy, M A Ain Shams University, Cairo Faculty of Agriculture	13865	Lee, P C San Jose State College, Calif. Dept. of Biological Sciences	13736
Ellison, T Riker Laboratories, Northridge, California	13955	Lipinska-skawinska, B Nencki Institute of Experimental Biology, Warszawa, Poland Dept. of Biology	13823
Emery, J E Dow Chemical Company, Zionsville, Indiana Human Health Research and Development Laboratories	13956	Lord, F T Canada Dept. of Agriculture, Kentville, Nova Scotia Research Station	13824
Ezzat, Y M University of Assiut, D. a. r. Department of Ecology	13722	Maclaren, J P Canal Zone Government Health Bureau Division of Sanitation	13877
Ezzat, Y M University of Assiut, U. a. r. Department of Zoology	13723	McLaughlin, A R D. S. Dept. of Agriculture, Madison, Wisconsin Agricultural Research Service Animal Husbandry Division	13962
Fishburn, F Kansas State University, Manhattan College of Veterinary Medicine	13957	Meadows, K E Florida State Board of Health, Tampa Encephalitis Research Center	13827
Foult, J D University of California, Riverside Dept. of Entomology	13874	Melville, S C Great Britain National Agricultural Advisory Service, Starcr	13900
French, N Great Britain National Advisory Service, Wye	13915	Mills, J B L University of Connecticut, Storrs. Dept. of Animal Diseases	13964
Gandhi, S M Agriculture Research Station, Durgapura, India	13895	Mitlin, N D. S. Dept. of Agriculture, State College, Mississippi Agricultural Research Service Entomology Research Division	13830
Gentry, J W Walter Reed Army Institute of Research, Washington, D. C. Dept. of Entomology	13789	Moye, W C Shell Development Co, Modesto, Calif.	13831
Geyer-Dnyszynska, I Université de Genève Station de Zoologie Experimentale	13790	Moore, W B University of Rochester, Rochester, N. Y. Dept. of Biology	1373B
Gjullin, C M U. S. Dept. of Agriculture, Corvallis, Oregon Agricultural Research Service, Entomology Research Division	13791	Mulla, M S University of California, Riverside	1401B
Gorsman, G M University of Tennessee, Knoxville Dept. of Lairyng	13948	Nash, B G D. S. Dept. of Agriculture, Beltsville, Maryland Agricultural Research Service Crops Research Division	14008
Gould, B J Great Britain National Agricultural Advisory Service, Reading	13917	Nijvelot, W Wageningen Instituut voor Plantenziektenkundigonderzoek	13740
Balkka, O University of Helsinki, Finland Dept. of Genetics	13867	Osborne, J C Bowman Gray School of Medicine, Winston-salem	13965
Haniotakis, G		Pearson, W G U. S. Army (third), Fort McPherson, Georgia Medical Laboratory Entomology Branch	13741
		Price, B A	

## BIOGEOGRAPHICAL INDEX

Price, W C	
University of Tennessee, Memphis	
Dept. of Pathology	13966
Price, W C	
Guinobatan Experiment Station, Alhoy, Philippines	13903
Prokopy, R J	
Connecticut Agricultural Experiment Station, New Haven	
Dept. of Entomology	1384D
Bathburn, C E	
Florida State Board of Health, Panama City	
West Florida Arthropod Research Laboratory	13842
Evner, J S	
Ohio University, Athens	
Department of Zoology	13847
Ensh, W A	
National Institutes of Health, Hamilton, Montana	
National Institute of Allergy and Infectious Diseases	13885
Schauz, K	
Universität Freiburg, Germany	
Botanisches Institut	13904
Schoepfner, R F	
San Mateo County (California) Mosquito Abatement District	13748
Schwartz, J C	
D. S. Dept. of Agriculture, Cottdale, Fla.	
Division of Animal Industry,	
Poultry Disease Diagnostic Laboratory	13969
Service, B W	
Nature Conservancy, Dorset, England	
Pinzbeck Research Station	13886
Shane, B S	
University of Delaware, Newark	
Dept. of Biologic Sciences	13990
Shipp, O F	
Chemagro Corporation, Kansas City, Missouri	13888
Sjogren, R D	
University of California, Riverside	
Dept. of Entomology	13889
Smirnov, W A	
Quebec Dept. of Forestry and Rural Development, Quebec	
Forest Research Laboratory	13850
Smittle, J	
D. S. Dept. of Agriculture, Gainesville, Florida	
Agricultural Research Service	
Entomology Research Division	13851
Soding, R	
Staatsinstitut für allgemeine Botanik, Hamburg	14009
Sollers-Biedel, R	
U. S. Dept. of Agriculture, Washington, D. C.	
Agricultural Research Service	
Plant Pest Control Division	13890
Sommersan, K M	
U. S. Public Health Service, College, Alaska	
Arctic Health Research Laboratory	13891
Snodd, E K	
Agra College, Agra, India	
Chemistry Dept.	13994
Thompson, A H	
Orange County Mosquito Abatement District, Florida	13892
Venkatraman, T V	
University of Khartoum, Sudan	
Faculty of Agriculture	13935
Verwoerd, D W	
Veterinary Research Institute, Onderstepoort, South Africa	13974
Williams, C B	
Harvard University, Cambridge, Massachusetts	
Biological Laboratories	13860
Wisecup, W G	
Holloman Air Force Base, New Mexico	13975
Woods, G T	
University of Illinois, Urbana	
College of Veterinary Medicine	
Dept. of Pathology and Hygiene	13976
Youngner, V R	
University of California, Riverside	
Dept. of Agronomy	14011



AOTROR INDEX

Poorhaugh, J B

Aldullah, M	13709	Dafaue, C	13913	Hathaway, D O	13803	13831	
Adams, R S	14006	Dahlhelm, D	13780	13804		Lunt, O R	14011
Adler, V E	13846	David, H	13920	Hawken, B H	13900	Lyda, S D	13901
Akesson, H B	13872	David, W A L	13781	Hawkes, R B	13945	Lydin, L V	13803
Alemany, A	13854	Davis, G H F	13782	Hawkins, J L	13878	Lynd, J O	14005
Allred, K R	13941	Davis, J W	13965	Hayes, D E	13789	Maclaren, J P	13877
Amici, A M	14004	DeMarco, J	14012	Hays, K L	13770	13878	
Amos, T G	13764	Dewey, R W	13711	Hazeltime, W E	13888	Madejski, Z	13961
Anderson, J E	13742	Dominick, C B	13914	Hedin, P A	14014	Maibach, H I	13814
Aspock, H	13710	Dorffling, K	14009	Heenan, M P	13805	Manqlitz, G R	13775
Aspock, U	13710	Lorsey, W G	13954	Heinrichs, E A	13806	Marinkelle, C J	13879
Ayre, G L	13765	Drummond, R O	13978	Herhulot, C	13728	Martens, J W	13899
Ball, H J	13766	Dyde, C E	13720	Heyrowsky, L	13729	Martinez, A P	13903
Banerji, O K	13920	Edwardson, J R	13921	Hidaka, T	13807	Mason, B C	13924
Bansal, O P	13994	El Bashier, S	13783	13808		Massey, C L	13925
Barnes, O I	14005	El Khidir, E	13935	Hidiroglon, M	13958	Matteson, J W	13799
Barnes, H H	13942	El-Bashy, M A	13865	Hille Bis Lambers, O	13730	Matthysse, J G	13979
Barnes, W W	13711	El-Kifl, A B	13721	Hilsenhoff, W L	13731	Mauldin, J	13830
Banshower, A H	13802	Elliott, A Y	13956	Hirth, R S	13964	McPadden, M W	13825
Beal, H H	13988	Ellison, T	13955	Hitchon, J L	14001	McGarr, R L	13826
Becklund, W W	13981	Emery, J B	13956	Hoelscher, C E	13809	McGovern, T P	13773
Begum, A	14015	Ernst, S E	13978	Hoenigsberg, H P	13868	McGuire, J O	13846
Behrens, R	14006	Espinoza, W G	14006	Hooper, G H S	13810	McKenzie, B I H	13899
Bei-Bienke, G Ya	13712	Evans, E S	13784	Howell, D E	13829	McLaughlin, A R	13962
Belyaeva, T G	13767	Ezzat, Y M	13722	Royer, R P	13869	Meadows, K E	13827
Berger, R S	13768	13723		Hull, R	13897	Meier, F W	13963
13909,	14015	Fairchild, M L	13893	Isler, D A	14016	Melville, S C	13900
Beroza, M	13773	Farrar, R J	13785	Ittycheria, P I	13839	Mendoza, C E	13828
Bhalla, O P	13769	Fassatiowa, O	13786	Jacobson, M	14013	Miesch, M O	13829
Bhatnagar, M F	13895	Fernandez, A T	13992	Jansen, B C	13959	Miles, J R W	14010
Bibit, V C	13987	Eilipponi, A	13787	Jeffery, K L	13960	Millington, A J	13866
Bingham, S W	13991	Eishharn, P	13957	Jenkins, K J	13958	Mills, J B L	13964
Bird, A F	13938	Fitzgerald, P J	13929	Jerath, M L	13918	Mills, B B	13815
Blocker, H D	13713	Elint, H M	13788	John, M E	13915	Minghetti, A	14004
Boike, A H	13842	Forbes, I	13921	Johnston, H R	13811	Minyard, J P	14014
Bolland, F	13714	Foulk, J D	13874	Jordan, W C	13940	Mitchell, W C	13802
Bordt, C E	13956	13889		Jorgensen, C D	13919	Mitlin, N	13830
Pourne, J R	13770	Francis, C M	13866	Juszkiewicz, T	13961	Montgomery, G G	13880
Bray, D	13792	Freeman, S K	13773	Kaloostian, G H	13812	Moore, C G	13789
Brazzel, J R	13809	French, N	13915	Kalra, A N	13920	Morgante, O	13881
Brcak, J	13715	Fries, C R	13990	Kantargieva, E	13795	Morlan, H B	13882
Breelano, S G	13716	Eye, R E	13916	Keaster, A J	13893	Morris, E V	13926
Briegleb, H	13777	Gad, A M	13724	Keith, J O	13993	Morseth, D J	13982
Eriggs, J D	13774	Gandhi, S M	13895	Kellen, W R	13776	Moshach, K	13987
Broekman, J	13974	cardiner, B O C	13781	Kelley, D C	13957	Moye, W C	13831
Broersma, O B	13771	gast, R T	14014	Kerr, S H	13813	Muhdoch, W P	13878
Bryant, C	13982	Gentry, J W	13789	Kerr, T W	13785	Munchoore, W B	13738
Buckley, J F	13791	George, L Y	14007	Khan, A A	13814	Mulhern, T D	13872
Bucy, C B	13955	Geyer-Onszynska, I	13790	Khare, B P	13815	Mulla, M S	13883
Full, D I	13772	Cilles, H M	13875	Kimhall, J H	13876	13993,	14018
Bullock, H B	13797	Gilliam, M	13725	Kirkpatrick, B L	13986	Mama, M B	13739
Burch, G E	13956	Gjullin, C M	13791	Klassen, W	13821	Mnsa, M S	13832
Eurger, J F	13742	Gorman, G M	13948	Klun, J A	13816	Narf, R P	13731
Erngoyne, W E	13872	Gouger, R J	13792	Knapp, F W	13834	Nash, B G	14008
Burns, R E	13921	Gould, H J	13917	Knight, H H	13732	Nayar, K K	13839
Burrows, R B	13949	Govindu, H C	13743	Knight, W J	13733	Nijvelot, W	13740
Bush, H G	13878	Graham, O H	13978	Kralik, O	13715	Norment, B B	13884
Busta, F P	13950	Granohles, L A	13868	Kressin, E L	13788	North, D T	13821
Butler, G D	13832	Gratwick, M	13793	Krywienczyk, J	13817	Nudge, F	14011
Futler, J F	13979	Grau, P	13848	Kugel, E E	13956	Oatman, E	13927
Butt, B A	13773	Grayson, J M	13794	Kulinska, D	13989	Oatman, E B	13928
13803		Griffin, G O	13941	Knst, C A	13946	Oellermann, R A	13974
Cali, A	13774	Grigorova, R	13795	LaBrecgne, G C	13819	Ogawa, J M	13901
Calkins, C O	13775	Gromysz-Kalkowska, K	13796	13820		Oldroyd, H	13833
Canderday, T O	13768	Guerra, A A	13797	LaChance, L E	13821	Olive, A T	13870
Carter, F I	13988	13798		Ladd, T L	13818	Oppenoorth, F J	13871
Carver, H O	13717	Gunther, F A	13993	Lagnel, M	13734	Orkman, E E	13929
Castellanes, R A	13970	Hagen, K	13854	Lake, B W	13735	Oshorne, J C	13965
Gastro, L F	13868	Hale, R L	13931	Lancaster Jr, J L	13980	Ouye, M T	13797
Chancellor, R J	13943	Halisky, P M	13896	Landa, V	13844	13798	
Chapman, H C	13776	Ralkka, O	13867	Laughlin, R	13822	Padovani, P	13854
Chaudhury, M F B	13883	Hamilton, E W	13799	Lawson, O E	14017	Page, W P	13975
Chen, P S	13777	Hamlin, R L	13952	Leathers, C R	13898	Pashov, M	13795
Chevillie, M F	13951	Hanmann, P	13777	Lee, D L	13983	Pass, B C	13834
Chmurzynski, J A	13823	Haniotakis, G	13726	Lee, F C	13736	13939	
Clark, D E	13952	13800		Legner, E F	13928	Pate, T L	13884
Clark, F H	13778	Hansens, E J	13784	Legowski, T J	13917	Patrick, W C	13954
13910,	14000	Hanson, L E	13976	Legrain, A	13737	Payne, T L	13835
Clarke, J L	13718	Hardee, O D	14014	LeNay, J C	13970	Pearson, W G	13741
Clements, B W	13873	Harding, C	14013	Leuck, D B	13921	Pelikan, J	13836
Cleveland, T C	13911	Harein, P K	13986	13922		Peters, D C	13828
Cole, M M	13778	Haraston, P C	13727	Lewis, W M	14003	13929	
13910,	14000	Barries, P H	13801	Lieh, D	13947	Peterson, J L	13902
Combs, F I	13809	Harris, C B	14001	Lillis, W G	13949	Petrelli, M G	13787
Ccon, B F	13912	14010		Lindquist, D A	13772	Phillips, K	13872
Cooper, C V	13986	Harris, E J	13802	Lipes, J E	13923	Pickard, E	13716
Cooper, J E	13977	Harris, P	13944	Lipinska-skawinska,	13823	Plapp Jr, F W	13869
CranS, W J	13719	Harrison, B A	13741	Lloyd, J E	13979	Pless, C D	13837
Caça, M	13953	Harrison, P P	13937	Lord, P T	13824	Poinar, G O	13838
Cumming, M E P	13779	Harvey, J E	13922	Luckmann, W H	13771	Poorhaugh, J B	13742

AUTROB INDEX

Found, G S

Found, G S	13902	Stefaniak, B	13961
Powers, R D	13966	Stein, J D	13932
Prabau, V K K	13839	Steiner, L P	13802
Price, R A	13966	Strauss, W G	13814
Price, W C	13903	Stys, P	13753
Prichard, J T	13967		13754
Prokopy, R J	13840	Suhlette, J E	13755
Qadir, A N M A	13984	Suchy, M	13849
Quintana, A	13854	Sudd, J H	13852
Quraisbi, M S	13841	Sullivan, W N	13846
Raatikainen, M	13867	Summerfelt, B C	14003
Bader, W A	13968	Summers, P M	13726
Bakalska, Z	13961		13800
Bakarate Urs, N V	13743	Sundd, D K	13994
Randolph, H M	13992	Sunde, M L	13953
Rathburn, C B	13842	Swanson, E W	13948
Redfern, F	14002	Swenson, G H	13976
Redfern, R E	13862	Syons, J M	14012
Reichart, G	13843	Takahashi, H	13807
Bezabova, B	13844		13808
Rhoades, B E	13976	Tamaki, G	13933
Richards, W F	13930	Tempelis, C B	13885
Robauy, P	13744	Terriere, L C	13848
Bobeck, G G	14012	Tev, B P	13793
Roberts, C A	13903	Thomas, G M	13838
Roberts, F H	13845	Thompson, A C	14014
Robinson, A G	13769	Thompson, A H	13876
Bogers, A J	13873		13892
Rosenthal, J D	13846	Thompson, P H	13756
Ross, J N	13952	Tillapaugh, K	13979
Rcvner, J S	13847	Todd, A C	13953
Bowe, F P	14002	Tognoli, L	14004
Rusek, J	13745	Townes, H	13853
Rush, W A	13885	Trevino, J L	13978
Sashorski, D J	13899	Trujillo G, P	13757
Sarlet, L G	13746	Iseng, S-t	13941
	13747	Tu, C M	14010
Schafer, J	13848	Tuboly, S	13971
Schaffner, C P	13987	Tucker, S	13955
Scbauz, K	13904	Tuulinson, J H	14014
Scheidy, S F	13955	Usua, E S	13934
Schmidt, B E	13991	Van Lith, J P	13758
Schoepner, R P	13748	Van Ooststroom, S J	13759
Schroder, C	13975	Vecchi, M A	13859
Schwartz, J C	13969	Venkatraman, T V	13935
Scott, G C	13955	Verwoerd, D W	13974
Scotti, T	14004	Viltaste, T	13867
Seneviratna, F	13985	Voronkov, M G	13894
Service, M W	13886	Voss, J L	13967
Seyd, E L	13749	Waiyaki, J N	13936
Shalaby, A M	13887	Walker, D W	13854
Shane, M S	13990	Walker, M L	13981
Shemanchuk, J A	13881	Warlet, J M	13760
Shepperson, J B	13940	Warren, B C S	13761
Sherwood, B F	13970	Watanabe, B	13855
Shey, D J	13951		13856, 13857
Shimanuki, H	13725	Watson, C H	13987
Shipp, C E	13888	Wehb, R E	13858
Shipton, W A	13905	Weekman, G T	14017
Shirley, W N	13954	Weeks, B E	13933
Shivashankara Shastr	13743	Weiss, K E	13974
Sborey, H B	13835	Whitfield, T L	13791
	13931	Whitsel, B H	13748
Siddig, M A	13906	Wiebes, J T	13762
Silhavy, V	13750	Wilbur, D A	13861
Simco, J S	13980	Wille, H	13859
Simmet, B P	13891	Williams, C M	13860
Sjogren, E D	13889	Williams, J H	13861
Slama, K	13849	Wilson, S B	13990
Smirnoff, W A	13850	Wisecup, W G	13975
Smith, C N	13820	Wiygul, G	13830
Smith, C B	13952	Wolfentarger, D A	13862
Smith, F F	13858	Wood, O L	13863
	13924	Woods, G T	13976
Smith, G I	13911	Woodriddle, A W	13937
Smith, J N	13805	Wray, P C	13718
Smith, T E	13907	Wright, A	13915
Smittle, b J	13851	Wright, C G	13864
Smreczynski, S	13751	Wyatt, I J	13763
Soding, H	14009	Young, S Y	14015
Sohi, S S	13817	Youngner, V B	14011
Scillers-Biedel, H	13890	Zwolfer, B	13944
Sommersan, K M	13891		
Soper, F I	13752		
Sors, P	13849		
Spalla, C	14004		
Speck, E I	13950		
Stace-Smith, B	13908		
Stark, R W	13863		
Stec, J	13961		

ORGANIZATION INDEX

Abbott Laboratories, North Chicago, Illinois	13976
Canada Dept Of Agriculture, Chatham, Ontario	
Entomology Laboratory	14001
Duke University Medical Center, Durham, North Carolina	
Dept. of Veterinary Medicine	13970
Fonds National Suisse de la Recherche Scientifique	13790
Illinois Natural History Survey, Urbana	13831
Johannes Gutenberg-Universität, Mainz, Germany	
Institut für Allgemeine Zoologie	13847
Manchester Museum, Great Britain	
Dept. of Zoology	13749
National Institutes of Health	
National Science Foundation	13952
National Institutes of Health, Bethesda, Maryland	
National Institute of Allergy and Infectious Diseases	
13827	
National Science Foundation	13738
National Science Foundation, Washington, D. C.	13860
New Mexico Agricultural Experiment Station, University Park	
13907	
Northwest Mosquito Abatement District, Riverside, Calif.	
13889	
Research Institute of Medical Entomology, Cairo, Egypt	13724
Smith Kline and French Laboratories, Philadelphia	
Research and Development Division	
Worden Laboratories, Lincoln, Nebraska	13955
State-federal Cooperative Program, Madison, Wisconsin	13962
Texas A. and M. University	13992
D. S. Army, Fort Detrick, Md.	
Dept. Of Botany	13898
U. S. Communicable Disease Center	13880
D. S. Communicable Disease Center, Atlanta	14005
U. S. Dept. Agriculture, Gainesville, Florida	
Agricultural Research Service	
Entomology Research Division	14000
D. S. Dept. of Agriculture	
Agricultural Research Service	13873
U. S. Dept. Of Agriculture, Beltsville, Maryland	
Agricultural Research Service	
Agricultural Engineering Research Division	14016
U. S. Dept. Of Agriculture, Brookings, S. Dak.	
Agricultural Research Service	
Entomology Research Division	13799
U. S. Dept. Of Agriculture, Corvallis, Ore.	
Agricultural Research Service	
Entomology Research Division	13869
D. S. Dept. Of Agriculture, Yakima, Wash.	
Agricultural Research Service	
Entomology Research Division	13804
D. S. Naval Radiological Defense Laboratory, San Francisco	
13975	
U. S. Public Health Service	13964
U.S. Dept. Of Agriculture	
Forest Service	
Gulfport Laboratory	13811
U.S. Food and Drug Administration	13972 13973 13995
13996 13997 13998 13999	
Universidad Nacional de Tucuman, Argentina	
Facultad de Agronomia y Zootecnia	14007
University of Alberta, Edmonton, Canada	
Provincial Laboratory of Public Health	13881
University Of Arkansas	
Dept. Of Entomology	13980
University Of California, Davis	13896
University Of California, Davis	
Dept Of Pathology	13901
University Of California, Riverside	
Citrus Research Center	
Agricultural Experiment Station, Dept. Of Biological Control	
13927	
University Of California, Riverside	
Dept. Of Entomology	13993
University of Helsinki, Finland	
National Research Council for Sciences	13867
University Of Kentucky Agricultural Experiment Station	13834
University Of Kentucky, Lexington	
Agricultural Experiment Station	13939
University of Minnesota, Minneapolis	
Dept. of Soil Science	14006
University Of Nebraska	
Dept. Of Entomology	14017
University of Pennsylvania, Philadelphia	
School of Veterinary Medicine	
Rural Credits Fund of the Reserve Bank of Australia	13982
University Of Wisconsin	
Dept. Of Plant Pathology	13902
Veterinary Clinical Laboratory, Detroit	13963
Virginia Polytechnic Institute, Blacksburg	
Dept. of Veterinary Science	13965













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