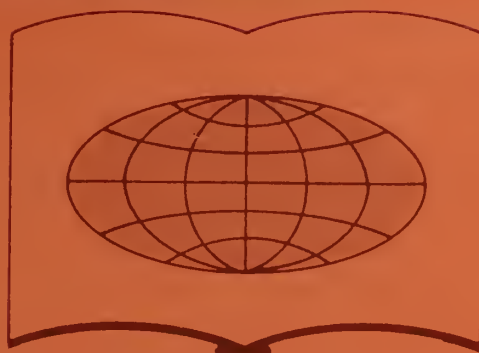


# Pesticides DOCUMENTATION BULLETIN

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Volume 4  
AUGUST 16, 1968

Number 17



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U.S. DEPARTMENT OF AGRICULTURE

# PESTICIDES DOCUMENTATION BULLETIN

A BI-WEEKLY PUBLICATION OF

U. S. DEPARTMENT OF AGRICULTURE

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Volume 4

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## 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
BIBLIOGRAPHY (Citations)	
10 ENTOMOLOGY	1
Systematics	1
Physiology and Biochemistry	5
Genetics	13
Medical Entomology	14
20 CROP PROTECTION	15
Diseases	17
Arthropods	26
Nematodes	27
Weeds	27
Other Pests	28
30 LIVESTOCK PROTECTION	28
Diseases	28
Arthropods	35
Parasites	35
40 COMMODITY PROTECTION	37
Storage Diseases	37
Arthropods	37
Rodents and Other Pests	37
Microbial Contamination	*
50 ENVIRONMENTAL CONTAMINATION	38
55 RESIDUES	38
60 TOXICOLOGY	39
65 PLANT PHYSIOLOGY & BIOCHEMISTRY	40
70 CHEMISTRY	42
80 ENGINEERING	*
90 INDUSTRY	43
Economics	43
Education	*
Regulations	43
SUBJECT INDEX	45
BIOGRAPHICAL INDEX	131
AUTHOR INDEX	141
ORGANIZATIONAL INDEX	145

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## Systematics



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Oulema melanopus, Parasitic insects, Wheat.  
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parasitized by mated individuals. Development occurred  
exclusively in pre-embryonated host eggs. Parasitized  
Oulema eggs from which Anaphes were reared or dissected,  
an average of 3.3 parasites per egg was evidenced at an over  
all female:male sex ratio of 3:1. Parasitized Oulema ova,  
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Abstract: Insecticides used were: Plictran, Azodrin,  
CS-19851, NC-5016, and Tranid were highly effective in  
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Radioactive tracers, Radioactivity, Rubidium, Temperature.
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Insect behavior, Pheromones, Scent glands.
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Experimental insects, Heliothis virescens, Sex, Sterilization.  
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Abstract: The most effective insecticides were: Bay 39007  
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Biochem J 108(3):2DP  
Jul 1968 382 B52  
Calliphora vicina, Carbaryl, Culture media, Fat body,  
Hydrogen-ion concentration, Insect metabolism,  
Insect physiology, Insecticides, Larvae, Metabolites,  
Temperature.
- 16441-68  
FACTORS AFFECTING PROTEIN SYNTHESIS BY THE FAT BODY OF THE  
LARVA OF THE BLOWFLY CALLIPHORA ERYTHROCEPHALA.  
G M Price  
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Biochemistry, Calliphora vicina, Culture media, Fat body,  
Insect physiology, Ions, Larvae, Proteins, Temperature, Time.
- 16442-68  
OXYGEN CONSUMPTION BY SOIL LARVAE OF INSECTS IN DEPENDENCE  
ON ITS TENSION. (BU )  
M G Prokopyeva  
Zool Zhur 47(2):3D1-3D3  
Feb 1968 41D B92  
Carabidae, Cetonina anrata, Bupalus latus, Insect respiration,  
Larvae, Oxygen, Scarabaeidae, Soil insects, Tipula scripta,  
Tipulidae.  
English and Russian abstracts.
- 16443-68  
ASPECTS CONCERNING THE MODE OF ACTION OF INSECTICIDE. (SP )  
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Spain Inst Riol Apl Pnbl 41:5-40 REF  
Dec 1966 442.9 SP13  
Insect anatomy, Insect physiology, Insecticides.
- 16444-68  
OOTHECAE OF THE BLATTARIA.  
L M Roth  
Entomol Soc Amer Ann 61(1):83-111 BEP  
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Blattidae, Insect eggs, Insect evolution, Insect physiology.
- 16445-68  
OVARIOLES OF THE BLATTARIA.  
L M Roth  
Entomol Soc Amer Ann 61(1):132-14D REF  
15 Jan 1968 420 ENB2  
Blattidae, Insect eggs, Insect evolution, Insect physiology,  
Ovulation.  
Abstract: In the ovoviviparous and viviparous Blaberidae  
there is a marked reduction in the total number of oocytes,  
and only 1 oocyte develops yolk at ovulation.
- 16446-68  
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AEDES AEGYPTI MOSQUITOES.  
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J Insect Physiol 14(5):719-728 BEP  
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Aedes aegypti, Aging, Glycogen, Insect dissemination,  
Insect physiology.
- 16447-68  
METABOLIC THERMAL ADAPTATIONS IN THE MOSQUITO CULEX PIPPIENS  
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J D Ruffington  
Diss Abstr Sect R 58(12,PT.1):5D61R-5D62B  
Jun 1968 Z5055.U49D53  
Culex pipiens pipiens, Insect adaptation, Insect metabolism,  
Insect respiration, Larvae, Lipids, Proteins, Temperature.
- 16448-68  
THE ULTRASTRUCTURE OF INSECT SURFACES BY SCANNING  
ELECTRON MICROSCOPY.  
E H Salkeld A Wilkes  
Can Entomol 100(1):1-4  
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Cuticle, Electron microscopes, Equipment, Insects,  
Oncopeltus fasciatus, Photography.
- 16449-68  
THE STUDY OF FERTILITY OF THE RAT FLEAS (XENOPSYLLA CHEOPIS  
ROTHSCH. AND CERATOPHYLLUS FASCIATUS ROSC.) UNDER THEIR  
FEEDING ON DIFFERENT ANIMALS. (RU )  
G P Samarina A N Alexeyev P I Shiranovich  
Zool Zhur 47(2):261-268 REF  
Feb 1968 410 B92  
Ceratophyllus fasciatus, Fertility, Hamsters, Mice, Rats,  
Siphonaptera, Xenopsylla cheopis.  
English and Russian abstracts.
- 16450-68  
INHIBITION BY ACETYLCHOLINE OF MALPIGHIAN TUBULE MUSCLE OF  
THE COCKROACH PERIPLANETA AMERICANA.  
C W Schaefer  
Entomol Soc Amer Ann 61(1):226-227 REF  
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Acetylcholine, Blattidae, Insect physiology, Malpighian tubes,  
Muscles, Periplaneta americana.
- 16451-68  
THE INNERVATION OF THE TERMINAL ABDOMINAL SEGMENTS  
(VII- XI) OF THE DESERT LOCUST, SCHISTOCERA GREGARIA.  
W D Seabrook  
Can Entomol 100(7):693-715 REF  
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Insect hology, Insect morphology, Nerves,  
Reproductive organs, Schistocerca gregaria.
- 16452-68  
POPULATION INTER-RELATIONSHIPS. I. EVOLUTION IN MIXTURES  
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A P C Seaton J Antonovics  
Heredit 22(1):19-33 REF  
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Culture media, Drosophila melanogaster, Drosophila similans,  
Drosophilidae, Insect evolution, Insect mutation,  
Population statistics.
- 16453-68  
PROTEIN SYNTHESIS IN SUBCELLULAR FRACTIONS OF THE BLOWFLY  
DURING DIFFERENT DEVELOPMENTAL STAGES.  
K E Sekeri C E Sekeris P Karlson  
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Mar 1968 421 J825  
Biochemistry, Calliphora vicina, Insect physiology, Proteins,  
Ribonucleic acid, Ribosomes.
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NUMBER OF INSTARS OF THE LARVA OF HERSE CONVOLVULI L.  
D G Sevastopulo  
Entomol Rec J Variation 80(5):147-148  
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Amphipyra herhera, Amphipyra pyramidea, Breeding,  
Herse convolvuli, Larvae, Metamorphosis.
- 16455-68  
FLIGHT HEIGHT, DROPLET SIZE, AND MOISTURE INFLUENCE ON  
GRASSHOPPER CONTROL ACHIEVED WITH MALATHION APPLIED AERIALY  
AT ULV.  
P E Skoog P T Cowan  
J Econ Entomol 61(4):1000-1003  
15 Aug 1968 421 JB22  
Aerial spraying, Biochemistry, Chemical control (insects),  
Grasshoppers, Humidity, Insect dissemination, Insect flight,  
Insecticide application, Insecticides, Malathion.
- 16456-68  
PHOTOTACTIC RESPONSE OF ADULTS OF CONFUSED FLOUR BEETLE AND  
RED FLOUR BEETLE AND LARVAE OF BLACK CABPET BEETLE TO FLASH-  
ES OF BLUE-WHITE LIGHT.  
E L Soderstrom  
J Econ Entomol 61(4):973-975  
15 Aug 1968 421 J822  
Attagenus megatoma, Insect physiology, Larvae, Light,  
Photochemistry, Photosensitization, Tribolium castaneum,  
Tribolium confusum.

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- 16457-68  
IN VITRO CULTIVATION OF CHORISTONEURA FUMIFERANA (CLEMENS) (LEPIDOPTERA:TORTRICIDAE) TISSUES.  
S S Sohi  
Can J Zool 46(1):11-13 REF  
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Choristoneura fumiferana, Insect cultures, Insect rearing, Tissues, Tortricidae.
- 16458-68  
BIOLOGICAL NOTES ON, AND ERADICATION OF TRICHOGRAMMA SEMIFUMATUM FROM LABORATORY CULTURES OF EIGHT SPECIES OF NOCTUIDAE.  
V M Stern H H Shorey  
J Econ Entomol 61(4):89R-901  
15 Aug 1968 421 J822  
Culture media, Experimental insects, Insect biology, Insect eggs, Insect physiology, Larvae, Noctuidae, Oviposition, Parasitism, Trichogramma semifumatum.  
Abstract: Species were: Heliothis zea, B. virescens, Trichoplusia, Autographa californica, Rachiplusia, Pseudoplusia includens, Prodenia ornithogalli, Spodoptera exigua.
- 16459-68  
DEFENSE REACTIONS OF DROSOPHILA SPECIES (DIPTERA: DROSOPHILIDAE) TO THE PARASITE PSEUDEUCOILA ROCHEI (HYMENOPTERA: CYNIPIDAE).  
F A Streams  
Entomol Soc Amer Ann 61(1):158-164 REF  
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Cynipidae, Drosophila, Insect eggs, Insect physiology, Larvae, Parasitic insects, Pseudeucoila bochei.
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J-o Stromberg  
Arkiv Zool 20(2):91-139 REF  
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Embryology, Gastrointestinal system, Insect morphology, Isopoda, Nervous system.
- 16461-68  
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K Szabo D J Broadbent  
US Patent Office Offic Gaz 854(2):502-503  
10 Sep 1968 156.65 OP2  
Chemical control (insects), Insect behavior, Methodology, Mites, Patents, Pesticides, Phosphonothioic acid compounds.
- 16462-68  
SOME PHYSIOLOGICAL EFFECTS OF SURLETRAL DOSES OF DDT ON FLOUR BEETLES.  
M Taher  
Diss Abstr Sect B 58(12,PT.1):5067B  
Jun 1968 Z5055.U49D53  
Chlorinated hydrocarbons, Ddt, Dosage, Excreta, Fertility, Insect physiology, Insecticides, Lindane, Malathion, Mortality, Oviposition, Quinones, Reproduction, Sodium fluoride, Sterility, Tribolium confusum.
- 16463-68  
ECOLOGY AND BEHAVIOR OF THE MIGRATORY LOCUST IN SOUTHWEST MADAGASCAR. (FR )  
J-p Tetefort D Wintrebent  
Soc Entomol France Ann 3(1):3-30 MAP REF  
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Acrididae, Insect behavior, Insect ecology, Insect outbreaks, Insect pests.  
French and english abstract  
Abstract
- 16464-68  
PHOSPHOLIPID SYNTHESIS DURING FLIGHT MUSCLE DEVELOPMENT IN THE AMERICAN SILKMOTH, HYALOPHORA CECROPIA.  
K K Thomas L I Gilbert  
Compar Biochem Physiol 21(2):279-29D REF  
May 1967 444.8 C73  
Bupalophora cecropia, Insect flight, Insect metabolism, Insect morphology, Lipids, Muscles.
- 16465-68  
SURVIVAL AND DEVELOPMENT OF SEVERAL GRASSHOPPER SPECIES ON EXTRACTS OF SELECTED PLANT SPECIES.  
D R Toczek  
Diss Abstr Sect B 58(12,PT.1):5255R-5256R  
Jun 1968 Z5055.U49D53  
Grasshoppers, Insect physiology, Insect rearing, Mortality, Plant extracts.
- 16466-68  
SURVIVAL OF OVERWINTERING ALPALPA WEEVIL EGGS IN PENNSYLVANIA.  
H G Townsend W G Vendol  
J Econ Entomol 61(4):916-918  
15 Aug 1968 421 J822  
Alfalfa, Hibernation, Hypera postica, Insect eggs, Insect physiology, Population, Research, Temperature, Weather.
- 16467-68  
SEX ATTRACTION IN THE MEDITERRANEAN FLOUR MOTH, ANAGASTA KUHNIELLA: LOCATION OF THE FEMALE BY THE MALE.  
E M M Traynier  
Can Entomol 100(1):5-10 REF  
Jan 1968 421 C16  
Anagasta kuehniella, Insect behavior, Photography, Sex attractants, Sex behavior.
- 16468-68  
BEHAVIOUR GENETICS OF NEST CLEANING IN BONEYREES. V. EFFECT OF PREVIOUS EXPERIENCE AND COMPOSITION OF MIXED COLONIES ON RESPONSE TO DISEASE-KILLED BROOD.  
R F Trump V C Thompson W C Rothenbuhler  
J Apicult Res 6(3):127-131 REF  
1967 424.8 J82  
American foulbrood, Apis mellifera, Bacillus larvae, Hygiene, Insect behavior, Insect genetics, Social insects.
- 16469-6R  
STRUCTURE AND PHYSIOLOGY OF A CHORDOTONAL ORGAN IN THE LOCUST LEG.  
P N R Usherwood H I Runion J I Campbell  
J Exp Biol 48(2):305-323 REF  
Apr 1968 442.8 B77  
Insect anatomy, Insect behavior, Insect physiology, Locusta migratoria, Mechanoreceptors, Romalea microptera, Schistocerca gregaria.
- 16470-68  
DIETARY REQUIREMENTS OF THE BOLLWORM, HELIOTHIS ZEA (LEPIDOPTERA: NOCTUIDAE), FOR LIPIDS, CHOLINE, AND INOSITOL AND THE EFFECT OF FATS AND FATTY ACIDS ON THE COMPOSITION OF THE BODY FAT.  
E S Vanderzant  
Entomol Soc Amer Ann 61(1):120-125 REF  
15 Jan 1968 42D EN82  
Choline, Fats, Fatty acids, Heliothis zea, Inositol, Insect nutrition, Insect physiology, Linoleic acid, Linolenic acid, Lipids, Noctuidae.
- 16471-68  
SOURCE OF A SUBSTANCE IN HELIOTHIS VIRESCENS (LEPIDOPTERA: NOCTUIDAE) THAT ELICITS A SEARCHING RESPONSE IN ITS HABITUAL PARASITE CARDIOCHILES NIGRICEPS. (HYMENOPTERA: BRACONIDAE).  
S R Vinson  
Entomol Soc Amer Ann 61(1):8-10  
15 Jan 1968 420 EN82  
Braconidae, Cardiochiles nigriceps, Heliothis virescens, Insect behavior, Insect physiology, Mandibular glands, Parasitic insects.
- 16472-68  
EVALUATION OF INSECTICIDES FOR CONTROL OF PICKLEWORM ON SUMMER SQUASH.  
R E Waites D H Rabecq  
J Econ Entomol 61(4):1097-1099  
15 Aug 1968 421 J822  
Biochemistry, Carbaryl, Chemical control (insects), Diaphania nitidalis, Entomology, Insecticides, Research, Squash.  
Abstract: Chemicals used were: lindane, endosulfan, and trichlorofon, Monsanto CP-47114, furadan, ortho.
- 16473-68  
THE SEPARATION AND CHARACTERIZATION OF THE HAEMOLYMPH PROTEINS OF SEVERAL INSECTS.  
C M Wang R L Patton  
J Insect Physiol 14(8):1069-1075 REF  
Aug 1968 421 JR25  
Acrylamide, Blood cells, Electrophoresis, Gels, Histochemistry, Insects, Proteins.
- 16474-68  
FIELD TRIALS TO CONTROL COLORADO BEETLE, LEPTINOTARSA DECEMLINEATA, WITH PERILLUS BIOCULATUS. (POL )  
W Wegorek A Szmidt

- Poznan Inst Ochrony Roslin Biul 36:47-54  
1967 464.9 P87  
Biological control (insects), Coleoptera, Hemiptera,  
Insect ecology, Leptinotarsa decemlineata,  
Perillus bioculatus, Predaceous insects.  
English and russian abstract  
Abstract
- 16475-68  
PLISTOPHORA SCOLYTI SP. N. (PROTOZOA, MICROSPORIDIA), A  
NEW PARASITE OF SCOLYTUS SCOLYTUS F. (COL., SCOLYTIDAE).  
J Weiser  
Folia Parasitol 15:11-14 REF  
1968 436.8 C33  
Insect diseases, Nosema, Plistophora, Protozoa,  
Scolytus scolytus.  
Abstract: Last larvae and adults of Scolytus scolytus F.  
are infected with Plistophora scolyti sp. nov. and No-  
sema curvidentis Weiser. Both Microsporidia attack the  
gut wall and oenocytes on its surface. A double infection  
is present in most cases. Host mortality is low and only  
colonies in old trunks, where crossings of old and new gal-  
leries are common, are infected.
- 16476-68  
TRIPLOSPORIUM TETRANYCHI SP. N. (PHYCOMYCETES, ENTOMOPH-  
THORACEAE), A FUNGUS INFECTING THE RED MITE TETRANYCHUS  
ALTHAEAEE HANST.  
J Weiser  
Folia Parasitol 15(DD):115-122  
1968 436.8 C33  
Entomophthoraceae, Insect diseases, Mites, Plant taxonomy,  
Tetranychus althaeae, Triplosporium tetranychii.  
Abstract
- 16477-68  
EMBRYOLOGY OF THE HOUSE FLY, MUSCA DOMESTICA (DIPTERA:  
MUSCIDAE), TO THE 8LASTODERM STAGE.  
J A West G E Cantwell T J Shortino  
Entomol Soc Amer Ann 61(1):13-17  
15 Jan 1968 42D EN82  
Embryology, Insect eggs, Musca domestica.
- 16478-68  
THE ANT LARVAE OF THE SUBFAMILY FORMICINAE (HYMENOPTERA:  
FORMICIDAE): SUPPLEMENT.  
G C Wheeler J Wheeler  
Entomol Soc Amer Ann 61(1):2D5-222 REF  
15 Jan 1968 42D EN82  
Formicidae, Insect taxonomy, Larvae.
- 16479-68  
VIABILITY, DEVELOPMENT, AND RATE OF PASSAGE OF THE PATHOGEN-  
IC BACTERIUM, BACILLUS LARVAE WHITE, IN THE HEMOLYMPH AND  
ALIMENTARY CANAL OF THE ADULT HONEY BEE, APIS MELLIFERA L.  
W T Wilson  
Diss Abstr Sect B 58(12,PT.1):5D67B-5D68B  
Jun 1968 25055.U49D53  
American foulbrood, Apis mellifera, Bacillus larvae,  
Bee diseases, Blood, Intestines.
- 1648D-68  
INVESTIGATIONS OF NEW INSECTICIDES. (POL )  
W Witkowski  
Poznan Inst Ochrony Roslin Biul 36:125-126  
1967 464.9 P87  
Chemical control (insects), Insect control, Mites, Pesticides,  
Toxicology.  
English and russian abstract
- 16481-68  
SOME RESPONSES OF FLYING AEDES AEGYPTI TO VISUAL  
STIMULI.  
F W Wood R H Wright  
Can Entomol 1D(5):5D4-513  
May 1968 421 C16  
Aedes aegypti, Air flow, Color, Equipment, Humidity,  
Insect behavior, Insect rearing, Kinetics, Light, Temperature,  
Vision.
- 16482-68  
RESPONSE AND RECOVERY ON X-IRRADIATED TRIBOLIUM CONFUSUM  
LARVAE.  
C Yang  
Diss Abstr Sect 8 58(12,PT.1):48868  
Jun 1968 25055.U49D53  
Cycloheximide, Dosage, Insect metabolism, Larvae, Mortality,  
Proteins, Temperature, Tribolium confusum, X-rays.
- 16483-68  
EFFECT OF IRRIGATION AND SUBMERSION IN WATER ON PUPAL SUE-  
VIVAL OF THE BOLLWORM.  
J H Young R G Price  
J Econ Entomol 61(4):959-961 REF  
15 Aug 1968 421 J822  
Cotton, Field crops, Heliothis zea, Immunity,  
Insect physiology, Irrigation, Pupae, Research, Time, Water.
- 16484-68  
ELECTRON MICROSCOPICAL STUDIES ON DITYLENCHUS DIPSACI  
(KUNN). STOMATAL REGION.  
P Yuen  
Can J Zool 45(6,PT.1):1D19-1033 REF  
Nov 1967 47D C16D  
Ditylenchus dipsaci, Electron microscopes, Helminthiasis,  
Morphology, Plant nematodes, Stomach.
- 16485-68  
EFFECTS OF SOME PHYSICAL AND BIOLOGICAL FACTORS ON THE  
REPRODUCTION, DEVELOPMENT, SURVIVAL, AND BEHAVIOR OF THE  
CEREAL LEAF BEETLE, OULEMA MELANOPUS (LINNAEUS), UNDER  
LABORATORY CONDITIONS.  
Y M Yun  
Diss Abstr Sect B 58(12,PT.1):5D68B  
Jun 1968 25055.U49D53  
Humidity, Insect behavior, Insect ecology, Insect flight,  
Insect physiology, Light, Metamorphosis, Mortality,  
Oulema melanopus, Ovulation, Reproduction, Temperature.
- 16486-68  
EFFECT OF CORPORA ALLATA ON PROTEIN AND RNA SYNTHESIS IN  
COLLETERIAL GLANDS OF BLATTTELLA GERMANICA.  
M Zalokar  
J Insect Physiol 14(8):1177-1184  
Aug 1968 421 J825  
Blattella germanica, Colleterial glands, Corpora allata,  
Gonadotropins, Nucleosides, Phosphorylation, Proteins,  
Radioactivity, Research, Ribonucleic acid, Uridine.
- 16487-68  
TEMPERATURE COMPENSATION OF THE CIRCADIAN OSCILLATION IN  
DROSOPHILA PSEUDOOSCURA AND ITS ENTRAINMENT BY  
TEMPERATURE CYCLES.  
W F Zimmerman C S Pittendrigh T Pavlidis  
J Insect Physiol 14(5):669-684 REF  
May 1968 421 J825  
Diurnal rhythm, Drosophila pseudooscure, Insect behavior,  
Insect temperature, Stridulation.
- 16488-68  
OILS FOR SUMMER CONTROL OF PEAR PSYLLA AND THEIR EFFECTS ON  
PEAR TREES.  
R W Zwick F W Peifer  
J Econ Entomol 61(4):1075-1D79 REF  
15 Aug 1968 421 J822  
Biochemistry, Chemical control (insects), Foliar application,  
Oils, Pears, Psylla pyricola, Spraying, Trees.  
Abstract: Oil were combined with azinphosmethyl, ethion,  
and perthane (1,1-dichloro-2,2 bis(p-ethylphenyl) ethane.
- 16489-68  
THE REPRODUCTIVE BIOLOGY OF HIPPELATES COLLUSOR (DIPTERA:  
CHLOROPIDAE). II. GAMETOGENESIS.  
T S Adams M S Mulla  
Entomol Soc Amer Ann 6D(6):1177-1182  
Nov 1967 420 EN82  
Chloropidae, Gametogenesis, Hippelates, Insect hiology.
- 16490-68  
SPERMATOZOAN NUCLEUS LENGTH IN THREE STRAINS OF  
DROSOPHILA MELANOGASTER.  
R A Beatty N S Sidhu  
Heredity 22(1):65-82 REF  
Feb 1967 443.8 842  
Cell nucleus, Culture media, Drosophila melanogaster,  
Environment, Genetics, Ronogenesis, Sampling (statistics),  
Spermatozoa, Variance analysis.

## Genetics



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16491-68

CYTOGENETIC OBSERVATIONS ON SPECIES A AND B OF THE ANOPHELES GAMBIAE COMPLEX.  
M Coluzzi A Sabatini  
Parassitologia 9(2):73-88 REF  
Oct 1967 436.8 P212  
Anopheles gambiae, Breeding, Chromosomes, Cytogenetics, Insect genetics, Polymorphism, Salivary glands (insects).  
English and Italian abstract  
Abstract

16492-68

INFLUENCE OF REPELLENCY ON THE EFFICACY OF BLATTICIDES. II. LABORATORY EXPERIMENTS WITH GERMAN COCKROACHES.  
W Ebeling D A Reiersen R E Wagner  
J Econ Entomol 60(5):1375-1390  
Oct 1967 421 JB22  
Blattella germanica, Insect repellents, Insecticides.

16493-68

RESISTANCE LEVELS IN DIAZINON-PRESSURED AND NONPRESSURED POLYRESISTANT HOUSE FLIES.  
A J Forgas E J Hansens  
J Econ Entomol 60(5):1241-1247  
Oct 1967 421 JB22  
Diazinon, Insecticide resistant insects, Musca domestica.

16494-68

TEMPERATURE EFFECT ON REPRODUCTION AND LONGEVITY OF LABORATORY-REARED ADULT PINK BOLLWORM (LEPIDOPTERA: GELECHIIDAE).  
H M Graham P A Glick M T Ouye  
Entomol Soc Amer Ann 60(6):1211-1213  
Nov 1967 42D EN82  
Insect rearing, Pectinophora, Reproduction.

16495-68

PARATHION RESISTANCE IN HOUSE FLY POPULATIONS IN THE SAVANNAH, GEORGIA, AREA.  
W Mathis A D Flynn H F Schoof  
J Econ Entomol 60(5):14D7-14D9  
Oct 1967 421 JB22  
Diazinon, Georgia, Insecticide resistant insects, Musca domestica, Parathion.

16496-68

INHERITED STABILITY IN PROGENY OF IRRADIATED MALE CABBAGE LOOPERS.  
D T North G Holt  
J Econ Entomol 61(4):928-931 REF  
15 Aug 1968 421 JB22  
Breeding, Chromosomes, Gamma rays, Heredity, Insect control, Insect eggs, Insect genetics, Insect physiology, Lepidoptera, Sex, Sterility, Trichoplusia ni.

16497-68

MUTATION AND CHROMOSOMAL PUPPING IN THE VICINITY OF THE WHITE LOCUS OF DROSOPHILA MELANOGASTER.  
R E Rayle  
Diss Abstr Sect B 28(12,PT.1):4880B  
Jun 1968 Z5055.049D53  
Chromosomes, Drosophila melanogaster, Insect genetics, Insect mutation.

16498-68

PHYSIOLOGICAL GENETICS OF MELANOTIC TUMORS IN DROSOPHILA MELANOGASTER. IV. GENE-ENVIRONMENT INTERACTIONS OF TU-BW WITH DIFFERENT THIRD CHROMOSOME BACKGROUNDS.  
J H Sang B Burnet  
Genetics 56(4):743-754  
Aug 1967 442.8 G28  
Breeding, Chromosomes, Deoxyribonucleic acid, Drosophila melanogaster, Insect genetics, Insect physiology, Neoplasms, Population, Temperature.

16499-68

A FORMULA FOR DETERMINING DEGREE OF DOMINANCE IN CASES OF MONOFACTOIAL INHIBITANCE OF RESISTANCE TO CHEMICALS.  
B F Stone  
World Health Organ Bull 38(2):325-326  
1968 449.9 W892B  
Arthropoda, Chemicals, Dominance, Genes, Inheritance, Insect genetics, Insecticide resistant insects.

## Medical Entomology

165DD-68

TIME OF ARRIVAL OF GRAVID CULEX PIPIENS FATIGANS AT AN OVIPOSITION SITE, THE OVIPOSITION CYCLE AND THE RELATIONSHIP BETWEEN TIME OF FEEDING AND TIME OF OVIPOSITION.

B De Meillon A Sebastian Z H Khan  
World Health Organ Bull 36(1):39-46  
1967 449.9 W892B  
Culex pipiens quinquefasciatus, Feeding, Insect behavior, Insect control, Insect traps, Light, Ovulation, Pregnancy, Reproduction, Time.  
French summary

16501-68

CANE-SUGAR FEEDING IN CULEX PIPIENS FATIGANS.

B De Meillon A Sebastian Z H Khan  
World Health Organ Bull 36(1):53-65  
1967 449.9 W892B  
Attractants, Culex pipiens quinquefasciatus, Feeding, Insect behavior, Insect biology, Insect control, Insect dissemination, Insect traps, Insect vectors, Ovulation, Sugarcane.  
French summary

16502-68

THE SEROLOGICAL DIFFERENTIATION OF VIBUSES IN THE TICK-BOONE ENCEPHALITIS SUBGROUP BY THE GEL-DIFFUSION METHOD.

N E Gorev A A Smorodincev  
World Health Organ Bull 3B(3):389-399  
1968 449.9 W892B  
Diffusion, Encephalitis, Gels, Human diseases, Insect vectors, Ixodidae, Serological tests, Viruses.  
French summary

16503-68

ARBOVIRUS STUDIES IN BUSH BUSH FLEET, TRINIDAD, W. I. SEPTEMBER 1959-DECEMBER 1964. VI. RODENT-ASSOCIATED VIRUSES (VEE AND AGENTS OF GROUP C AND GUAMA): ISOLATIONS AND FURTHER STUDIES.

A H Jonkers L Spence W G Downs T B G Aitken C B Worth  
Amer J Trop Med Hyg 17(2):285-298 REF  
Mar 1968 44B.8 AM326  
Arboviruses, Culicidae, Insect vectors, Rodents, Serological tests.

16504-68

MEASURING MOSQUITO REPELLENCY.

F E Kellogg D J Burton R H Wright  
Can Entomol 100(7):763-768  
Jul 1968 421 C16  
Culicidae, Equipment, Insect repellents.  
Abstract

16505-68

FIELD STUDY OF THE SAFETY OF ABATE FOR TREATING POTABLE WATER AND OBSERVATIONS ON THE EFFECTIVENESS OF A CONTROL PROGRAMME INVOLVING BOTH ABATE AND MALATHION.

E B Laws V A Sedlak J W Miles C R Joseph J R Lacomba  
World Health Organ Bull 38(3):439-445  
1968 449.9 W892B  
Abate, Aedes aegypti, Human diseases, Insect control, Insect vectors, Malathion, Research, Toxicology, Water treatment.  
French summary

16506-68

RECENT ADVANCES IN TECHNIQUES FOR TESTING FLY CONTROL WITH SPECIAL REFERENCE TO NORTHERN NIGERIA.

K J R MacLennan  
World Health Organ Bull 37(4):615-628 BEP  
1967 449.9 W892B  
Biology, Ecology, Glossina, Insect control, Insect vectors, Insecticides, Trypanosomiasis.  
French summary

165D7-68

UKAUNA VIRUS PROLIFERATION IN MOSQUITOS.

O Ogunbi  
Can J Microbiol 14(2):125-129 REF

Feh 1968 448.8 C162  
*Aedes aegypti*, *Aedes canadensis*, *Aedes triseriatus*,  
 Arboviruses, Injections, Insect vectors, Mice, Reproduction,  
 Thorax, Ukauwa virus.  
 Abstract: Immediately after inoculation, an eclipse phase  
 with lack of detection of infectivity was observed 6 hours  
 later, and was followed by initial recovery of virus (1.0  
 log mouse LD50) at 12 hours, thereafter steady virus  
 increments in salivary glands, gut and legs, reaching the  
 maximum titers of 5.4 to 6.3 log mouse in 4 days.

1650B-6B  
 GROWTH OF ARBOVIRUSES IN PRIMARY TISSUE CULTURE OF AEADES  
 AEGYPTI EMBRYOS.  
 J Peleg  
 Amer J Trop Med Hyg 17(2):219-223 REF  
 Mar 1968 448.8 AM326  
*Aedes aegypti*, Agglutination test, Arboviruses,  
 Eastern equine encephalomyelitis virus, Semliki forest virus,  
 Tissue culture, Volumetric analysis, West Nile virus.

16509-68  
 THE LIFE CYCLE OF TRICHINELLA SPIRALIS. I. INTESTINAL  
 PHASE OF DEVELOPMENT.  
 C S Shanta E Meerovitch  
 Can J Zool 45(6, Pt. 2):1255-1260 REF  
 Nov 1967 470 C16D  
 Animal diseases, Intestines, Metamorphosis, Molting (insects),  
 Morphology, Trichinella spiralis.  
 Abstract: Amphids observed after post infection; they in-  
 creased in size until 6th hour then regressed and disap-  
 peared. The function of these amphids is believed to be  
 related to osmoregulation.

## 20 CROP PROTECTION

16510-68  
 A COMPARISON OF ANNUAL CROPS FOR SEED AND RESIDUE IN THE  
 SEMI-ARID REGION OF WESTERN CANADA.  
 C H Anderson  
 Can J Plant Sci 48(3):287-291  
 May 1968 450 C16  
 Grain, Oilseeds, Seed analysis, Soil-binding plants, Stuhhle.  
 Abstract: Eight cereal and oilseed crops were tested to  
 compare their yields of seed and stuhhle residue for  
 purposes of soil erosion control.

16511-6B  
 UPTAKE AND METABOLISM OF INDOLEACETIC ACID, NAPHALENE-  
 ACETIC ACID, AND 2,4-DICHLOROPHENOXYACETIC ACID BY PEA ROOT  
 SEGMENTS IN RELATION TO GROWTH INHIBITION DURING AND AFTER  
 AUXIN APPLICATION.  
 W A Andreae  
 Can J Bot 45(5):737-753 REF  
 May 1967 470 C16C  
 D, 2,4-, Indoleacetic acid, Metabolism,  
 Naphthaleneacetic acid, Peas, Plant growth inhibitors,  
 Plant hormones.  
 Abstract: Growth inhibition by applied auxins is indepen-  
 dent of the rate of auxin uptake, accumulation of auxin or  
 auxin metabolites in the tissue, or the subsequent loss of  
 accumulated auxin from the tissues.

16512-6B  
 CULTURAL STUDIES OF SEXUAL REPRODUCTION OF CERATOCYSTIS  
 FAGACEARUM.  
 W R Bell C L Fergus  
 Can J Bot 45(8):1235-1242 REF  
 Aug 1967 470 C16C  
 Agar, Biochemistry, Ceratocystis fagacearum, Conidia, Fungi,  
 Hermaphroditism, Hydrogen-ion concentration,  
 Plant reproduction.  
 Abstract: The optimum KH<sub>2</sub> PO<sub>4</sub> concentration for perithe-  
 cium production by *C. fagacearum* in a semi-synthetic agar  
 medium was 7.4 x 10<sup>-4</sup> M. A great reduction in the number  
 of perithecia occurred at 0.1 M and none were formed at  
 0.2 M concentration.

16513-68  
 STUDIES ON LETTUCE SEED GERMINATION. I. COUMARIN INDUCED  
 DORMANCY.  
 H M M Berrie W Parker B A Knights M R Hendrie  
 Phytochemistry 7(4):567-573  
 Apr 1968 450 P5622  
 Biochemistry, Coumarin, Giberellins, Lettuce,  
 Photosensitization, Seed dormancy, Seed germination.  
 Abstract: On the basis of the findings it is proposed that  
 the coumarins and isocoumarins which induce light sensitive  
 dormancy in plants may act as anti-giberellins.

16514-68  
 A THESIS OF MME G. RICOU, ON LASTING PRAIRIE PASTURAGE,  
 A BIOECOLOGICAL STUDY OF NATURAL ENVIRONMENT. (FR )  
 D L Bonnemaïson  
 Phytoma 19(188):39  
 May 1967 464.8 P563  
 Ecology, Grasses, Pastures, Prairies, Research, Theses.

16515-68  
 INJURY TO SUGAR BEET LEAVES THROUGH GROWTH INHIBITING HERB-  
 ICIDES.  
 Z Caca  
 Nachrichtenhilf Deut Pflanzenschutzdienstes 19(11):161-162  
 Nov 1967 442.9 B832  
 Herbicides, Leaves, Plant injuries, Plant physiology,  
 Sugar beets.

16516-68  
 ATMOSPHERIC POLLUTION AND ITS EFFECTS ON VEGETATION. (FR )  
 L Cormis  
 Phytoma 19(187):25-30  
 Apr 1967 464.8 P563  
 Air pollution, *Aragallis arvensis*, *Plantago lanceolata*,  
*Stellaria media*, Tissues, Vegetation.

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A NOTE ON TRANSLOCATION-TRISOMIC PLANT FROM GAMMA-IRRADIATED BARLEY.  
K Oas B C Goswami  
Cytologia 32(1):55-58  
Mar 1968 442.8 C99  
Barley, Cells, Chromosomes, Cytology, Gamma rays, Plant morphology, Plant translocation, Research, Sampling (statistics), Sterility.
- 16518-68  
SPECTRAL DISTRIBUTION OF LIGHT IN FORESTS OF THE COUGLAS FIR ZONE OF SOUTHERN BRITISH COLUMBIA.  
S Freyman  
Can J Plant Sci 48(3):326-328  
May 1968 450 C16  
Light, Plant ecology, Plant growth inhibitors, Pseudotsuga menziesii.
- 16519-68  
ION UPTAKE OF SWEET POTATO ROOTS INFECTED BY THE BLACK ROT FUNGUS.  
H Imaseki K Akntsu I Uritani  
Plant Cell Physiol 8(4):753-758 REF  
Dec 1967 450 P699  
Adsorption, Black rot (sweetpotatoes), Ceratocystis fimbriata, Fungi, Ions, Parasitism, Plant diseases, Plant metabolism, Roots, Tissues.
- 16520-68  
EFFECT OF BORON ON RIBONUCLEIC ACID AND INDOLEACETIC ACID METABOLISM IN THE APICAL MERISTEMS OF SUNFLOWER PLANTS.  
M M Jaweed E G Scott  
W Va Acad Sci Proc 39:186-193 REF  
1967 500 W52  
Boron, Indoleacetic acid, Plant growth inhibitors, Plant metabolism, Plant regulators, Ribonucleic acid, Sunflowers.  
Abstract: A comparison of the levels of RNA and IAA in normal and boron-depleted tissue indicated that boron deficiency decreases the RNA content and elevates IAA levels. It is proposed that boron checks excessive levels of IAA in plants and, thus, is responsible for keeping it in physiologically growth-promoting concentrations.
- 16521-68  
THE UTILIZATION OF L-ASPARAGINE BY TWO SPECIES OF PHYTOPHTHORA.  
J A Leal V G Lily M E Gallegly  
W Va Acad Sci Proc 39:95-101  
1967 500 W52  
Asparagine, Chromatography, Fungi, Nitrogen, Phytophthora citricola, Phytophthora heveae, Plant growth inhibitors, Reproduction.
- 16522-68  
METHOD OF INHIBITING PLANT GROWTH. PATENT 3,390,978.  
J K Leasure O R Mussell  
Us Patent Office Offic Gaz 852(1):153  
02 Jul 1968 156.65 OF2  
Halogen compounds, Patents, Plant growth inhibitors, Silanes.
- 16523-68  
THE ROLE OF BIOLOGICAL CONTROL IN THE INTEGRATED PROGRAMS OF PLANT PROTECTION. (POL )  
J J Lipa  
Poznan Inst Ochrony Roslin Biul 36:23-31 REF  
1967 464.9 P87  
Agricultural research, Biological control (pests), Insect control, Plant protection.  
English and russian abstract  
Abstract
- 16524-68  
MINERAL NUTRITION OF CACAO (THEOBROMA CACAO L.). COMPARISON OF PLANT GROWTH AND NUTRIENT CONTENT OF LEAVES OF SIX C.R.I. VARIETIES GROWN IN OPTIMUM AND DEFICIENT CONDITIONS IN SAND CULTURE.  
R G Lockard E J A Asomang  
Can J Bot 45(5):681-689  
May 1967 470 C16C  
Cacao, Hydroponics, Plant breeding, Plant nutrition, Plant physiology, Potassium.  
Abstract: The varieties tested were Amazon selections Nanay and Parinari, West African Amelonado and their hybrids, NYA, PAA, and NYPA. Nutrient levels in the leaves did not vary greatly between varieties, and apparently were not correlated with plant growth.
- 16525-68  
GROWTH SUBSTANCES ISOLATED FROM WOODY CUTTINGS OF ALNUS GLUTINOSA MEDIC. AND FRAXINUS EXCELSIOR L.  
J Mendez M D V Gesto A Vazquez E Vieitez E Seoane  
Phytochemistry 7(4):575-579  
Apr 1968 450 P5622  
Alnus glutinosa, Chromatography, Fraxinus excelsior, Plant cuttings, Plant physiology, Plant regulators, Spectroscopy.
- 16526-68  
RADIATION-INDUCED DAMAGE IN VEGETATIVE TISSUES OF PINUS RIGIDA MILL.  
F Mergen B A Thielges  
Cytologia 32(2):248-254 REF  
Sep 1967 442.8 C99  
Cytology, Pinus rigida, Plant injuries, Plant physiology, Radiation, Tissues, Vegetation.
- 16527-68  
AMMONIATION PROCESS FOR DETOXIFYING THE SEEDS OF CRAMBE ABYSSINICA AND RAPE. PATENT 3,392,026.  
G C Mustakas L O Kirk  
Us Patent Office Offic Gaz 852(2):411  
09 Jul 1968 156.65 OF2  
Ammonium compounds, Crambe abyssinica, Glucose compounds, Patents, Poisonous plants, Rape, Toxins.
- 16528-68  
INTERGRAFTING, PREVENTIVE MEASURES AGAINST THE 'COLLAR ROT' ON APPLES. (GER )  
A Schmidle  
Nachrichtenbl Oeut Pflanzenschutzdienstes 20(2):22-23 REF  
Feb 1968 442.9 B832  
Apples, Collar rot (apples), Phytophthora cactorum, Plant breeding, Plant disease resistance, Plant grafting.
- 16529-68  
RESPONSE OF ZIGZAG CLOVER GENOTYPES TO MANAGEMENT PRACTICES.  
C E Townsend A O Ootzenko K R Storer F E Edlin  
Can J Plant Sci 48(3):273-279  
May 1968 450 C16  
Crop losses, Crop yields, Plant growth inhibitors, Zigzag clover.  
Abstract: Management practices were to harvest the ten types of zigzag clover prior to flowering, at early bloom, and at full bloom.
- 16530-68  
A MORPHOLOGICAL AND BIOLOGICAL CONCEPT OF THE SPECIES CERATOCYSTIS FIMBRIATA.  
R E Webster E E Butler  
Can J Bot 45(9):1457-1468 REF  
Sep 1967 470 C16C  
Ceratocystis fimbriata, Plant breeding, Plant geography, Plant morphology, Plant taxonomy.  
Isolated from different plants and geographic locations
- 16531-68  
THE PRESENT AND THE FUTURE OF PLANT PROTECTION. (POL )  
W Wegorek  
Poznan Inst Ochrony Roslin Biul 36:9-22 REF  
1967 464.9 P87  
Insecticides, Plant disease control, Plant pest control, Plant protection, Productivity.  
English and russian abstract  
Abstract
- 16532-68  
AN EXPOSURE CHAMBER FOR STUDYING THE EFFECTS OF AIR POLLUTION ON PLANTS. (ABSTRACT).  
F A Wood O B Drummond R G Wilhour O O Oavis  
Phytopathology 58(4):404  
Apr 1968 464.8 P56  
Air pollution, Equipment, Ozone, Peroxyacetyl nitrate.



## Diseases

- 16533-68  
IMMUNODIFFUSION TESTS WITH THREE ISOLATES OF BARLEY YELLOW DWARF VIRUS. (ABSTRACT).  
A I E Aapola W F Rochow  
Phytopathology 58(4):398  
Apr 1968 464.8 P56  
Barley, Immunodiagnosis, Insect vectors, Macrosiphum avenae, Rhopalosiphum padi, Serological tests, Virus diseases (plants), Yellow dwarf (barley).
- 16534-68  
ROOT EXUDATES FROM RED PINE SEEDLINGS AND THEIR EFFECTS ON PYTHIUM ULTIMUM.  
V P Agnihotri O Vaartaja  
Can J Bot 45(7):1D31- 104D REP  
Jul 1967 47D C16C  
Amino acids, Chromatography, Exudates, Fungus diseases (plants), Growth factors, Pinus resinosa, Pythium ultimum, Root rot (pinus resinosa), Roots, Seedlings, Sugars.  
Abstract
- 16535-68  
AMINO ACIDS FROM HETERODERA GLYCINES LARVAE. (ABSTRACT).  
S Aist R D Riggs  
Phytopathology 57(8):801  
Aug 1967 464.8 P56  
Amino acids, Heterodera glycines, Larvae, Nematodes, Plant nematode resistance.
- 16536-68  
THE SENSITIVITY OF FUNGI TO ALPHA-TOMATINE.  
Pa Arneson R D Durbin  
Phytopathology 58(4):536-537  
Apr 1968 464.8 P56  
Alkaloids, Fungi, Fungicides, Fungus diseases (plants), Glucose, Plant disease control, Tomatine, Tomatoes.
- 16537-68  
AN INTERNATIONAL SET OF RICE VARIETIES FOR DIFFERENTIATING RACES OF PIRICULARIA ORYZAE.  
J G Atkins A L Robert C R Adair K Goto T Kozaka R Yanagida M Yamada S Matsumoto  
Phytopathology 57(3):297-3D1  
Mar 1967 464.8 P56  
Crop varieties, Fungus diseases (plants), Rice.
- 16538-68  
A BAITING METHOD FOR ESTIMATING THE SAPROPHYTIC ACTIVITY OF SCLEROTIUM ROLFSSII IN SOIL.  
Z Avizohar-Hershenzon P Shacked  
Phytopathology 58(4):410-413 REP  
Apr 1968 464.8 P56  
Baits, Beets, Carrots, Saprophytes, Sclerotium rolfsii, Soil microorganisms, Sorghum.
- 16539-68  
INTERACTION OF MAJOR FACTORS INFLUENCING SEVERITY OF BEAN ROOT ROT. (ABSTRACT).  
R Baker C L Maurer  
Phytopathology 57(8):3D2  
Aug 1967 464.8 P56  
Beans, Fungus diseases (plants), Fusarium solani phaseoli, Plant disease resistance, Root rot (beans).
- 16540-68  
THE EVOLUTION OF APPLE AND PEARTREE SPOT DISEASE DURING THE YEAR 1966. (FR )  
F Barbotin  
Phytoma 19(188):29-31  
May 1967 464.8 P563  
Apples, Evolution, Fruit, Leaves, Pears, Tree diseases, Trees.
- 16541-68  
THE INFLUENCE OF ORGANIC SOIL AMENDMENT ON COMMON SCAB OF POTATO.  
K C Basu-Chaudhary  
Indian Phytopathol 20(3):203-205 REP  
Sep 1967 464.8 IN2  
Plant diseases, Scab (potatoes), Soil conservation, Soil organic matter, Streptomyces scabies.
- 16542-68  
SOME FACTORS RELATED TO THE PRODUCTION OF A BROWN DIFFUSIBLE PIGMENT BY XANTHOMONAS PHASEOLI VAR. FUSCANS (ABSTRACT).  
P K Basu  
Phytopathology 57(8):803  
Aug 1967 464.8 P56  
Bacterial diseases (plants), Pigments (plant), Xanthomonas phaseoli.
- 16543-68  
EFFECT OF TOBACCO MOSAIC VIRUS INFECTION ON GLUCOSE METABOLISM IN NICOTIANA TABACUM VAR. SAMSUM. I. INVESTIGATIONS WITH <sup>14</sup>C-LABELED SUGARS.  
J R Baur R S Halliwell R Langston  
Virology 32(3):4D6-412  
Jul 1967 448.8 V81  
Carbon isotopes, Glucose, Metabolism, Mosaic (tobacco), Tobacco, Virus diseases (plants).  
Abstract: Percent participation of the Embden-Meyerhof-Parnas glycolytic pathway and the hexose monophosphate shunt in leaf tissues of tobacco mosaic virus-infected Nicotiana tabacum L. var. Samsum was calculated by three techniques based on the recovery of <sup>14</sup>C<sub>2</sub> from glucose-1-<sup>14</sup>C and glucose-6-<sup>14</sup>C substrates.
- 16544-68  
GROWTH OF THE HYPERPARASITE DARLUCA FILUM ON A CHEMICALLY DEFINED MEDIUM.  
G A Bean  
Phytopathology 58(2):252-253  
Feb 1968 464.8 P56  
Culture media, Darluca filum, Fungus diseases (plants), Parasitism, Uredinales.
- 16545-68  
AVIRULENCE OF A METHIONINE-SENSITIVE LEUCINE MUTANT OF PENICILLIUM EXPANSUM IN JONATHAN APPLE. (ABSTRACT).  
L Beraha E D Garber  
Phytopathology 57(8):803-8D4  
Aug 1967 464.8 P56  
Apples, Fungus diseases (plants), Leucine, Methionine, Mutation, Penicillium expansum.
- 16546-68  
PRODUCTION OF THE PERFECT STAGE OF BOTRYOTINIA (BOTRYTIS) SQUAMOSA UNDER CONTROLLED ENVIRONMENTAL CONDITIONS. (ABSTRACT).  
E R Bergquist J W Lorbeer  
Phytopathology 58(4):398  
Apr 1968 464.8 P56  
Botryotinia squamosa, Botrytis, Culture media, Fungus diseases (plants), Growth factors, Lighting, Temperature, Wheat.
- 16547-68  
THE PHYSIOLOGY OF HOST-PARASITE RELATIONS. XIX. FURTHER OBSERVATIONS ON NUCLEOPROTEIN CHANGES IN WHEAT LEAF NUCLEI DURING RUST INFECTION.  
P K Bhattacharya M Shaw J M Naylor  
Can J Bot 46(1):11-16 REP  
Jan 1968 470 C16C  
Cell nucleus, Deoxyribonucleic acid, Fungus diseases (plants), Nucleoproteins, Parasitic plants, Plant physiology, Puccinia graminis tritici, Stem rust (wheat), Wheat.  
Abstract: Profound changes in nuclear metabolism are induced by infection with the rust fungus.
- 16548-68  
CARBON DIOXIDE EXCHANGE BY RADISH TISSUE INFECTED WITH ALBUGO CANDIDA MEASURED WITH AN INFRARED CD<sub>2</sub> ANALYZER.  
L L Black D T Gordon P H Williams  
Phytopathology 58(2):173-178 REP  
Feb 1968 464.8 P56  
Albugo candida, Carbon dioxide, Fungus diseases (plants), Parasitism, Photosynthesis, Plant respiration, Radishes.
- 16549-68  
SOME PROBLEMS OF THE STUDIES ON NARROW LEAF VIRUS DISEASE OF YELLOW LUPIN. (POL )  
W Blaszczyk  
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1967 464.9 P87  
Epidemiology, Lupine, Virus diseases (plants).  
English and Russian abstract  
Abstract

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Apples, Bacterial diseases (plants), *Erwinia amylovora*,  
Fire blight (fruit), Pears.  
English and German summaries.  
Abstract
- 16551-68  
CROWN RUST RESISTANCE IN TALL OATGRASS. (ABSTRACT).  
S W Braverman  
Phytopathology 57(8):805  
Aug 1967 464.8 P56  
*Arrhenatherum elatius*, Crop varieties,  
Crown rust (*Arrhenatherum*), Fungus diseases (plants),  
Plant disease resistance, *Puccinia coronata*.
- 16552-68  
VERTICILLIUM WILT REACTIONS IN COTTON AS AFFECTED BY  
POSTINOCULATION TEMPERATURES. (ABSTRACT).  
L A Brinkerhoff E Samayoa J C Murray  
Phytopathology 57(8):805  
Aug 1967 464.8 P56  
Cotton, Fungus diseases (plants), Temperature,  
*Verticillium albo-atrum*, Wilt (cotton).
- 16553-68  
KNOWLEDGE OF SEPTORIA NODOBUM BERK., THE CAUSE OF LEAF  
BLOTCH AND GLUME BLOTCH IN WHEAT. (GE )  
A Bronniman  
Phytopathol Z 61(2):101-146 REF  
Feb 1968 464.8 P562  
Fungus diseases (plants), Glume blotch (wheat),  
Leaf spot (wheat), *Septoria nodorum*.  
English, French, and German summaries.  
Abstract
- 16554-68  
VIABILITY IN VITRO OF THE SMALLEST SPORES OF CEBATOCYSTIS  
ULMI FOLLOWING CENTRIFUGATION AND MICROFILTRATION.  
(ABSTRACT).  
H G Brotzman R J Campana  
Phytopathology 58(4):398  
Apr 1968 464.8 P56  
Asexual reproduction, Centrifugation, *Ceratocystis*,  
*Ceratocystis ulmi*, Culture media, Filters.
- 16555-68  
ENTRY OF STEM-END ROT FUNGI IN FLORIDA ORANGES. (ABSTRACT).  
G E Brown W C Wilson  
Phytopathology 57(8):805  
Aug 1967 464.8 P56  
*Diplodia natalensis*, Fungus diseases (plants), Oranges,  
*Phomopsis citri*, Stem end rot (citrus).
- 16556-68  
THE PROBABLE SIGNIFICANCE OF SAPROPHYTIC COLONIZATION OF  
WHEAT STRAW IN THE FIELD BY CEPHALOSPORIUM GRAMINEUM.  
G W Bruehl P Lai  
Phytopathology 58(4):464-466  
Apr 1968 464.8 P56  
*Cephalosporium gramineum*, Fungus diseases (plants),  
Microorganisms, Plant disease resistance, Saprophytes, Straw.
- 16557-68  
RESPONSES OF GERMINATING RHIZOPUS STOLONIFER SPORANGIO-  
SPORES TO HEATING, CHILLING, GAMMA IRRADIATION, AND  
ANOXIA. (ABSTRACT).  
P M Buckley N F Sommer T T Matsuboto M Lly  
Phytopathology 57(8):806  
Aug 1967 464.8 P56  
Anoxia, Cold, Fungus diseases (plants), Gamma rays, Heat,  
*Rhizopus stolonifer*, Spore germination.
- 16558-68  
PATHOGENICITY AND PHYSIOLOGY OF PYTHIUM VEXANS. (ABSTRACT).  
R A Calderone R P True  
Phytopathology 57(8):806  
Aug 1967 464.8 P56  
Fungus diseases (plants), *Pinus resinosa*, *Pinus rigida*,  
*Pinus strobus*, Plant physiology, *Pythium vexans*.
- 16559-68  
A DYNAMIC-EQUILIBRIUM ILLUMINATED TEMPERATURE-, HUMIDITY-,  
AND POLLUTANT-CONTROLLED PLANT FUMIGATION CHAMBER.  
(ABSTRACT).  
A M Cantwell D J Morton  
Phytopathology 57(8):806
- Aug 1967 464.8 P56  
AIR POLLUTION, Environmental control, Equipment, Fumigation,  
Humidity, Light, Plants, Temperature.
- 16560-68  
ELECTRON MICROSCOPICAL PROOF OF THE PRESENCE OF SUGAR BEET  
YELLOW VIRUS PARTICLES IN THE ROOTS OF SUGAR BEETS.  
J Chod J Polak O Klir  
Biol Plant 10(2):142-145 REF  
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Electron microscopy, Beets, Sugar beets,  
Virus diseases (plants), Yellowing (sugar beets).  
English, Russian and Polish abstract  
Abstract
- 16561-68  
MONACROSPORIUM RUTGERIENSIS SP. N., A NEMATODE-TRAPPING  
HYPHOMYCETE.  
B C Cooke D Praser  
Phytopathology 58(4):544-545  
Apr 1968 464.8 P56  
*Monacrosporium rutgeriense*, Nematodes, Predaceous fungi,  
Taxonomy.
- 16562-68  
INFECTION OF NEEDLES OF PINUS STROBUS BY LOPHODESMIUM  
PINASTRI. (ABSTRACT).  
A C Costonis W A Sinclair  
Phytopathology 58(4):398  
Apr 1968 464.8 P56  
Fungus diseases (plants), *Lophodermium*, *Lophodermium pinastri*,  
Needle blight (pinus), *Pinus strobus*.
- 16563-68  
MINERAL OIL SPRAY SUPPRESSED SYMPTOMS OF VIRUS YELLOWING ON  
SUGAR BEETS. (ABSTRACT).  
G L Crane L Calpouzos  
Phytopathology 57(8):807-808  
Aug 1967 464.8 P56  
Insect vectors, Mineral oil, *Myzus persicae*,  
Plant disease transmission, Sugar beets,  
Virus diseases (plants), Yellowing (sugar beets).
- 16564-68  
SELECTIVE FUSARIC ACID (FA) PRODUCTION ON SYNTHETIC SUB-  
STRATES BY FORMS OF FUSARIUM OXYSPORUM. (ABSTRACT).  
D Davis  
Phytopathology 58(4):399  
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Absorption spectra, Butyl picolinic acid, 5-, Culture media,  
*Fusarium oxysporum*, Watermelons.
- 16565-68  
RELATIVE SENSITIVITY OF TWENTY-TWO TREE SPECIES TO OZONE.  
(ABSTRACT).  
D D Davis F A Wood  
Phytopathology 58(4):399  
Apr 1968 464.8 P56  
Ozone, Plant injuries, Trees.
- 16566-68  
ACTIVITY OF SOIL FUMIGANTS IN RELATION TO INCREASED GROWTH  
RESPONSE AND CONTROL OF DECLINE AND BACTERIAL CANKER IN  
TREES OF PRUNUS PERSICA. (ABSTRACT).  
J E De Vay J E Lowmshery W H English H Lembright  
Phytopathology 57(8):809  
Aug 1967 464.8 P56  
Bacterial diseases (plants), Canker (peaches),  
Decline (peaches), Fumigants, Peaches, Plant nematodes,  
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Safflower, Thrips.
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Cankers, *Leptographium*, *Pinus strobus*,  
Root rot (*Pinus strobus*).

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Plant pest resistance, Rust (wheat), Uredinales, Wheat.
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Acer saccharum, Fungus diseases (plants), Nitrogen, Phosphorus, Plant nematodes, Potassium, Pratylenchus penetrans, Ulmus americana, Verticillium dahliae, Wilt (Acer), Wilt (Ulmus).
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Beans, Chloro-4-diisobutyl-6-nitrophenol, 2-, Erysiphe polygoni, Fungus diseases (plants), Phenols, Powdery mildew (beans).
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STIMULATION BY 2,4-D AND 2,4-D PLUS PE EDTA OF 32P UPTAKE BY BEAN SEEDLINGS (PHASEOLUS VULGARIS).  
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Barley, Beans, D, 2,4-, Ethylenediaminetetraacetic acid, Iron, Phosphorus isotopes, Plant growth inhibitors, Radioactive tracers, Tobacco.
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Equipment, Fungi dissemination, Fungus diseases (plants), Puccinia coronata, Urediospores.
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PYTHIUM POD BOT OF PEANUT.  
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Fire, Pomes annosus, Fungus diseases (plants), Pinus.
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Ascospores, Humidity, Hypoxylon pruina, Plant dissemination, Reproduction, Temperature.
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Acrylamide polymers, Electrophoresis, Gels, Phytophthora.
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Antimetabolites, Fungi, Fungicides, Plant disease resistance. English and russian abstract  
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Colletotrichum fragariae, Crown rot (strawberries), Fungus diseases (plants), Hibernation, Strawberries.
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Host indexing (plants), Pelargonium hortorum, Ring spot (Pelargonium), Serological tests, Virus diseases (plants).  
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English and German summaries.  
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Alternaria tenuis, Brussels sprouts, Fungus diseases (plants), Fusarium, Rhizoctonia solani, Rot (brussels sprouts).
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SYMPTOM EXPRESSION AND VARIETAL SUSCEPTIBILITY IN CARNATION, DIANTHUS CARYOPHYLLOS, INOCULATED WITH THE CARNATION STRAIN OF ERWINIA CHRYSANTHEMI.  
P E Nelson R S Dickey  
Phytopathology 58(2):142-146  
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Dianthus caryophyllus, Erwinia chrysanthemi, Fungus diseases (plants), Plant disease resistance.
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G C Papavizas  
Phytopathology 58(4):421-428 REF  
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Density, Fungus diseases (plants), Immunization, Mortality, Root rot (beans), Roots, Soil fungi, Thielaviopsis basicola.
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Barley, Erysiphe graminis hordei, Fungus diseases (plants), Plant disease resistance, Plant physiology, Powdery mildew. English, russian and czech abstract  
Abstract: In this paper there are quoted results of a comparing study of the primary appressoria formation of the powdery mildew (Erysiphe graminis f. sp. hordei Marchal) in susceptible and resistant host plants of barley. In the total dynamics of the primary appressoria formation on susceptible and resistant plants there were found no significant differences.
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Phytopathology 58(4):538-539  
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Asexual reproduction, Fungus diseases (plants), Hot water treatment (plants), Penicillium expansum, Plant disease control.
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Leaves, Morphology, Mosaic (watermelons), Pumpkins, Virus diseases (plants), Watermelons.
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J L Ricard W R Rollen  
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S Rich h Tomlinson  
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Carbon dioxide, Fungus diseases (plants), Grain, Plant growth inhibitors, Plant metabolism, Plant respiration, *Septoria nodorum*, Wheat.
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W M Siddiqui P M Halisky S Lund  
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Defoliation, Fungus diseases (plants), Fusarium, Plant disease resistance, Red clover, Root rot (red clover).  
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## 90 INDUSTRY

## Economics

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BENZ(D)INDOLO(3,2-B)THIOPYRYLIUM COMPOUNDS. PATENT  
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- 16973-68  
DOMESTIC QUARANTINE NOTICES. WITCHWEED. REGULATED AREAS.  
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Agricultural legislation, Agricultural regulation, Quarantine,  
Striga.





## SUBJECT INDEX

Aedes Aegypti

- ABATE**  
Field study of the safety of Abate for treating potable water and observations on the effectiveness of a control programme involving both Abate and malathion. 16505
- ABDOMEN**  
Effects of ecdysone on epidermal cells in which DNA synthesis has been blocked. 16428
- ABIES AMABILIS**  
Rodent damage to fertilized Pacific silver fir in Western Washington. 16736
- ABIES GRANDIS**  
Estimation of oviposition by the fir engraver, *Scolytus ventralis* (Coleoptera: Scolytidae). 16361
- ABORTION**  
Comments on infectious bovine rhinotracheitis. 16817  
Infectious bovine rhinotracheitis. 16862
- ABSORPTION**  
Malabsorption in Johne's disease of cattle; depressed in vitro amino-acid uptake by isolated intestinal tissue preparations. 16833  
Studies on the absorption and metabolism of D-(u-14C) glucose by *Polymorphus minutus* (Acanthocephala) in vitro. 16873
- ABSORPTION (BIOLOGICAL)**  
Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm. 16940
- ABSORPTION SPECTRA**  
Selective fusaric acid (FA) production on synthetic substrates by forms of *Fusarium oxysporum*. (Abstract). 16564
- ACANTHOCEPHALA**  
Studies on the absorption and metabolism of D-(u-14C) glucose by *Polymorphus minutus* (Acanthocephala) in vitro. 16873  
Oligosaccharidases from *Macracanthorhynchus hirudinaceus* (Acanthocephala) from swine. 16875
- ACARAPIS WOODI**  
Laboratory research on *Acarapis woodi* Rennie, the causative agent of acarine disease of the honeybee. note 5. 16393
- ACARICIDES**  
European red mite and two-spotted spider mite control on apple trees. 16358  
2,6-Substituted cyclohexanones as insecticides, miticides, fungicides, nematocides and herbicides. Patent 3,389,986. 16948
- ACARINA**  
Small mammals and their ectoparasites from the Scottish islands of Handa (Sutherland), Muck, Pabay, Scalpay and Soay (Inner Hebrides). 16285  
Some ectoparasites from West Virginia mammals. II. 16339
- ACARINE DISEASE**  
Laboratory research on *Acarapis woodi* Rennie, the causative agent of acarine disease of the honeybee. note 5. 16393
- ACER SACCHARUM**  
Effects of N, P, K, and inoculum density of *Verticillium dahliae* on populations of *Pratylenchus penetrans* in roots of American elm and sugar maple. (Abstract). 16570  
The effects of sugar maple stem tissue extracts on spore germination of *Fusarium solani*. (Abstract). 16655
- ACETANILIDE COMPOUNDS**  
Herbicidal method. Patent 3,403,994. 16730  
Method of controlling fungi with sulfonium iodides. Patent 3,402,248. 16930  
Bromodichloroacetanilides. Patent 3,405,176. 16952
- ACETIC ACID**  
Determination of volatile acid production of *Clostridium* by gas chromatography. 16626
- ACETONE**  
Induction of multipolar spindles in the meiosis of *Triticum aestivum* as effected by acetone. 16404
- ACETYLCROLINE**  
Inhibition by acetylcholine of malpighian tubule muscle of the cockroach *Periplaneta americana*. 16450
- ACHERONTIA**  
Observations on the larvae of *Hippotion celerio* L. (Lepid., Sphingidae in Tanzania. (Abstract). 16262
- ACHETA**  
Oligidic diets for *Acheta domesticus* (Orthoptera: Gryllidae). 16329
- ACIDS**  
Effect of pH on recovery of fungi from foods. 16894
- ACRIDIDAE**  
Types of feeding and structure of mandibles in different life forms of grasshoppers. 16371  
Ecology and behavior of the migratory Locust in southwest Madagascar. 16463
- ACRIDINE ORANGE**  
Cytopathology of mixed infections with potato viruses X and Y in *Nicotiana tabacum* leaves. 16610
- ACRYLAMIDE**  
The separation and characterization of the haemolymph proteins of several insects. 16473
- ACRYLAMIDE POLYMERS**  
Differentiation of three species of *Phytophthora* by polyacrylamide gel electrophoresis. (Abstract). 16583
- ACYRTHOSIPHON CARAGANAE**  
Experiments with a new virus disease of the pea tree (*Caragana arborescens* Lam.). 16615
- ACYRTHOSIPHON PISUM**  
Amino acid requirements and sulfur amino acid metabolism in the pea aphid, *Acyrtosiphon pisum* (Harris). 16334  
The role of alkaloids in the resistance of some lupin varieties to the Pea aphid *Acyrtosiphon pisum* Harris/. 16619
- ADENOVIRUSES**  
Rovine adenoviruses. 16765  
Comments on bovine adenoviruses. 16825
- ADIPOSE TISSUE (ANIMALS)**  
Fatty liver studies in laying hens. 16750
- ADSORPTION**  
Ion uptake of sweet potato roots infected by the black rot fungus. 16519  
The adsorption of chlorinated hydrocarbon pesticides on an unconsolidated aquifer substrate. 16901
- Aedes**  
Field tests with repellent-treated netting against black salt-marsh mosquitoes. 16300  
Eggs of floodwater mosquitoes (Diptera: Culicidae). XI. Effect of medium on hatching of *Aedes sticticus*. 16345
- Aedes Aegypti**  
A note on the influence of a range of plant chemicals on the growth and survival of *Aedes aegypti* L. larvae. 16396  
Effect of insecticide-free rearing on the reproductive potential of organophosphorus-resistant African strains of *Aedes aegypti* (L.). 16402  
The effect of age on the flight performance of female *Aedes aegypti* mosquitoes. 16446  
Some responses of flying *Aedes aegypti* to visual stimuli. 16481

## SUBJECT INDEX

## AEDES CANADENSIS

Field study of the safety of Abate for treating potable water and observations on the effectiveness of a control programme involving both Abate and malathion. 16505

Ukawa virus proliferation in mosquitos. 16507

Growth of arboviruses in primary tissue culture of *Aedes aegypti* embryos. 16508

## AEDES CANADENSIS

Ukawa virus proliferation in mosquitos. 16507

## AEDES TRISERIATUS

Ukawa virus proliferation in mosquitos. 16507

## AERIAL SPRAYING

Insecticides for control of the lone star tick tested in the laboratory and as high-and ultra-low-volume sprays in wooded areas. 16434

Flight height, droplet size, and moisture influence on grasshopper control achieved with malathion applied aerially at ULV. 16455

Drift of water-diluted and undiluted formulations of malathion and azinphosmethyl applied by airplane. 16902

## AEROSOLS

Studies on the pathogenesis of infectious bovine rhinotracheitis following aerosol exposure. 16845

## AFLATOXIN

Effect of diurnal temperature cycles on the production of aflatoxin. 16672

Investigation of reported aflatoxin production by fungi outside the *Aspergillus flavus* group. 16914

## AFRICAN HORSE SICKNESS VIRUS

Cytochemical studies with African horse sickness virus by fluorescent microscopy. 16822

## AFRICAN SWINE FEVER VIRUS

Studies to determine neutralizing antibody in sera from animals recovered from African swine fever and laboratory animals inoculated with African virus with adjuvants. 16768

## AGAR

Cultural studies of sexual reproduction of *Ceratocystis fagacearum*. 16512

Humus acids as a nutrition source for some white-rot fungi. 16685

Effect of pH on recovery of fungi from foods. 16894

## AGGLUTINATION

Attempts to produce cross-reactions for *Brucella* in cattle treated with hemorrhagic septicemia bacterins. 16830

## AGGLUTINATION TEST

Growth of arboviruses in primary tissue culture of *Aedes aegypti* embryos. 16508

Natural antibody in mammalian serum reacting with an antigen in some *Leptospira*s. 16771

A study of immunity against *Pasteurella multocida* in buffalo calves and their carrier status. 16823

*Trypanosoma dafilae* sp. n. and *Leucocytozoon anatis* Wickware, 1915 in the northern pintail (*Dafila acuta acuta* L.). 16893

## AGING

The effect of age on the flight performance of female *Aedes aegypti* mosquitoes. 16446

Studies on immunity of calves to *Dictyocaulus viviparus* reinfection. II. Relationship between the age of calves and the dose of larvae causing clinical and lethal course of dictyocaulosis. 16888

## AGRICULTURAL ECONOMICS

Some economics of air pollution control. 16972

## AGRICULTURAL LEGISLATION

Domestic quarantine notices. Witchweed. Regulated areas. Correction. 16973

## AGRICULTURAL OUTLOOK

Economics of biological control. 16263

## AGRICULTURAL REGULATION

Domestic quarantine notices. Witchweed. Regulated areas. Correction. 16973

## AGRICULTURAL RESEARCH

Economics of biological control. 16263

The role of biological control in the integrated programs of plant protection. 16523

## AGROPYRON REPENS

The influence of controlled environments and grass hosts on the life cycle of *Endria iniwica* (Homoptera: Cicadellidae). 16373

## AGROTIS PALUSTRIS

Factors affecting the pathogenicity of selected fungi isolated from putting green turf. 16593

## AGROTIS EXCLAMATIONIS

The effect of temperature upon the development of the heart-and-dart moth (*Agrotis exclamationis* L.). 16431

## AIR FLOW

An environmental cabinet with variable air velocity for insect studies. 16338

Some responses of flying *Aedes aegypti* to visual stimuli. 16481

Drift of water-diluted and undiluted formulations of malathion and azinphosmethyl applied by airplane. 16902

## AIR POLLUTION

Atmospheric pollution and its effects on vegetation. 16516

An exposure chamber for studying the effects of air pollution on plants. (Abstract). 16532

A dynamic-equilibrium illuminated temperature-, humidity-, and pollutant-controlled plant fumigation chamber. (Abstract). 16559

Some economics of air pollution control. 16972

## ALBUGO CANDIDA

Carbon dioxide exchange by radish tissue infected with *Albugo candida* measured with an infrared CO<sub>2</sub> analyzer. 16548

## ALCOROL

Method for preparation of wettable sulfur. Patent 3,398,227. 16951

## ALCOHOLS

Insecticidal tertiary alcohols. Patent 3,402,209. 16953

Nematocidal 2,4-dihaloxyphenyl esters of ethanesulfonic acid ethers and alcohols. Patent 3,401,222. 16956

## ALDOLASE

Purification and properties of fructose diphosphate aldolase from *Fusarium oxysporum* f. *lycopersici*. 16924

## ALDRIN

Cahhage maggot resistance to organochlorine insecticides. 16317

Rice water weevil resistance to aldrin in Texas. 16366

Insecticides applied to the soil for control of eight species of insects on Irish potatoes in Virginia. 16706

The use of organochlorine insecticides and possible alternatives against leatherjackets. 16715

Residues of aldrin, endrin, and heptachlor in peanuts grown in treated soil. 16904

The estimation of epinephrine, norepinephrine, and aldrin (a chlorinated naphthalene derivative) in mammalian tissue employing biological and chemical methods of assay, and some considerations of toxicological effects of aldrin. 16908

## ALEUTIAN DISEASE

Pathological studies on Aleutian disease of mink. 16803



SUBJECT INDEX

ANEMIA

<b>ALFALFA</b>			
Controlling insect enemies of the alfalfa leaf-cutter bee, <i>Megachile rotundata</i> .	16400	A study of a melanic mutant of the blowfly <i>Lucilia cuprina</i> .	16395
Survival of overwintering alfalfa weevil eggs in Pennsylvania.	16466	The influence of nutrient chemicals on the feeding behavior of the Colorado potato beetle, <i>Leptinotarsa decemlineata</i> (Coleoptera: Chrysomelidae).	16401
The influence of volatile substances from alfalfa on soil respiration and survival of soil fungi. (Abstract).	16582	Chemical composition of the cell wall of <i>Racillus thuringiensis</i> var. <i>thuringiensis</i> .	16406
The influence of <i>Fusarium</i> root rot and harvesting on the carbohydrate levels of alfalfa roots grown in a gnotobiotic environment. (Abstract).	16628	Root exudates from red pine seedlings and their effects on <i>Pythium ultimum</i> .	16534
Observations on the nature of inheritance of resistance of lucerne to <i>Verticillium albo-atrum</i> .	16652	Amino acids from <i>Heterodera glycines</i> larvae. (Abstract).	16535
<b>ALKALOIDS</b>		Chemical composition and biophysical properties of tomato ringspot virus.	16690
The sensitivity of fungi to alpha-tomatine.	16536	The hatching response of <i>Meloidogyne incognita</i> eggs as affected by amino and nonamino acid fractions of root exudates.	16718
The role of alkaloids in the resistance of some lupin varieties to the pea aphid <i>Acyrtosiphon pisum</i> Harris/.	16619	Immunological response of the pig as affected by amino acid nutrition.	16815
Value of a plant growth retardant for isolating soil fungi.	16920	Malabsorption in Johne's disease of cattle: depressed in vitro amino-acid uptake by isolated intestinal tissue preparations.	16833
<b>ALKYLATION</b>		The effect of 2,4-dichlorophenoxyacetic acid upon the metabolism and composition of soybean hypocotyl mitochondria.	16916
Sterilization of <i>Culex pipiens fatigans</i> Wiedemann by apholate.	16377	<b>AMINO COMPOUNDS</b>	
<b>ALLECULIDAE</b>		8-pyridylum compounds and herbicidal compositions containing the same. Patent 3,398,154.	16949
A revision of the Mexican and Central American species of <i>Isomira</i> (Coleoptera: Alleculidae).	16275	<b>AMINO-2,5,6-TRICHLOROBENZOIC ACID, 3-3-Amino-2,5,6-trichlorobenzoic acid.</b> Patent 3,391,185.	16954
<b>ALMONDS</b>		<b>AMMONIA</b>	
Laboratory evaluation of malathion as a protectant for almonds during storage.	16896	Growth and metabolism of live vaccine strain of <i>Pasteurella tularensis</i> .	16966
<b>ALNUS GLUTINOSA</b>		<b>AMMONIUM COMPOUNDS</b>	
Growth substances isolated from woody cuttings of <i>Alnus glutinosa</i> Medic. and <i>Fraxinus excelsior</i> L.	16525	Ammoniation process for detoxifying the seeds of <i>Crambe abyssinica</i> and rape. Patent 3,392,026.	16527
<b>ALTERNARIA SOLANI</b>		<b>AMPHINALLON MAJALIS</b>	
Effects of ozone on conidiophores and conidia of <i>Alternaria solani</i> .	16663	Effects of ionizing radiation on the European chafer, the plum curculio, and the large milkweed bug.	16422
Inducing sporulation in different strains of <i>Alternaria solani</i> . I. Effect of visible light.	16935	<b>AMPHIPYRA BEREERA</b>	
<b>ALTERNARIA TENDIS</b>		Number of instars of the larva of <i>Herse convolvuli</i> L.	16454
Sprout rot of Brussels sprouts. (Abstract).	16644	<b>AMPHIPYRA PYRAMIDEA</b>	
<b>AMBYLONMA AMERICANDM</b>		Number of instars of the larva of <i>Herse convolvuli</i> L.	16454
Insecticides for control of the lone star tick tested in the laboratory and as high-and ultra-low-volume sprays in wooded areas.	16434	<b>AMPICILLIN</b>	
<b>AMERICAN PODLEROOD</b>		Multiple drug resistance.	16965
Behaviour genetics of nest cleaning in honeybees. V. effect of previous experience and composition of mixed colonies on response to disease-killed brood.	16468	<b>AMPROLIUM</b>	
Viability, development, and rate of passage of the pathogenic bacterium, <i>Bacillus larvae</i> White, in the hemolymph and alimentary canal of the adult honey bee, <i>Apis mellifera</i> L.	16479	Testing the effectivity of coccidiostatics by using radio Iron-59 for the quantitative estimation of blood in the caeca and feces of chickens.	16842
<b>AMIDES</b>		<b>ANAGALLIS ARVENSIS</b>	
The effect of substituted decenyl succinic acid (DSA), amides, esters, and 1,5-difluoro-2,4-dinitrobenzene (DFDNB) on preventing blossom freezing injury. (Abstract).	16597	Atmospheric pollution and its effects on vegetation.	16516
<b>AMINO ACIDS</b>		<b>ANAGASTA KUEHNIELLA</b>	
Utilization of tricarboxylic acid cycle intermediates by <i>Haemonchus contortus</i> larvae.	16321	Sex attraction in the Mediterranean flour moth, <i>Anagasta kuhniella</i> : location of the female by the male.	16467
Amino acid requirements and sulfur amino acid metabolism in the pea aphid, <i>Acyrtosiphon pisum</i> (Harris).	16334	<b>ANAPHES FLAVIPES</b>	
Estimation of carcass analysis of the growth requirements for amino acids in the codling moth, <i>Carpocapsa pomonella</i> (Lepidoptera: Olethreutidae).	16335	The biology and ecology of <i>Anaphes flavipes</i> (Hymenoptera: Mymaridae), an exotic egg parasite of the cereal leaf beetle.	16357
Dietary amino acid requirements of the aphid, <i>Myzus persicae</i> .	16375	<b>ANAPLASMA MARGINALE</b>	
Testicular and haemolymph amino acids of <i>Poecilocerus pictus</i> (Acrididae).	16379	The effect of <i>Anaplasma marginale</i> infection on the metabolic and osmotic behavior of bovine erythrocytes.	16813
		<b>ANEMIA</b>	
		Studies on the aetiology of anaemia in chronic fascioliasis in sheep.	16844

## SUBJECT INDEX

## ANIMAL CAGES

## ANIMAL CAGES

A review of some helminths of laboratory animals.

16878

Patty liver studies in laying hens.

16750

## ANIMAL DISEASES

The life cycle of *Trichinella spiralis*. I. Intestinal phase of development.

16509

Some factors affecting mineral utilization by the baby pig.

16788

Oedema disease in pigs.

16758

Immunological response of the pig as affected by amino acid nutrition.

16815

Bone-metastasizing lung carcinoma in a cat.

16784

## ANIMAL PHYSIOLOGY

A new anti-coccidial drug (M and 8 15,497): activity studies against laboratory and field strains of *Eimeria*.

16789

Distribution of sperm in the storage organs of the *Drosophila melanogaster* female at various levels of insemination.

16387

Extermination of cattle grubs (*Hypoderma* spp.) on a regional basis.

16799

Assessment of the usefulness of the examination of a gram smear of fresh uncentrifuged urine in the determination of significant bacteriuria in dogs.

16739

M and H 15,497: acute, sub-acute and chronic tolerance studies in chickens.

16809

Some factors affecting mineral utilization by the baby pig.

16788

A postmortem case of infectious feline enteritis-like disease in a tiger.

16826

The evagination of *Echinococcus granulosus* scolices from lung cysts of bovine origin.

16885

Diagnosis of bovine tuberculosis with tuberculin reaction.

16829

On the relationship between the structure and the growth of the scales of *Fasciola hepatica*.

16887

Investigation on severity of acute swine erysipelas of septicemic type.

16832

## ANIMAL VECTORS

A survey on subclinical infection with bovine epizootic fever.

16861

A survey of wild animals as potential reservoirs of trypanosomiasis in the Ulanga District (Tanzania).

16780

Spirocerca lupi infection in two central Texas dogs.

16872

## ANIMALS

Studies on the serum proteins in experimental fascioliasis of sheep.

16876

Anti-microbial drugs in animal feeds.

16847

A review of some helminths of laboratory animals.

16878

Isolation of *Listeria monocytogenes* from vegetation.

16857

Pneumonia in cattle due to migrating *Ascaris lumbricoides* larvae.

16880

Advances in parasitology.

16874

Helminthiasis in sheep.

16881

## ANOPHELES

Studies on immunity of calves to *Dictyocaulus viviparus* reinfection. II. Relationship between the age of calves and the dose of larvae causing clinical and lethal course of dictyocaulosis.

16888

Studies on the eradication of *Anopheles pharoensis* Theobald by the sterile-male technique using cobalt-60. VI. Sperm activity in males irradiated with the sterilizing dose.

16264

Studies on immunity of calves to *Dictyocaulus viviparus* reinfection. I. Immunization with single and double doses of normal or irradiated larvae.

16889

## ANOPHELES GAMBIAE

Cytogenetic observations on species A and H of the *Anopheles gambiae* complex.

16491

Population ecology of feral house mice.

16899

## ANOPHELES SERGENTI

*Anopheles (Myzomyia) sergenti* theobald from the island of Pantelleria and its probable implication in the transmission of malaria.

16374

## ANIMAL ECOLOGY

Population ecology of feral house mice.

16899

## ANOPLURA

Small mammals and their ectoparasites from the Scottish islands of Handa (Sutherland), Muck, Pabay, Scalpay and Soay (Inner hebrides).

16285

## ANIMAL GENETICS

Hereditary change of an eye color mutant induced by DNA in *Ephesia*.

16742

Some ectoparasites from West Virginia mammals. II.

16339

Studies of interrelationships between genetically resistant chicken embryo cells and the Bryan high titer strain of Rous sarcoma virus.

16760

Bearing of the hog louse *Haematopinus suis* on mice.

16426

## ANIMAL HISTOLOGY

Sovine adenoviruses.

16765

Controlling short-nosed cattle lice with dichlorvos resin strips.

16868

Reoviruses.

16806

## ANOXIA

Responses of germinating *Rhizopus stolonifer* sporangiospores to heating, chilling, gamma irradiation, and anoxia. (Abstract).

16557

On the relationship between the structure and the growth of the scales of *Fasciola hepatica*.

16887

## ANTENNAE

Patterns of structural diversity in the males of some Phlaeophilous tubulifera. (Thysanoptera).

16356

## ANIMAL METABOLISM

Corticosteroid overdosage in dogs.

16907

## ANTHELMINTICS

Experiences with a new broad-spectrum anthelmintic dichlorvos, in the adult pig.

16740

## ANIMAL MORPHOLOGY

Distribution of sperm in the storage organs of the *Drosophila melanogaster* female at various levels of insemination.

16387

Novel thiazine and thiazoline anthelmintic agents. Patent 3,390,148.

16870

Migration of *Toxocara cati* larvae in mice.

16900

Coated 2,2-dichlorovinyl phosphate and polyvinyl chloride resin anthelmintic compositions. Patent 3,398,225.

16871

## ANIMAL NUTRITION

Treatment of salt poisoning in pigs.

16745

Oral tetramisole; effect on *Dictyocaulus viviparus*, *Ostertagia ostertagi* and *Cooperia oncophora* in experimentally-infected calves.

16883

Selenium-responsive diseases of animals in New Zealand.

16746

Epidemiological studies of fascioliasis; a third season of comparative studies with cattle.

16884

## SUBJECT INDEX

			APHIDIDAE
Anthelmintics for Dictyocaulus filaria in sheep.	16886	Comments on bovine viral diarrhoea-mucosal disease.	16791
Anthelmintic evaluation of tetramisole against the swine lungworm, Metastrongylus apri.	16890	Antibody response and protection induced by immunization with smooth and rough strains in experimental Salmonellosis.	16798
Process for preparing benzimidazole N-oxides. Patent 3,398,157.	16947	Comments on bovine rhinoviruses.	16824
Imidocarbonates. Patent 3,401,201.	16967	Comments on the role of natural antibody in immunologic competence.	16843
<b>ANTHRAEA PERNYI</b> The labial gland: a salt-secreting organ of saturniid moths.	16405	Comments on bovine viral diarrhoea-mucosal disease.	16851
<b>ANTHRAEA POLYPHEMUS</b> Effects of ecdysone on epidermal cells in which DNA synthesis has been blocked.	16428	Bactericidal antibody studies in maternal serum, colostrum, and newborn serum of the pig.	16856
<b>ANTHONOMUS GRANDIS</b> Boll weevil antibiosis studies with selected cotton lines utilizing egg-implantation techniques.	16266	Basic principles of immunity in cattle.	16858
Mortality of boll weevils in squares of genotypically different lines of cotton.	16267	Infectious bovine rhinotracheitis.	16862
Laboratory studies of sex attraction in the boll weevil.	16303	Comments on license requirements for vaccines for bovine respiratory diseases.	16863
Modified laboratory techniques for preparing sterile larval diets for the boll weevil.	16310	<b>ANTIGENS</b> Immunological relationships between the parasite Cardiochiles nigriceps Vierick and certain Heliothis species.	16420
Influence of constituents of the cotton plant on feeding, oviposition, and development of the boll weevil.	16315	Isolation and characterization of barley stripe mosaic virus protein.	16588
An electrophoretic study of the changes in proteins in the haemolymph during the life cycle of the boll weevil, Anthonomus grandis (Coleoptera: Curculionidae).	16320	Serological detection of wheat striate mosaic virus in extracts of wheat plants and vector leafhoppers.	16677
Measuring aspects of antibiosis in cotton lines to the bollworm.	16326	Antigenic variations in isolates of infectious bronchitis virus.	16751
<b>ANTHRACNOSE (CUCUMBERS)</b> Cucumber anthracnose: influence of nightly wetting of leaves on numbers of lesions.	16625	Precipitating antibodies associated with Marek's disease.	16759
<b>ANTIBIOSIS</b> Boll weevil antibiosis studies with selected cotton lines utilizing egg-implantation techniques.	16266	Immunologic response of rabbits to Mycobacterium bovis; chemical, electrophoretic and antigenic analyses of bacillary extracts.	16766
Measuring aspects of antibiosis in cotton lines to the bollworm.	16326	Antigenic, chemical, chromatographic, and electrophoretic analyses of unheated culture filtrates of Mycobacterium bovis.	16767
<b>ANTIBIOTICS</b> The relationship of Phytophthora fragariae Hickman to the fungal flora in the rhizosphere of the strawberry plant.	16612	Antibody response and protection induced by immunization with smooth and rough strains in experimental Salmonellosis.	16798
Risk of resistance to chloramphenicol.	16761	Immunological response of the pig as affected by amino acid nutrition.	16815
Calf diphtheria.	16811	Antigenic relationship between influenza A viruses of human and animal origin.	16853
Multiple drug resistance.	16965	Basic principles of immunity in cattle.	16858
<b>ANTIBODIES</b> Experimental infection of sheep and goats with attenuated and virulent strains of rinderpest virus.	16748	Studies on the biology and immunology of Ascaris suum in mice.	16877
Oedema disease in pigs.	16758	<b>ANTIMETABOLITES</b> Substances, inducing plant resistance to pathogenic fungi and the problem of antimetabolites.	16585
Precipitating antibodies associated with Marek's disease.	16759	<b>ANTONINA GRAMINIS</b> Felted grass coxoid on Rhodes grass in Queensland.	16703
Immunologic response of rabbits to Mycobacterium bovis; chemical, electrophoretic and antigenic analyses of bacillary extracts.	16766	<b>APBELENCHOIDES ECHINOCAUDATUS</b> Apbelechoides echinocaudatus sp. n. (Nematoda, Apbelechoididae).	16719
Antigenic, chemical, chromatographic, and electrophoretic analyses of unheated culture filtrates of Mycobacterium bovis.	16767	<b>APHELENCHUS AVENAE</b> Effect of the nematode Aphelechus avenae on some ectotrophic, mycorrhizal fungi and on a red pine mycorrhizal relationship.	16721
Natural antibody in mammalian serum reacting with an antigen in some Leptospirae.	16771	<b>APHIDIDAE</b> Effect of soil clay and organic matter content upon systemic efficacy of two carbamate insecticides.	16259
Detection of antibodies neutralizing the virus of infectious bovine rhinotracheitis in the serum of French cattle.	16782	Additional evidence that aphids ingest through an open stylet sheath.	16307
Comments on vaccination for bovine viral diarrhoea-mucosal disease.	16785	A new Pleotrichophorus living of Erigeron. (Hom. Aphididae).	16312
		A physiologic difference in aphids (Homoptera) raised on	



SUBJECT INDEX

APHIS			
excised leaves and on intact plants.	16353	AQUATIC WEEDS	
Dietary amino acid requirements of the aphid, <i>Myzus persicae</i> .	16375	Structure and development of the flower of <i>Brasenia scabra</i> Gmel.	16931
Field evaluation of insecticides for the control of aphids on potatoes.	16657	AQUIFEBS	
Possible particles of beet western yellows virus in the intestines of viruliferous aphids.	16666	The adsorption of chlorinated hydrocarbon pesticides on an unconsolidated aquifer substrate.	16901
A comparison of species of Aphididae with species of three other aphid families regarding virus transmission and probe behavior.	16700	ARANEIDA	
APHIS		Spiders from south New Guinea x.	16281
Host plants for laboratory rearing of the melon aphid.	16650	ABAUCABIA CUNNINGHAMII	
APROLATE		Induced sporulation of <i>Botryodiplodia theobromae</i> Pat. isolated from <i>Araucaria cunninghamii</i> Ait. in Malaysia.	16587
Sterilization of <i>Culex pipiens fatigans</i> Wiedemann by arolate.	16377	ARBOVIRUSES	
APHRASTORRACON JACOBSONI		Arbovirus studies in Bush Bush Forest, Trinidad, W. I. September 1959-December 1964. VI. Bodent-associated viruses (VEE and agents of group C and Guama): isolations and further studies.	16503
A tropic relict in the desert fauna of braconids (Hymenoptera, Braconidae) of Middle Asia.	16344	Ukawa virus proliferation in mosquitos.	16507
APIS MELLIFERA		Growth of arboviruses in primary tissue culture of <i>Aedes aegypti</i> embryos.	16508
<i>Nosema apis</i> and dysentery of the honeybee.	16359	ARCEUTHOBIUM CAMPYLOPODUM	
Laboratory research on <i>Acarapis woodi</i> Bennie, the causative agent of acarine disease of the honeybee. note 5.	16393	The influence of temperature on longevity and germination of seed of western dwarf mistletoe.	16723
Comparative study of pollen sources of honeybees and huahle bees.	16408	ARCEUTHOBIUM FUSILLUM	
Protecting honeybees from chemical poisons. Sf538 .n3.	16435	In vitro culture of a dwarf mistletoe, <i>Arceuthobium pusillum</i> .	16918
Flight activity of honeybees in a flight and rearing room. I. The influence of light intensity.	16436	ARDEICOLA	
Behaviour genetics of nest cleaning in honeybees. V. effect of previous experience and composition of mixed colonies on response to disease-killed brood.	16468	Two new Mallophaga species of the genus <i>Ardeicola</i> Clay, 1935 (Ischnocera: Philopteridae).	16302
Viability, development, and rate of passage of the pathogenic bacterium, <i>Bacillus larvae</i> White, in the hemolymph and alimentary canal of the adult honey bee, <i>Apis mellifera</i> L.	16479	ARBAS	
Fall death rates of drone honey bees.	16640	External parasites of domestic pigeon in United Arabic Republic.	16869
Honey bee insecticide loss - an unusual case.	16641	ABMOBACIA LAPATHIPOLIA	
APPLES		The oxidation of indole-3-acetaldehyde and its 1-methyl derivative by horseradish peroxidase.	16941
European red mite and two-spotted spider mite control on apple trees.	16358	ARRHENATHEBUM ELATIUS	
Intergrafting, preventive measures against the 'collar rot' on apples.	16528	Crown rust resistance in tall oatgrass. (Abstract).	16551
The evolution of apple and pear tree spot disease during the year 1966.	16540	ARSONIC ACID COMPOUNDS	
Avirulence of a methionine-sensitive leucine mutant of <i>Penicillium expansum</i> in Jonathan apple. (Abstract).	16545	Herbicidal composition and method comprising 1-(tetrahydro-dicyclopentadienyl)-3,3-dimethyl urea and a salt of methyl arsonic acid. Patent 3,403,017.	16731
<i>Erwinia amylovora</i> (Burr.) Winsl. in Poland.	16550	ARTHRITIS	
The effect of substituted decenyl succinic acid (DSA), amides, esters, and 1,5-difluoro-2,4-dinitrobenzene (DFDNE) on preventing blossom freezing injury. (Abstract).	16597	Proliferative symptoms in leafhoppers infected with western X-disease virus.	16696
Pathogenic variability within <i>Phytophthora parasitica</i> as related to formation of post-infectious antifungal substances in <i>Peperomia</i> .	16678	Pathologic effects of <i>Escherichia coli</i> 083:K:NM in gnotobiotic pigs.	16753
The influence of sibazine on the quality and composition of pome fruit.	16919	ARTHROPODA	
AQUATIC INSECTS		A formula for determining degree of dominance in cases of monofactorial inheritance of resistance to chemicals.	16499
Information on stream inhabiting Chironomidae of Hungary.	16268	Host-parasite relationships between protozoans and their arthropod and vertebrate hosts.	16808
Evaluation of aquatic insect emergence traps.	16306	ASCABIS LOMBBICOIDES	
		Action of aqueous iodine on ova of <i>Ascaris lumbricoides</i> an <i>Ascaris suum</i> .	16716
		Pneumonia in cattle due to migrating <i>Ascaris lumbricoides</i> larvae.	16880
		ASCABIS LUMBRICOIDES SUUM	
		Action of aqueous iodine on ova of <i>Ascaris lumbricoides</i> an <i>Ascaris suum</i> .	16716
		Studies on the biology and immunology of <i>Ascaris suum</i> in mice.	16877
		ASCOMYCETES	
		Hyperparasites on some ascomycetes from Hyderabad, India.	16660
		Fungi on <i>Bougainvillea spectabilis</i> Willd.	16661

## SUBJECT INDEX

## BACTERIAL VACCINES

- ASCOSPORES**  
Ejection and dissemination of ascospores of *Hypoxyylon pruinaum*. 1657B  
Some factors affecting mineral utilization by the baby pig. 167BB
- ASEXUAL REPRODUCTION**  
Viability in vitro of the smallest spores of *Ceratocystis ulmi* following centrifugation and microfiltration. (Abstract). 16554  
Immunological response of the pig as affected by amino acid nutrition. 16815  
Comments on the role of natural antibody in immunologic competence. 16843  
Method of determining the sensitivity of fungus spores to hot water. 16656  
A study of the ultrastructure of the intestinal epithelial cells of piglets infected with a transmissible gastroenteritis virus. 16854
- ASPARAGINE**  
The utilization of L-asparagine by two species of *Phytophthora*. 16521  
Bactericidal antibody studies in maternal serum, colostrum, and newborn serum of the pig. 16856
- ASPARTIC ACID**  
Glutamic acid requirements of the saw-toothed grain beetle, *Oryzaephilus surinamensis* (L.) (Coleoptera, Silvanidae). 16286
- ASPERGILLUS**  
Fungus flora, germinability and fat acidity values of stored corn. 16895
- ASPERGILLUS FLAVUS**  
Investigation of reported aflatoxin production by fungi outside the *Aspergillus flavus* group. 16914
- ASPERGILLUS PARASITICUS**  
Effect of diurnal temperature cycles on the production of aflatoxin. 16672  
Investigation of reported aflatoxin production by fungi outside the *Aspergillus flavus* group. 16914
- ASSAY**  
Source of the trail pheromone and method of trail laying in the ant *Crematogaster peringueyi*. 16385  
*Clostridium botulinum* type F in the soil of Argentina. 16909
- ASSES**  
A note on experimental rabies in the donkey. 16772
- ATTAGENUS MEGATOMA**  
Phototactic response of adults of confused flour beetle and red flour beetle and larvae of black carpet beetle to flashes of blue-white light. 16456
- ATTRACTANTS**  
Aspects of orientation behavior in the ambrosia beetle *Trypodendron lineatum* (Olivier). 16294  
Laboratory studies of sex attraction in the boll weevil. 16303  
Attractiveness of logs containing female spruce beetles, *Dendroctonus obesus* (Coleoptera: Scolytidae). 16381  
Source of the trail pheromone and method of trail laying in the ant *Crematogaster peringueyi*. 16385  
Cane-sugar feeding in *Culex pipiens fatigans*. 16501  
The possibilities of development of chemical methods for the plant pest control. 16702
- AUTOPSIES**  
Exotic plants--a hazard to animals. 16776  
Pathological studies on Aleutian disease of mink. 16803  
A postmortem case of infectious feline enteritis-like disease in a tiger. 16826
- AVIAN LYMPHOMATOSIS**  
Precipitating antibodies associated with Marek's disease. 16759
- AZINPHOSMETHYL**  
Drift of water-diluted and undiluted formulations of malathion and azinphosmethyl applied by airplane. 16902
- BABY PIGS**  
Treatment of salt poisoning in pigs. 16745  
Pathologic effects of *Escherichia coli* 0B3:K:NM in gnotobiotic pigs. 16753
- BACILLUS**  
Pathologic effects of *Escherichia coli* 083:K:NM in gnotobiotic pigs. 16753
- BACILLUS LARVAE**  
Behaviour genetics of nest cleaning in honeybees. V. effect of previous experience and composition of mixed colonies on response to disease-killed brood. 16468  
Viability, development, and rate of passage of the pathogenic bacterium, *Bacillus larvae* White, in the hemolymph and alimentary canal of the adult honey bee, *Apis mellifera* L. 16479
- BACILLUS THURINGIENSIS**  
Laboratory batch production of *Bacillus thuringiensis* spores and crystals. 16380  
Chemical composition of the cell wall of *Bacillus thuringiensis* var. *thuringiensis*. 16406  
The dissociation of *Bacillus thuringiensis*. 16923
- BACTERIA**  
Changes in respiration rate of tobacco leaves infested with bacteria in relation to the hypersensitive reaction. 16647  
The first occurrence of disease of the carnation caused by *Pseudomonas caryophylli* (Rurkholder) Starr et Burkholder in Hungary. 1664B  
Assessment of the usefulness of the examination of a gram smear of fresh uncentrifuged urine in the determination of significant bacteriuria in dogs. 16739  
Oedema disease in pigs. 16758  
Risk of resistance to chloramphenicol. 16761  
Rovine respiratory infections. 16816  
Anti-microbial drugs in animal feeds. 16847  
Laboratory evaluation of bovine respiratory disease vaccines for safety. 16852  
Bactericidal antibody studies in maternal serum, colostrum, and newborn serum of the pig. 16856
- BACTERIAL DISEASES (PLANTS)**  
Some factors related to the production of a brown diffusible pigment by *Xanthomonas phaseoli* var. *fuscans* (Abstract). 16542  
*Erwinia amylovora* (Rurr.) Winsl. in Poland. 16550  
Activity of soil fumigants in relation to increased growth response and control of decline and bacterial canker in trees of *Prunus persica*. (Abstract). 16566  
Application of cotyledonary symptoms in screening for resistance to tomato bacterial canker and in host range studies. 16592  
A quantitative local lesion bioassay for *Corynebacterium michiganense*. 16624
- BACTERIAL VACCINES**  
Determination of volatile acid production of *Clostridium* by gas chromatography. 16626

SUBJECT INDEX

BACTERICIDES

BACTERICIDES

Bactericidal antibody studies in maternal serum, colostrum, and newborn serum of the pig. 16856

Fungicidal and bactericidal compositions and methods employing isothiazolecarboxylates. Patent 3,403,209. 16945

Non-irritant quaternary ammonium compound composition. patent 3,402,242. 16960

Multiple drug resistance. 16965

Benz(d)indolo(3,2-b)thiopyrylium compounds. Patent 3,401,177. 16971

BACTERINS

Attempts to produce cross-reactions for Brucella in cattle treated with hemorrhagic septicaemia bacterins. 16830

BACTERIOLOGY

Multiple drug resistance. 16965

BACTERIOPHAGES

Pneumonia of sheep in Kenya. I. Bacterial and parasitic pneumonia. 16855

BAITS

A baiting method for estimating the saprophytic activity of Sclerotium rolfsii in soil. 16538

BALANCE OF NATURE

Bird predation on black fly larvae and pupae in Ontario. 16741

BANANAS

Indoleacetic acid oxidase activity in banana roots. 16629

BARLEY

A note on translocation-trisomic plant from gamma-irradiated barley. 16517

Immunodiffusion tests with three isolates of barley yellow dwarf virus. (Abstract). 16533

Stimulation by 2,4-D and 2,4-D plus Fe EDTA of 32P uptake by bean seedlings (Phaseolus vulgaris). 16573

Factors affecting respiration in barley yellow dwarf virus-infected barley. 16605

Studies of the development of powdery mildew (Erysiphe graminis f. sp. hordei Marchal) on barley. II. Primary appressoria formation. 16654

The use of organochlorine insecticides and possible alternatives against leatherjackets. 16715

Cereal root eelworm pathotypes in England and Wales. 16717

BASIDIOMYCETES

Inhibition of Poria carbonica by Scytalidium sp., an imperfect fungus isolated from Douglas-fir poles. 16662

BAYEB 25141

Field studies on control of lygus bugs and onion thrips infesting safflower. 16567

Field evaluation of insecticides for the control of aphids on potatoes. 16657

BEANS

Interaction of major factors influencing severity of bean root rot. (Abstract). 16539

Systemic action of 2-chloro-4-diisobutyl-6-nitrophenol against powdery mildew of snapbean. (Abstract). 16572

Stimulation by 2,4-D and 2,4-D plus Fe EDTA of 32P uptake by bean seedlings (Phaseolus vulgaris). 16573

The effect of leaf water balance on the susceptibility of French bean to tobacco necrosis virus. 16613

Evidence for polysomes in extracts of bean rust uredospores. 16682

BEE DISEASES

Viability, development, and rate of passage of the pathogenic bacterium, Bacillus larvae White, in the hemolymph and alimentary canal of the adult honey bee, Apis mellifera L.

16479

BEEF CATTLE

Comments on control and management of respiratory diseases in beef cattle. 16763

Comments on control and management of respiratory diseases in beef cattle. 16775

Some economics of air pollution control. 16972

BEETS

A baiting method for estimating the saprophytic activity of Sclerotium rolfsii in soil. 16538

BENTONITE

A study of tubes produced in plants infected with a strain of turnip yellow mosaic virus. 16598

Studies on the interaction of p-Mercuribenzoate with turnip yellow mosaic virus. V. Induced ribonuclease sensitivity and degradation of the virion. 16608

In vivo and in vitro decline of specific infectivity of tobacco ringspot virus correlated with nucleic acid degradation. 16671

BENZENE HEXACHLORIDE

The use of organochlorine insecticides and possible alternatives against leatherjackets. 16715

BENZIMIDAZOLES

Process for preparing benzimidazole N-oxides. Patent 3,398,157. 16947

2-alkylaminobenzimidazoles as herbicides. Patent 3,399,987. 16969

2-alkylaminobenzimidazoles. Patent 3,401,174. 16970

BENZOYL PEROXIDE

Biochemical action of thiram and some dialkyldithiocarbamates. 16928

BETULA

Comparison of the soil inhabiting Coleoptera from two oak-birch forests. 16309

BILE DUCTS

Studies on the aetiology of anaemia in chronic Fascioliasis in sheep. 16844

BIOCHEMISTRY

Amino acid requirements and sulfur amino acid metabolism in the pea aphid, Acyrthosiphon pisum (Harris). 16334

Left colleterial proteins in the viviparous cockroach Nauphoeta cinerea. 16354

European red mite and two-spotted spider mite control on apple trees. 16358

Bice water weevil resistance to aldrin in Texas. 16366

Testicular and haemolymph amino acids of Poecilocerius pictus (Acrididae). 16379

Chemosterilization of the tobacco budworm: a survey of 21 compounds applied topically. 16386

Economics of the application of molluscicides to flowing water. 16403

Chemical composition of the cell wall of Bacillus thuringiensis var. thuringiensis. 16406

Biology of the corn earworm and control with insecticides and virus in Washington. 16407

Mass sterilization of Japanese beetles with tepa and the determination of residues. 16412

Evidence for the DDT-INDUCED synthesis of messenger ribonucleic acid in Triatoma infestans. 16423

Insecticides for control of the lone star tick tested in the laboratory and as high- and ultra-low-volume sprays in wooded areas. 16434

Factors affecting protein synthesis by the fat body of the



## SUBJECT INDEX

BLACK SHANK (TOBACCO)

- larva of the blowfly *Calliphora erythrocephala*. 16441
- Protein synthesis in subcellular fractions of the blowfly during different developmental stages. 16453
- Flight height, droplet size, and moisture influence on grasshopper control achieved with malathion applied aerially at ULV. 16455
- Evaluation of insecticides for control of pickleworm on summer squash. 16472
- Oils for summer control of pear psylla and their effects on pear trees. 16488
- Cultural studies of sexual reproduction of *Ceratocystis fagacearum*. 16512
- Studies on lettuce seed germination. I. Coumarin induced dormancy. 16513
- Changes in respiration rate of tobacco leaves infested with bacteria in relation to the hypersensitive reaction. 16647
- Biophysical and biochemical studies on the nature of resistance of pineapples to the oriental fruit fly. 16710
- Polynucleotide homologies of *Brucella deoxyribonucleic acids*. 16794
- Pathologic physiology and chemotherapy of *Plasmodium berghei*. III. Benal function in rats infected with *Plasmodium berghei*. 16801
- A study of immunity against *Pasteurella multocida* in buffalo calves and their carrier status. 16823
- Controlling short-nosed cattle lice with dichlorvos resin strips. 16868
- Oligosaccharidases from *Macracanthorhynchus hirudinacens* (*Acanthocephala*) from swine. 16875
- The evagination of *Echinococcus granulosus scolices* from lung cysts of bovine origin. 16885
- Drift of water-diluted and undiluted formulations of malathion and azinphosmethyl applied by airplane. 16902
- Clostridium botulinum* type F in the soil of Argentina. 16909
- Acute toxicity of n-alpha-olefin sulfonates. 16912
- Effect of substrate temperature on emergence and growth of seedling cotton following in-furrow applications of Temik (10 % G formulation of union carbide UC-21149). 16922
- The dissociation of *Bacillus thuringiensis*. 16923
- Tolerance of some imported conifer seeds to fumigation with carbon tetrachloride. 16932
- The oxidation of indole-3-acetaldehyde and its 1-methyl derivative by horseradish peroxidase. 16941
- BIOLOGICAL ASSAY**  
Effect of soil clay and organic matter content upon systemic efficacy of two carbamate insecticides. 16259
- Pyruvate kinase in *Haemonchus contortus* larvae. 16349
- A water-soluble factor in *Melilotus officinalis* leaves which stimulates feeding by the adult sweetclover weevil. 16355
- A quantitative local lesion bioassay for *Corynebacterium michiganense*. 16624
- Relationships between *Tetranychus urticae* Koch and some plant viruses. 16651
- A physiological study of the development of the egg of *Fasciola hepatica* L., the common liver fluke. 16891
- Drift of water-diluted and undiluted formulations of malathion and azinphosmethyl applied by airplane. 16902
- The estimation of epinephrine, norepinephrine, and aldrin (a chlorinated naphthalene derivative) in mammalian tissue employing biological and chemical methods of assay, and some considerations of toxicological effects of aldrin. 16908
- The toxicity of Oklahoma spider (*Araneae*) venoms using a new venom recovery and testing technique. 16910
- BIOLOGICAL CONTROL (INSECTS)**  
Autocidal control of the codling moth by release of males and females sterilized as adults by gamma radiation. 16333
- Biological and integrated control of citrus pests in Israel. 16336
- Laboratory hatch production of *Bacillus thuringiensis* spores and crystals. 16380
- Biology of the corn earworm and control with insecticides and virus in Washington. 16407
- The permanent and cumulative effect of tepa-induced sterility in male Japanese beetles. 16411
- Preliminary report on the introduction of *Phytopseilus persimilis* to Poland. 16421
- Field trials to control Colorado beetle, *Leptinotarsa decemlineata*, with *Perillus hioculatus*. 16474
- BIOLOGICAL CONTROL (PESTS)**  
Economics of biological control. 16263
- The role of biological control in the integrated programs of plant protection. 16523
- Integrated method of control of plant diseases caused by fungi. 16630
- BIOLOGICAL LABORATORIES**  
Laboratory hatch production of *Bacillus thuringiensis* spores and crystals. 16380
- BIOLOGICAL PRODUCTS**  
Present status of immunization procedures for pasteurellosis. 16770
- Comments on immunization procedures for pasteurellosis. 16778
- License requirements for vaccines for bovine respiratory diseases. 16807
- BIOLOGICAL TRANSPORT**  
Bactericidal antibody studies in maternal serum, colostrum, and newborn serum of the pig. 16856
- Translocation to and accumulation of phosphorus-32 in sclerotia of *Sclerotium rolfsii*. 16938
- BIOLOGY**  
Recent advances in techniques for tsetse fly control: With special reference to northern Nigeria. 16506
- BIOPHYSICS**  
Chemical composition and biophysical properties of tomato ringspot virus. 16690
- Biophysical and biochemical studies on the nature of resistance of pineapples to the oriental fruit fly. 16710
- BIPYRIDYLIUM, 4,4'-**  
Bipyridylum compounds and herbicidal compositions containing the same. Patent 3,398,154. 16949
- BIRDS**  
Notes on the Siphonaptera of New Brunswick. 16270
- Two new Mallopbaga species of the genus *Ardeicola* Clay, 1935 (*Ischnocera*: *Phlopteridae*). 16302
- Infectious bronchitis in laying fowls; its effect upon egg production and subsequent egg quality. 16814
- BLACK BOT (SWEETPOTATOES)**  
Ion uptake of sweet potato roots infected by the black rot fungus. 16519
- BLACK SHANK (TOBACCO)**  
Stem resistance to black shank in burley tobacco derived from *Nicotiana longiflora*. (Abstract). 16595

SUBJECT INDEX

BLATTELLA GERMANICA

BLATTELLA GERMANICA

Penetration, excretion, and metabolism of carbaryl in susceptible and resistant German cockroaches. 16409

Effect of *Corpora allata* on protein and RNA synthesis in colleterial glands of *Blattella germanica*. 16486

Influence of repellency on the efficacy of blatticides. II. Laboratory experiments with German cockroaches. 16492

BLATTIDAE

Oothecae of the Blattaria. 16444

Ovarioles of the Blattaria. 16445

Inhibition by acetylcholine of malpighian tubule muscle of the cockroach *Periplaneta americana*. 16450

BLISTEB RUST (PINUS)

Stem and needle inoculations of eastern white pine with the blister rust fungus. 16692

BLOOD

Testicular and haemolymph amino acids of *Poecilocus pictus* (Acrididae). 16379

A study of haemolymph proteins in Lepidoptera. Film 695. 16424

Viability, development, and rate of passage of the pathogenic bacterium, *Bacillus larvae* white, in the hemolymph and alimentary canal of the adult honey bee, *Apis mellifera* L. 16479

Excretion of foot-and-mouth disease virus prior to the development of lesions. 16755

A rapid procedure for the identification of organochlorine pesticides in blood and tissues. 16950

BLOOD CELLS

Growth, feeding activity, and the utilization of reserves in larvae of *Locusta*. 16399

The separation and characterization of the haemolymph proteins of several insects. 16473

Possibilities of applying chemosterilants in plants protection. 16711

BLOOD PROTEINS

Immunochemical analysis of the origin of a sex-specific accumulated blood protein in female houseflies. 16364

Studies on the serum proteins in experimental fascioliasis of sheep. 16876

BLOOD SERUM

Natural antibody in mammalian serum reacting with an antigen in some leptospirae. 16771

Scrapic agent in blood. 16773

Some factors affecting mineral utilization by the baby pig. 16788

Attempts to produce cross-reactions for *Brucella* in cattle treated with hemorrhagic septicemia bacterins. 16830

BLUEBERRIES

The effect of substituted decenyl succinic acid (DSA), amides, esters, and 1,5-difluoro-2,4-dinitrobenzene (DFDNB) on preventing blossom freezing injury. (Abstract). 16597

BODY FLUIDS

Humor control of the water equilibrium in *Locusta migratoria migratorioides*. 16370

BOLITOTHERUS CORNUTUS

Movements, host-fungus preferences, and longevity of *Bolitotherus cornutus* (Coleoptera: Tenebrionidae). 16397

BOMBUS

Comparative study of pollen sources of honeybees and bumble bees. 16408

BONES

Bone-metastasizing lung carcinoma in a cat. 16764

Some factors affecting mineral utilization by the baby pig. 16789

BORAX

Non-irritant quaternary ammonium compound composition. patent 3,402,242. 16960

BOBON

Effect of boron on ribonucleic acid and indoleacetic acid metabolism in the apical meristems of sunflower plants. 16520

BOTRYDIPLODIA THEOBROMAE

Induced sporulation of *Botryodiplodia theobromae* Pat. isolated from *Araucaria cunninghamii* Ait. in Malaysia. 16587

BOTRYOTINIA SQUAMOSA

Production of the perfect stage of *Botryotinia* (*Botrytis*) *squamosa* under controlled environmental conditions. (Abstract). 16546

BOTRYTIS

Production of the perfect stage of *Botryotinia* (*Botrytis*) *squamosa* under controlled environmental conditions. (Abstract). 16546

BOUGAINVILLEA SPECTABILIS

Fungi on *Bougainvillea spectabilis* Willd. 16661

BOVINE RHINOTRACHEITIS VACCINES

Comments on combination vaccines for bovine respiratory diseases. 16800

Comments on bovine parainfluenza-3 immunization procedures. 16804

Comments on combination vaccines for bovine respiratory diseases. 16836

Potency evaluation of vaccines used against bovine respiratory diseases. 16836

Complications following vaccination of cattle against infectious bovine rhinotracheitis, bovine viral diarrhoea-mucosal disease, and parainfluenza type 3. 16841

Laboratory evaluation of bovine respiratory disease vaccines for safety. 16852

BOVINE RHINOVIRUS

Bovine rhinoviruses. 16752

Comments on bovine rhinoviruses. 16824

BOVINE VIRUS DIARRHEA VACCINES

Comments on vaccination for bovine viral diarrhoea-mucosal disease. 16785

Comments on bovine viral diarrhoea-mucosal disease. 16791

Comments on combination vaccines for bovine respiratory diseases. 16800

Comments on combination vaccines for bovine respiratory diseases. 16836

Potency evaluation of vaccines used against bovine respiratory diseases. 16836

Complications following vaccination of cattle against infectious bovine rhinotracheitis, bovine viral diarrhoea-mucosal disease, and parainfluenza type 3. 16841

Comments on bovine viral diarrhoea-mucosal disease. 16851

Laboratory evaluation of bovine respiratory disease vaccines for safety. 16852

BRACONIDAE

New Canadian Braconidae (Hymenoptera). 16314

A tropic relict in the desert fauna of braconids (Hymenoptera, Braconidae) of Middle Asia. 16344

Pygidial glands in male *Opius* (Hymenoptera: Braconidae). 16367

SUBJECT INDEX

CAMBIIUM

- Source of a substance in *Heliothis virescens* (Lepidoptera: Noctuidae) that elicits a searching response in its habitual parasite *Cardiocbites nigriceps*. (Hymenoptera: Braconidae). 16471
- BRAIN**  
 Histochemical localization of catecholamines in the brain of normal and drug-treated cockroaches. 16389  
 Oedema disease in pigs. 16758
- BRASENIA SCREBERI**  
 Structure and development of the flower of *Brasenia screeberi* Gmel. 16931
- BRASSICA OLERACEA**  
 Electron microscopy of X-body formation in cells of cabbage infected with *Brassica virus 3*. 16665
- BREEDING**  
 Number of instars of the larva of *Herse convolvuli* L. 16454  
 Cytogenetic observations on species A and B of the *Anopaeles gambiae* complex. 16491  
 Inherited sterility in progeny of irradiated male cabbage loopers. 16496  
 Physiological genetics of melanotic tumors in *Drosophila melanogaster*. IV. Gene-environment interactions of tu-bw with different third chromosome backgrounds. 16498  
 The effects of maize dwarf mosaic virus on macro- and microelement accumulation in corn tissue of resistant and susceptible hybrids. (Abstract). 16631
- BROMODAN**  
 Laboratory tests of five new insecticides as protectants for stored rough rice. 16898
- BROMUS INERMIS**  
 The influence of controlled environments and grass hosts on the life cycle of *Endria inimica* (Homoptera: Cicadellidae). 16373
- BRUCELLA**  
 Polynucleotide homologies of *Brucella* deoxyribonucleic acids. 16794  
 Attempts to produce cross-reactions for *Brucella* in cattle treated with hemorrhagic septicemia bacterins. 16830  
 Enzymatic and morphologic modifications in *Brucella* treated with interferon. 16921
- BRUSSELS SPROUTS**  
 Sprout rot of Brussels sprouts. (Abstract). 16644
- BUFFALOES**  
 A study of immunity against *Pasteurella multocida* in buffalo calves and their carrier status. 16823  
 Malignant catarrhal fever. 16840
- BUFFER SUBSTANCES**  
 Studies on the interaction of p-Mercuribenzoate with turnip yellow mosaic virus. V. Induced ribonuclease sensitivity and degradation of the virion. 16608
- BULLS**  
 Diagnosis of *Vibrio fetus* infection in the bull. II. An epidemiological survey using a fluorescent antibody test and comparing this with a cultural method. 16839
- BUSHY STUNT (TOMATOES)**  
 Relationships between *Tetranychus urticae* Koch and some plant viruses. 16651
- BUTTERFLIES**  
 A new aberration of *Pieris brassicae* (Linn.) Lepidoptera, Pieridae. 16318
- BUTYL PICOLINIC ACID, 5-**  
 Selective fusaric acid (FA) production on synthetic substrates by forms of *Fusarium oxysporum*. (Abstract). 16564
- BUTYRIC ACID**  
 Determination of volatile acid production of *Clostridium* by gas chromatography. 16626
- CABBAGE**  
 Cabbage maggot resistance to organochlorine insecticides. 16317  
 Electron microscopy of X-body formation in cells of cabbage infected with *Brassica virus 3*. 16665
- CACAO**  
 Mineral nutrition of cacao (*Theobroma cacao* L.). Comparison of plant growth and nutrient content of leaves of six C.R.I. varieties grown in optimum and deficient conditions in sand culture. 16524
- CADMIUM COMPOUNDS**  
 The effects of cadmium compounds on reproduction and growth of the stable fly, *Stomoxys calcitrans* (Linnaeus). 16410
- CALCIUM**  
 Some factors affecting mineral utilization by the baby pig. 16788  
 The effect of differential nitrogen and calcium nutrition and B-Nine (N-dimethyl amino succinamic acid) application on foliar analysis and flowering quality of "Red Wing" azaleas. 16926
- CALCIUM CHLORIDE**  
 Isolation and characterization of barley stripe mosaic virus protein. 16568
- CALLIPHORA STYGIA**  
 Short-term effects of crustecdysone (20-hydroxyecdysone) on protein and rna synthesis in third instar larvae of *Calliphora*. 16437
- CALLIPHORA VICINA**  
 The metabolism of carbaryl (1-naphthyl-N-methylcarbamate) by the fat body of the blowfly larva *Calliphora erythrocephala*. 16440  
 Factors affecting protein synthesis by the fat body of the larva of the blowfly *Calliphora erythrocephala*. 16441  
 Protein synthesis in subcellular fractions of the blowfly during different developmental stages. 16453
- CALLUS (PLANTS)**  
 The effect of chloramphenicol on soybean callus tissue. 16917  
 Geranium plants differentiated in vitro from stem tip and callus cultures. 16929
- CALVES**  
 Comments on control and management of respiratory diseases in beef cattle. 16763  
 Comments on management of respiratory diseases of dairy cattle. 16777  
 Role of mycoplasma in bovine respiratory infection. 16786  
 Reoviruses. 16806  
 Calf diptheria. 16811  
 The natural history of bovine myxovirus parainfluenza-3. 16860  
 A systematic insecticide for control of the face fly, *Musca autumnalis*. 16865  
 Oral tetramisole; effect on *Dictyocaulus viviparus*, *Ostertagia ostertagi* and *Cooperia oncophora* in experimentally-infected calves. 16883  
 Lumbar paralysis of a calf caused by aberration of an immature liver fluke into the spinal cord. 16892
- CAMBIIUM**  
 Leptographium root decline of eastern white pine. (Abstract). 16568



SUBJECT INDEX

CAMPOPLEX BAYWARDI			
CAMPOPLEX HAYWARDI		Photosynthetic activities of cotton plants infected with <i>Verticillium albo-atrum</i> .	16634
The biology of <i>Campoplex haywardi</i> (Hymenoptera: Ichneumonidae), a primary parasite of the potato tuberworm.	16418		
CANDIDA SHEHATAE		Studies on the absorption and metabolism of D-(u-14C) glucose by <i>Polymorphus minutus</i> (Acanthocephala) in vitro.	16873
<i>Candida shehatae</i> sp. n., a yeast associated with wood-destroying insects.	16368		
CANKER (PEACHES)		The partitioning and distribution of simazine and propanil in spinach chloroplasts.	16927
Activity of soil fumigants in relation to increased growth response and control of decline and bacterial canker in trees of <i>Prunus persica</i> . (Abstract).	16566		
CAPTAN		Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm.	16940
The examination of mixtures of Captan and Phalton by gas chromatography.	16944		
CABABIDAE		CABBON TETRACHLORIDE	
Oxygen consumption by soil larvae of insects in dependence on its tension.	16442	Tolerance of some imported conifer seeds to fumigation with carbon tetrachloride.	16932
CARAGANA ARBORESCENS		CABBONATES	
Experiments with a new virus disease of the pea tree ( <i>Caragana arborescens</i> Lam.).	16615	Dimethylthiocarbonyl s-alkyldithiocarbonates. Patent 3,398,181.	16957
CARBAMATES		CARCINOGENS	
Insecticidal 2-halo- and 2,4-dihaloalkylphenyl carbamate compositions and method for controlling insects. Patent 3,402,245.	16417	Carcinogens in burning mosquito coil smoke.	16911
Lower aliphatic esters of N-phenyl and N-m-Chlorophenyl carbamic acid containing an acyl group. Patent 3,393,224.	16724	CARCINOMA	
Pesticidal N-acyl-N-lower alkyl carbamates of phenols and naphthols with decreased mammalian toxicity. Patent 3,404,208.	16913	Bone-metastasizing lung carcinoma in a cat.	16784
CARBANILATES		CARDIOCHILES NIGRICEPS	
M-(carbamoyloxy)-carbanilates as herbicides. Patent 3,404,975.	16968	Immunological relationships between the parasite <i>Cardiochiles nigriceps</i> Vierick and certain <i>Heliothis</i> species.	16420
CARBARYL		Source of a substance in <i>Heliothis virescens</i> (Lepidoptera: Noctuidae) that elicits a searching response in its habitual parasite <i>Cardiochiles nigriceps</i> . (Hymenoptera: Braconidae).	16471
Penetration, excretion, and metabolism of carbaryl in susceptible and resistant German cockroaches.	16409	CARPOCAPSA	
The metabolism of carbaryl (1-naphthyl-N-methylcarbamate) by the fat body of the blowfly larva <i>Calliphora erythrocephala</i> .	16440	Autocidal control of the codling moth by release of males and females sterilized as adults by gamma radiation.	16333
Evaluation of insecticides for control of pickleworm on summer squash.	16472	CARBOTS	
Honey bee insecticide loss - an unusual case.	16641	A baiting method for estimating the saprophytic activity of <i>Sclerotium rolfsii</i> in soil.	16538
CARBORYDRATES		CASSIA TOBA	
The influence of <i>Fusarium</i> root rot and harvesting on the carbohydrate levels of alfalfa roots grown in a gnotobiotic environment. (Abstract).	16628	Nuclear crystals in zinnia and other nonsolanaceous plants infected with tobacco etch virus.	16659
Studies on the absorption and metabolism of D-(u-14C) glucose by <i>Polymorphus minutus</i> (Acanthocephala) in vitro.	16873	CATECHOL AMINES	
CARBON		Histochemical localization of catecholamines in the brain of normal and drug-treated cockroaches.	16389
The impact of tuliptree scale feeding on its host, yellow-poplar.	16704	CATEPILLARS	
CARBON DIOXIDE		The effect of temperature upon the development of the heart-and-dart moth ( <i>Agrotis exclamationis</i> L.).	16431
Carbon dioxide exchange by radish tissue infected with <i>Albugo candida</i> measured with an infrared CO <sub>2</sub> analyzer.	16548	Studies on the development of insect resistant sorghum varieties and hybrids.	16707
Photosynthetic activities of cotton plants infected with <i>Verticillium albo-atrum</i> .	16634	CATHETERS	
Effects of herbicides on carbon dioxide uptake by pine seedlings.	16668	Assessment of the usefulness of the examination of a gram smear of fresh uncentrifuged urine in the determination of significant bacteriuria in dogs.	16739
CO <sub>2</sub> assimilation and yield of Little Club wheat infected by <i>Septoria nodorum</i> .	16670	CATS	
Stomatal penetration of wheat seedlings by stem and leaf rusts in relation to effects of carbon dioxide, light, and stomatal aperture.	16699	Selenium-responsive diseases of animals in New Zealand.	16746
CARBON ISOTOPIES		The haematology of lymphosarcoma in the cat.	16764
Effect of tobacco mosaic virus infection on glucose metabolism in <i>Nicotiana tabacum</i> var. Samsun. i. Investigations with 14C-labeled sugars.	16543	Bone-metastasizing lung carcinoma in a cat.	16784
		A postmortem case of infectious feline enteritis-like disease in a tiger.	16826
		Recent information on the biology of <i>Echinococcus granulosus</i> and <i>Echinococcosis</i> .	16879
		Thallium poisoning in cats.	16915
		CATTLE	
		Future requirements for prevention and control of bovine respiratory diseases in the United States.	16743
		Symposium on immunity to the bovine respiratory disease complex, June 19-21, 1967, Athens, Georgia.	16744
		Selenium-responsive diseases of animals in New Zealand.	



SUBJECT INDEX

CELL NUCLEUS

- 16917 gated by histochemical techniques. 16580
- CELL NUCLEUS  
Spermatozoan nucleus length in three strains of *Drosophila melanogaster*. 16490
- The physiology of host-parasite relations. XIX. Further observations on nucleoprotein changes in wheat leaf nuclei during rust infection. 16547
- CELL WALL  
Chemical composition of the cell wall of *Bacillus thuringiensis* var. *thuringiensis*. 16406
- CELLS  
Histochemical localization of catecholamines in the brain of normal and drug-treated cockroaches. 16389
- Induction of multipolar spindles in the meiosis of *Triticum aestivum* as effected by acetone. 16404
- Effects of ecovsone on epidermal cells in which DNA synthesis has been blocked. 16428
- A note on translocation-trisomic plant from gamma-irradiated barley. 16517
- Histology of canker rusts in pines. 16618
- Permeability changes in *Phaseolus aureus* associated with infection by *Rhizoctonia solani*. 16620
- Effects of cytokinins on the absorption of victorin. 16627
- Resistance to spread of virus from cell to cell in *T. I. 245* tobacco. 16687
- Oxygen consumption and germination of *Cronartium fusiforme* aeciospores. 16694
- Hereditary change of an eye color mutant induced by DNA in *Ephesia*. 16742
- Precipitating antibodies associated with Marek's disease. 16759
- Studies of interrelationships between genetically resistant chicken embryo cells and the Bryan high titer strain of Rous sarcoma virus. 16760
- Detection of antibodies neutralizing the virus of infectious bovine rhinotracheitis in the serum of French cattle. 16782
- A study of the ultrastructure of the intestinal epithelial cells of piglets infected with a transmissible gastroenteritis virus. 16854
- CENTRIFUGATION  
Viability in vitro of the smallest spores of *Ceratocystis ulmi* following centrifugation and microfiltration. (Abstract). 16554
- A study of tubes produced in plants infected with a strain of turnip yellow mosaic virus. 16598
- In vivo and in vitro decline of specific infectivity of tobacco ringspot virus correlated with nucleic acid degradation. 16671
- Action of aqueous iodine on ova of *Ascaris lumbricoides* and *Ascaris suum*. 16716
- Assessment of the usefulness of the examination of a gram smear of fresh uncentrifuged urine in the determination of significant bacteriuria in dogs. 16739
- CEPHALOSPOBIUM GRAMINEUM  
The probable significance of saprophytic colonization of wheat straw in the field by *Cephalosporium gramineum*. 16556
- CERAMBYCIDAE  
Contribution to the histochemical study of the digestive organs of *Rhagium bifasciatum*. (Col. Cerambycidae). 16390
- CERATOCYSTIS  
Viability in vitro of the smallest spores of *Ceratocystis ulmi* following centrifugation and microfiltration. (Abstract). 16554
- Polyphenols and discoloration in the elm disease investi-
- CERATOCYSTIS FAGACEARUM  
Cultural studies of sexual reproduction of *Ceratocystis fagacearum*. 16512
- Ceratocystis fagacearum* distribution within bur and red oak seedlings. (Abstract). 16566
- CERATOCYSTIS FIMBRIATA  
Ion uptake of sweet potato roots infected by the black rot fungus. 16519
- A morphological and biological concept of the species *Ceratocystis fimbriata*. 16530
- CERATOCYSTIS ULMI  
Viability in vitro of the smallest spores of *Ceratocystis ulmi* following centrifugation and microfiltration. (Abstract). 16554
- Antagonism of bacteria from elm to *Ceratocystis ulmi* in vitro. (Abstract). 16606
- An evaluation of Biorin for control of *Scolytus multistriatus*, the primary vector of *Ceratocystis ulmi*. 16709
- CERATOPHYLLUS FASCIATUS  
The study of fertility of the rat fleas (*Xenopsylla cheopis* Rothsch. and *Ceratophyllus fasciatus* Bosc.) under their feeding on different animals. 16449
- CERATOPOGONIDAE  
To the knowledge of the genus *Culicoides* Latr. 1809 (Diptera, Ceratopogonidae) in Czechoslovakia. 16327
- CEBEUS GIGANTEUS  
Supercooling of the saguaro species *Drosophila nigrospiracula* in the Sonoran Desert. 16425
- CETONIA AURATA  
Oxygen consumption by soil larvae of insects in dependence on its tension. 16442
- CBALCIDIDAE  
On some new species of *Tetramesa* Walk., with notes on their parasites (Hymenoptera: Chalcidoidea). 16342
- CHAOROBUS ASTICTOPUS  
The increasing Chaoborid sidge problem in California. 16284
- CHEMICAL ANALYSIS  
The estimation of epinephrine, norepinephrine, and aldrin (a chlorinated naphthalene derivative) in mammalian tissue employing biological and chemical methods of assay, and some considerations of toxicological effects of aldrin. 16908
- CHEMICAL CONTROL (INSECTS)  
European red mite and two-spotted spider mite control on apple trees. 16358
- Rice water weevil resistance to aldrin in Texas. 16366
- Investigations with the new organic phosphorus compounds. 16369
- Biology of the corn earworm and control with insecticides and virus in Washington. 16407
- Mass sterilization of Japanese beetles with tepa and the determination of residues. 16412
- Insecticidal 2-halo- and 2,4-dihaloalkylphenyl carbamate compositions and method for controlling insects. Patent 3,402,245. 16417
- Insecticides for control of the lone star tick tested in the laboratory and as high- and ultra-low-volume sprays in wooded areas. 16434
- Flight height, droplet size, and moisture influence on grasshopper control achieved with malathion applied aerially at ULV. 16455
- Methods of killing pests selected from the group consisting of mites and insects with phosphonothioates. Patent 3,401,220. 16461
- Evaluation of insecticides for control of pickleworm on summer squash. 16472



SUBJECT INDEX

CHICKENS

Investigations of new insecticides.	16480	Economics of the application of molluscicides to flowing water.	16403
Oils for summer control of pear psylla and their effects on pear trees.	16488	A formula for determining degree of dominance in cases of monofactorial inheritance of resistance to chemicals.	16499
New results on the control of the millet caterpillar, <i>Laphygma frugiperana</i> .	16701	Effect of magnesium trisilicate on the infectivity of tobacco mosaic virus.	16607
The possibilities of development of chemical methods for the plant pest control.	16702	Immunologic response of rabbits to <i>Mycobacterium bovis</i> ; chemical, electrophoretic and antigenic analyses of bacillary extracts.	16766
Integrated pest control in orchards.	16708	Antigenic, chemical, chromatographic, and electrophoretic analyses of unheated culture filtrates of <i>Mycobacterium bovis</i> .	16767
An evaluation of Bidrin for control of <i>Scolytus multistriatus</i> , the primary vector of <i>Ceratocystis ulmi</i> .	16709	A sprayer with semi-automatic gradual dilution.	16905
The use of organochlorine insecticides and possible alternatives against leatherjackets.	16715	<b>CHEMISTRY</b>	
Action of aqueous iodine on ova of <i>Ascaris lumbricoides</i> an <i>Ascaris suum</i> .	16716	Carcinogens in burning mosquito coil smoke.	16911
A systematic insecticide for control of the face fly, <i>Musca autumnalis</i> .	16865	Method for the preparation of O,O-dimethyl-S-(1,2-dicarboethoxyethyl)dithiophosphate. Patent 3,403,201.	16942
Controlling short-nosed cattle lice with dichlorvos resin strips.	16868	The literature of pesticide chemistry.	16943
<b>CHEMICAL CONTROL (PLANT DISEASES)</b>		M-alkylphenyl N-chloroacetyl-N-methylcarbamates and their use as pesticides. Patent 3,402,246.	16955
Process for oxidizing soluble alkylene bisdithiocarbamates to produce an oxygen containing product, and the product of said process. Patent 3,401,182.	16591	<b>CHEMORECEPTORS</b>	
Levels of shikimate and folate in primary leaves of wheat and in uredospores of leaf rust.	16601	Comparative studies of the labellar sensitivity of female tabanids (Diptera) to sucrose and sodium chloride.	16413
The role of alkaloids in the resistance of some lupin varieties to the Pea aphid <i>Acyrtosiphon pisum</i> Harris/.	16619	<b>CHEMOSTERILANTS</b>	
A comparison of soil column and petri dish techniques for the evaluation of soil fungitoxicants.	16622	Sterility in house flies offered a choice of untreated diets and diets treated with chemosterilants.	16297
Effects of herbicides on carbon dioxide uptake by pine seedlings.	16668	Sterilization of <i>Culex pipiens fatigans</i> Wiedemann by apholate.	16377
Method of controlling fungi with sulfonium iodides. Patent 3,402,248.	16930	Chemosterilization of the tobacco budworm: a survey of 21 compounds applied topically.	16386
<b>CHEMICAL CONTROL (WEEDS)</b>		The permanent and cumulative effect of tepa-induced sterility in male Japanese beetles.	16411
Herbicidal tropolone esters. Patent 3,399,989.	16725	Mass sterilization of Japanese beetles with tepa and the determination of residues.	16412
Method of controlling weeds in soil. Patent 3,393,065.	16726	Possibilities of applying chemosterilants in plants protection.	16711
Monofluorophenyl-4'-nitrophenylether derivatives as herbicides. Patent 3,401,031.	16728	<b>CHEMURGY</b>	
Herbicidal ether. Patent 3,388,171.	16729	Utilization of tricarboxylic acid cycle intermediates by <i>Haemonchus contortus</i> larvae.	16321
Herbicidal composition and method comprising 1-(tetrahydrodicyclopentadienyl)-3,3-dimethyl urea and a salt of methyl arsonic acid. Patent 3,403,017.	16731	Growth, feeding activity, and the utilization of reserves in larvae of <i>Locusta</i> .	16399
Method of destroying undesirable plants. Patent 3,397,977.	16732	<b>CHENOPODIUM AMARANTICOLOR</b>	
Herbicidal composition and method. Patent 3,393,064.	16733	Nuclear crystals in zinnia and other nonsolanaceous plants infected with tobacco etch virus.	16659
Method of controlling the growth of weeds. Patent 3,399,988.	16735	<b>CHERRIES</b>	
<b>CHEMICAL REACTIONS</b>		Diseases of pitted-fruit trees, in 1966.	16621
Chemical composition and biophysical properties of tomato ringspot virus.	16690	Investigations of cherry rasp leaf disease in California.	16693
Method for the preparation of O,O-dimethyl-S-(1,2-dicarboethoxyethyl)dithiophosphate. Patent 3,403,201.	16942	<b>CRICK EMBRYOS</b>	
Chemistry of the fungicidal action of tetramethylthiuram disulphide (thiram) and ferbam.	16963	Studies of interrelationships between genetically resistant chicken embryo cells and the Bryan high titer strain of Rous sarcoma virus.	16760
<b>CHEMICALS</b>		<b>CHICKENS</b>	
A note on the influence of a range of plant chemicals on the growth and survival of <i>Aedes aegypti</i> L. larvae.	16396	Fatty liver studies in laying hens.	16750
The influence of nutrient chemicals on the feeding behavior of the Colorado potato beetle, <i>Leptinotarsa decemlineata</i> (Coleoptera: Chrysomelidae).	16401	Precipitating antibodies associated with Marek's disease.	16759
		Risk of resistance to chloramphenicol.	16761
		A new anti-coccidial drug (M and R 15,497): activity studies against laboratory and field strains of <i>Eimeria</i> .	16789
		M and R 15,497: acute, sub-acute and chronic tolerance studies in chickens.	16809

SUBJECT INDEX

CHIRONOMIDAE

- Mycoplasma gallisepticum infection and boiler weight. 16820  
 Preliminary investigation of methods for evaluating inactivated vaccines for infectious bronchitis virus. 16821  
 Testing the effectivity of coccidiostatics by using radio Iron-59 for the quantitative estimation of blood in the caeca and feces of chickens. 16842  
 Salmonellosis typhimurium. Some epidemiological and therapeutical problems of salmonellosis. 16846

CHIRONOMIDAE

- Information on stream inhabiting Chironomidae of Hungary. 16268

CRITIN

- Hexosamine metabolism in imaginal disks of Orosophila melanogaster. 16388

CHLORAMPHENICOL

- Risk of resistance to chloramphenicol. 16761  
 The effect of chloramphenicol on soybean callus tissue. 16917  
 Multiple drug resistance. 16965

CHLORDANE

- Cabbage maggot resistance to organochlorine insecticides. 16317  
 Insecticides applied to the soil for control of eight species of insects on Irish potatoes in Virginia. 16706

CHLORINATED HYDROCARBONS

- Some physiological effects of sublethal doses of ODT on flour beetles. 16462  
 The use of organochlorine insecticides and possible alternatives against leatherjackets. 16715  
 Herbicidal composition and method. Patent 3,393,064. 16733  
 The adsorption of chlorinated hydrocarbon pesticides on an unconsolidated aquifer substrate. 16901  
 The estimation of epinephrine, norepinephrine, and aldrin (a chlorinated naphthalene derivative) in mammalian tissue employing biological and chemical methods of assay, and some considerations of toxicological effects of aldrin. 16908  
 A rapid procedure for the identification of organochlorine pesticides in blood and tissues. 16950  
 Extraction of organochlorine and organophosphate insecticides from lake waters. 16964

CHLORIS GAYANA

- Felted grass coxoid on Rhodes grass in Queensland. 16703

CHLORO-4-DIISOBUTYL-6-NITROPHENOL, 2-

- Systemic action of 2-chloro-4-diisobutyl-6-nitrophenol against powdery mildew of snapbean. (Abstract). 16572

CHLOROPHORM

- Studies on the interaction of p-mercuribenzoate with turnip yellow mosaic virus. V. Induced ribonuclease sensitivity and degradation of the virion. 16608

CHLOROPIDAE

- The reproductive biology of Hippelates collusor (Oiptera: Chloropidae). II. Gametogenesis. 16489

CHLOROPLASTS

- The partitioning and distribution of simazine and propanil in spinach chloroplasts. 16927

CHOEROCAMPINAE

- Observations on the larvae of Hippotion celerio L. (Lepid., Sphingidae in Tanzania. (Abstract). 16262

CHOLINE

- Dietary requirements of the bollworm, Heliothis zea (Lepidoptera: Noctuidae), for lipids, choline, and inositol and the effect of fats and fatty acids on the composition of the body fat. 16470

CHORISTONEURA FUMIFERANA

- In vitro cultivation of Choristoneura fumiferana (Clemens) (Lepidoptera: Tortricidae) tissues. 16457

CHROMATOGRAPHY

- Identification and functions of secretion from the posterior scent gland of fifth instar larva of the bug Oysdercus intermedius. 16274

- A water-soluble factor in Melilotus officinalis leaves which stimulates feeding by the adult sweetclover weevil. 16355

- Variations of phospholipids in the course of metamorphosis of Tribolium confusum (Coleoptera). 16360

- Testicular and haemolymph amino acids of Poecilocerns pictus (Acrididae). 16379

- Source of the trail pheromone and method of trail laying in the ant Crematogaster peringueyi. 16385

- Hexosamine metabolism in imaginal disks of Orosophila melanogaster. 16388

- The utilization of L-asparagine by two species of Phytophthora. 16521

- Growth substances isolated from woody cuttings of Alnus glutinosa Medic. and Praxinus excelsior L. 16525

- Root exudates from red pine seedlings and their effects on Pythium ultimum. 16534

- Determination of volatile acid production of Clostridium by gas chromatography. 16626

- Chromatographic purification of a single viral protein in sandal spike. 16636

- Antigenic, chemical, chromatographic, and electrophoretic analyses of unheated culture filtrates of Mycobacterium bovis. 16767

- Carcinogens in burning mosquito coil smoke. 16911

- Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm. 16940

- The oxidation of indole-3-acetaldehyde and its 1-methyl derivative by horseradish peroxidase. 16941

- The examination of mixtures of Captan and Phalton by gas chromatography. 16944

- A rapid procedure for the identification of organochlorine pesticides in blood and tissues. 16950

CHROMIUM

- Studies on the aetiology of anaemia in chronic Fascioliasis in sheep. 16844

CHROMOSOMES

- Induction of multipolar spindles in the meiosis of Triticum aestivum as effected by acetone. 16404

- Cytogenetic observations on species A and B of the Anopheles gambiae complex. 16491

- Inherited sterility in progeny of irradiated male cabbage loopers. 16496

- Mutation and chromosomal puffing in the vicinity of the white locus of Drosophila melanogaster. 16497

- Physiological genetics of melanotic tumors in Drosophila melanogaster. IV. Gene-environment interactions of tu-bw with different third chromosome backgrounds. 16498

- A note on translocation-trisomic plant from gamma-irradiated barley. 16517

- A genetic study of leaf rust resistance in wheat. 16623

CHRYSOMELIOAE

- Ten new chrysomelid beetles from Oosinica and Jamaica. 16269

- Notes on the Chrysomelidae of soviet Armenia. 16304

SUBJECT INDEX

COPPER

- Alticinae of Gnadalupe (Col. Chrysomelidae). 16337
- CHRYSOMPHALUS**  
Biological and integrated control of citrus pests in Israel. 16336
- CHRYSOPA CARNEA**  
Field-cage releases of *Chrysopa carnea* for suppression of populations of the hollworm and the tobacco budworm on cotton. 16712
- CHYMYZA**  
Fluctuations in natural populations of *Drosophila* with special attention to sex ratio. 16261
- CICADELLIDAE**  
Notes on the tribe Stirellini (Homoptera, Cicadellidae). 16291
- The influence of controlled environments and grass hosts on the life cycle of *Endria inimica* (Homoptera: Cicadellidae). 16373
- Biology of *Deltocephalus sonorus* (Homoptera: Cicadellidae). 16394
- Proliferative symptoms in leafhoppers infected with western X-disease virus. 16696
- CICADIDAE**  
Growth, feeding activity, and the utilization of reserves in larvae of *Locusta*. 16399
- CIODEIN**  
Laboratory tests of five new insecticides as protectants for stored rough rice. 16898
- CITRUS**  
Some raphignathoid mites from Israel. 16298
- Biological and integrated control of citrus pests in Israel. 16336
- Some economics of air pollution control. 16972
- CLIMATE**  
Felted grass coccid on Rhodes grass in Queensland. 16703
- CLOSTRIDIUM**  
Determination of volatile acid production of *Clostridium* by gas chromatography. 16626
- CLOSTRIDIUM BOTULINUM**  
*Clostridium botulinum* type F in the soil of Argentina. 16909
- CLOSTRIDIUM PERFRINGENS BACTERIN**  
Enterotoxaemia in sheep in Nigeria. 16810
- CLOSTRIDIUM WELCHII**  
Anti-microbial drugs in animal feeds. 16847
- COBALT ISOTOPES**  
Effects of ionizing radiation on the European chafer, the plum curculio, and the large milkweed bug. 16422
- COCCIDAE**  
Glandular formations of the dorsal tegument of *Saissetia oleae* (Hom. Coccidae). 16391
- Felted grass coccid on Rhodes grass in Queensland. 16703
- COCCIDIOSIS**  
Naphthoquinone compounds. Patent 3,393,211. 16774
- A new anti-coccidial drug (M and B 15,497): activity studies against laboratory and field strains of *Eimeria*. 16789
- M and B 15,497: acute, sub-acute and chronic tolerance studies in chickens. 16809
- Testing the effectivity of coccidiostatics by using radio Iron-59 for the quantitative estimation of blood in the caeca and feces of chickens. 16842
- COCHLIOHOLUS CARBONUM**  
The relationship of mating capacities and polygalacturonase production in *Cochlioholus carbonum*. (Abstract). 16646
- COELONIA FULVINOTATA**  
Observations on the larvae of *Hippotion celerio* L. (Lepid., Sphingidae in Tanzania. (Abstract). 16262
- COLD**  
Responses of germinating *Rhizopus stolonifer* sporangiospores to heating, chilling, gamma irradiation, and anoxia. (Abstract). 16557
- COLEOPTERA**  
Comparison of the soil inhabiting Coleoptera from two oak-hirsch forests. 16309
- New Guinea Staphylinidae (Coleoptera). 16311
- Quantitative dietary requirements of *Oryzaephilus surinamensis* (L.) (Coleoptera: Silvanidae) for phenylalanine and tyrosine. 16378
- Small chamber tests of ethylene dibromide and ethylene dichloride on adult grain-infesting Coleoptera. 16382
- Field trials to control Colorado beetle, *Leptinotarsa decemlineata*, with *Perillus bioculatus*. 16474
- COLLADONUS MONTANUS**  
Proliferative symptoms in leafhoppers infected with western X-disease virus. 16696
- COLLAR BOT (APPLES)**  
Intergrafting, preventive measures against the 'collar rot' on apples. 16528
- COLLETERIAL GLANDS**  
Effect of *Corpora allata* on protein and RNA synthesis in colleterial glands of *Hlattella germanica*. 16486
- COLLETOTRICUM FALCATUM**  
Spread of red rot in the leaves of sugarcane plant. 16675
- COLLETOTRICUM FRAGARIAE**  
Overwintering of *Colletotrichum fragariae* in strawberry crowns. 16602
- COLOR**  
Some responses of flying *Aedes aegypti* to visual stimuli. 16481
- Hereditary change of an eye color mutant induced by DNA in *Ephesia*. 16742
- COLORADO TICK FEVER VIRUS**  
Colorado tick fever virus: an electron microscopic study. 16827
- COLORIMETRY**  
The residues of Disyston in potato tubers. 16906
- COLOSTRUM**  
Comments on combination vaccines for bovine respiratory diseases. 16793
- Bactericidal antibody studies in maternal serum, colostrum, and newborn serum of the pig. 16856
- CONIDIA**  
Cultural studies of sexual reproduction of *Ceratocystis fagacearum*. 16512
- CONOTRACHELUS MENUPHAE**  
Effects of ionizing radiation on the European chafer, the plum curculio, and the large milkweed bug. 16422
- CONTAINERS**  
'soil vessel system' or analysis of soils from diseased seedlings. 16686
- COOPERIA ONCOPHORA**  
Oral tetramisole; effect on *Dictyocaulus viviparus*, *Ostertagia ostertagi* and *Cooperia oncophora* in experimentally-infected calves. 16883
- COPPER**  
Effect of trace-elements bound to superphosphates on the resistance of potato tubers to *Phytophthora infestans* (Mont.) de Bary. 16643



SUBJECT INDEX

COEN			
CORN			
Differences in ecological responses of three biotypes of <i>Ostrinia nubilalis</i> from the north central United States.	16280	COTYLEDON ORBICULATA	Exotic plants--a hazard to animals. 16776
Electron-microscopic studies on the cytopathology of maize plants infected with the maize rough dwarf virus (MRDV).	16614	COUMAPHOS	Extermination of cattle grubs ( <i>Hypoderma</i> spp.) on a regional basis. 16759
The effect of certain fungitoxicants on the formation of endotrophic mycorrhiza by <i>Endogone fasciculata</i> on corn and on root development in seedling corn.	16649	COUMARIN	Studies on lettuce seed germination. I. Coumarin induced dormancy. 16513
The relative efficiency of ear-to-row and convergent improvement in increasing disease resistance of <i>Zea mays</i> .	16691	CRAMBE ABYSSINICA	Ammoniation process for detoxifying the seeds of <i>Crambe abyssinica</i> and rape. Patent 3,392,026. 16527
<i>Aphelenchoides echinocaudatus</i> sp. n. (Nematoda, Aphelenchoididae).	16719	CREMATOGASTER PERINGUEYI	Source of the trail pheromone and method of trail laying in the ant <i>Crematogaster peringueyi</i> . 16385
The loss of yield in a crop of sweet corn ( <i>Zea mays</i> L.) following the complete destruction of some plants at an early stage by brown rats ( <i>Rattus norvegicus</i> Berk.).	16737	CRONARTIUM	Histology of canker rusts in pines. 16618
Fungus flora, germinability and fat acidity values of stored corn.	16895	CRONARTIUM COMANDBAE	Histology of canker rusts in pines. 16618
Effect of defoliation treatments at various stages of plant development and row spacings on corn ( <i>Zea mays</i> L.) production.	16933	CRONARTIUM FUSIPOBME	Oxygen consumption and germination of <i>Cronartium fusiforme</i> aeciospores. 16694
CORN OIL		CRONARTIUM BIBICOLA	Stem and needle inoculations of eastern white pine with the blister rust fungus. 16692
Fungus flora, germinability and fat acidity values of stored corn.	16895	CROP LOSSES	Response of zigzag clover genotypes to management practices. 16529
COBPOBA ALLATA		The loss of yield in a crop of sweet corn ( <i>Zea mays</i> L.) following the complete destruction of some plants at an early stage by brown rats ( <i>Rattus norvegicus</i> Berk.).	16737
Effect of <i>Corpora allata</i> on protein and RNA synthesis in collateral glands of <i>Blattella germanica</i> .	16486	CRONARTIUM	
CORPORA CARDIACA		Humor control of the water equilibrium in <i>Locusta migratoria migratorioides</i> .	16370
CORBELATION		In vivo and in vitro decline of specific infectivity of tobacco ringspot virus correlated with nucleic acid degradation.	16671
CORTICOTROPIN		Corticosteroid overdosage in dogs.	16907
CORYNEBACTERIUM MICHIGANENSE		Application of cotyledonary symptoms in screening for resistance to tomato bacterial canker and in host range studies.	16592
A quantitative local lesion bioassay for <i>Corynebacterium michiganense</i> .	16624	CORTICOTROPIN	
COSTS		Comments on control and management of respiratory diseases in beef cattle.	16775
COTTON		Boll weevil antibiosis studies with selected cotton lines utilizing egg-implantation techniques.	16266
Influence of constituents of the cotton plant on feeding, oviposition, and development of the boll weevil.	16315	Measuring aspects of antibiosis in cotton lines to the bollworm.	16326
Effect of irrigation and submersion in water on pupal survival of the bollworm.	16483	Verticillium wilt reactions in cotton as affected by postinoculation temperatures. (Abstract).	16552
Photosynthetic activities of cotton plants infected with <i>Verticillium albo-atrum</i> .	16634	Herbicide composition and method comprising 1-(tetrahydrodicyclopentadienyl)-3,3-dimethyl urea and a salt of methyl arsonic acid. Patent 3,403,017.	16731
Effect of substrate temperature on emergence and growth of seedling cotton following in-furrow applications of Temik (10 % G formulation of nion carbide UC-21149).	16922		
		CROP YIELDS	
		Response of zigzag clover genotypes to management practices.	16529
		The loss of yield in a crop of sweet corn ( <i>Zea mays</i> L.) following the complete destruction of some plants at an early stage by brown rats ( <i>Rattus norvegicus</i> Berk.).	16737
		Effect of defoliation treatments at various stages of plant development and row spacings on corn ( <i>Zea mays</i> L.) production.	16933
		CRONARTIUM	
		Interaction of pathogenicity genes in <i>Puccinia graminis</i> f. sp. <i>tritici</i> and reaction genes in <i>Triticum aestivum</i> ssp. <i>vulgare</i> "Marquis," "Reliance," and "Kota.".	16664
		Studies on the development of insect resistant sorghum varieties and hybrids.	16767
		Cereal root eelworm pathotypes in England and Wales.	16717
		CRONARTIUM	
		Process for oxidizing soluble alkylene bisditbiocarbamates to produce an oxygen containing product, and the product of said process. Patent 3,401,182.	16591
		Insect pests of farm, garden, and orchard. SB951. D3.	16705
		CRONARTIUM	
		Overwintering of <i>Colletotrichum fragariae</i> in strawberry crowns.	16602
		CRONARTIUM	
		Crown rust resistance in tall oatgrass. (Abstract).	16551

## SUBJECT INDEX

## CULTURE MEDIA

- CRYSTALLIFEROUS BACTERIA**  
Laboratory batch production of *Bacillus thuringiensis* spores and crystals. 16380  
lipid metabolism in vitro. 16392
- CUCUMBERS**  
Cucumber anthracnose: influence of nightly wetting of leaves on numbers of lesions. 16625  
The metabolism of carbaryl (1-naphthyl-N-methylcarbamate) by the fat body of the blowfly larva *Calliphora erythrocephala*. 16440  
Factors affecting protein synthesis by the fat body of the larva of the blowfly *Calliphora erythrocephala*. 16441
- CULEX PIFIENS PIFIENS**  
Metabolic thermal adaptations in the mosquito *Culex pipiens pipiens* (Diptera: Culicidae). 16447  
Population inter-relationships. I. Evolution in mixtures of *Drosophila* mutants. 16452
- CULEX PIFIENS QUINQUEFASCIATUS**  
Sterilization of *Culex pipiens fatigans* Wiedemann by apholate. 16377  
Biological notes on, and eradication of *Trichogramma semifumatum* from laboratory cultures of eight species of *Noctuidae*. 16458  
Spermatozoan nucleus length in three strains of *Drosophila melanogaster*. 16490  
Growth of the hyperparasite *Darlucal filum* on a chemically defined medium. 16544
- Time of arrival of gravid *Culex pipiens fatigans* at an oviposition site, the oviposition cycle and the relationship between time of feeding and time of oviposition. 16500  
Cane-sugar feeding in *Culex pipiens fatigans*. 16501  
Production of the perfect stage of *Botryotinia* (*Botrytis*) *squamosa* under controlled environmental conditions. (Abstract). 16546
- CULICIDAE**  
Studies on the eradication of *Anopheles pharoensis* Theobald by the sterile-male technique using cobalt-60. VI. Sperm activity in males irradiated with the sterilizing dose. 16264  
Viability in vitro of the smallest spores of *Ceratocystis ulmi* following centrifugation and microfiltration. (Abstract). 16554  
Field tests with repellent-treated netting against black salt-marsh mosquitoes. 16300  
Selective fusaric acid (FA) production on synthetic substrates by forms of *Fusarium oxysporum*. (Abstract). 16564  
Eggs of floodwater mosquitoes (Diptera: Culicidae). XI. Effect of medium on hatching of *Aedes sticticus*. 16345  
Mycocology of willow and cottonwood lowland communities in Southern Wisconsin. I. Soil microfungi in the willow-cottonwood forests. 16584  
Mosquitoes of the genus *Culiseta* in Connecticut (Diptera: Culicidae). 16348  
Induced sporulation of *Botryodiplodia theobromae* Pat. isolated from *Araucaria cunninghamii* Ait. in Malaysia. 16587  
Experimental survival of the virus *tahyna* in hibernating mosquitoes *Theobaldia annulata* (Schrk.). 16376  
Induction of lettuce root rot under controlled environmental conditions. (Abstract). 16590  
Sterilization of *Culex pipiens fatigans* Wiedemann by apholate. 16377  
Application of cotyledonary symptoms in screening for resistance to tomato bacterial canker and in host range studies. 16592  
Observations of the spread of mycosis in mosquitoes. 16438  
Arbovirus studies in Bush Bush Forest, Trinidad, W. I. September 1959-December 1964. VI. Rodent-associated viruses (VEE and agents of group C and Guama): isolations and further studies. 16503  
Antagonism of bacteria from elm to *Ceratocystis ulmi* in vitro. (Abstract). 16606  
Measuring mosquito repellency. 16504  
Effect of trace-elements bound to superphosphates on the resistance of potato tubers to *Phytophthora infestans* (Mont.) de Bary. 16643  
Carcinogens in burning mosquito coil smoke. 16911  
Comparative morphological and physiological studies of the progenies from intraspecific matings of *Phytophthora capsici*. 16669
- CULICOIDES**  
To the knowledge of the genus *Culicoides* Latr. 1809 (Diptera, Ceratopogonidae) in Czechoslovakia. 16327  
In vivo and in vitro decline of specific infectivity of tobacco ringspot virus correlated with nucleic acid degradation. 16671
- CULISETA**  
Mosquitoes of the genus *Culiseta* in Connecticut (Diptera: Culicidae). 16348  
Effect of diurnal temperature cycles on the production of aflatoxin. 16672
- CULISETA ANNULATA**  
Experimental survival of the virus *tahyna* in hibernating mosquitoes *Theobaldia annulata* (Schrk.). 16376  
Eradication of potato virus X and S by chemotherapy and axillary bud culture. 16680
- CULTURAL CONTROL (PLANT DISEASES)**  
The role of alkaloids in the resistance of some lupin varieties to the Pea aphid *Acyrtosiphon pisum* Harris/. 16619  
Light requirement and light inhibition of sexual reproduction in *Fusarium* (*Hypomyces*) *solani* f. sp. *cucurbitae* race 2. 16689  
Integrated method of control of plant diseases caused by fungi. 16630  
Biophysical and biochemical studies on the nature of resistance of pineapples to the oriental fruit fly. 16710  
Organ culture of *Meloidogyne incognita acrita*. (Abstract). 16720
- CULTURE MEDIA**  
A new aberration of *Pieris brassicae* (Linn.) Lepidoptera, Pieridae. 16318  
Effect of the nematode *Aphelenchus avenae* on some ectotrophic, mycorrhizal fungi and on a red pine mycorrhizal relationship. 16721  
Eggs of floodwater mosquitoes (Diptera: Culicidae). XI. Effect of medium on hatching of *Aedes sticticus*. 16345  
Precipitating antibodies associated with Marek's disease. 16759  
*Candida shehatae* sp. n., a yeast associated with wood-destroying insects. 16368  
Laboratory batch production of *Bacillus thuringiensis* spores and crystals. 16380  
Antigenic, chemical, chromatographic, and electrophoretic analyses of unheated culture filtrates of *Mycobacterium bovis*. 16767  
Changes in lipid content during the reproductive cycle of *Leucophaea maderae* and effects of the juvenile hormone on detection of antibodies neutralizing the virus of infectious

## SUBJECT INDEX

## CUPRESSUS

- bovine rhinotracheitis in the serum of French cattle. 16782
- Malabsorption in Johne's disease of cattle; depressed in vitro amino-acid uptake by isolated intestinal tissue preparations. 16833
- Diagnosis of *Vibrio fetus* infection in the bull. II. An epidemiological survey using a fluorescent antibody test and comparing this with a cultural method. 16839
- A comparison of immunofluorescence and cultural techniques for demonstration of *Vibrio fetus*. 16859
- Migration of *Toxocara cati* larvae in mice. 16900
- Clostridium botulinum* type F in the soil of Argentina. 16909
- In vitro culture of a dwarf mistletoe, *Arceuthobium pusillum*. 16918
- The dissociation of *Bacillus thuringiensis*. 16923
- Translocation to and accumulation of phosphorus-32 in sclerotia of *Sclerotium rolfsii*. 16938
- A growth medium for mycoplasmas and its modification for longer survival of *M. mycoides* in culture. 16946
- Growth and metabolism of live vaccine strain of *Pasteurella tularensis*. 16966
- CUPRESSUS**
- Tolerance of some imported conifer seeds to fumigation with carbon tetrachloride. 16932
- CURCULIONIDAE**
- Contribution to the knowledge of the curculionids of the western Mediterranean Region. III. The pseudotorneuma of the Balearic Islands. 16299
- CUSCUTA SUBINCLUSA**
- Transmission by dodder of a yellows-type virus from declining white ash. (Abstract). 16596
- CUTICLE**
- Growth, feeding activity, and the utilization of reserves in larvae of *Locusta*. 16399
- The ultrastructure of insect surfaces by scanning electron microscopy. 16448
- CYCLOHEXANONES**
- 2,6-Substituted cyclohexanones as insecticides, miticides, fungicides, nematocides and herbicides. Patent 3,389,986. 16948
- CYCLOHEXIMIDE**
- Response and recovery on X-irradiated *Tribolium confusum* larvae. 16482
- CYNIPIIDAE**
- Defense reactions of *Drosophila* species (Diptera: Drosophilidae) to the parasite *Pseudeucoila bochei* (Hymenoptera: Cynipidae). 16459
- CYNODON DACTYLON**
- Effect of light on sporulation of *Helminthosporium stenospilum*. (Abstract). 16576
- Bermuda grass thatch decomposition in relation to spring dead spot. (Abstract). 16635
- CYSTATSIONINE**
- Amino acid requirements and sulfur amino acid metabolism in the pea aphid, *Acyrtosiphon pisum* (Harris). 16334
- CYSTINE**
- Amino acid requirements and sulfur amino acid metabolism in the pea aphid, *Acyrtosiphon pisum* (Harris). 16334
- A study of a melanic mutant of the blowfly *Lucilia cuprina*. 16395
- CYTOGENETICS**
- Cytogenetic observations on species A and B of the *Anopheles gambiae* complex. 16491
- CYTOKININS**
- Effects of cytokinins on the absorption of victorin. 16627
- CYTOLOGY**
- Contribution to the histochemical study of the digestive organs of *Rhagium bifasciatum*. (Col. Cerambycidae). 16390
- A note on translocation-trisomic plant from gamma-irradiated barley. 16517
- Radiation-induced damage in vegetative tissues of *Pinus rigida* Mill. 16526
- Electron-microscopic studies on the cytopathology of maize plants infected with the maize rough dwarf virus (MRDV). 16614
- An undescribed gall midge leaf spot of balsam poplar. 16697
- Cytochemical studies with African horse sickness virus by fluorescent microscopy. 16822
- A study of the ultrastructure of the intestinal epithelial cells of piglets infected with a transmissible gastroenteritis virus. 16854
- CYTOPLASM**
- Electron microscopy of X-body formation in cells of cabbage infected with Brassica virus 3. 16665
- Colorado tick fever virus: an electron microscopic study. 16827
- CYTOSINE**
- Glutamic acid requirements of the saw-toothed grain beetle, *Oryzaephilus surinamensis* (L.) (Coleoptera, Silvanidae). 16286
- CYTOSPORA**
- Three-year effects of systemic fungicides applied for the control of *Cytospora* in Italian prune tree. 16594
- D-GLUCOSE**
- Studies on the absorption and metabolism of D-(u-14C) glucose by *Polymorphus minutus* (Acanthocephala) in vitro. 16873
- D, 2,4-**
- Uptake and metabolism of indoleacetic acid, naphthalene-acetic acid, and 2,4-dichlorophenoxyacetic acid by pea root segments in relation to growth inhibition during and after auxin application. 16511
- Stimulation by 2,4-D and 2,4-D plus Fe EDTA of 32P uptake by bean seedlings (*Phaseolus vulgaris*). 16573
- The effect of 2,4-dichlorophenoxyacetic acid upon the metabolism and composition of soybean hypocotyl mitochondria. 16916
- DACUS DORSALIS**
- Biophysical and biochemical studies on the nature of resistance of pineapples to the oriental fruit fly. 16710
- DAIRY CATTLE**
- Comments on management of respiratory diseases of dairy cattle. 16777
- Management of respiratory diseases in dairy cattle. 16781
- Comments on management of respiratory diseases in dairy cattle. 16790
- Comments on bovine respiratory infections in northeastern dairy cattle. 16796
- Comments on combination vaccines for bovine respiratory diseases. 16836
- DARLUCA FILUM**
- Growth of the hyperparasite *Darlucal filum* on a chemically defined medium. 16504
- DATURA FEROX**
- Erratum: the interaction of the seed coat and gibberellic acid in the germination of *Datura ferox* L. 16734



SUBJECT INDEX

DICHLORO-4-NITROANILINE, 2,6-

DDT		DERMACENTOR ANDERSONI	
Use of <i>Daphnia magna</i> for the microbioassay of pesticides. I. Development of standardized techniques for rearing <i>Daphnia</i> and preparation of dosage-mortality curves for pesticides.	16295	The distribution of <i>Dermacentor</i> ticks in Canada in relation to bioclimatic zones.	16350
Use of <i>Daphnia magna</i> for the microbioassay of pesticides. II. Comparison of microbioassay with gas chromatography for analysis of pesticide residues in plant extracts.	16296	DERMACENTOR VARIABILIS	
Evidence for the DDT-INDUCED synthesis of messenger ribonucleic acid in <i>Triatoma infestans</i> .	16423	The distribution of <i>Dermacentor</i> ticks in Canada in relation to bioclimatic zones.	16350
Some physiological effects of sublethal doses of DDT on flour beetles.	16462	DETERGENTS	
The use of organochlorine insecticides and possible alternatives against leatherjackets.	16715	Acute toxicity of n-alpha-olefin sulfonates.	16912
DEATH		DEUTEROMYCETES	
Wild animal losses through poisons.	16792	Fungi on <i>Bougainvillea spectabilis</i> Willd.	16661
DECLINE (PEACHES)		DIABROTICA	
Activity of soil fumigants in relation to increased growth response and control of decline and bacterial canker in trees of <i>Prunus persica</i> . (Abstract).	16566	Laboratory evaluation of peanut varieties for resistance to the southern corn rootworm.	16277
DEER		DIAGNOSIS	
On the relationship between the structure and the growth of the scales of <i>Fasciola hepatica</i> .	16887	The haematology of lymphosarcoma in the cat.	16764
DEFICIENCY DISEASES		Exotic plants--a hazard to animals.	16776
Selenium-responsive diseases of animals in New Zealand.	16746	Comments on management of respiratory diseases in dairy cattle.	16790
Immunological response of the pig as affected by amino acid nutrition.	16815	Reoviruses.	16806
DEFOLIATION		Comments on clinical signs of respiratory diseases in feedlot cattle.	16812
Relationship of clipping frequency to root and crown deterioration in red clover.	16673	Tansy ragwort ( <i>Senecio jacobaea</i> ), a potential menace to livestock.	16828
Effect of defoliation treatments at various stages of plant development and row spacings on corn ( <i>Zea mays</i> L.) production.	16933	Diagnosis of bovine tuberculosis with tuberculin reaction.	16829
DELTOCEPHALUS SONORUS		Diagnosis of <i>Vibrio fetus</i> infection in the bull. II. An epidemiological survey using a fluorescent antibody test and comparing this with a cultural method.	16839
Biology of <i>Deltocephalus sonor</i> (Homoptera: Cicadellidae).	16394	A comparison of immunofluorescence and cultural techniques for demonstration of <i>Vibrio fetus</i> .	16859
DEMOGRAPHY		The natural history of bovine myxovirus parainfluenza-3.	16860
Population ecology of feral house mice.	16899	Infectious bovine rhinotracheitis.	16862
DENDROCTONUS OBESUS		Thallium poisoning in cats.	16915
Attractiveness of logs containing female spruce beetles, <i>Dendroctonus obesus</i> (Coleoptera: Scolytidae).	16381	DIANTHUS CARYOPHYLLUS	
DENSITY		Symptom expression and varietal susceptibility in carnation, <i>Dianthus caryophyllus</i> , inoculated with the carnation strain of <i>Erwinia chrysanthemi</i> .	16645
Survival of root-infecting fungi in soil. VI. Effect of amendments on bean root rot caused by <i>Thielaviopsis basicola</i> and on inoculum density of the causal organism.	16653	The first occurrence of disease of the carnation caused by <i>Pseudomonas caryophylli</i> (Burkholder) Starr et Burkholder in Hungary.	16648
Evidence for polysomes in extracts of bean rust uredospores.	16682	DIAPAUSE	
DEOXYRIBONUCLEIC ACID		An interesting parasite of Thysanoptera: <i>Tetrastichus gentilei</i> (Hym. Chalcididae).	16365
Effects of ecysone on epidermal cells in which DNA synthesis has been blocked.	16428	DIAPRANIA NITIDALIS	
Physiological genetics of melanotic tumors in <i>Drosophila melanogaster</i> . IV. Gene-environment interactions of tu-bw with different third chromosome backgrounds.	16498	Evaluation of insecticides for control of pickleworm on summer squash.	16472
The physiology of host-parasite relations. XIX. Further observations on nucleoprotein changes in wheat leaf nuclei during rust infection.	16547	DIARRHEA	
Hereditary change of an eye color mutant induced by DNA in <i>Ephesia</i> .	16742	Oedema disease in pigs.	16758
Polynucleotide homologies of <i>Brucella</i> deoxyribonucleic acids.	16794	DIATRAEA GRANDIOSELLA	
DERMACENTOR ALBIPICTUS		Studies on the development of insect resistant sorghum varieties and hybrids.	16707
The distribution of <i>Dermacentor</i> ticks in Canada in relation to bioclimatic zones.	16350	DIAZINON	
		Resistance levels in diazinon-pressured and nonpressured polyresistant house flies.	16493
		Parathion resistance in house fly populations in the Savannah, Georgia, area.	16495
		Field studies on control of lygus bugs and onion thrips infesting safflower.	16567
		DICHLORO-4-NITROANILINE, 2,6-	
		Mode of action of 2,6-dichloro-4-nitroaniline (DCNA) in <i>Rhizopus arrhizus</i> .	16937

## SUBJECT INDEX

- DICHLOROPROPIONANILIDE, 3',4'-  
 DICHLOROPROPIONANILIDE, 3',4'-  
 3',4'-Dichloropropionanilide. Patent 3,382,28D. 16727
- DICHLOROVINYL PHOSPHATE, 2,2-  
 Coated 2,2-dichlorovinyl phosphate and polyvinyl chloride resin anthelmintic compositions. Patent 3,398,225. 16871
- DICHLORVOS  
 Mortality of nasal bots in sheep treated with systemic insecticides. 1633D  
 Experiences with a new broad-spectrum anthelmintic dichlorvos, in the adult pig. 1674D  
 Controlling short-nosed cattle lice with dichlorvos resin strips. 16868
- DICTYOCAULUS FILARIA  
 Pneumonia of sheep in Kenya. I. Bacterial and parasitic pneumonia. 16855  
 Anthelmintics for Dictyocaulus filaria in sheep. 16886
- DICTYOCAULUS VIVIPARUS  
 Oral tetramisole; effect on Dictyocaulus viviparus, Osteragia ostertagi and Cooperia oncophora in experimentally-infected calves. 16883  
 Studies on immunity of calves to Dictyocaulus viviparus reinfection. II. Relationship between the age of calves and the dose of larvae causing clinical and lethal course of dictyocaulosis. 16888  
 Studies on immunity of calves to Dictyocaulus viviparus reinfection. I. Immunization with single and double doses of normal or irradiated larvae. 16889
- DIEBACK (ULMDS)  
 An evaluation of Bidrin for control of Scolytus multi-striatus, the primary vector of Ceratocystis ulmi. 16709
- DIELDRIN  
 Cabbage maggot resistance to organochlorine insecticides. 16317  
 The adsorption of chlorinated hydrocarbon pesticides on an unconsolidated aquifer substrate. 16901
- DIET  
 Glutamic acid requirements of the saw-toothed grain beetle, Oryzaephilus surinamensis (L.) (Coleoptera, Silvanidae). 16286  
 Quantitative dietary requirements of Oryzaephilus surinamensis (L.) (Coleoptera: Silvanidae) for phenylalanine and tyrosine. 16378  
 Treatment of salt poisoning in pigs. 16745
- DIPFDSION  
 Immunochemical analysis of the origin of a sex-specific accumulated blood protein in female houseflies. 16364  
 Inoculation of multipolar spindles in the meiosis of Triticum aestivum as effected by acetone. 16404  
 The serological differentiation of viruses in the tick-borne encephalitis subgroup by the gel-diffusion method. 165D2  
 Chemical composition and biophysical properties of tomato ringspot virus. 16690
- DIFLUORO-2,4-DINITROBENZENE, 1,5-  
 The effect of substituted decenyl succinic acid (DSA), amides, esters, and 1,5-difluoro-2,4-dinitrobenzene (DFDNB) on preventing blossom freezing injury. (Abstract). 16597
- DIHYDRO-4H-1,3-THIAZINE, 5,6-  
 Novel thiazine and thiazoline anthelmintic agents. Patent 3,390,148. 1687D
- DIHYDRO-5-CARBOXYMILIDO-6-METHYL-1,4-OXATHIIN, 2,3-  
 Biological decomposition of an oxathiin fungicide. (Abstract). 16571  
 Systemic oxathiin fungicide for control of loose smut (Ustilago tritici) of winter wheat. (Abstract). 16589
- DIMETHYL-2,2-DIPHENYLACETAMIDE, N,N-  
 The relative effect of N,N-dimethyl-2,2-diphenylacetamide on root and shoot growth. 16934
- DIMETHYLBITHIOCARBAMOYL S-ALKYLDITHIOCARBONATES  
 Diethylthiocarbamoyl s-alkyldithiocarbonates. Patent 3,398,181. 16957
- DIPLODIA NATALENSIS  
 Entry of stem-end rot fungi in Florida oranges. (Abstract). 16555
- DIPPING  
 Mass sterilization of Japanese beetles with tepa and the determination of residues. 16412
- DIPTERA  
 The increasing Chaoborid midge problem in California. 16284  
 New Therevidae from Argentina. 16325  
 Some ectoparasites from West Virginia mammals. II. 16339  
 Comparative studies of the labellar sensitivity of female tabanids (Diptera) to sucrose and sodium chloride. 16413  
 Evidence of winged insect sexual dimorphism in Philophylla heraclei (Dipt. Trypetidae) through use of a "photopectrometre". 16419
- DISTILLED WATER  
 Extraction of organochlorine and organophosphate insecticides from lake waters. 16964
- DISULFOTON  
 Field evaluation of insecticides for the control of aphids on potatoes. 16657  
 The residues of Disyston in potato tubers. 16906
- DITHIOCARBAMATES  
 Process for oxidizing soluble alkylene bisdithiocarbamates to produce an oxygen containing product, and the product of said process. Patent 3,401,182. 16591  
 Biochemical action of thiram and some dialkyldithiocarbamates. 16528
- DITYLENCHUS DIPSACI  
 Electron microscopical studies on Ditylenchus dipsaci (Kuhn). Stomatal region. 16484
- DIURESIS  
 Humor control of the water equilibrium in Locusta migratoria migratorioides. 1637D
- DIDENAL RHYTHM  
 Temperature compensation of the circadian oscillation in Drosophila pseudoobscura and its entrainment by temperature cycles. 16487  
 Effect of diurnal temperature cycles on the production of aflatoxin. 16672
- DOGS  
 Assessment of the usefulness of the examination of a gram smear of fresh uncentrifuged urine in the determination of significant bacteriuria in dogs. 16739  
 Spirocerca lupi infection in two central Texas dogs. 16872  
 Recent information on the biology of Echinococcus granulosus and Echinococcosis. 16879  
 Corticosteroid overdosage in dogs. 16907
- DOMINANCE  
 A formula for determining degree of dominance in cases of monofactorial inheritance of resistance to chemicals. 16499
- DOSAGE  
 Chemosterilization of the tobacco budworm: a survey of 21 compounds applied topically. 16386  
 The permanent and cumulative effect of tepa-induced sterility in male Japanese beetles. 16411  
 Dosage compensation as a developmental phenomenon in Drosophila. 16416

## SUBJECT INDEX

DYES

- Short-term effects of crustecdysone (20-hydroxyecdysone) on protein and rna synthesis in third instar larvae of Calliphora. 16437
- Some physiological effects of sublethal doses of DDT on flour beetles. 16462
- Response and recovery on X-irradiated Tribolium confusum larvae. 16482
- Action of aqueous iodine on ova of Ascaris lumbricoides an Ascaris suum. 16716
- A new anti-coccidial drug (M and B 15,497): activity studies against laboratory and field strains of Eimeria. 16789
- Comments on bovine viral diarrhea-mucosal disease. 16791
- M and B 15,497: acute, sub-acute and chronic tolerance studies in chickens. 16809
- Calf diphtheria. 16811
- Potency evaluation of vaccines used against bovine respiratory diseases. 16838
- Comments on the role of natural antibody in immunologic competence. 16843
- Efficacy of tetramisole. Studies on the efficacy of tetramisole in the treatment of pre-type II and type II bovine ostertagiasis. 16882
- Corticosteroid overdosage in dogs. 16907
- Effect of substrate temperature on emergence and growth of seedling cotton following in-furrow applications of Temik (10 % G formulation of union carbide UC-21149). 16922
- DROSOPHILA**  
Fluctuations in natural populations of Drosophila with special attention to sex ratio. 16261
- Defense reactions of Drosophila species (Diptera: Drosophilidae) to the parasite Pseudeucoila bochei (Hymenoptera: Cynipidae). 16459
- DROSOPHILA MELANOGASTER**  
Whole body turnover of potassium traced by radiorubidium in adult Drosophila (Drosophilidae) and Megaselia (Phoridae). 16384
- Distribution of sperm in the storage organs of the Drosophila melanogaster female at various levels of insemination. 16387
- Hexosamine metabolism in imaginal disks of Drosophila melanogaster. 16388
- Comparative morphology of the genital area of triploid intersexes of Drosophila melanogaster. 16415
- Population inter-relationships. I. Evolution in mixtures of Drosophila mutants. 16452
- Spermatozoan nucleus length in three strains of Drosophila melanogaster. 16490
- Mutation and chromosomal puffing in the vicinity of the white locus of Drosophila melanogaster. 16497
- Physiological genetics of melanotic tumors in Drosophila melanogaster. IV. Gene-environment interactions of tu-bw with different third chromosome backgrounds. 16498
- DROSOPHILA NIGROSPIRACULA**  
Supercooling of the saguaro species Drosophila nigrospiracula in the Sonoran Desert. 16425
- DROSOPHILA PSEUDOOBSCURA**  
Temperature compensation of the circadian oscillation in Drosophila pseudoobscura and its entrainment by temperature cycles. 16487
- DROSOPHILA REPLETA**  
Whole body turnover of potassium traced by radiorubidium in adult Drosophila (Drosophilidae) and Megaselia (Phoridae). 16384
- DROSOPHILA SIMULANS**  
Population inter-relationships. I. Evolution in mixtures of Drosophila mutants. 16452
- DROSOPHILIDAE**  
An annotated key to drosophilid genera with bare or micropubescent arista and a revision of Paracacoxenus (Diptera: Drosophilidae). 16316
- Two new species of Drosophila of the Saltans group (Drosophilidae, Diptera). 16323
- Comparative morphology of the genital area of triploid intersexes of Drosophila melanogaster. 16415
- Dosage compensation as a developmental phenomenon in Drosophila. 16416
- Supercooling of the saguaro species Drosophila nigrospiracula in the Sonoran Desert. 16425
- Population inter-relationships. I. Evolution in mixtures of Drosophila mutants. 16452
- DRUG THERAPY**  
Chemosterilization of the tobacco budworm: a survey of 21 compounds applied topically. 16386
- Histochemical localization of catecholamines in the brain of normal and drug-treated cockroaches. 16389
- The permanent and cumulative effect of tepa-induced sterility in male Japanese beetles. 16411
- Risk of resistance to chloramphenicol. 16761
- Comments on control and management of respiratory diseases in beef cattle. 16763
- Naphthoquinone compounds. Patent 3,393,211. 16774
- Management of respiratory diseases in dairy cattle. 16781
- A new anti-coccidial drug (M and B 15,497): activity studies against laboratory and field strains of Eimeria. 16789
- M and B 15,497: acute, sub-acute and chronic tolerance studies in chickens. 16809
- Efficacy of tetramisole. Studies on the efficacy of tetramisole in the treatment of pre-type II and type II bovine ostertagiasis. 16882
- Imidocarbonates. Patent 3,401,201. 16967
- DRUGS**  
Anti-microbial drugs in animal feeds. 16847
- DUCKS**  
Studies on the absorption and metabolism of D-(u-14C) glucose by Polymorphus minutus (Acanthocephala) in vitro. 16873
- Trypanosoma dafilae sp. n. and Leucocytozoon anatis Wickware, 1915 in the northern pintail (Dafila acuta acuta L.). 16893
- DURUM WHEAT**  
The influence of controlled environments and grass hosts on the life cycle of Endria inimica (Homoptera: Cicadellidae). 16373
- Serological detection of wheat striate mosaic virus in extracts of wheat plants and vector leafhoppers. 16677
- DWARF DISEASE (CORN)**  
The effects of maize dwarf mosaic virus on macro- and microelement accumulation in corn tissue of resistant and susceptible hybrids. (Abstract). 16631
- Two genetic systems control disease reaction to strains A and B of maize dwarf mosaic virus. (Abstract). 16695
- DYES**  
Vital dyes as markers for behavioral and population studies of the larch sawfly, Pristiphora erichsonii (Hymenoptera: Tenthredinidae). 16398
- Value of a plant growth retardant for isolating soil fungi.



SUBJECT INDEX

OYSDERCUS INTERMEDIUS

	16920	viruses S, X, and Y.	16667
<b>DYSDERCOS INTERMEDIUS</b>		<b>ELECTRON MICROSCOPY</b>	
Identification and functions of secretion from the posterior scent gland of fifth instar larva of the bug <i>Dysdercus intermedius</i> .	16274	Electron microscopical proof of the presence of sugar beet yellows virus particles in the roots of sugar beets.	16560
<b>OYSENTEBY</b>		A study of tubes produced in plants infected with a strain of turnip yellow mosaic virus.	16598
<i>Nosema apis</i> and dysentery of the honeybee.	16359	Electron microscopy of uredospores of <i>Melaampsora lini</i> and of rust infected flax.	16633
<b>EASTERN EQUINE ENCEPHALOMYELITIS VIRUS</b>		Electron microscopy of X-body formation in cells of cabbage infected with Brassica virus 3.	16665
Growth of arboviruses in primary tissue culture of <i>Aedes aegypti</i> embryos.	16508	Evidence for polysomes in extracts of bean rust uredospores.	16682
<b>ECOYSONE</b>		Effects of ultrasonic treatment on turnip mosaic virus and potato virus X.	16688
Effects of ecoyzone on epidermal cells in which OWA synthesis has been blocked.	16428	Colorado tick fever virus: an electron microscopical study.	16827
Short-term effects of crustecdysone (20-hydroxyecdysone) on protein and rna synthesis in third instar larvae of <i>Calliphora</i> .	16437	<b>ELECTROPHORESIS</b>	
<b>ECHINOCOCCOSIS</b>		Left colleterial proteins in the viviparous cockroach <i>Nauphoeta cinerea</i> .	16354
Recent information on the biology of <i>Echinococcus granulosis</i> and <i>Echinococcosis</i> .	16879	Immunochemical analysis of the origin of a sex-specific accumulated blood protein in female houseflies.	16364
<b>ECHINOCOCCUS GRANULOSUS</b>		The separation and characterization of the haemolymph proteins of several insects.	16473
Recent information on the biology of <i>Echinococcus granulosis</i> and <i>Echinococcosis</i> .	16879	Differentiation of three species of <i>Phytophthora</i> by polyacrylamide gel electrophoresis. (Abstract).	16583
The evagination of <i>Echinococcus granulosis</i> scolices from lung cysts of bovine origin.	16885	Chromatographic purification of a single viral protein in sandal spike.	16636
<b>ECOLOGY</b>		Chemical composition and biophysical properties of tomato ringspot virus.	16690
The aquatic Acarina of Sweden. III.	16427	Pathologic effects of <i>Escherichia coli</i> 063:K:NM in gnotobiotic pigs.	16753
Recent advances in techniques for tsetse fly control: with special reference to northern Nigeria.	16506	Immunologic response of rabbits to <i>Mycobacterium bovis</i> ; chemical, electrophoretic and antigenic analyses of bacillary extracts.	16766
A thesis of Mme G. Ricou, on lasting prairie pasturage, a biocenological study of natural environment.	16514	Antigenic, chemical, chromatographic, and electrophoretic analyses of unheated culture filtrates of <i>Mycobacterium bovis</i> .	16767
<b>ECONOMICS</b>		The effect of 2,4-dichlorophenoxyacetic acid upon the metabolism and composition of soybean hypocotyl mitochondria.	16916
Economics of the application of molluscicides to flowing water.	16403	<b>EMBRYOLOGY</b>	
<b>EDEMA</b>		Segmentation and organogenesis in <i>Limnoria lignorum</i> (Ratke) (Isopoda).	16460
Oedema disease in pigs.	16758	Embryology of the house fly, <i>Musca domestica</i> (Diptera: Muscidae), to the blastoderm stage.	16477
<b>EGGS</b>		Detection of antibodies neutralizing the virus of infectious bovine rhinotracheitis in the serum of French cattle.	16782
M and R 15,497: acute, sub-acute and chronic tolerance studies in chickens.	16809	Role of genetic factors and fowl pox virus in parthenogenesis in turkey eggs.	16831
Infectious bronchitis in laying fowls; its effect upon egg production and subsequent egg quality.	16814	<b>ENCEPHALITIS</b>	
Preliminary investigation of methods for evaluating inactivated vaccines for infectious bronchitis virus.	16821	The serological differentiation of viruses in the tick-borne encephalitis subgroup by the gel-diffusion method.	16502
Salmonellosis typhimurium. Some epidemiological and therapeutical problems of salmonellosis.	16846	<b>ENOOGONE FASCICULATA</b>	
A physiological study of the development of the egg of <i>Fasciola hepatica</i> L., the common liver fluke.	16891	The effect of certain fungitoxicants on the formation of endotrophic mycorrhiza by <i>Endogone fasciculata</i> on corn and on root development in seedling corn.	16649
Migration of <i>Toxocara cati</i> larvae in mice.	16900	<b>ENDRIA INIMICA</b>	
<b>EIMERIA TENELLA</b>		The influence of controlled environments and grass hosts on the life cycle of <i>Endria inimica</i> (Homoptera: Cicadellidae).	16373
Testing the effectivity of coccidiostatics by using radio Iron-59 for the quantitative estimation of blood in the caeca and feces of chickens.	16842	Multiplication of wheat striate mosaic virus in its leafhopper vector <i>Endria inimica</i> .	16676
<b>ELECTROLYTES</b>		Serological detection of wheat striate mosaic virus in extracts of wheat plants and vector leafhoppers.	16677
Whole body turnover of potassium traced by radiorubidium in adult <i>Orosophila</i> ( <i>Orosophilidae</i> ) and <i>Megaselia</i> ( <i>Phoridae</i> ).	16384		
<b>ELECTRON MICROSCOPES</b>			
The ultrastructure of insect surfaces by scanning electron microscopy.	16448		
Electron microscopical studies on <i>Oitylenchus dipsaci</i> (Kuhn). Stomatal region.	16484		
Electron-microscopical studies on the cytopathology of maize plants infected with the maize rough dwarf virus (MRDV).	16614		
A comparison of the electron microscope, microprecipitin tests, and indicator plants for the detection of potato			

## SUBJECT INDEX

ERWINIA AMYLOVORA

- ENDRIN**  
Residues of aldrin, endrin, and heptachlor in peanuts grown in treated soil. 16904 A study of immunity against *Pasteurella multocida* in buffalo calves and their carrier status. 16823
- ENTEROBACTERIACEAE**  
Multiple drug resistance. 16965 Comments on bovine adenoviruses. 16825
- ENTEROTOXEMIA**  
Enterotoxaemia in sheep in Nigeria. 16810 Diagnosis of *Vibrio fetus* infection in the hull. II. An epidemiological survey using a fluorescent antibody test and comparing this with a cultural method. 16839
- ENTOMOLOGY**  
Mosquitoes of the genus *Culiseta* in Connecticut (Diptera: Culicidae). 16348 Salmonellosis typhimurium. Some epidemiological and therapeutical problems of salmonellosis. 16846  
Evaluation of insecticides for control of pickleworm on summer squash. 16472 Isolation of *Listeria monocytogenes* from vegetation. 16857  
Recent information on the biology of *Echinococcus granulosus* and Echinococcosis. 16879
- ENTOMOPHTHROTHORACEAE**  
*Triplosporium tetranychi* sp. n. (Phycomycetes, Entomophthoraceae), a fungus infecting the red mite *Tetranychus althaeae* Hanst. 16476 Epidemiological studies of fascioliasis; a third season of comparative studies with cattle. 16884
- ENVIRONMENT**  
Fluctuations in natural populations of *Drosophila* with special attention to sex ratio. 16261 The estimation of epinephrine, norepinephrine, and aldrin (a chlorinated naphthalene derivative) in mammalian tissue employing biological and chemical methods of assay, and some considerations of toxicological effects of aldrin. 16908  
The influence of controlled environments and grass hosts on the life cycle of *Endria inimica* (Homoptera: Cicadellidae). 16373  
Spermatozoan nucleus length in three strains of *Drosophila melanogaster*. 16490
- ENVIRONMENTAL CONTROL**  
A dynamic-equilibrium illuminated temperature-, humidity-, and pollutant-controlled plant fumigation chamber. (Abstract). 16559
- ENZYMES**  
Chemical composition of the cell wall of *Bacillus thuringiensis* var. *thuringiensis*. 16406  
Permeability changes in *Phaseolus aureus* associated with infection by *Rhizoctonia solani*. 1662D  
Indoleacetic acid oxidase activity in banana roots. 16629  
The relationship of mating capacities and polygalacturonase production in *Cochliobolus carbonum*. (Abstract). 16646  
Oligosaccharidases from *Macracanthorhynchus hirudinaceus* (Acanthocephala) from swine. 16875  
Enzymatic and morphologic modifications in *Brucella* treated with interferon. 16921  
Purification and properties of fructose diphosphate aldolase from *Fusarium oxysporum* f. *lycopersici*. 16924  
The oxidation of indole-3-acetaldehyde and its 1-methyl derivative by horseradish peroxidase. 16941
- EPHEMERA SIMULANS**  
Ecological significance of respiration and substrate for burrowing Ephemeroptera. 16383
- EPHEMEROPTERA**  
Ecological significance of respiration and substrate for burrowing Ephemeroptera. 16383
- EPHESTIA**  
Hereditary change of an eye color mutant induced by DNA in *Ephestia*. 16742
- EPICAUTA**  
Bionomics, sexual behavior, and adult anatomy of the alhida group of the genus *Epicauta* (Coleoptera: Meloidae). 16430
- EPIDEMIOLOGY**  
Some problems of the studies on narrow leaf virus disease of yellow lupin. 16549  
Oedema disease in pigs. 16758  
A survey of wild animals as potential reservoirs of trypanosomiasis in the Ulanga District (Tanzania). 1678D
- EPITHELIUM**  
A study of the ultrastructure of the intestinal epithelial cells of piglets infected with a transmissible gastroenteritis virus. 16854
- EPITRIX**  
Insecticides applied to the soil for control of eight species of insects on Irish potatoes in Virginia. 16706
- EPIZOOTIC DISEASES**  
The microflora of fodders associated with bovine respiratory disease. 168D5  
Bovine respiratory infections. 16816  
The natural history of bovine myxovirus parainfluenza-3. 16860  
A survey on subclinical infection with bovine epizootic fever. 16861  
Pneumonia in cattle due to migrating *Ascaris lumbricoides* larvae. 16880
- EQUINE ENCEPHALOMYELITIS**  
A note on experimental rabies in the donkey. 16772
- EQUIRE HERPESVIRUSES**  
The growth cycle of equine herpes 3 virus as compared with other viruses of the herpes group. 16797
- EQUIPMENT**  
An environmental cabinet with variable air velocity for insect studies. 16338  
The ultrastructure of insect surfaces by scanning electron microscopy. 16448  
Some responses of flying *Aedes aegypti* to visual stimuli. 16481  
Measuring mosquito repellency. 165D4  
An exposure chamber for studying the effects of air pollution on plants. (Abstract). 16532  
A dynamic-equilibrium illuminated temperature-, humidity-, and pollutant-controlled plant fumigation chamber. (Abstract). 16559  
A settling tower for quantitative inoculation of leaf blades of mature small grain plants with urediospores. 16574
- ERIGESOM**  
A new Pleotrichophorus living of *Erigeron*. (Hom. Aphididae). 16312
- ERWINIA AMYLOVORA**  
*Erwinia amylovora* (Burr.) Winsl. in Poland. 16550

SUBJECT INDEX

ERWINIA CHRYSANTHEMI

ERWINIA CHRYSANTHEMI

Symptom expression and varietal susceptibility in carnation, *Dianthus caryophyllus*, inoculated with the carnation strain of *Erwinia chrysanthemi*. 16645

ERYSIPHE GRAMINIS HORDEI

Studies of the development of powdery mildew (*Erysiphe graminis* f. sp. *hordei* Marchal) on barley. II. Primary appressoria formation. 16654

ERYSIPHE POLYGONI

Systemic action of 2-chloro-4-diisobutyl-6-nitrophenol against powdery mildew of snapbean. (Abstract). 16572

ERYTHROCYTES

The effect of *Anaplasma marginale* infection on the metabolic and osmotic behavior of bovine erythrocytes. 16813

Testing the effectivity of coccidiostatics by using radio Iron-59 for the quantitative estimation of blood in the caeca and feces of chickens. 16842

Studies on the aetiology of anaemia in chronic Fascioliasis in sheep. 16844

ESCHERICHIA COLI

The distribution of certain *Escherichia coli* strains in pigs and their environment. 16747

Pathologic effects of *Escherichia coli* 083:K:NM in gnotobiotic pigs. 16753

Risk of resistance to chloramphenicol. 16761

*Mycoplasma gallisepticum* infection and boiler weight. 16820

Anti-microbial drugs in animal feeds. 16847

ESCHERICHIA COLI BACTERIN

Polynucleotide homologies of *Brucella* deoxyribonucleic acids. 16794

ESOPHAGUS

Labor control of the water equilibrium in *Locusta migratoria migratorioides*. 16370

ESTERS

The effect of substituted decenyl succinic acid (DSA), amides, esters, and 1,5-difluoro-2,4-dinitrobenzene (DFDNE) on preventing blossom freezing injury. (Abstract). 16597

Lower aliphatic esters of N-phenyl and N-m-Chlorophenyl carbamic acid containing an acyl group. Patent 3,393,224. 16724

Herbicide tropolone esters. Patent 3,399,989. 16725

Method of destroying undesirable plants. Patent 3,397,977. 16732

Method for the preparation of O,O-dimethyl-S-(1,2-dicarb-ethoxyethyl)dithiophosphate. Patent 3,403,201. 16942

Nematocidal 2,4-dihalophenyl esters of ethanesulfonic acid ethers and alcohols. Patent 3,401,222. 16956

N,N'-sulfonyl-bis-(carbamoylphosphonic acid esters). patent 3,401,214. 16959

ETCH (TOBACCO)

Nuclear crystals in zinnia and other nonsolanaceous plants infected with tobacco etch virus. 16659

ETHANESULFONIC ACIDS

Nematocidal 2,4-dihalophenyl esters of ethanesulfonic acid ethers and alcohols. Patent 3,401,222. 16956

ETHERS

Monofluorophenyl-4'-nitrophenylether derivatives as herbicides. Patent 3,401,031. 16728

Herbicide ether. Patent 3,388,171. 16729

Nematocidal 2,4-dihalophenyl esters of ethanesulfonic acid ethers and alcohols. Patent 3,401,222. 16956

ETRICON

Use of *Daphnia magna* for the microbiassay of pesticides. II. Comparison of microbiassay with gas chromatography for analysis of pesticide residues in plant extracts. 16296

ETHYL METHANESULFONATE

Somatic aberrations in *Solanum tuberosum* induced by ethyl methane sulfonate and X-irradiation. 16936

ETHYL 6-M-DECYLOXY-7-ETHOXY-4-HYDROXYQUINOLINE-3-CARBOXYLATE

A new anti-coccidial drug (M and E 15,497): activity studies against laboratory and field strains of *Eimeria*. 16789

M and E 15,497: acute, sub-acute and chronic tolerance studies in chickens. 16809

ETHYLENE DIBROMIDE

Small chamber tests of ethylene dibromide and ethylene dichloride on adult grain-infesting Coleoptera. 16382

ETHYLENE DICHLORIDE

Small chamber tests of ethylene dibromide and ethylene dichloride on adult grain-infesting Coleoptera. 16382

ETHYLENEDIAMINETETRAACETIC ACID

Stimulation by 2,4-D and 2,4-D plus Fe ED4A of 32P uptake by bean seedlings (*Phaseolus vulgaris*). 16573

EULOPEIDAE

An interesting parasite of Thysanoptera: *Tetrastichus gentilei* (Hym. Chalcididae). 16365

EVOLUTION

The evolution of apple and pear tree spot disease during the year 1966. 16540

EWINGANA

Two new species of the genus *Ewingana* (Acarina: Myobiidae) from Cuba. 16288

EXCRETA

Some physiological effects of sublethal doses of DDT on flour beetles. 16462

EXPERIMENTAL INSECTS

Chemosterilization of the tobacco budworm: a survey of 21 compounds applied topically. 16386

Laboratory research on *Acarapis woodi* Rennie, the causative agent of acarine disease of the honeybee. note 5. 16393

Insecticides for control of the lone star tick tested in the laboratory and as high- and ultra-low-volume sprays in wooded areas. 16434

Flight activity of honeybees in a flight and rearing room. I. The influence of light intensity. 16436

Biological notes on, and eradication of *Trichogramma semifumatum* from laboratory cultures of eight species of Noctuidae. 16458

Controlling short-nosed cattle lice with dichlorvos resin strips. 16868

EXTRACTS

A water-soluble factor in *Melilotus officinalis* leaves which stimulates feeding by the adult sweetclover weevil. 16355

Variations of phospholipids in the course of metamorphosis of *Tribolium confusum* (Coleoptera). 16360

Source of the trail pheromone and method of trail laying in the ant *Crematogaster peringueyi*. 16385

Immunologic response of rabbits to *Mycobacterium bovis*; chemical, electrophoretic and antigenic analyses of bacillary extracts. 16766

Antigenic, chemical, chromatographic, and electrophoretic analyses of unheated culture filtrates of *Mycobacterium bovis*. 16767

EXUDATES

Root exudates from red pine seedlings and their effects on *Pythium ultimum*. 16534



SUBJECT INDEX

FILTERS

<b>EYES</b>			
Hereditary change of an eye color mutant induced by DNA in <i>Epelestia</i> .	16742	Whole body turnover of potassium traced by radiorubidium in adult <i>Drosophila</i> ( <i>Drosophilidae</i> ) and <i>Megaselia</i> ( <i>Pboridae</i> ).	16384
<b>FAMPHUR</b>			
A systematic insecticide for control of the face fly, <i>Musca autumnalis</i> .	16865	Growth, feeding activity, and the utilization of reserves in larvae of <i>Locusta</i> .	16399
<b>FARM MANAGEMENT</b>			
Oedema disease in pigs.	16758	The influence of nutrient chemicals on the feeding behavior of the Colorado potato beetle, <i>Leptinotarsa decemlineata</i> ( <i>Coleoptera: Chrysomelidae</i> ).	16401
<b>FASCIOLA</b>			
Studies on the serum proteins in experimental fascioliasis of sheep.	16876	Time of arrival of gravid <i>Culex pipiens fatigans</i> at an oviposition site, the oviposition cycle and the relationship between time of feeding and time of oviposition.	16500
<b>FASCIOLA GIGANTICA</b>			
Lumbar paralysis of a calf caused by aberration of an immature liver fluke into the spinal cord.	16892	Cane-sugar feeding in <i>Culex pipiens fatigans</i> .	16501
<b>FASCIOLA HEPATICA</b>			
Studies on the aetiology of anaemia in chronic Fascioliasis in sheep.	16844	Relationships between <i>Tetranychus urticae</i> Koch and some plant viruses.	16651
On the relationship between the structure and the growth of the scales of <i>Fasciola hepatica</i> .	16887	Proliferative symptoms in leafhoppers infected with western X-disease virus.	16696
A physiological study of the development of the egg of <i>Fasciola hepatica</i> L., the common liver fluke.	16891	The impact of tuliptree scale feeding on its host, yellow-poplar.	16704
<b>FASCIOLIASIS</b>			
Studies on the serum proteins in experimental fascioliasis of sheep.	16876	<b>FEEDLOTS</b>	
Epidemiological studies of fascioliasis; a third season of comparative studies with cattle.	16884	Comments on control and management of respiratory diseases in beef cattle.	16763
<b>FAT BODY</b>			
Short-term effects of crustecdysone (20-hydroxyecdysone) on protein and rna synthesis in third instar larvae of <i>Calliphora</i> .	16437	Comments on control and management of respiratory diseases in beef cattle.	16775
The metabolism of carbaryl (1-naphthyl-N-methylcarbamate) by the fat body of the blowfly larva <i>Calliphora erythrocephala</i> .	16440	Comments on bovine myxovirus parainfluenza-3.	16787
Factors affecting protein synthesis by the fat body of the larva of the blowfly <i>Calliphora erythrocephala</i> .	16441	Calf diptheria.	16811
<b>FATS</b>			
Dietary requirements of the bollworm, <i>Heliothis zea</i> ( <i>Lepidoptera: Noctuidae</i> ), for lipids, choline, and inositol and the effect of fats and fatty acids on the composition of the body fat.	16470	Comments on clinical signs of respiratory diseases in feedlot cattle.	16812
<b>FATTY ACIDS</b>			
Dietary requirements of the bollworm, <i>Heliothis zea</i> ( <i>Lepidoptera: Noctuidae</i> ), for lipids, choline, and inositol and the effect of fats and fatty acids on the composition of the body fat.	16470	<b>FELINE INFECTIOUS ENTERITIS</b>	
Determination of volatile acid production of <i>Clostridium</i> by gas chromatography.	16626	A postmortem case of infectious feline enteritis-like disease in a tiger.	16826
<b>FEATHERS</b>			
Two new Mallophaga species of the genus <i>Ardeicola</i> Clay, 1935 ( <i>Ischnocera: Philopteridae</i> ).	16302	<b>FENTRION</b>	
<b>PECES</b>			
The distribution of certain <i>Escherichia coli</i> strains in pigs and their environment.	16747	Mortality of nasal nits in sheep treated with systemic insecticides.	16330
Testing the effectivity of coccidiostatics by using radio Iron-59 for the quantitative estimation of blood in the caeca and feces of chickens.	16842	Field studies on control of lygus bugs and onion thrips infesting safflower.	16567
A review of some helminths of laboratory animals.	16878	<b>FERRAM</b>	
<b>FEED</b>			
The microflora of fodders associated with bovine respiratory disease.	16805	Biochemical action of thiram and some dialkyldithiocarbamates.	16928
Anti-microbial drugs in animal feeds.	16847	Chemistry of the fungicidal action of tetramethylthiuram disulphide (thiram) and ferham.	16963
<b>FEEDING</b>			
A water-soluble factor in <i>Melilotus officinalis</i> leaves which stimulates feeding by the adult sweetclover weevil.	16355	<b>FERTILITY</b>	
Types of feeding and structure of mandibles in different life forms of grasshoppers.	16371	The study of fertility of the rat fleas ( <i>Xenopsylla cheopis</i> Rothsch. and <i>Ceratophyllus fasciatus</i> Rosc.) under their feeding on different animals.	16449
		Some physiological effects of sublethal doses of DDT on flour beetles.	16462
		<b>FERTILIZATION (PLANTS)</b>	
		Rodent damage to fertilized Pacific silver fir in Western Washington.	16736
		<b>FERTILIZERS</b>	
		Effect of trace-elements bound to superphosphates on the resistance of potato tubers to <i>Phytophthora infestans</i> (Mont.) de Bary.	16643
		<b>FEVER</b>	
		A survey on subclinical infection with bovine epizootic fever.	16861
		<b>FIELD CROPS</b>	
		Effect of irrigation and submersion in water on pupal survival of the bollworm.	16483
		<b>FILTERS</b>	
		Viability in vitro of the smallest spores of <i>Ceratocystis ulai</i> following centrifugation and microfiltration. (Abstract).	16554

SUBJECT INDEX

FIBE			
FIBE	Prescribed tire as a possible control for <i>Pomes annosus</i> . (Abstract).	16577	Effect of pH on recovery of fungi from foods. 16894
FIRE BLIGHT (FRUIT)	<i>Erwinia amylovora</i> (Burr.) Winkl. in Poland.	16550	FOOD CONTAMINATION
FLAGELLA	Anatomy of beads on flagella of zoospores of <i>Phytophthora megasperma</i> var. <i>sojae</i> .	16599	The use of organochlorine insecticides and possible alternatives against leatherjackets. 16715
FLAX	Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by <i>Melampsora lini</i> . I. Uptake.	16939	The microflora of fodders associated with bovine respiratory disease. 16805
FLOWERS	The effect of substituted decenyl succinic acid (DSA), amides, esters, and 1,5-difluoro-2,4-dinitrobenzene (DFDNB) on preventing blossom freezing injury. (Abstract).	16597	FOOD HABITS
FLUORESCENCE	Histochemical localization of catecholamines in the brain of normal and drug-treated cockroaches.	16389	The repellent properties of certain plants to small field rodents. 16738
FLUORESCENCE MICROSCOPES	Cytochemical studies with African horse sickness virus by fluorescent microscopy.	16B22	FOOD POISONING
FLUORESCENCE MICROSCOPY	Cytopathology of mixed infections with potato viruses X and Y in <i>Nicotiana tabacum</i> leaves.	16610	Wild animal losses through poisons. 16792
FLUORESCENT ANTIBODY TECHNIC	Cytochemical studies with African horse sickness virus by fluorescent microscopy.	16B22	FOOD SUPPLY
	Diagnosis of <i>Vibrio fetus</i> infection in the bull. II. An epidemiological survey using a fluorescent antibody test and comparing this with a cultural method.	16B39	Population ecology of feral house mice. 16899
	Laboratory evaluation of bovine respiratory disease vaccines for safety.	16B52	FOOT-AND-MOUTH DISEASE
	A comparison of immunofluorescence and cultural techniques for demonstration of <i>Vibrio fetus</i> .	16B59	Excretion of foot-and-mouth disease virus prior to the development of lesions. 16755
FLUORESCENT LAMPS	Inducing sporulation in different strains of <i>Alternaria solani</i> . I. Effect of visible light.	16935	Foot-and-mouth disease in swine: response to inactivated vaccines. 16818
FLUORIDES	Some economics of air pollution control.	16972	FOOT-AND-MOUTH DISEASE VIRUS
FLUOROOROTIC ACID	Inhibition by 5-fluoroorotic acid of the ovarian development of house flies, <i>Musca domestica</i> .	16322	Characteristics of a C strain of foot-and-mouth disease virus propagated in BHK21 cells. 16769
FOLIAR APPLICATION	Oils for summer control of pear psylla and their effects on pear trees.	1648B	Immune response of steers inoculated with chemically-treated foot-and-mouth disease virus preparations previously studied in swine. 16819
FOLIC ACID	Levels of shikimate and folate in primary leaves of wheat and in uredospores of leaf rust.	16601	FORAGE PLANTS
FOLPET	The examination of mixtures of Captan and Phaltan by gas chromatography.	16944	A suggested method of collectings insects associated with forage grass seed production. 16265
FOMES ANNOSUS	The pine engraver, <i>Ips pini</i> (Coleoptera: Scolytidae), in the southern Appalachian Mountains.	16282	FOREIGN BODIES
	Prescribed fire as a possible control for <i>Pomes annosus</i> . (Abstract).	16577	Competitive inhibition by foreign nucleic acid and induced interference by yeast-RNA with the infection of tobacco mosaic virus. 165B1
FOMES APPLANATUS	Movements, host-fungus preferences, and longevity of <i>Holotrichus cornutus</i> (Coleoptera: Tenebrionidae).	16397	FORESTS
FOMES PONENTARIUS	Movements, host-fungus preferences, and longevity of <i>Holotrichus cornutus</i> (Coleoptera: Tenebrionidae).	16397	Comparison of the soil inhabiting Coleoptera from two oak-birch forests. 16309
FOOD	Whole body turnover of potassium traced by radiorubidium in adult <i>Drosophila</i> ( <i>Drosophilidae</i> ) and <i>Megaselia</i> ( <i>Phoridae</i> ).	163B4	Insecticides for control of the lone star tick tested in the laboratory and as high-and ultra-low-volume sprays in wooded areas. 16434
			FORMICIDAE
			Source of the trail pberomone and method of trail laying in the ant <i>Crematogaster peringueyi</i> . 163B5
			The ant larvae of the subfamily Formicinae (Hymenoptera: Formicidae): supplement. 1647B
			FOWLPOX VIRUS
			Role of genetic factors and fowl pox virus in parthenogenesis in turkey eggs. 16831
			FOXES
			Recent information on the biology of <i>Echinococcus granulosis</i> and <i>Echinococcosis</i> . 16B79
			FRAXINUS AMERICANA
			Transmission by dodder of a yellows-type virus from declining white ash. (Abstract). 16596
			FRAXINUS EXCELSIOR
			Growth substances isolated from woody cuttings of <i>Alnus glutinosa</i> Medic. and <i>Fraxinus excelsior</i> L. 16525
			FREQUENCY DISTRIBUTION
			Analysis of annual outbreaks of parasitic fungi. II. qualitative and quantitative characteristics of attack curves. 16617
			FROST CONTROL
			The effect of substituted decenyl succinic acid (DSA), amides, esters, and 1,5-difluoro-2,4-dinitrobenzene (DFDNB) on preventing blossom freezing injury. (Abstract). 16597
			FRUCTOSE
			Purification and properties of fructose diphosphate aldolase from <i>Fusarium oxysporum</i> f. <i>lycopersici</i> . 16924

## SUBJECT INDEX

## FUNGUS DISEASES (PLANTS)

- ERBIT**  
The evolution of apple and pear tree spot disease during the year 1966. 16540  
Insect pests on farm, garden, and orchard. SB951. D3. 16705
- FULGOROIDEA**  
New species and new records of Fulgoroidea (Homoptera) from Samoa and Tonga. 16293
- FUMIGANTS**  
Activity of soil fumigants in relation to increased growth response and control of decline and bacterial canker in trees of *Prunus persica*. (Abstract). 16566  
The effect of certain fungitoxicants on the formation of endotrophic mycorrhiza by *Endogone fasciculata* on corn and on root development in seedling corn. 16649
- FUMIGATION**  
Small chamber tests of ethylene dibromide and ethylene dichloride on adult grain-infesting Coleoptera. 16382  
A dynamic-equilibrium illuminated temperature-, humidity-, and pollutant-controlled plant fumigation chamber. (Abstract). 16559  
Tolerance of some imported conifer seeds to fumigation with carbon tetrachloride. 16932
- FUNGI**  
Observations of the spread of mycosis in mosquitoes. 16438  
Cultural studies of sexual reproduction of *Ceratocystis fagacearum*. 16512  
Ion uptake of sweet potato roots infected by the black rot fungus. 16519  
The utilization of L-asparagine by two species of *Phytophthora*. 16521  
The sensitivity of fungi to alpha-tomatine. 16536  
Substances, inducing plant resistance to pathogenic fungi and the problem of antimetabolites. 16585  
Effects of nitrogen sources on growth of *Phythium aphanidermatum* and *Phythium ultimum*. 16616  
A comparison of soil column and petri dish techniques for the evaluation of soil fungitoxicants. 16622  
Electron microscopy of uredospores of *Melaampsora lini* and of rust infected flax. 16633  
Hyperparasites on some ascomycetes from Hyderabad, India. 16660  
Fungi on *Bougainvillea spectabilis* Willd. 16661  
Inhibition of *Poria carbonica* by *Scytalidium* sp., an imperfect fungus isolated from Douglas-fir poles. 16662  
Humic acids as a nutrition source for some white-rot fungi. 16685  
Effect of the nematode *Aphelenchus avenae* on some ectotrophic, mycorrhizal fungi and on a red pine mycorrhizal relationship. 16721  
Effect of pH on recovery of fungi from foods. 16894  
Investigation of reported aflatoxin production by fungi outside the *Aspergillus flavus* group. 16914  
The dissociation of *Bacillus thuringiensis*. 16923  
Dimethylthiocarbonyl S-alkyldithiocarbonates. Patent 3,398,181. 16957
- FUNGI DISSEMINATION**  
A settling tower for quantitative inoculation of leaf blades of mature small grain plants with urediospores. 16574
- FUNGICIDES**  
The sensitivity of fungi to alpha-tomatine. 16536  
Biological decomposition of an oxathiin fungicide. (Abstract). 16571  
Substances, inducing plant resistance to pathogenic fungi and the problem of antimetabolites. 16585  
Systemic oxathiin fungicide for control of loose smut (*Ustilago tritici*) of winter wheat. (Abstract). 16589  
Process for oxidizing soluble alkylene bisdithiocarbonates to produce an oxygen containing product, and the product of said process. Patent 3,401,182. 16591  
Three-year effects of systemic fungicides applied for the control of *Cytospora* in Italian prune tree. 16594  
A comparison of soil column and petri dish techniques for the evaluation of soil fungitoxicants. 16622  
Investigations on fungicidal activity of combined fungicides. 16638  
The effect of certain fungitoxicants on the formation of endotrophic mycorrhiza by *Endogone fasciculata* on corn and on root development in seedling corn. 16649  
Pathogenic variability within *Phytophthora parasitica* as related to formation of post-infectious antifungal substances in *Peperomia*. 16678  
Method of controlling fungi with sulfonium iodides. Patent 3,402,248. 16930  
The examination of mixtures of Captan and Phaltan by gas chromatography. 16944  
Fungicidal and bactericidal compositions and methods employing isothiazolecarboxylates. Patent 3,403,209. 16945  
2,6-Substituted cyclohexanones as insecticides, miticides, fungicides, nematocides and herbicides. Patent 3,389,986. 16948  
Bromodichloroacetanilides. Patent 3,405,176. 16952  
Triazine derivatives with herbicidal and fungicidal properties. Patent 3,403,151. 16958  
N,N'-sulfonyl-bis-(carbamoylphosphonic acid esters). Patent 3,401,214. 16959  
Benz(d)indolo(3,2-h)thiopyrylium compounds. Patent 3,401,177. 16971
- FUNGUS DISEASES (PLANTS)**  
Root exudates from red pine seedlings and their effects on *Phythium ultimum*. 16534  
The sensitivity of fungi to alpha-tomatine. 16536  
An international set of rice varieties for differentiating races of *Piricularia oryzae*. 16537  
Interaction of major factors influencing severity of bean root rot. (Abstract). 16539  
Growth of the hyperparasite *Darlucula filum* on a chemically defined medium. 16544  
Avirulence of a methionine-sensitive leucine mutant of *Penicillium expansum* in Jonathan apple. (Abstract). 16545  
Production of the perfect stage of *Botryotinia* (*Botrytis*) *squamosa* under controlled environmental conditions. (Abstract). 16546  
The physiology of host-parasite relations. XIX. Further observations on nucleoprotein changes in wheat leaf nuclei during rust infection. 16547  
Carbon dioxide exchange by radish tissue infected with *Albugo candida* measured with an infrared CO<sub>2</sub> analyzer. 16548  
Crown rust resistance in tall oatgrass. (Abstract). 16551  
Verticillium wilt reactions in cotton as affected by postinoculation temperatures. (Abstract). 16552  
Knowledge of *Septoria nodorum* Berk., the cause of leaf blotch and glume blotch in wheat. 16553



SUBJECT INDEX

Entry of stem-end rot fungi in Florida oranges. (Abstract). 16555	The role of alkaloids in the resistance of some lupin varieties to the Pea aphid /Acyrthosiphon pisum Harris/. 16619
The probable significance of saprophytic colonization of wheat straw in the field by Cephalosporium gramineum. 16556	Permeability changes in Phaeoelus aureus associated with infection by Rhizoctonia solani. 16620
Responses of germinating Rhizopus stolonifer sporangio-spores to heating, chilling, gamma irradiation, and anoxia. (Abstract). 16557	Cucumber anthracnose: influence of nightly wetting of leaves on numbers of lesions. 16625
Pathogenicity and physiology of Pythium vexans. (Abstract). 16558	Effects of cytokinins on the ansporiation of victoria. 16627
Infection of needles of Pinus strobus by Lophodermium pinastri. (Abstract). 16562	The influence of Fusarium root rot and harvesting on the carbohydrate levels of alfalfa roots grown in a gnotobiotic environment. (Abstract). 16628
Yellow rust of wheat. 16569	Indoleacetic acid oxidase activity in banana roots. 16629
Effects of N, P, K, and inoculum density of Verticillium nahliae on populations of Pratylenchus penetrans in roots of American elm and sugar maple. (Abstract). 16570	Integrated method of control of plant diseases caused by fungi. 16630
Biological decomposition of an oxathiazin fungicide. (Abstract). 16571	Factors affecting the germination of basidiospores of the heart rot fungus, Fomes igniarius in the infection of trembling aspen. 16632
Systemic action of 2-chloro-4-diisobutyl-6-nitrophenol against powdery mildew of snapbean. (Abstract). 16572	Photosynthetic activities of cotton plants infected with Verticillium albo-atrum. 16634
A settling tower for quantitative inoculation of leaf blades of mature small grain plants with urediospores. 16574	Bermuda grass thatch decomposition in relation to spring dead spot. (Abstract). 16635
Pythium pod rot of peanut. 16575	Verticillium wilt of Hedysarum coronarium (Sulla). 16639
Effect of light on sporulation of Helminthosporium stenospilum. (Abstract). 16576	Interactions between Verticillium albo-atrum and Pratylenchus penetrans in the Verticillium wilt of potatoes. (Abstract). 16642
Prescribed fire as a possible control for Fomes annosus. (Abstract). 16577	Sprout rot of Brussels sprouts. (Abstract). 16644
Mycocology of willow and cottonwood lowland communities in Southern Wisconsin. I. Soil microfungi in the willow-cottonwood forests. 16584	Symptom expression and varietal susceptibility in carnation, Dianthus caryophyllus, inoculated with the carnation strain of Erwinia chrysanthemi. 16645
Ceratocystis fagacearum distribution within bur and red oak seedlings. (Abstract). 16586	Observations on the nature of inheritance of resistance of lucerne to Verticillium Albo-Atrum. 16652
Induced sporulation of Botryodiplodia theobromae Pat. isolated from Araucaria cunninghamii Ait. in Malaysia. 16587	Survival of root-infecting fungi in soil. VI. Effect of amendments on bean root rot caused by Thielaviopsis basicola and on inoculum density of the causal organisms. 16653
Systemic oxathiazin fungicide for control of loose smut (Ustilago tritici) of winter wheat. (Abstract). 16589	Studies of the development of powdery mildew (Erysiphe graminis f. sp. hordei Marchal) on barley. II. Primary appressoria formation. 16654
Induction of lettuce root rot under controlled environmental conditions. (Abstract). 16590	The effects of sugar maple stem tissue extracts on spore germination of Fusarium solani. (Abstract). 16655
Process for oxidizing soluble alkylene bisdithiocarbamates to produce an oxygen containing product, and the product of said process. Patent 3,401,182. 16591	Method of determining the sensitivity of fungus spores to hot water. 16656
Factors affecting the pathogenicity of selected fungi isolated from putting green turf. 16593	Effects of ozone on conidiophores and conidia of Alternaria solani. 16663
Three-year effects of systemic fungicides applied for the control of Cytospora in Italian prune tree. 16594	Interaction of pathogenicity genes in Puccinia graminis t. sp. tritici and reaction genes in Triticum aestivum ssp. vulgare "Marguis," "Reliance," and "Kota." 16664
Stem resistance to black shank in burley tobacco derived from Nicotiana longiflora. (Abstract). 16595	Comparative morphological and physiological studies of the progenies from intraspecific matings of Phytophthora capsici. 16669
Etiology of stripe smut, Ustilago striiformis (West.) Niessl, on Merion bluegrass, Poa pratensis L. 16600	CO2 assimilation and yield of Little Club wheat infected by Septoria nodorum. 16670
Overwintering of Colletotrichum fragariae in strawberry crowns. 16602	Relationship of clipping frequency to root and crown deterioration in red clover. 16673
Antagonism of bacteria from elm to Ceratocystis ulmi in vitro. (Abstract). 16606	Spread of red rot in the leaves of sugarcane plant. 16675
Reproductive potentials of races 15B and 56 of wheat stem rust. 16609	Pathogenic variability within Phytophthora parasitica as related to formation of post-infectinal antifungal substances in Peperomia. 16678
The relationship of Phytophthora fragariae Hickman to the fungal flora in the rhizosphere of the strawberry plant. 16612	Tobacco diseases in Kentucky in 1967. 16679
Analysis of annual outbreaks of parasitic fungi. II. qualitative and quantitative characteristics of attack curves. 16617	Resistance to Puccinia graminis derived from Secale cereale incorporated into Triticum aestivum. 16683
Histology of canker rusts in pines. 16618	Light requirement and light inhibition of sexual

SUBJECT INDEX

GLOSSINA

- reproduction in *Fusarium* (Hypomyces) *solani* f. sp. *cucurbitae* race 2. 16689
- Stem and needle inoculations of eastern white pine with the blister rust fungus. 16692
- Oxygen consumption and germination of *Cronartium fusiforme* aeciospores. 16694
- An undescribed gall midge leaf spot of balsam poplar. 16697
- Comparative susceptibility of large and small spruce roots to *Polyporus tomentosus*. 16698
- Stomatal penetration of wheat seedlings by stem and leaf rusts in relation to effects of carbon dioxide, light, and stomatal aperture. 16699
- An evaluation of Bidrin for control of *Scolytus multistriatus*, the primary vector of *Ceratocystis ulmi*. 16709
- Purification and properties of fructose diphosphate aldolase from *Fusarium oxysporum* f. *lycopersici*. 16924
- Method of controlling fungi with sulfonium iodides. Patent 3,402,248. 16930
- FURAZOLIDONE**  
Multiple drug resistance. 16965
- FUSARIUM**  
Sprout rot of Brussels sprouts. (Abstract). 16644
- Relationship of clipping frequency to root and crown deterioration in red clover. 16673
- FUSARIUM OXYSPORUM**  
Selective fusaric acid (FA) production on synthetic substrates by forms of *Fusarium oxysporum*. (Abstract). 16564
- Indoleacetic acid oxidase activity in banana roots. 16629
- FUSARIUM OXYSPORUM LYCOPERSICI**  
Purification and properties of fructose diphosphate aldolase from *Fusarium oxysporum* f. *lycopersici*. 16924
- FUSARIUM SOLANI**  
The effects of sugar maple stem tissue extracts on spore germination of *Fusarium solani*. (Abstract). 16655
- Light requirement and light inhibition of sexual reproduction in *Fusarium* (Hypomyces) *solani* f. sp. *cucurbitae* race 2. 16689
- FUSARIUM SOLANI PHASEOLI**  
Interaction of major factors influencing severity of bean root rot. (Abstract). 16539
- FUSARIUM TRICINCTUM**  
The influence of *Fusarium* root rot and harvesting on the carbohydrate levels of alfalfa roots grown in a gnotobiotic environment. (Abstract). 16628
- GALL-MAKING INSECTS**  
Studies on the salivary physiology of plant-bugs: Experimental induction of galls. 16433
- GAMETOGENESIS**  
The reproductive biology of *Hippelates colluscr* (Diptera: Chloropidae). II. Gametogenesis. 16489
- GAMMA GLOBULINS**  
Comments on combination vaccines for bovine respiratory diseases. 16793
- Basic principles of immunity in cattle. 16858
- GAMMA RAYS**  
Autocidal control of the codling moth by release of males and females sterilized as adults by gamma radiation. 16333
- Effects of ionizing radiation on the European chafer, the plum curculio, and the large milkweed bug. 16422
- Inherited sterility in progeny of irradiated male cabbage loopers. 16496
- A note on translocation-trisomic plant from gamma-irradiated barley. 16517
- Responses of germinating *Rhizopus stolonifer* sporangiospores to heating, chilling, gamma irradiation, and anoxia. (Abstract). 16557
- GARDENS**  
Insect pests of farm, garden, and orchard. SB951. D3. 16705
- GASTROENTERITIS**  
A study of the ultrastructure of the intestinal epithelial cells of piglets infected with a transmissible gastroenteritis virus. 16854
- GASTROINTESTINAL SYSTEM**  
*Leptomonas oestri* n.sp., a flagellate parasite of the digestive tract of *Oestrus ovis*. 16328
- Contribution to the histochemical study of the digestive organs of *Rhagium bifasciatum*. (Col. Cerambycidae). 16390
- Segmentation and organogenesis in *Limnoria lignorum* (Rathke) (Isopoda). 16460
- Anthelmintics for *Dictyocaulus filaria* in sheep. 16886
- GELS**  
The separation and characterization of the haemolymph proteins of several insects. 16473
- The serological differentiation of viruses in the tick-borne encephalitis subgroup by the gel-diffusion method. 16502
- Differentiation of three species of *Phytophthora* by polyacrylamide gel electrophoresis. (Abstract). 16583
- GENES**  
A formula for determining degree of dominance in cases of monofactorial inheritance of resistance to chemicals. 16499
- Interaction of pathogenicity genes in *Puccinia graminis* f. sp. *tritici* and reaction genes in *Triticum aestivum* ssp. *vulgare* "Marguis," "Reliance," and "Kota." 16664
- GENETICS**  
Spermatozoan nucleus length in three strains of *Drosophila melanogaster*. 16490
- The relationship of mating capacities and polygalacturonase production in *Cochliobolus carbonum*. (Abstract). 16646
- Serological investigations of races 1-8 of *Phytophthora fragariae*. (Abstract). 16684
- GEORGIA**  
Parathion resistance in house fly populations in the Savannah, Georgia, area. 16495
- GERM-FREE LIFE**  
Pathologic effects of *Escherichia coli* 083:K:NM in gnotobiotic pigs. 16753
- GIBBERELLIC ACID**  
Erratum: the interaction of the seed coat and gibberellic acid in the germination of *Datura ferox* L. 16734
- GIBBERELLINS**  
Studies on lettuce seed germination. I. Coumarin induced dormancy. 16513
- GLANDS (ANIMALS)**  
Glandular formations of the dorsal tegument of *Saissetia oleae* (Hom. Coccidae). 16391
- GLANDS (INSECTS)**  
Left colleterial proteins in the viviparous cockroach *Nauphoeta cinerea*. 16354
- GLOMERELLA CINGULATA**  
Cucumber anthracnose: influence of nightly wetting of leaves on numbers of lesions. 16625
- GLOSSINA**  
Recent advances in techniques for tsetse fly control: With special reference to northern Nigeria. 16506
- A survey of wild animals as potential reservoirs of trypanosomiasis in the Ulanga District (Tanzania). 16780

## SUBJECT INDEX

## GLOSSINA MORBITANS

## GLOSSINA MORBITANS

The effect of host pregnancy on the reproductive capability of the tsetse fly, *Glossina morsitans*, in captivity.

16414

## GLUCOCORTICOIDS

Corticosteroid overdosage in dogs.

16907

## GLUCOSAMINE

Hexosamine metabolism in imaginal disks of *Drosophila melanogaster*.

16388

## GLUCOSE

Hexosamine metabolism in imaginal disks of *Drosophila melanogaster*.

16388

The sensitivity of fungi to alpha-tomatine.

16536

Effect of tobacco mosaic virus infection on glucose metabolism in *Nicotiana tabacum* var. Samsun. i. Investigations with <sup>14</sup>C-labeled sugars.

16543

Mode of action of 2,6-dichloro-4-nitroaniline (DCNA) in *Rhizopus arrhizus*.

16937

Metabolism of glucose-<sup>14</sup>C, pyruvate-<sup>14</sup>C, and mannitol-<sup>14</sup>C by *Melampsora lini*. I. Uptake.

16939

## GLUCOSE COMPOUNDS

Ammoniation process for detoxifying the seeds of *Crambe abyssinica* and rape. Patent 3,392,026.

16527

## GLUME BLOTCH (WHEAT)

Knowledge of *Septoria nodorum* Berk., the cause of leaf blotch and glume blotch in wheat.

16553

## GLUTAMIC ACID

Glutamic acid requirements of the saw-toothed grain beetle, *Oryzaephilus surinamensis* (L.) (Coleoptera, Silvanidae).

16286

## GLYCINE

Quantitative dietary requirements of *Oryzaephilus surinamensis* (L.) (Coleoptera: Silvanidae) for phenylalanine and tyrosine.

16378

## GLYCOGEN

Growth, feeding activity, and the utilization of reserves in larvae of *Locusta*.

16399

The effect of age on the flight performance of female *Aedes aegypti* mosquitoes.

16446

## GLYCOLS

Freeze-resistant pesticidal composition. Patent 3,399,991.

16961

## GLYCONEOGENESIS

Corticosteroid overdosage in dogs.

16907

## GLYCOPROTEINS

Corticosteroid overdosage in dogs.

16907

## GLYCYPHAGIDAE

Bionomics of *Glycyphagus domesticus* (de Geer) (Acarina: Glycyphagidae), a pest of stored grain.

16897

## GLYCYPHAGUS DOMESTICUS

Bionomics of *Glycyphagus domesticus* (de Geer) (Acarina: Glycyphagidae), a pest of stored grain.

16897

## GOATS

Experimental infection of sheep and goats with attenuated and virulent strains of rinderpest virus.

16748

## GOLF COURSES

Factors affecting the pathogenicity of selected fungi isolated from putting green turf.

16593

## GONADOTROPINS

Effect of *Corpora allata* on protein and RNA synthesis in colleterial glands of *Blattella germanica*.

16486

## GONADS

Organ culture of *Meloidogyne incognita acrita*. (Abstract).

16720

## GRAIN

Small chamber tests of ethylene dibromide and ethylene dichloride on adult grain-infesting Coleoptera.

16382

Biology of *Deltocephalus sonorus* (Homoptera: Cicadellidae).

16394

A comparison of annual crops for seed and residue in the semi-arid region of western Canada.

16510

CO<sub>2</sub> assimilation and yield of Little Club wheat infected by *Septoria nodorum*.

16670

Bionomics of *Glycyphagus domesticus* (de Geer) (Acarina: Glycyphagidae), a pest of stored grain.

16897

## GRASSES

A suggested method of collecting insects associated with forage grass seed production.

16265

Biology of *Deltocephalus sonorus* (Homoptera: Cicadellidae).

16394

A thesis of Mme G. Ricou, on lasting prairie pasturage, a biocenological study of natural environment.

16514

## GRASSHOPPERS

Types of feeding and structure of mandibles in different life forms of grasshoppers.

16371

Flight height, droplet size, and moisture influence on grasshopper control achieved with malathion applied aerially at ULV.

16455

Survival and development of several grasshopper species on extracts of selected plant species.

16465

## GREENHOUSE CULTURE

The influence of controlled environments and grass hosts on the life cycle of *Endria inimica* (Homoptera: Cicadellidae).

16373

Controlling short-nosed cattle lice with dichlorvos resin strips.

16868

## GROWTH FACTORS

Root exudates from red pine seedlings and their effects on *Pythium ultimum*.

16534

Production of the perfect stage of *Botryotinia* (*Botrytis*) *squamosa* under controlled environmental conditions. (Abstract).

16546

Effects of nitrogen sources on growth of *Phythinum aphanidermatum* and *Pythium ultimum*.

16616

The hatching response of *Meloidogyne incognita* eggs as affected by amino and nonamino acid fractions of root exudates.

16718

## GRYLLIDAE

Oligidic diets for *Acheta domesticus* (Orthoptera: Gryllidae).

16329

## GRYLLODES SIGILLATUS

Two effects of photoperiod on wing development in *Gryllodes sigillatus* (Walk).

16429

## GUANIDINES

Imidocarbonates. Patent 3,401,201.

16967

## GUANINE

Glutamic acid requirements of the saw-toothed grain beetle, *Oryzaephilus surinamensis* (L.) (Coleoptera, Silvanidae).

16286

## GUINEA PIGS

The effect of host pregnancy on the reproductive capability of the tsetse fly, *Glossina morsitans*, in captivity.

16414

Natural antibody in mammalian serum reacting with an antigen in some Leptospires.

16771

## GYNANDROMORPHISM

Comparative morphology of the genital area of triploid intersexes of *Drosophila melanogaster*.

16415



SUBJECT INDEX

HERICIOES

<b>HAEMATOBIA</b> Control of larvae of the house fly and the horn fly in manure of insecticide-fed cattle.	16H66	Effect of irrigation and submersion in water on pupal survival of the bollworm.	16483
<b>HAEMATOPINUS EURYSTEBNUS</b> Controlling short-nosed cattle lice with dichlorvos resin strips.	16868	Studies on the development of insect resistant sorghum varieties and hybrids.	16707
<b>HAEMATOPINUS SUIS</b> Rearing of the hog louse <i>Haematopinus suis</i> on mice.	16426	Field-cage releases of <i>Chrysopa carnea</i> for suppression of populations of the bollworm and the tobacco budworm on cotton.	16712
<b>HAEMONCHUS CONTORTUS</b> Utilization of tricarboxylic acid cycle intermediates by <i>Haemonchus contortus</i> larvae.	16321	<b>HELMINTHIASIS</b> Electron microscopical studies on <i>Ditylenchus dipsaci</i> (Kuhn). Stomatal region.	16484
Pyruvate kinase in <i>Haemonchus contortus</i> larvae.	16349	Helminthiasis in sheep.	16681
<b>HALOGEN COMPOUNDS</b> Method of inhibiting plant growth. Patent 3,390,978.	16522	<b>HELMINTHOLOGY</b> A review of some helminths of laboratory animals.	16678
Herbicidal method. Patent 3,403,994.	16730	<b>HELMINTHOSPOBIUM SPICIPHEM</b> Bermuda grass thatch decomposition in relation to spring dead spot. (Abstract).	16635
Method of destroying undesirable plants. Patent 3,397,977.	16732	<b>HELMINTHOSPOBIUM STENOSPILUM</b> Effect of light on sporulation of <i>Helminthosporium stenospilum</i> . (Abstract).	16576
Bromodichloroacetanilides. Patent 3,405,176.	16952	<b>HELMINTHOSPOBIUM VICTORIAE</b> Effects of cytokinins on the absorption of victorin.	16627
Triazine derivatives with herbicidal and fungicidal properties. Patent 3,403,151.	16958	<b>HELMINTHS</b> A physiological study of the development of the egg of <i>Fasciola hepatica</i> L., the common liver fluke.	16891
<b>HAMSTERS</b> The study of fertility of the rat fleas ( <i>Xenopsylla cheopis</i> Roths. and <i>Ceratophyllus fasciatus</i> Hosc.) under their feeding on different animals.	16449	<b>HEMAGGLUTINATION</b> Isolation of a hemagglutinating picornavirus from a primary swine kidney cell culture.	16795
<b>HAPPALUS LATOS</b> Oxygen consumption by soil larvae of insects in dependence on its tension.	16442	<b>HEMATOLOGIC DISEASES</b> The effect of <i>Anaplasma marginale</i> infection on the metabolic and osmotic behavior of bovine erythrocytes.	16813
<b>HARVESTING</b> The influence of <i>Fusarium</i> root rot and harvesting on the carbohydrate levels of alfalfa roots grown in a gnotobiotic environment. (Abstract).	16628	<b>HEMATOXYLIN</b> The haematology of lymphosarcoma in the cat.	16764
<b>HEART ROT (POPULUS)</b> Factors affecting the germination of basidiospores of the heart rot fungus, <i>Pomes igniarius</i> in the infection of trembling aspen.	16632	<b>HEMIPTERA</b> Identification and functions of secretion from the posterior scent gland of fifth instar larva of the bug <i>Dysdercus intermedius</i> .	16274
<b>HEAT</b> Responses of germinating <i>Rhizopus stolonifer</i> sporangiospores to heating, chilling, gamma irradiation, and anoxia. (Abstract).	16557	Field trials to control Colorado beetle, leptonotarsa decemlineata, with <i>Perillus bioculatus</i> .	16474
Eradication of potato virus X and S by thermotherapy and axillary bud culture.	16680	<b>HEMOBBHAGE</b> Testing the effectivity of coccidiostatics by using radio Iron-59 for the quantitative estimation of blood in the caeca and feces of chickens.	16842
<b>HELIOTHIS</b> Immunological relationships between the parasite <i>Cardiochiles nigriceps</i> Vierick and certain <i>Heliothis</i> species.	16420	<b>HEPTACHLOR</b> Use of <i>Oaphnia magna</i> for the microbioassay of pesticides. I. Development of standardized techniques for rearing <i>Daphnia</i> and preparation of dosage-mortality curves for pesticides.	16295
<b>HELIOTHIS VIRESCENS</b> Chemosterilization of the tobacco budworm: a survey of 21 compounds applied topically.	16386	Residues of aldrin, endrin, and heptachlor in peanuts grown in treated soil.	16904
Source of a substance in <i>Heliothis virescens</i> (Lepidoptera: Noctuidae) that elicits a searching response in its habitual parasite <i>Cardiochiles nigriceps</i> . (Hymenoptera: Braconidae).	16471	Extraction of organochlorine and organophosphate insecticides from lake waters.	16964
Field-cage releases of <i>Chrysopa carnea</i> for suppression of populations of the bollworm and the tobacco budworm on cotton.	16712	<b>HEBICIDES</b> Injury to sugar beet leaves through growth inhibiting herbicides.	16515
<b>HELIOTHIS ZEA</b> Developmental morphology of the alimentary canal of <i>Heliothis zea</i> (Lepidoptera: Noctuidae).	16278	Effects of herbicides on carbon dioxide uptake by pine seedlings.	16668
A comparison of the larval and pupal nervous systems of the corn earworm, <i>Heliothis zea</i> (Lepidoptera: Noctuidae).	16279	Lower aliphatic esters of N-phenyl and N-m-Chlorophenyl carbamic acid containing an acyl group. Patent 3,393,224.	16724
Biology of the corn earworm and control with insecticides and virus in Washington.	16407	Herbicidal tropolone esters. Patent 3,399,989.	16725
Dietary requirements of the bollworm, <i>Heliothis zea</i> (Lepidoptera: Noctuidae), for lipids, choline, and inositol and the effect of fats and fatty acids on the composition of the body fat.	16470	Method of controlling weeds in soil. Patent 3,393,065.	16726
		3'-4'-Dichloropionanilide. Patent 3,382,280.	16727
		Monofluorophenyl-4'-nitrophenylether derivatives as herbicides. Patent 3,401,031.	16728

## SUBJECT INDEX

## HEREDITY

- Herbicide ether. Patent 3,388,171. 16729
- Herbicide method. Patent 3,403,994. 16730
- Herbicide composition and method comprising 1-(tetrahydrodicyclopentadienyl)-3,3-dimethyl urea and a salt of methyl arsonic acid. Patent 3,403,017. 16731
- Method of destroying undesirable plants. Patent 3,397,977. 16732
- Herbicide composition and method. Patent 3,393,064. 16733
- Method of controlling the growth of weeds. Patent 3,399,988. 16735
- The influence of simazine on the quality and composition of pome fruit. 16919
- The partitioning and distribution of simazine and propanil in spinach chloroplasts. 16927
- The relative effect of N,N-dimethyl-2,2-diphenylacetamide on root and shoot growth. 16934
- Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm. 16940
- 2,6-Substituted cyclohexanones as insecticides, miticides, fungicides, nematocides and herbicides. Patent 3,389,986. 16948
- 8ipyridylium compounds and herbicide compositions containing the same. Patent 3,398,154. 16949
- Triazine derivatives with herbicide and fungicide properties. Patent 3,403,151. 16958
- N,N'-sulfonyl-bis-(carbamoylphosphonic acid esters). patent 3,401,214. 16959
- M-(carbamoyloxy)-carbanilates as herbicides. Patent 3,404,975. 16968
- 2-alkylaminobenzimidazoles as herbicides. Patent 3,399,987. 16969
- 2-alkylaminobenzimidazoles. Patent 3,401,174. 16970
- HEREDITY**  
Inherited sterility in progeny of irradiated male cabbage loopers. 16496
- Hereditary change of an eye color mutant induced by DNA in Ephesia. 16742
- HERMAPHRODITISM**  
Cultural studies of sexual reproduction of *Ceratocystis fagacearum*. 16512
- HERSE CONVOLVULI**  
Observations on the larvae of *Hippotion celerio* L. (Lepid., Sphingidae in Tanzania. (Abstract)). 16262
- Number of instars of the larva of *Herse convolvuli* L. 16271
- Number of instars of the larva of *Herse convolvuli* L. 16454
- HERTERODERA AVENAE**  
Cereal root eelworm pathotypes in England and Wales. 16717
- HERTERODERA GLYCINES**  
Amino acids from *Heterodera glycines* larvae. (Abstract). 16535
- HERTERODERA ROSTOCHIENSIS**  
First record of the occurrence of *Heterodera rostochiensis* in Panama. 16722
- HEROTYLENCHUS AUTUMNALIS**  
*Heterotylenchus autumnalis* Nickle (1967)--a parasite of pasture flies. 16346
- HEXAGENIA LIMBATA**  
Ecological significance of respiration and substrate for burrowing Ephemeroptera. 16383
- HEXANE**  
A rapid procedure for the identification of organochlorine pesticides in blood and tissues. 16950
- HEXOSAMINES**  
Hexosamine metabolism in imaginal disks of *Drosophila melanogaster*. 16388
- HIBERNATION**  
Experimental survival of the virus *tahyna* in hibernating mosquitoes *Theobaldia annulata* (Schrk.). 16376
- Survival of overwintering alfalfa weevil eggs in Pennsylvania. 16466
- Overwintering of *Colletotrichum fragariae* in strawberry crowns. 16602
- HILL REACTION**  
The partitioning and distribution of simazine and propanil in spinach chloroplasts. 16927
- HIPPELATES**  
The reproductive biology of *Hippelates collusor* (Diptera: Chloropidae). II. Gametogenesis. 16489
- HIPPOTION CELERIO**  
Observations on the larvae of *Hippotion celerio* L. (Lepid., Sphingidae in Tanzania. (Abstract)). 16262
- HISTIDIUM**  
Dietary amino acid requirements of the aphid, *Myzus persicae*. 16375
- HISTOCHEMISTRY**  
Histochemical localization of catecholamines in the brain of normal and drug-treated cockroaches. 16389
- The separation and characterization of the haemolymph proteins of several insects. 16473
- Polyphenols and discoloration in the elm disease investigated by histochemical techniques. 16580
- HISTOLOGY**  
Anatomy of beads on flagella of zoospores of *Phytophthora megasperma* var. *sojae*. 16599
- Histology of canker rusts in pines. 16618
- Scrapic agent in blood. 16773
- Pathological studies on Aleutian disease of mink. 16803
- HISTOPATHOLOGY**  
A note on experimental rabies in the donkey. 16772
- HOMOGENESIS**  
Spermatozoan nucleus length in three strains of *Drosophila melanogaster*. 16490
- HOMOPTERA**  
New species and new records of Fulgoroidea (Homoptera) from Samoa and Tonga. 16293
- A physiologic difference in aphids (Homoptera) raised on excised leaves and on intact plants. 16353
- HOPS**  
Investigation of virus diseases of hops. 16637
- HORMONES**  
Left colleterial proteins in the viviparous cockroach *Nauphoeta cinerea*. 16354
- Source of the trail pheromone and method of trail laying in the ant *Crematogaster peringueyi*. 16385
- Changes in lipid content during the reproductive cycle of *Leucophaea maderae* and effects of the juvenile hormone on lipid metabolism in vitro. 16392
- Effects of ecdysone on epidermal cells in which DNA synthesis has been blocked. 16428
- Short-term effects of crustecdysone (20-hydroxyecdysone) on protein and rna synthesis in third instar larvae of *Calliphora*. 16437
- Patty liver studies in laying hens. 16750

SUBJECT INDEX

HYPERPARASITISM

<b>HORSES</b>		<b>HYDROCARBONS</b>	
Selenium-responsive diseases of animals in New Zealand.	16746	Identification and functions of secretion from the posterior scent gland of fifth instar larva of the bug <i>Dysdercus intermedius</i> .	16274
A suspected case of muscular dystrophy in a horse.	16749	<b>HYDROGEN-ION CONCENTRATION</b>	
A note on experimental rabies in the donkey.	16772	The metabolism of carbaryl (1-naphthyl-N-methylcarbamate) by the fat body of the blowfly larva <i>Calliphora erythrocephala</i> .	16440
<b>HOST INOXYING (PLANTS)</b>		Cultural studies of sexual reproduction of <i>Ceratocystis fagacearum</i> .	16512
Natural occurrence of tobacco ringspot virus <i>Pelargonium</i> in Ontario.	16611	Biophysical and biochemical studies on the nature of resistance of pineapples to the oriental fruit fly.	16710
<b>HOT WATER TREATMENT (PLANTS)</b>		Effect of pH on recovery of fungi from foods.	16894
Method of determining the sensitivity of fungus spores to hot water.	16656	Fungus flora, germinability and fat acidity values of stored corn.	16895
<b>HUMAN DISEASES</b>		The adsorption of chlorinated hydrocarbon pesticides on an unconsolidated aquifer substrate.	16901
The serological differentiation of viruses in the tick-borne encephalitis subgroup by the gel-diffusion method.	16502	The partitioning and distribution of simazine and propanil in spinach chloroplasts.	16927
Field study of the safety of Abate for treating potable water and observations on the effectiveness of a control programme involving both Abate and malathion.	16505	The oxidation of indole-3-acetaldehyde and its 1-methyl derivative by horseradish peroxidase.	16941
Comments on bovine adenoviruses.	16825	<b>HYDROLYSIS</b>	
Salmonellosis typhimurium. Some epidemiological and therapeutical problems of salmonellosis.	16846	Studies on the interaction of p-Mercuribenzoate with turnip yellow mosaic virus. V. Induced ribonuclease sensitivity and degradation of the virion.	16608
Antigenic relationship between influenza A viruses of human and animal origin.	16853	<b>HYDROPONICS</b>	
<b>HUMANS</b>		Mineral nutrition of cacao ( <i>Theobroma cacao</i> L.). Comparison of plant growth and nutrient content of leaves of six C.B.I. varieties grown in optimum and deficient conditions in sand culture.	16524
Isolation of <i>Listeria monocytogenes</i> from vegetation.	16857	<b>HYDROXY-N,N-DIMETHYL-CIS-CROTONAMIDE DIMETHYLPROSPRATE, 3-</b> An evaluation of Bidrin for control of <i>Scolytus multistriatus</i> , the primary vector of <i>Ceratocystis ulmi</i> .	16709
<b>HUMIC ACIDS</b>		<b>HYDROXYECDYSONE, 20-</b> Short-term effects of crumstedcysone (20-hydroxyecdysone) on protein and rna synthesis in third instar larvae of <i>Calliphora</i> .	16437
Humus acids as a nutrition source for some white-rot fungi.	16685	<b>HYGIENE</b>	
<b>HUMIDITY</b>		Behaviour genetics of nest cleaning in honeybees. V. effect of previous experience and composition of mixed colonies on response to disease-killed brood.	16468
Fluctuations in natural populations of <i>Orosophila</i> with special attention to sex ratio.	16261	<b>HYLEMYA</b>	
Quantitative dietary requirements of <i>Oryzaephilus surinamensis</i> (L.) (Coleoptera: Silvanidae) for phenylalanine and tyrosine.	16378	Cabbage maggot resistance to organochlorine insecticides.	16317
Bioclimatic studies of the aphid parasite <i>Praon exsoletum</i> . 1. Effects of temperature on the functional response of females to varying host densities.	16432	<b>HYMENOPTERA</b>	
Flight height, droplet size, and moisture influence on grasshopper control achieved with malathion applied aerially at ULV.	16455	New Canadian Braconidae (Hymenoptera).	16314
Some responses of flying <i>Aedes aegypti</i> to visual stimuli.	16481	On some new species of <i>Tetramesa</i> Walk., with notes on their parasites (Hymenoptera: Chalcidoidea).	16342
Effects of some physical and biological factors on the reproduction, development, survival, and behavior of the cereal leaf beetle, <i>Oulema melanopus</i> (Linnaeus), under laboratory conditions.	16485	An interesting parasite of Thysanoptera: <i>Tetrastichus gentilei</i> (Hym. Chalcididae).	16365
A dynamic-equilibrium illuminated temperature-, humidity-, and pollutant-controlled plant fumigation chamber. (Abstract).	16559	<b>HYOSTRONGYLUS BURIDUS</b>	
Ejection and dissemination of ascospores of <i>Rhizoglyphus pruinosus</i> .	16578	Experiences with a new broad-spectrum anthelmintic dichlorvos, in the adult pig.	16740
The temperature-humidity-relationship in the activity of the common wood tick.	16867	<b>HYPERA</b>	
Fungus flora, germinability and fat acidity values of stored corn.	16895	The life cycle of <i>Hypera brunneipennis</i> and a parasite, <i>Bathyplectes curculionis</i> , in relation to temperature.	16273
Sionomics of <i>Glycyphagus domesticus</i> (de Geer) (Acarina: Glycyphagidae), a pest of stored grain.	16897	<b>HYPERA POSTICA</b>	
<b>HYALOPHORA CECROPIA</b>		Survival of overwintering alfalfa weevil eggs in Pennsylvania.	16466
Effects of ecyosone on epidermal cells in which DNA synthesis has been blocked.	16428	<b>HYPERCORTISONISM</b>	
Phospholipid synthesis during flight muscle development in the American silkworm, <i>Hyalophora cecropia</i> .	16464	Corticosteroid overdosage in dogs.	16907
<b>HYDRACHNELLAE</b>		<b>HYPERGLYCEMIA</b>	
The aquatic Acarina of Sweden. III.	16427	Corticosteroid overdosage in dogs.	16907
		<b>HYPERPARASITISM</b>	
		Hyperparasites on some ascomycetes from Hyderabad, India.	16660



SUBJECT INDEX

HYPERSENSITIVITY

HYPERSENSITIVITY

Susceptibility and hypersensitivity to tobacco mosaic virus in wild species of potatoes. 16603

Changes in respiration rate of tobacco leaves infested with bacteria in relation to the hypersensitive reaction. 16647

HYPERTENSION

Imidocarbonates. Patent 3,401,201. 16967

HYPODERMA

Effect of ronnel mineral block (Rid-Exy) on control of cattle grubs and weight gain of beef cattle. 16802

HYPODERMA BOVIS

Extermination of cattle grubs (*Hypoderma* spp.) on a regional basis. 16799

HYPODERMA LINEATUM

Extermination of cattle grubs (*Hypoderma* spp.) on a regional basis. 16799

HYPOXYLON PRUINATUM

Ejection and dissemination of ascospores of *Hypoxylon pruinatum*. 16578

ICHTHOMONIDAE

The biology of *Campoplex baywardi* (Hymenoptera: Ichneumonidae), a primary parasite of the potato tuberworm. 16418

IMMUNITY

Rice water weevil resistance to aldrin in Texas. 16366

Effect of irrigation and submersion in water on pupal survival of the bollworm. 16483

Effect of trace-elements bound to superphosphates on the resistance of potato tubers to *Phytophthora infestans* (Mont.) de Bary. 16643

Biophysical and biochemical studies on the nature of resistance of pineapples to the oriental fruit fly. 16710

Risk of resistance to chloramphenicol. 16761

A new anti-coccidial drug (M and B 15,497): activity studies against laboratory and field strains of *Eimeria*. 16789

Immune response of steers inoculated with chemically-treated foot-and-mouth disease virus preparations previously studied in swine. 16819

Bactericidal antibody studies in maternal serum, colostrum, and newborn serum of the pig. 16856

Studies on immunity of calves to *Dictyocaulus viviparus* reinfection. II. Relationship between the age of calves and the dose of larvae causing clinical and lethal course of dictyocaulosis. 16888

Studies on immunity of calves to *Dictyocaulus viviparus* reinfection. I. Immunization with single and double doses of normal or irradiated larvae. 16889

Multiple drug resistance. 16965

IMMUNIZATION

A genetic study of leaf rust resistance in wheat. 16623

A quantitative local lesion bioassay for *Corynebacterium michiganense*. 16624

Survival of root-infecting fungi in soil. VI. Effect of amendments on bean root rot caused by *Thielaviopsis basicola* and on inoculum density of the causal organism. 16653

Comparative susceptibility of large and small spruce roots to *Polyporus tomentosus*. 16698

Experimental infection of sheep and goats with attenuated and virulent strains of rinderpest virus. 16748

Bovine rhinoviruses. 16752

Comments on complications following vaccination of cattle against bovine respiratory diseases. 16754

Present status of immunization procedures for infectious

bovine rhinotracheitis. 16757

Pasteurellae in bovine respiratory disease. 16762

Bovine adenoviruses. 16765

Present status of immunization procedures for pasteurellosis. 16770

A note on experimental rabies in the donkey. 16772

Comments on control and management of respiratory diseases in beef cattle. 16775

Comments on immunization procedures for pasteurellosis. 16778

Comments on complications following vaccination against bovine respiratory diseases. 16779

Management of respiratory diseases in dairy cattle. 16781

Comments on vaccination for bovine viral diarrhoea-mucosal disease. 16785

Comments on management of respiratory diseases in dairy cattle. 16790

Comments on bovine viral diarrhoea-mucosal disease. 16791

Comments on combination vaccines for bovine respiratory diseases. 16793

Antibody response and protection induced by immunization with smooth and rough strains in experimental salmonellosis. 16798

Comments on combination vaccines for bovine respiratory diseases. 16800

Comments on bovine parainfluenza-3 immunization procedures. 16804

Reoviruses. 16806

Infectious bronchitis in laying fowls; its effect upon egg production and subsequent egg quality. 16814

Foot-and-mouth disease in swine: response to inactivated vaccines. 16818

Preliminary investigation of methods for evaluating inactivated vaccines for infectious bronchitis virus. 16821

Comments on bovine rhinoviruses. 16824

Comments on bovine adenoviruses. 16825

Role of genetic factors and fowl pox virus in parthenogenesis in turkey eggs. 16831

Comments on bovine parainfluenza-3 immunization procedures. 16834

Comments on complications that arise after vaccination against bovine respiratory diseases. 16835

Comments on combination vaccines for bovine respiratory diseases. 16836

Potency evaluation of vaccines used against bovine respiratory diseases. 16838

Malignant catarrhal fever. 16840

Complications following vaccination of cattle against infectious bovine rhinotracheitis, bovine viral diarrhoea-mucosal disease, and parainfluenza type 3. 16841

Comments on the role of natural antibody in immunologic competence. 16843

Comments on immunization procedures for pasteurellosis. 16850

Comments on bovine viral diarrhoea-mucosal disease. 16851

Laboratory evaluation of bovine respiratory disease vaccines for safety. 16852

## SUBJECT INDEX

INOSITOL

- Bactericidal antibody studies in maternal serum, colostrum, and newborn serum of the pig. 16856
- Basic principles of immunity in cattle. 16858
- The natural history of bovine myxovirus parainfluenza-3. 16860
- Infectious bovine rhinotracheitis. 16862
- Comments on immunity in cattle. 16864
- Studies on the biology and immunology of *Ascaris suum* in mice. 16877
- Acute toxicity of n-alpha-olefin sulfonates. 16912
- IMMUNOCHEMISTRY**  
Immunochemical analysis of the origin of a sex-specific accumulated blood protein in female houseflies. 16364
- IMMUNODIAGNOSIS**  
Immunodiffusion tests with three isolates of barley yellow dwarf virus. (Abstract). 16533
- IMMUNOLOGY**  
Immunological relationships between the parasite *Cardiochiles nigriceps* Vierick and certain *Heliothis* species. 16420
- Antigenic variations in isolates of infectious bronchitis virus. 16751
- Immunological response of the pig as affected by amino acid nutrition. 16815
- INCLUSION BODIES**  
A note on experimental rabies in the donkey. 16772
- INDICATOR PLANTS**  
A comparison of the electron microscope, microprecipitin tests, and indicator plants for the detection of potato viruses S, X, and Y. 16667
- INDOLE-3-ACETALDEHYDE**  
The oxidation of indole-3-acetaldehyde and its 1-methyl derivative by horseradish peroxidase. 16941
- INDOLEACETIC ACID**  
Studies on the salivary physiology of plant-bugs: Experimental induction of galls. 16433
- Uptake and metabolism of indoleacetic acid, naphthalene-acetic acid, and 2,4-dichlorophenoxyacetic acid by pea root segments in relation to growth inhibition during and after auxin application. 16511
- Effect of boron on ribonucleic acid and indoleacetic acid metabolism in the apical meristems of sunflower plants. 16520
- Indoleacetic acid oxidase activity in banana roots. 16629
- The oxidation of indole-3-acetaldehyde and its 1-methyl derivative by horseradish peroxidase. 16941
- INDUSTRY**  
Some economics of air pollution control. 16972
- INFECTIOUS BOVINE RHINOTRACHEITIS VIRUS**  
Pasteurellae in bovine respiratory disease. 16762
- Comments on bovine respiratory infections in northeastern dairy cattle. 16796
- Bovine respiratory infections. 16816
- Studies on the pathogenesis of infectious bovine rhinotracheitis following aerosol exposure. 16845
- INFECTIOUS BRONCHITIS**  
Infectious bronchitis in laying fowls; its effect upon egg production and subsequent egg quality. 16814
- INFECTIOUS BRONCHITIS VIRUS**  
Antigenic variations in isolates of infectious bronchitis virus. 16751
- Mycoplasma gallisepticum* infection and boiler weight. 16820
- Preliminary investigation of methods for evaluating inactivated vaccines for infectious bronchitis virus. 16821
- INFECTIOUS DISEASES**  
Future requirements for prevention and control of bovine respiratory diseases in the United States. 16743
- Experimental infection of sheep and goats with attenuated and virulent strains of rinderpest virus. 16748
- Comments on control and management of respiratory diseases in beef cattle. 16763
- Comments on control and management of respiratory diseases in beef cattle. 16775
- Comments on management of respiratory diseases in dairy cattle. 16790
- Mycoplasma gallisepticum* infection and hoiler weight. 16820
- Malignant catarrhal fever. 16840
- A study of the ultrastructure of the intestinal epithelial cells of piglets infected with a transmissible gastroenteritis virus. 16854
- Basic principles of immunity in cattle. 16858
- Comments on immunity in cattle. 16864
- INFLUENZA VIRUSES**  
Antigenic relationship between influenza A viruses of human and animal origin. 16853
- INFRARED SPECTRA**  
Process for oxidizing soluble alkylene bisdithiocarbamates to produce an oxygen containing product, and the product of said process. Patent 3,401,182. 16591
- INHIBITANCE**  
A formula for determining degree of dominance in cases of monofactorial inheritance of resistance to chemicals. 16499
- INJECTIONS**  
Effects of ecovsone on epidermal cells in which DNA synthesis has been blocked. 16428
- Studies on the salivary physiology of plant-bugs: Experimental induction of galls. 16433
- Short-term effects of crustecdysone (20-hydroxyecdysone) on protein and rna synthesis in third instar larvae of *Calliphora*. 16437
- Okauva virus proliferation in mosquitos. 16507
- Polyphenols and discoloration in the elm disease investigated by histochemical techniques. 16580
- Effect of magnesium trisilicate on the infectivity of tobacco mosaic virus. 16607
- Changes in respiration rate of tobacco leaves infested with bacteria in relation to the hypersensitive reaction. 16647
- Resistance to spread of virus from cell to cell in T. I. 245 tobacco. 16687
- Treatment of salt poisoning in pigs. 16745
- Scrapic agent in blood. 16773
- Experimental ovine listeriosis. III. Inoculation of rams. 16848
- INJURIES**  
Short-term effects of crustecdysone (20-hydroxyecdysone) on protein and rna synthesis in third instar larvae of *Calliphora*. 16437
- INOSITOL**  
Dietary requirements of the bollworm, *Heliothis zea* (Lepidoptera: Noctuidae), for lipids, choline, and inositol and the effect of fats and fatty acids on the composition of the body fat. 16470

SUBJECT INDEX

INSECT ADAPTATION

INSECT ADAPTATION

A physiologic difference in aphids (Homoptera) raised on excised leaves and on intact plants. 16353  
 Metabolic thermal adaptations in the mosquito *Culex pipiens pipiens* (Diptera: Culicidae). 16447

INSECT ANATOMY

Information on stream inhabiting Chironomidae of Hungary. 16268  
 Ten new chrysomelid beetles from Dominica and Jamaica. 16269  
 A comparison of the larval and pupal nervous systems of the corn earworm, *Heliothis zea* (Lepidoptera: Noctuidae). 16279  
 Some Tineid moths of the Ethiopian region in the collections of the British Museum (Nat. Hist.). I. 16301  
 Additional evidence that aphids ingest through an open stylet sheath. 16307  
 A new *Plectrochophorus* living on *Erigeron*. (Hom. Aphididae). 16312  
 Comparative fine structure of sclerotized and unsclerotized integument of the rabbit tick, *Haemaphysalis leporipalustris* (Acari: Ixodidae: Ixodidae). 16324  
 Pygidial glands in male *Opius* (Hymenoptera: Braconidae). 16367  
 Types of feeding and structure of mandibles in different life forms of grasshoppers. 16371  
 Source of the trail pheromone and method of trail laying in the ant *Crematogaster peringueyi*. 16385  
 Comparative morphology of the genital area of triploid intersexes of *Orosophila melanogaster*. 16415  
 Bionomics, sexual behavior, and adult anatomy of the albid group of the genus *Epicauta* (Coleoptera: Meloidae). 16430  
 Aspects concerning the mode of action of insecticide. 16443  
 Structure and physiology of a chordotonal organ in the locust leg. 16469

INSECT BEHAVIOR

Fluctuations in natural populations of *Orosophila* with special attention to sex ratio. 16261  
 Mating behavior, egg production, and egg fertility in the pear psylla. 16272  
 Aspects of orientation behavior in the ambrosia beetle *Trypodendron lineatum* (Olivier). 16294  
 The attractiveness of female to male peach tree borers. 16305  
 Dispersal patterns and populations of the house fly affected by sanitation and weather in rural Maryland. 16331  
 Control implications of a behavioral trait in male horn flies. 16351  
 A water-soluble factor in *Melilotus officinalis* leaves which stimulates feeding by the adult sweetclover weevil. 16355  
 The biology and ecology of *Anaphes flavipes* (Hymenoptera: Mymaridae), an exotic egg parasite of the cereal leaf beetle. 16357  
 The diel oviposition periodicity of the black fly, *Simulium vittatum*. 16372  
 Attractiveness of logs containing female spruce beetles, *Oendroctonus oshesii* (Coleoptera: Scolytidae). 16381  
 Ecological significance of respiration and substrate for burrowing Ephemeroptera. 16383  
 Source of the trail pheromone and method of trail laying in the ant *Crematogaster peringueyi*. 16385  
 Movements, host-fungus preferences, and longevity of *Bolitotherus cornutus* (Coleoptera: Tenebrionidae). 16397

Vital dyes as markers for behavioral and population studies of the larch sawfly, *Pristiphora erichsonii* (Hymenoptera: Tenthredinidae). 16398  
 The influence of nutrient chemicals on the feeding behavior of the Colorado potato beetle, *Leptinotarsa decemlineata* (Coleoptera: Chrysomelidae). 16401  
 Comparative study of pollen sources of honeybees and humble bees. 16408  
 Bionomics, sexual behavior, and adult anatomy of the albid group of the genus *Epicauta* (Coleoptera: Meloidae). 16430  
 Methods of killing pests selected from the group consisting of bites and insects with phosphonothioates. Patent 3,401,220. 16461  
 Ecology and behavior of the migratory locust in southwest Madagascar. 16463  
 Sex attraction in the Mediterranean flour moth, *Anagasta kuhniella*: location of the female by the male. 16467  
 Behaviour genetics of nest cleaning in honeybees. V. effect of previous experience and composition of mixed colonies on response to disease-killed brood. 16468  
 Structure and physiology of a chordotonal organ in the locust leg. 16469  
 Source of a substance in *Heliothis virescens* (Lepidoptera: Noctuidae) that elicits a searching response in its habitual parasite *Cardiobiles nigriceps*. (Hymenoptera: Braconidae). 16471  
 Some responses of flying *Aedes aegypti* to visual stimuli. 16481  
 Effects of some physical and biological factors on the reproduction, development, survival, and behavior of the cereal leaf beetle, *Oulema melanopus* (Linnaeus), under laboratory conditions. 16485  
 Temperature compensation of the circadian oscillation in *Orosophila pseudoobscura* and its entrainment by temperature cycles. 16487  
 Time of arrival of gravid *Culex pipiens fatigans* at an oviposition site, the oviposition cycle and the relationship between time of feeding and time of oviposition. 16500  
 Cane-sugar feeding in *Culex pipiens fatigans*. 16501  
 Felted grass coccid on Rhodes grass in Queensland. 16703  
 The impact of tuliptree scale feeding on its host, yellow-poplar. 16704  
 The temperature-humidity-relationship in the activity of the common wood tick. 16867

INSECT BIOLOGY

The pine engraver, *Ips pini* (Coleoptera: Scolytidae), in the southern Appalachian Mountains. 16282  
 Laboratory studies of sex attraction in the holl weevil. 16303  
 Observations on the breeding of *Lycophotia molothina* (Lepidoptera, Noctuidae). 16308  
 Influence of photoperiod and temperature on diapause in the face fly, *Musca autumnalis* (Diptera: Muscidae). 16340  
 On some new species of *Tetramesa* Walk., with notes on their parasites (Hymenoptera: Chalcidoidea). 16342  
 Some unknown data concerning miners (Lepidoptera). 16343  
 The biology and ecology of *Anaphes flavipes* (Hymenoptera: Mymaridae), an exotic egg parasite of the cereal leaf beetle. 16357  
 Biology of *Oeltocephalus sonorus* (Homoptera: Cicadellidae). 16394



SUBJECT INDEX

INSECT ECOLOGY

- Biology of the corn earworm and control with insecticides and virus in Washington. 16407
- The biology of *Campoplex haywardi* (Hymenoptera: Ichneumonidae), a primary parasite of the potato tuberworm. 16418
- Preliminary report on the introduction of *Phytoseiulus persimilis* to Poland. 16421
- The innervation of the terminal abdominal segments (VII- XI) of the desert locust, *Schistocera gregaria*. 16451
- Biological notes on, and eradication of *Trichogramma semifumatum* from laboratory cultures of eight species of Noctuidae. 16458
- The reproductive biology of *Hippelates collusor* (Diptera: Chloropidae). II. Gametogenesis. 16489
- Cane-sugar feeding in *Culex pipiens fatigans*. 16501
- External parasites of domestic pigeon in United Arabic Republic. 16869
- INSECT CAGES**
- A suggested method of collectings insects associated with forage grass seed production. 16265
- An environmental cabinet with variable air velocity for insect studies. 16338
- Biophysical and biochemical studies on the nature of resistance of pineapples to the oriental fruit fly. 16710
- Field-cage releases of *Chrysopa carnea* for suppression of populations of the bollworm and the tobacco budworm on cotton. 16712
- INSECT COLLECTING EQUIPMENT**
- A suggested method of collectings insects associated with forage grass seed production. 16265
- INSECT CONTROL**
- Investigations with the new organic phosphorus compounds. 16369
- The permanent and cumulative effect of tepa-induced sterility in male Japanese beetles. 16411
- Effects of ionizing radiation on the European chafer, the plum curculio, and the large milkweed bug. 16422
- Investigations of new insecticides. 16480
- Inherited sterility in progeny of irradiated male cabbage loopers. 16496
- Time of arrival of gravid *Culex pipiens fatigans* at an oviposition site, the oviposition cycle and the relationship between time of feeding and time of oviposition. 16500
- Cane-sugar feeding in *Culex pipiens fatigans*. 16501
- Field study of the safety of Abate for treating potable water and observations on the effectiveness of a control programme involving both Abate and malathion. 16505
- Recent advances in techniques for tsetse fly control: With special reference to northern Nigeria. 16506
- The role of biological control in the integrated programs of plant protection. 16523
- New results on the control of the millet caterpillar, *Laphygma frugiperda*. 16701
- Felted grass coccid on Rhodes grass in Queensland. 16703
- Insect pests of farm, garden, and orchard. SB951. D3. 16705
- Integrated pest control in orchards. 16708
- Field-cage releases of *Chrysopa carnea* for suppression of populations of the bollworm and the tobacco budworm on cotton. 16712
- INSECT CULTURES**
- Eggs of floodwater mosquitoes (Diptera: Culicidae). XI. Effect of medium on hatching of *Aedes sticticus*. 16345
- In vitro cultivation of *Choristoneura fumiferana* (Clemens) (Lepidoptera: Tortricidae) tissues. 16457
- INSECT DISEASES**
- Leptomonas oestri* n.sp., a flagellate parasite of the digestive tract of *Oestrus ovis*. 16328
- Nosema apis* and dysentery of the honeybee. 16359
- Laboratory research on *Acarapis woodi* Bennie, the causative agent of acarine disease of the honeybee. note 5. 16393
- Biology of the corn earworm and control with insecticides and virus in Washington. 16407
- Observations of the spread of mycosis in mosquitoes. 16438
- Plistophora scolyti* sp. n. (Protozoa, Microsporidia), a new parasite of *Scolytus scolytus* F. (Col., Scolytidae). 16475
- Triplosporium tetranynchi* sp. n. (Phycomycetes, Entomophthoraceae), a fungus infecting the red mite *Tetranychus althaeae* Hanst. 16476
- INSECT DISSEMINATION**
- The distribution of *Dermacentor* ticks in Canada in relation to bioclimatic zones. 16350
- Vital dyes as markers for behavioral and population studies of the larch sawfly, *Pristiphora erichsonii* (Hymenoptera: Tenthredinidae). 16398
- Flight activity of honeybees in a flight and rearing room. I. The influence of light intensity. 16436
- The effect of age on the flight performance of female *Aedes aegypti* mosquitoes. 16446
- Flight height, droplet size, and moisture influence on grasshopper control achieved with malathion applied aerially at ULV. 16455
- Cane-sugar feeding in *Culex pipiens fatigans*. 16501
- INSECT ECOLOGY**
- Differences in ecological responses of three biotypes of *Ostrinia nubilalis* from the north central United States. 16280
- The pine engraver, *Ips pini* (Coleoptera: Scolytidae), in the southern Appalachian Mountains. 16282
- Ecology of insect populations in theory and practice. Q1496. C55. 16283
- Comparison of the soil inhabiting Coleoptera from two oak-birch forests. 16309
- An environmental cabinet with variable air velocity for insect studies. 16338
- The biology and ecology of *Anaphes flavipes* (Hymenoptera: Mymaridae), an exotic egg parasite of the cereal leaf beetle. 16357
- Taxonomy and the integrated control of mites. 16363
- Ecological significance of respiration and substrate for burrowing Ephemeroptera. 16383
- Supercooling of the saguaro species *Drosophila nigrospiracula* in the Sonoran Desert. 16425
- Bionomics, sexual behavior, and adult anatomy of the albid group of the genus *Epicauta* (Coleoptera: Meloidae). 16430
- Ecology and behavior of the migratory Locust in southwest Madagascar. 16463
- Field trials to control Colorado beetle, *Leptinotarsa decemlineata*, with *Perillus bioculatus*. 16474
- Effects of some physical and biological factors on the reproduction, development, survival, and behavior of the

SUBJECT INDEX

INSECT EGGS

cereal leaf beetle, *Oulema melanopus* (Linnaeus), under laboratory conditions. 16485  
 The temperature-humidity-relationship in the activity of the common wood tick. 16B67

INSECT EGGS

Inhibition by 5-fluoroorotic acid of the ovarian development of house flies, *Musca domestica*. 16322

Eggs of floodwater mosquitoes (Diptera: Culicidae). XI. Effect of medium on hatching of *Aedes sticticus*. 16345

The biology and ecology of *Anaphes flavipes* (Hymenoptera: Mymaridae), an exotic egg parasite of the cereal leaf beetle. 16357

The diel oviposition periodicity of the black fly, *Simulium vittatum*. 16372

The effects of cadmium compounds on reproduction and growth of the stable fly, *Stomoxys calcitrans* (Linnaeus). 16410

Mass sterilization of Japanese beetles with tepa and the determination of residues. 16412

The biology of *Campoplex haywardi* (Hymenoptera: Ichneumonidae), a primary parasite of the potato tuberworm. 16418

Effects of ionizing radiation on the European chafer, the plum curculio, and the large milkweed bug. 16422

The effect of temperature upon the development of the heart-and-dart moth (*Agrotis exclamationis* L.). 16431

Oothecae of the Blattaria. 16444

Ovarioles of the Blattaria. 16445

Biological notes on, and eradication of *Trichogramma semifumatum* from laboratory cultures of eight species of Noctuidae. 16458

Defense reactions of *Drosophila* species (Diptera: Drosophilidae) to the parasite *Pseudeucoila bocbei* (Hymenoptera: Cynipidae). 16459

Survival of overwintering alfalfa weevil eggs in Pennsylvania. 16466

Embryology of the house fly, *Musca domestica* (Diptera: Muscidae), to the blastoderm stage. 16477

Inherited sterility in progeny of irradiated male cabbage loopers. 16496

Biophysical and biochemical studies on the nature of resistance of pineapples to the oriental fruit fly. 16710

Field-cage releases of *Chrysopa carnea* for suppression of populations of the bollworm and the tobacco budworm on cotton. 16712

Action of aqueous iodine on ova of *Ascaris lumbricoides* and *Ascaris suum*. 16716

INSECT EVOLUTION

Oothecae of the Blattaria. 16444

Ovarioles of the Blattaria. 16445

Population inter-relationships. I. Evolution in mixtures of *Drosophila* mutants. 16452

INSECT FLIGHT

Aspects of orientation behavior in the ambrosia beetle *Trypodendron lineatum* (Olivier). 16294

Flight height, droplet size, and moisture influence on grasshopper control achieved with malathion applied aerially at ULV. 16455

Phospholipid synthesis during flight muscle development in the American silkworm, *Hyalophora cecropia*. 16464

Effects of some physical and biological factors on the reproduction, development, survival, and behavior of the cereal leaf beetle, *Oulema melanopus* (Linnaeus), under laboratory conditions. 16485

INSECT GENETICS

Fluctuations in natural populations of *Drosophila* with special attention to sex ratio. 16261

Changes in lipid content during the reproductive cycle of *Leucophaea maderae* and effects of the juvenile hormone on lipid metabolism in vitro. 16392

A study of a melanic mutant of the blowfly *Lucilia cuprina*. 16395

Dosage compensation as a developmental phenomenon in *Drosophila*. 16416

Behaviour genetics of nest cleaning in honeybees. V. effect of previous experience and composition of mixed colonies on response to disease-killed brood. 16468

Cytogenetic observations on species A and B of the *Anopheles gambiae* complex. 16491

Inherited sterility in progeny of irradiated male cabbage loopers. 16496

Mutation and chromosomal puffing in the vicinity of the white locus of *Drosophila melanogaster*. 16497

Physiological genetics of melanotic tumors in *Drosophila melanogaster*. IV. Gene-environment interactions of tu-bw with different third chromosome backgrounds. 16498

A formula for determining degree of dominance in cases of monofactorial inheritance of resistance to chemicals. 16499

INSECT HISTOLOGY

Contribution to the histochemical study of the digestive organs of *Rhagium bifasciatum*. (Col. Cerambycidae). 16390

INSECT IDENTIFICATION

A suggested method of collecting insects associated with forage grass seed production. 16265

Ten new chrysomelid beetles from Dominica and Jamaica. 16269

Mosquitoes of the genus *Culiseta* in Connecticut (Diptera: Culicidae). 16348

Taxonomy and the integrated control of mites. 16363

INSECT METABOLISM

Utilization of tricarboxylic acid cycle intermediates by *Haemaphysalis contortus* larvae. 16321

Amino acid requirements and sulfur amino acid metabolism in the pea aphid, *Acyrtosiphon pisum* (Barris). 16334

Pyruvate kinase in *Haemaphysalis contortus* larvae. 16349

Testicular and haemolymph amino acids of *Poecilocerup pictus* (Acrididae). 16379

Hexamine metabolism in imaginal disks of *Drosophila melanogaster*. 16388

Changes in lipid content during the reproductive cycle of *Leucophaea maderae* and effects of the juvenile hormone on lipid metabolism in vitro. 16392

Penetration, excretion, and metabolism of carbaryl in susceptible and resistant German cockroaches. 16409

Evidence for the DDT-INDUCED synthesis of messenger ribonucleic acid in *Triatoma infestans*. 16423

The metabolism of carbaryl (1-naphthyl-N-methylcarbamate) by the fat body of the blowfly larva *Calliphora erythrocephala*. 16440

Metabolic thermal adaptations in the mosquito *Culex pipiens pipiens* (Diptera: Culicidae). 16447

Phospholipid synthesis during flight muscle development in the American silkworm, *Hyalophora cecropia*. 16464

Response and recovery on X-irradiated *Tribolium confusum* larvae. 16482

## SUBJECT INDEX

## INSECT PHYSIOLOGY

- INSECT MIGRATION**  
 Movements, host-fungus preferences, and longevity of *Bolitotherus cornutus* (Coleoptera: Tenebrionidae). 16397
- INSECT MORPHOLOGY**  
 Mortality of boll weevils in squares of genotypically different lines of cotton. 16267  
 The life cycle of *Hypera brunneipennis* and a parasite, *Bathyplectes curculionis*, in relation to temperature. 16273  
 Developmental morphology of the alimentary canal of *Heliothis zea* (Lepidoptera: Noctuidae). 16278  
 The increasing Chaoborid midge problem in California. 16284  
 Influence of constituents of the cotton plant on feeding, oviposition, and development of the boll weevil. 16315  
 Patterns of structural diversity in the males of some *Phlaeophilous tubnifera*. (Thysanoptera). 16356  
 Immunochemical analysis of the origin of a sex-specific accumulated blood protein in female houseflies. 16364  
 An interesting parasite of Thysanoptera: *Tetrastichus gentilei* (Hym. Chalcididae). 16365  
 Attractiveness of logs containing female spruce beetles, *Dendroctonus obesus* (Coleoptera: Scolytidae). 16381  
 Ecological significance of respiration and substrate for burrowing Ephemeroptera. 16383  
 Contribution to the histochemical study of the digestive organs of *Rhagium bifasciatum*. (Col. Cerambycidae). 16390  
 Glandular formations of the dorsal tegument of *Saissetia oleae* (Hom. Coccidae). 16391  
 Changes in lipid content during the reproductive cycle of *Leucophaea maderae* and effects of the juvenile hormone on lipid metabolism in vitro. 16392  
 A note on the influence of a range of plant chemicals on the growth and survival of *Aedes aegypti* L. larvae. 16396  
 Comparative morphology of the genital area of triploid intersexes of *Drosophila melanogaster*. 16415  
 Dosage compensation as a developmental phenomenon in *Drosophila*. 16416  
 Evidence of winged insect sexual dimorphism in *Philophylla heraclei* (Dipt. Trypetidae) through use of a "photoperimeter". 16419  
 Two effects of photoperiod on wing development in *Grylodes sigillatus* (Walk). 16429  
 Structure and formation of coaptations of the maxillary stylets of *Rhodnius prolixus*. (Heter. Reduviidae). 16439  
 The innervation of the terminal abdominal segments (VII- XI) of the desert locust, *Schistocera gregaria*. 16451  
 Segmentation and organogenesis in *Limnoria lignorum* (Rathke) (Isopoda). 16460  
 Phospholipid synthesis during flight muscle development in the American silkworm, *Hyalophora cecropia*. 16464
- INSECT MUTATION**  
 A study of a melanistic mutant of the blowfly *Lucilia cuprina*. 16395  
 Population inter-relationships. I. Evolution in mixtures of *Drosophila* mutants. 16452  
 Mutation and chromosomal puffing in the vicinity of the white locus of *Drosophila melanogaster*. 16497
- INSECT NUTRITION**  
 Sterility in house flies offered a choice of untreated diets and diets treated with chemosterilants. 16297  
 Additional evidence that aphids ingest through an open stylet sheath. 16307  
 Modified laboratory techniques for preparing sterile larval diets for the boll weevil. 16310  
 Influence of constituents of the cotton plant on feeding, oviposition, and development of the boll weevil. 16315  
 Oligidic diets for *Acheta domesticus* (Orthoptera: Gryllidae). 16329  
 Estimation of carcass analysis of the growth requirements for amino acids in the codling moth, *Carpocapsa pomonella* (Lepidoptera: Olethreutidae). 16335  
 A physiologic difference in aphids (Homoptera) raised on excised leaves and on intact plants. 16353  
 Dietary amino acid requirements of the aphid, *Myzus persicae*. 16375  
 Quantitative dietary requirements of *Oryzaephilus surinamensis* (L.) (Coleoptera: Silvanidae) for phenylalanine and tyrosine. 16378  
 A note on the influence of a range of plant chemicals on the growth and survival of *Aedes aegypti* L. larvae. 16396  
 The influence of nutrient chemicals on the feeding behavior of the Colorado potato beetle, *Leptinotarsa decemlineata* (Coleoptera: Chrysomelidae). 16401  
 Dietary requirements of the hollyhock, *Heliothis zea* (Lepidoptera: Noctuidae), for lipids, choline, and inositol and the effect of fats and fatty acids on the composition of the body fat. 16470  
 Studies on the development of insect resistant sorghum varieties and hybrids. 16707
- INSECT OUTBREAK FORECASTING**  
 Estimation of oviposition by the fir engraver, *Scolytus ventralis* (Coleoptera: Scolytidae). 16361  
 Diseases and pests of the more important crops in 1966 and the forecast for 1967. 16714
- INSECT OUTBREAKS**  
 Ecology and behavior of the migratory Locust in southwest Madagascar. 16463  
 Felted grass coccid on Rhodes grass in Queensland. 16703
- INSECT PESTS**  
 Differences in ecological responses of three biotypes of *Ostrinia nubilalis* from the north central United States. 16280  
 Ecology of insect populations in theory and practice. QL496. C55. 16283  
 Controlling insect enemies of the alfalfa leaf-cutter bee, *Megachile rotundata*. 16400  
 Ecology and behavior of the migratory Locust in southwest Madagascar. 16463  
 Felted grass coccid on Rhodes grass in Queensland. 16703  
 Insect pests of farm, garden, and orchard. SB951. D3. 16705  
 Bionomics of *Glycyphagus domesticus* (de Geer) (Acarina: Glycyphagidae), a pest of stored grain. 16897  
 Effect of substrate temperature on emergence and growth of seedling cotton following in-furrow applications of Temik (10 % G formulation of union carbide UC-21149). 16922
- INSECT PHYSIOLOGY**  
 Glutamic acid requirements of the saw-toothed grain beetle, *Oryzaephilus surinamensis* (L.) (Coleoptera, Silvanidae). 16286  
 Temperature effects on nerve activity in DDT-TREATED American cockroaches. 16289  
 A new aberration of *Pieris brassicae* (Linn.) (Lepidoptera, Pieridae). 16318  
 An electrophoretic study of the changes in proteins in the haemolymph during the life cycle of the boll weevil, *Anthonomus grandis* (Coleoptera: Curculionidae). 16320



## SUBJECT INDEX

## INSECT POPULATIONS

- Utilization of tricarboxylic acid cycle intermediates by *Haemaphysalis contortus* larvae. 16321
- A physiologic difference in aphids (Homoptera) raised on excised leaves and on intact plants. 16353
- Left colleterial proteins in the viviparous cockroach *Nauphoeta cinerea*. 16354
- Humor control of the water equilibrium in *Locusta migratoria migratorioides*. 16370
- Testicular and haemolymph amino acids of *Poecilocerius pictus* (Acrididae). 16379
- Glandular formations of the dorsal tegument of *Saissetia oleae* (Hom. Coccidae). 16391
- Biology of *Deltocephalus sonorus* (Homoptera: Cicadellidae). 16394
- Vital dyes as markers for behavioral and population studies of the larch sawfly, *Pristiphora erichsonii* (Hymenoptera: Tenthredinidae). 16398
- Growth, feeding activity, and the utilization of reserves in larvae of *Locusta*. 16399
- Penetration, excretion, and metabolism of carbaryl in susceptible and resistant German cockroaches. 16409
- The effects of cadmium compounds on reproduction and growth of the stable fly, *Stomoxys calcitrans* (Linnaeus). 16410
- The permanent and cumulative effect of tepa-induced sterility in male Japanese beetles. 16411
- Comparative studies of the labellar sensitivity of female tabanids (Diptera) to sucrose and sodium chloride. 16413
- Dosage compensation as a developmental phenomenon in *Drosophila*. 16416
- Evidence of winged insect sexual dimorphism in *Philophylla heraclei* (Dipt. Trypetidae) through use of a "photoperiometer". 16419
- Immunological relationships between the parasite *Cardiochiles nigriceps* Vierick and certain *Heliothis* species. 16420
- Evidence for the DDT-INDUCED synthesis of messenger ribonucleic acid in *Triatoma infestans*. 16423
- The effect of temperature upon the development of the heart-and-dart moth (*Agrotis exclamationis* L.). 16431
- Studies on the salivary physiology of plant-bugs: Experimental induction of galls. 16433
- Flight activity of honeybees in a flight and rearing room. I. The influence of light intensity. 16436
- Structure and formation of coaptations of the maxillary stylets of *Rhodnius prolixus*. (Heter. Reduviidae). 16439
- The metabolism of carbaryl (1-naphthyl-N-methylcarbamate) by the fat body of the blowfly larva *Calliphora erythrocephala*. 16440
- Factors affecting protein synthesis by the fat body of the larva of the blowfly *Calliphora erythrocephala*. 16441
- Aspects concerning the mode of action of insecticide. 16443
- Oothecae of the Blattaria. 16444
- Ovarioles of the Blattaria. 16445
- The effect of age on the flight performance of female *Aedes aegypti* mosquitoes. 16446
- Inhibition by acetylcholine of malpighian tubule muscle of the cockroach *Periplaneta americana*. 16450
- Protein synthesis in subcellular fractions of the blowfly during different developmental stages. 16453
- Phototactic response of adults of confused flour beetle and red flour beetle and larvae of black carpet beetle to flashes of blue-white light. 16456
- Biological notes on, and eradication of *Trichogramma semifumatum* from laboratory cultures of eight species of Noctuidae. 16458
- Defense reactions of *Drosophila* species (Diptera: Drosophilidae) to the parasite *Pseudeucoila bochei* (Hymenoptera: Cynipidae). 16459
- Some physiological effects of sublethal doses of DDT on flour beetles. 16462
- Survival and development of several grasshopper species on extracts of selected plant species. 16465
- Survival of overwintering alfalfa weevil eggs in Pennsylvania. 16466
- Structure and physiology of a chordotonal organ in the locust leg. 16469
- Dietary requirements of the bollworm, *Heliothis zea* (Lepidoptera: Noctuidae), for lipids, choline, and inositol and the effect of fats and fatty acids on the composition of the body fat. 16470
- Source of a substance in *Heliothis virescens* (Lepidoptera: Noctuidae) that elicits a searching response in its habitual parasite *Cardiochiles nigriceps*. (Hymenoptera: Braconidae). 16471
- Effect of irrigation and submersion in water on pupal survival of the bollworm. 16483
- Effects of some physical and biological factors on the reproduction, development, survival, and behavior of the cereal leaf beetle, *Oulema melanopus* (Linnaeus), under laboratory conditions. 16485
- Inherited sterility in progeny of irradiated male cabbage loopers. 16496
- Physiological genetics of melanotic tumors in *Drosophila melanogaster*. IV. Gene-environment interactions of tu-bw with different third chromosome backgrounds. 16498
- Studies on the development of insect resistant sorghum varieties and hybrids. 16707
- Biophysical and biochemical studies on the nature of resistance of pineapples to the oriental fruit fly. 16710

## INSECT POPULATIONS

- Ecology of insect populations in theory and practice. QL496. C55. 16283
- Estimation of oviposition by the fir engraver, *Scolytus ventralis* (Coleoptera: Scolytidae). 16361
- Vital dyes as markers for behavioral and population studies of the larch sawfly, *Pristiphora erichsonii* (Hymenoptera: Tenthredinidae). 16398

## INSECT REARING

- Number of instars of the larva of *Herse convolvuli* L. 16271
- Use of *Daphnia magna* for the microbioassay of pesticides. I. Development of standardized techniques for rearing *Daphnia* and preparation of dosage-mortality curves for pesticides. 16295
- Observations on the breeding of *Lycophotia molothina* (Lepidoptera, Noctuidae). 16308
- Laboratory research on *Acarapis woodi* Rennie, the causative agent of acarine disease of the honeybee. note 5. 16393
- Effect of insecticide-free rearing on the reproductive potential of organophosphorus-resistant African strains of *Aedes aegypti* (L.). 16402
- The effect of host pregnancy on the reproductive capability of the tsetse fly, *Glossina morsitans*, in captivity. 16414
- The biology of *Campoplex haywardi* (Hymenoptera: Ichneumonidae). 16414

SUBJECT INDEX

INSECT VECTORS

monidae), a primary parasite of the potato tuberworm.	16418		
Rearing of the log louse <i>Haematopinus suis</i> on mice.	16426	Notes on the study of Sphingidae of Venezuela. (Lep. Heterocera).	16313
In vitro cultivation of <i>Choristoneura fumiferana</i> (Clemens) (Lepidoptera: Tortricidae) tissues.	16457	New Canadian Braconidae (Hymenoptera).	16314
Survival and development of several grasshopper species on extracts of selected plant species.	16465	An annotated key to drosophilid genera with larvae or micropubescent arista and a revision of <i>Paracacoxenus</i> (Diptera: Drosophilidae).	16316
Some responses of flying <i>Aedes aegypti</i> to visual stimuli.	16481	A new aberration of <i>Pieris brassicae</i> (Linn.) (Lepidoptera, Pieridae).	16318
Temperature effect on reproduction and longevity of laboratory-reared adult pink bollworm (Lepidoptera: Gelechiidae).	16494	Two new species of <i>Drosophila</i> of the Saltans group (Drosophilidae, Diptera).	16323
Host plants for laboratory rearing of the melon aphid.	16650	New Therevidae from Argentina.	16325
Studies on the development of insect resistant sorghum varieties and hybrids.	16707	To the knowledge of the genus <i>Culicoides</i> Latr. 1809 (Diptera, Ceratopogonidae) in Czechoslovakia.	16327
<b>INSECT REPELLENTS</b>		Notes on some Australasian Muscidae (Diptera) described by J. Macgillivray.	16332
Field tests with repellent-treated netting against black salt-marsh mosquitoes.	16300	Alticinae of Guadalupe (Col. Cbrysonelidae).	16337
Influence of repellency on the efficacy of blatticides. II. Laboratory experiments with German cockroaches.	16492	Some ectoparasites from West Virginia mammals. II.	16339
Measuring mosquito repellency.	16504	On some new species of <i>Tetramesa</i> Walk., with notes on their parasites (Hymenoptera: Chalcidoidea).	16342
Carcinogens in burning mosquito coil smoke.	16911	A tropic relict in the desert fauna of braconids (Hymenoptera, Braconidae) of Middle Asia.	16344
<b>INSECT RESPIRATION</b>		New genera, new species of African Hemiptera, Reduviidae.	16347
Ecological significance of respiration and substrate for burrowing Ephemeroptera.	16383	Mosquitoes of the genus <i>Culiseta</i> in Connecticut (Diptera: Culicidae).	16348
Oxygen consumption by soil larvae of insects in dependence on its tension.	16442	New records and species of neotropical bark beetles (Scolytidae: Coleoptera), II.	16352
Metabolic thermal adaptations in the mosquito <i>Culex pipiens pipiens</i> (Diptera: Culicidae).	16447	Taxonomy and the integrated control of mites.	16363
<b>INSECT TAXONOMY</b>		Bionomics, sexual behavior, and adult anatomy of the alhida group of the genus <i>Epicauta</i> (Coleoptera: Meloidae).	16430
A suggested method of collecting insects associated with forage grass seed production.	16265	The ant larvae of the subfamily Formicinae (Hymenoptera: Formicidae): supplement.	16478
Information on stream inhabiting Chironomidae of Hungary.	16268	<b>INSECT TEMPERATURE</b>	
Ten new chrysomelid beetles from Dominica and Jamaica.	16269	The life cycle of <i>Hypera brunneipennis</i> and a parasite, <i>Bathyplectes curculionis</i> , in relation to temperature.	16273
Notes on the Siphonaptera of New Brunswick.	16270	Temperature effect on mortality of confused flour beetles, treated with CO <sub>2</sub> or N <sub>2</sub> before fumigation.	16276
A revision of the Mexican and Central American species of <i>Isomira</i> (Coleoptera: Alleculidae).	16275	Temperature effects on nerve activity in DDT-TREATED American cockroaches.	16289
Spiders from south New Guinea x.	16281	Supercooling of the saguaro species <i>Drosophila nigrospiracula</i> in the Sonoran Desert.	16425
Notes on some Hymenoptera of Portugal--V.	16287	Temperature compensation of the circadian oscillation in <i>Drosophila pseudoobscura</i> and its entrainment by temperature cycles.	16487
Critical list of Central European tick species.	16290	<b>INSECT TRAPS</b>	
Notes on the tribe Stirellini (Homoptera, Cicadellidae).	16291	A suggested method of collecting insects associated with forage grass seed production.	16265
Notes on Neotropical Tabanidae (Diptera). VII. The species described by C.R.W. Wiedemann.	16292	Evaluation of aquatic insect emergence traps.	16306
New species and new records of Fulgoroidea (Homoptera) from Samoa and Tonga.	16293	Biology of the corn earworm and control with insecticides and virus in Washington.	16407
Some raphignathoid mites from Israel.	16298	Time of arrival of gravid <i>Culex pipiens fatigans</i> at an oviposition site, the oviposition cycle and the relationship between time of feeding and time of oviposition.	16500
Contribution to the knowledge of the curculionids of the western Mediterranean Region. III. The pseudotorneuma of the Balearic Islands.	16299	Cane-sugar feeding in <i>Culex pipiens fatigans</i> .	16501
Some Tineid moths of the Ethiopian region in the collections of the British Museum (Nat. Hist.). I.	16301	<b>INSECT VECTORS</b>	
Two new Mallophaga species of the genus <i>Ardeicola</i> Clay, 1935 (Ischnocera: Philopteridae).	16302	<i>Anopheles</i> ( <i>Myzomyia</i> ) <i>sergenti</i> theobald from the island of Pantelleria and its probable implication in the transmission of malaria.	16374
Notes on the Chrysomelidae of soviet Armenia.	16304	Experimental survival of the virus <i>tahyna</i> in hibernating	
New Guinea Staphylinidae (Coleoptera).	16311		
A new <i>Plectrochopborus</i> living of <i>Erigeron</i> . (Hom. Apbidae).	16312		

SUBJECT INDEX

INSECTARIES

mosquitoes *Theobaldia annulata* (Schrk.). 16376

Cane-sugar feeding in *Culex pipiens fatigans*. 16501

The serological differentiation of viruses in the tick-borne encephalitis subgroup by the gel-diffusion method. 16502

Arbovirus studies in Bush Bush Forest, Trinidad, W. I. September 1959-December 1964. VI. Rodent-associated viruses (VEE and agents of group C and Guama): isolations and further studies. 16503

Field study of the safety of Abate for treating potable water and observations on the effectiveness of a control programme involving both Abate and malathion. 16505

Recent advances in techniques for tsetse fly control: With special reference to northern Nigeria. 16506

Ukawa virus proliferation in mosquitos. 16507

Immunodiffusion tests with three isolates of harley yellow dwarf virus. (Abstract). 16533

Mineral oil spray suppressed symptoms of virus yellows on sugar beets. (Abstract). 16563

Possible particles of beet western yellows virus in the intestines of viruliferous aphids. 16666

Multiplication of wheat striate mosaic virus in its leafhopper vector *Endria inimica*. 16676

Serological detection of wheat striate mosaic virus in extracts of wheat plants and vector leafhoppers. 16677

A virus disease of rhubarb in British Columbia. 16681

An evaluation of Bidrin for control of *Scolytus multi-striatus*, the primary vector of *Ceratocystis ulmi*. 16709

**INSECTARIES**

The biology of *Campoplex haywardi* (Hymenoptera: Ichneumonidae), a primary parasite of the potato tubeworm. 16418

**INSECTICIDAL AEROSOLS**

Carcinogens in burning mosquito coil smoke. 16911

**INSECTICIDE APPLICATION**

Rice water weevil resistance to aldrin in Texas. 16366

Biology of the corn earworm and control with insecticides and virus in Washington. 16407

Mass sterilization of Japanese beetles with tepa and the determination of residues. 16412

Insecticides for control of the lone star tick tested in the laboratory and as high-and ultra-low-volume sprays in wooded areas. 16434

Flight height, droplet size, and moisture influence on grasshopper control achieved with malathion applied aerially at ULV. 16455

Integrated pest control in orchards. 16708

Controlling short-nosed cattle lice with dichlorvos resin strips. 16868

Effect of substrate temperature on emergence and growth of seedling cotton following in-furrow applications of Teaik (10 % G. formulation of union carbide UC-21149). 16922

**INSECTICIDE RESIDUES**

Honey bee insecticide loss - an unusual case. 16641

The possibilities of development of chemical methods for the plant pest control. 16702

Drift of water-diluted and undiluted formulations of malathion and azinphosmethyl applied by airplane. 16902

Residues of aldrin, endrin, and heptachlor in peanuts grown in treated soil. 16904

The residues of Disyston in potato tubers. 16906

**INSECTICIDE RESISTANT INSECTS**

Cabbage maggot resistance to organochlorine insecticides. 16317

Small chamber tests of ethylene dibromide and ethylene dichloride on adult grain-infesting Coleoptera. 16382

Effect of insecticide-free rearing on the reproductive potential of organophosphorus-resistant African strains of *Aedes aegypti* (L.). 16402

Evidence for the DDT-INDUCED synthesis of messenger ribonucleic acid in *Triatoma infestans*. 16423

Resistance levels in diazinon-pressured and nonpressured polyresistant house flies. 16493

Parathion resistance in house fly populations in the Savannah, Georgia, area. 16495

A formula for determining degree of dominance in cases of monofactorial inheritance of resistance to chemicals. 16499

**INSECTICIDES**

European red mite and two-spotted spider mite control on apple trees. 16358

Rice water weevil resistance to aldrin in Texas. 16366

Effect of insecticide-free rearing on the reproductive potential of organophosphorus-resistant African strains of *Aedes aegypti* (L.). 16402

Biology of the corn earworm and control with insecticides and virus in Washington. 16407

Insecticidal 2-halo- and 2,4-dihaloalkylphenyl carbamate compositions and method for controlling insects. Patent 3,402,245. 16417

Insecticides for control of the lone star tick tested in the laboratory and as high-and ultra-low-volume sprays in wooded areas. 16434

The metabolism of carbaryl (1-naphthyl-N-methylcarbamate) by the fat body of the blowfly larva *Calliphora erythrocephala*. 16440

Aspects concerning the mode of action of insecticide. 16443

Flight height, droplet size, and moisture influence on grasshopper control achieved with malathion applied aerially at ULV. 16455

Some physiological effects of sublethal doses of DDT on flour beetles. 16462

Evaluation of insecticides for control of pickleworm on summer squash. 16472

Influence of repellency on the efficacy of blatticides. II. Laboratory experiments with German cockroaches. 16492

Recent advances in techniques for tsetse fly control: With special reference to northern Nigeria. 16506

The present and the future of plant protection. 16531

New results on the control of the millet caterpillar, *Laphygma frugiperda*. 16701

An evaluation of Bidrin for control of *Scolytus multi-striatus*, the primary vector of *Ceratocystis ulmi*. 16709

The use of organochlorine insecticides and possible alternatives against leatherjackets. 16715

Extermination of cattle grubs (*Hypoderma* spp.) on a regional basis. 16799

A systematic insecticide for control of the face fly, *Musca autumnalis*. 16865

Controlling short-nosed cattle lice with dichlorvos resin strips. 16868

Drift of water-diluted and undiluted formulations of malathion and azinphosmethyl applied by airplane. 16902

Effect of substrate temperature on emergence and growth of



SUBJECT INDEX

JOHNE'S DISEASE

seedling cotton following in-furrow applications of Temik (10 % G formulation of union carbide UC-21149).	16922	IOOINE	Action of aqueous iodine on ova of <i>Ascaris lumbricoides</i> an <i>Ascaris suum</i> .	16716
2,6-Substituted cyclohexanones as insecticides, miticides, fungicides, nematocides and herbicides. Patent 3,389,986.	16948	IOMS	Factors affecting protein synthesis by the fat body of the larva of the blowfly <i>Calliphora erythrocephala</i> .	16441
A rapid procedure for the identification of organochlorine pesticides in blood and tissues.	16950		Ion uptake of sweet potato roots infected by the black rot fungus.	16519
Insecticidal tertiary alcohols. Patent 3,402,209.	16953	IPS PINI	The pine engraver, <i>Ips pini</i> (Coleoptera: Scolytidae), in the southern Appalachian mountains.	16282
M-alkylphenyl N-chloroacetyl-N-methylcarbamates and their use as pesticides. Patent 3,402,246.	16955	IRON	Stimulation by 2,4-D and 2,4-D plus Fe EDTA of 32P uptake by bean seedlings ( <i>Phaseolus vulgaris</i> ).	16573
Metal salts of phosphorus acids and process. Patent 3,401,185.	16962		Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm.	16940
Extraction of organochlorine and organophosphate insecticides from lake waters.	16964	IRON ISOTOPES	Testing the effectivity of coccidiostatics by using radio Iron-59 for the quantitative estimation of blood in the caeca and feces of chickens.	16842
INSECTS		IRRADIATION	Somatic aberrations in <i>Solanum tuberosum</i> induced by ethyl methane sulfonate and X-irradiation.	16936
Nature's paradise. QL336. R3.	16260	IRRIGATION	Effect of irrigation and submersion in water on pupal survival of the hollworm.	16483
Economics of biological control.	16263	ISOCITRATE OXYOGENASE	Utilization of tricarboxylic acid cycle intermediates by <i>Haemophilus contortus</i> larvae.	16321
The ultrastructure of insect surfaces by scanning electron microscopy.	16448	ISOLEUCINE	Dietary amino acid requirements of the aphid, <i>Myzus persicae</i> .	16375
The separation and characterization of the haemolymph proteins of several insects.	16473	ISOMIRA	A revision of the Mexican and Central American species of <i>Isomira</i> (Coleoptera: Alleculidae).	16275
Oimethylthiocarbamoyl S-alkyldithiocarbonates. Patent 3,398,181.	16957	ISOPODA	Segmentation and organogenesis in <i>Limnoria lignorum</i> (Rathke) (Isopoda).	16460
INSEMINATION		ISOPROPYLPRENYL N-CHLOROACETYL-N-METHYL-CARBAMATE, M-	M-alkylphenyl N-chloroacetyl-N-methylcarbamates and their use as pesticides. Patent 3,402,246.	16955
Distribution of sperm in the storage organs of the <i>Drosophila melanogaster</i> female at various levels of insemination.	16387	ISOTRIAZOLECARBOXYLATES	Fungicidal and bactericidal compositions and methods employing isothiazolecarboxylates. Patent 3,403,209.	16945
INTEGRATED CONTROL (INSECTS)		ISOTOPES	Translocation to and accumulation of phosphorus-32 in sclerotia of <i>Sclerotium rolfsii</i> .	16938
Biological and integrated control of citrus pests in Israel.	16336	IXODES RICINUS	The temperature-humidity-relationship in the activity of the common wood tick.	16867
Taxonomy and the integrated control of mites.	16363	IXODIIDS	Critical list of Central European tick species.	16290
Integrated pest control in orchards.	16708		Comparative fine structure of sclerotized and unsclerotized integument of the rabbit tick, <i>Haemaphysalis leporipalustris</i> (Acari: Ixodidae: Ixodidae).	16324
INTERFERENCE PHENOMENON			The distribution of Dermacentor ticks in Canada in relation to bioclimatic zones.	16350
Competitive inhibition by foreign nucleic acid and induced interference by yeast-RNA with the infection of tobacco mosaic virus.	16581		The serological differentiation of viruses in the tick-borne encephalitis subgroup by the gel-diffusion method.	16502
INTERFERON		JAAGZIEKTE	Pneumonia of sheep in Kenya. I. Bacterial and parasitic pneumonia.	16855
Enzymatic and morphologic modifications in <i>Brucella</i> treated with interferon.	16921	JORNE'S DISEASE	Malabsorption in Johne's disease of cattle: depressed in vitro amino-acid uptake by isolated intestinal tissue preparations.	16833
INTERSEXUALITY				
Comparative morphology of the genital area of triploid intersexes of <i>Drosophila melanogaster</i> .	16415			
INTESTINES				
Viability, development, and rate of passage of the pathogenic bacterium, <i>Bacillus larvae</i> White, in the hemolymph and alimentary canal of the adult honey bee, <i>Apis mellifera</i> L.	16479			
The life cycle of <i>Trichinella spiralis</i> . I. Intestinal phase of development.	16509			
Oedema disease in pigs.	16758			
Malabsorption in Johne's disease of cattle: depressed in vitro amino-acid uptake by isolated intestinal tissue preparations.	16833			
A study of the ultrastructure of the intestinal epithelial cells of piglets infected with a transmissible gastroenteritis virus.	16854			
Studies on the absorption and metabolism of D-(u-14C) glucose by <i>Polymorphus minutus</i> (Acanthocephala) in vitro.	16873			
IODIDES				
Method of controlling fungi with sulfonium iodides. Patent 3,402,248.	16930			

SUBJECT INDEX

KIDNEY BEANS

KIDNEY BEANS

Effect of magnesium trisilicate on the infectivity of tobacco mosaic virus. 16607

KIDNEYS

Precipitating antibodies associated with Marek's disease. 16759

Detection of antibodies neutralizing the virus of infectious bovine rhinotracheitis in the serum of French cattle. 16782

Pathologic physiology and chemotherapy of Plasmodium berghei. III. Renal function in rats infected with Plasmodium berghei. 16801

KINETICS

Some responses of flying Aedes aegypti to visual stimuli. 16481

LABELING

Vital dyes as markers for behavioral and population studies of the larch sawfly, Pristiphora erichsonii (Hymenoptera: Tenthredinidae). 16398

LABORATORIES

Scrapie agent in blood. 16773

A review of some helminths of laboratory animals. 16878

A sprayer with semi-automatic gradual dilution. 16905

LABORATORY ANIMALS

A review of some helminths of laboratory animals. 16878

LAPHYGMA FRUGIPERDA

New results on the control of the millet caterpillar, Laphygma frugiperda. 16701

LARIX

Tolerance of some imported conifer seeds to fumigation with carbon tetrachloride. 16932

LARIX LARICIRA

Vital dyes as markers for behavioral and population studies of the larch sawfly, Pristiphora erichsonii (Hymenoptera: Tenthredinidae). 16398

LARVAE

Observations on the larvae of Hippotion celerio L. (Lepid., Sphingidae in Tanzania. (Abstract). 16262

Number of instars of the larva of Herse convolvuli L. 16271

Identification and functions of secretion from the posterior scent gland of fifth instar larva of the bug Dysdercus intermedius. 16274

A comparison of the larval and pupal nervous systems of the corn earworm, Heliothis zea (Lepidoptera: Noctuidae). 16279

Utilization of tricarboxylic acid cycle intermediates by Haemonchus contortus larvae. 16321

Leptomonas oestri n.sp., a flagellate parasite of the digestive tract of Oestrus ovis. 16328

Pyruvate kinase in Haemonchus contortus larvae. 16349

Variations of phospholipids in the course of metamorphosis of Tribolium confusum (Coleoptera). 16360

Immunochemical analysis of the origin of a sex-specific accumulated blood protein in female houseflies. 16364

An interesting parasite of Thysanoptera: Tetrastichus gentilei (Hym. Chalcididae). 16365

Dietary amino acid requirements of the aphid, Myzus persicae. 16375

Sterilization of Culex pipiens fatigans Wiedemann by apholate. 16377

Hexosamine metabolism in imaginal disks of Drosophila melanogaster. 16388

Contribution to the histochemical study of the digestive organs of Rhagium hifasciatum. (Col. Cerambycidae). 16390

Laboratory research on Acarapis woodi Rennie, the

causative agent of acarine disease of the honeybee. note 5. 16393

A study of a melanic mutant of the blowfly Lucilia cuprina. 16395

A note on the influence of a range of plant chemicals on the growth and survival of Aedes aegypti L. larvae. 16396

Vital dyes as markers for behavioral and population studies of the larch sawfly, Pristiphora erichsonii (Hymenoptera: Tenthredinidae). 16398

Growth, feeding activity, and the utilization of reserves in larvae of Locusta. 16399

The influence of nutrient chemicals on the feeding behavior of the Colorado potato beetle, Leptinotarsa decemlineata (Coleoptera: Chrysomelidae). 16401

The effect of host pregnancy on the reproductive capability of the tsetse fly, Glossina morsitans, in captivity. 16414

The biology of Caenoplex haywardi (Hymenoptera: Ichneumonidae), a primary parasite of the potato tuberworm. 16418

Two effects of photoperiod on wing development in Grylodes sigillatus (Walk). 16429

Short-term effects of crustecdysone (20-hydroxyecdysone) on protein and rna synthesis in third instar larvae of Calliphora. 16437

The metabolism of carbaryl (1-naphthyl-N-methylcarbamate) by the fat body of the blowfly larva Calliphora erythrocephala. 16440

Factors affecting protein synthesis by the fat body of the larva of the blowfly Calliphora erythrocephala. 16441

Oxygen consumption by soil larvae of insects in dependence on its tension. 16442

Metabolic thermal adaptations in the mosquito Culex pipiens pipiens (Diptera: Culicidae). 16447

Number of instars of the larva of Herse convolvuli L. 16454

Phototactic response of adults of confused flour beetle and red flour beetle and larvae of black carpet beetle to flashes of blue-white light. 16456

Biological notes on, and eradication of Trichogramma semifumatum from laboratory cultures of eight species of Noctuidae. 16458

Defense reactions of Drosophila species (Diptera: Drosophilidae) to the parasite Pseudocoila bochei (Hymenoptera: Cynipidae). 16459

The ant larvae of the subfamily Formicinae (Hymenoptera: Formicidae): supplement. 16478

Response and recovery on X-irradiated Tribolium confusum larvae. 16482

Amino acids from Heterodera glycines larvae. (Abstract). 16535

Field-cage releases of Chrysopa carnea for suppression of populations of the hollyhock and the tobacco budworm on cotton. 16712

Action of aqueous iodine on ova of Ascaris lumbricoides an Ascaris suum. 16716

Bird predation on black fly larvae and pupae in Ontario. 16741

Studies on immunity of calves to Dictyocaulus viviparus reinfection. II. Relationship between the age of calves and the dose of larvae causing clinical and lethal course of dictyocanlosis. 16888

Studies on immunity of calves to Dictyocaulus viviparus reinfection. I. Immunization with single and double doses of normal or irradiated larvae. 16889

Migration of Toxocara cati larvae in mice. 16900

SUBJECT INDEX

LIGHTING

<b>LEAF CURL (HOPS)</b> Investigation of virus diseases of hops.	16637	<b>LEPTOSPIRA</b> Natural antibody in mammalian serum reacting with an antigen in some Leptospirae.	16771
<b>LEAF MINERS</b> Some unknown data concerning miners (Lepidoptera).	16343	<b>LESIONS</b> Excretion of foot-and-mouth disease virus prior to the development of lesions.	16755
<b>LEAF ROLL (HOPS)</b> Investigation of virus diseases of hops.	16637	<b>LETTUCE</b> Studies on lettuce seed germination. I. Coumarin induced dormancy.	16513
<b>LEAF RUST (GRAIN)</b> A genetic study of leaf rust resistance in wheat.	16623	Induction of lettuce root rot under controlled environmental conditions. (Abstract).	16590
<b>LEAF RUST (WHEAT)</b> Levels of shikimate and folate in primary leaves of wheat and in uredospores of leaf rust.	16601	<b>LEUCINE</b> A virulence of a methionine-sensitive leucine mutant of <i>Penicillium expansum</i> in Jonathan apple. (Abstract).	16545
Stomatal penetration of wheat seedlings by stem and leaf rusts in relation to effects of carbon dioxide, light, and stomatal aperture.	16699	<b>LEUCOCYTOZOOM ANATIS</b> <i>Trypanosoma dafillae</i> sp. n. and <i>Leucocytozoon anatis</i> Wickware, 1915 in the northern pintail ( <i>Dafila acuta acuta</i> L.).	16893
<b>LEAF SPOT (POPOLOS)</b> An undescribed gall midge leaf spot of balsam poplar.	16697	<b>LEUCOPHAEA MADERAE</b> Changes in lipid content during the reproductive cycle of <i>Leucophaea maderae</i> and effects of the juvenile hormone on lipid metabolism in vitro.	16392
<b>LEAF SPOT (WHEAT)</b> Knowledge of <i>Septoria nodorum</i> Berk., the cause of leaf blotch and glume blotch in wheat.	16553	<b>LICENSES</b> License requirements for vaccines for bovine respiratory diseases.	16807
<b>LEAVES</b> A physiologic difference in aphids (Homoptera) raised on excised leaves and on intact plants.	16353	<b>LIGHT</b> Observations on the larvae of <i>Hippotion celerio</i> L. (Lepid., Sphingidae) in Tanzania. (Abstract).	16262
A water-soluble factor in <i>Melilotus officinalis</i> leaves which stimulates feeding by the adult sweetclover weevil.	16355	The influence of controlled environments and grass hosts on the life cycle of <i>Endria inimica</i> (Homoptera: Cicadellidae).	16373
Injury to sugar beet leaves through growth inhibiting herbicides.	16515	Flight activity of honeybees in a flight and rearing room. I. The influence of light intensity.	16436
The evolution of apple and pear tree spot disease during the year 1966.	16540	Phototactic response of adults of confused flour beetle and red flour beetle and larvae of black carpet beetle to flashes of blue-white light.	16456
Effect of magnesium trisilicate on the infectivity of tobacco mosaic virus.	16607	Some responses of flying <i>Aedes aegypti</i> to visual stimuli.	16481
The effect of leaf water balance on the susceptibility of French bean to tobacco necrosis virus.	16613	Effects of some physical and biological factors on the reproduction, development, survival, and behavior of the cereal leaf beetle, <i>Oulema melanopus</i> (Linnaeus), under laboratory conditions.	16485
Cucumber anthracnose: influence of nightly wetting of leaves on numbers of lesions.	16625	Time of arrival of gravid <i>Culex pipiens fatigans</i> at an oviposition site, the oviposition cycle and the relationship between time of feeding and time of oviposition.	16500
Changes in respiration rate of tobacco leaves infested with bacteria in relation to the hypersensitive reaction.	16647	Spectral distribution of light in forests of the Douglas fir zone of southern British Columbia.	16518
Relationships between <i>Tetranychus urticae</i> Koch and some plant viruses.	16651	A dynamic-equilibrium illuminated temperature-, humidity-, and pollutant-controlled plant fumigation chamber. (Abstract).	16559
Watermelon mosaic virus: Tubular inclusions in pumpkin leaves and aggregates in leaf extracts.	16658	Effect of light on sporulation of <i>Helminthosporium stenospilum</i> . (Abstract).	16576
Leaf pubescence in common wheat, <i>Triticum aestivum</i> L., and resistance to the cereal leaf beetle, <i>Oulema melanopus</i> (L.).	16713	Resistance to spread of virus from cell to cell in T. I. 245 tobacco.	16687
<b>LEUCOPHAEA</b> Fluctuations in natural populations of <i>Drosophila</i> with special attention to sex ratio.	16261	Light requirement and light inhibition of sexual reproduction in <i>Fusarium (Hyphomyces) solani</i> f. sp. <i>cucurbitae</i> race 2.	16689
<b>LEPIDOPTERA</b> Number of instars of the larva of <i>Herse convolvuli</i> L.	16271	Stomatal penetration of wheat seedlings by stem and leaf rusts in relation to effects of carbon dioxide, light, and stomatal aperture.	16699
Some unknown data concerning miners (Lepidoptera).	16343	Inducing sporulation in different strains of <i>Alternaria solani</i> . I. Effect of visible light.	16935
A study of haemolymph proteins in Lepidoptera. Film 695.	16424	<b>LIGHTING</b> Production of the perfect stage of <i>Rotyotinia</i> ( <i>Rotrytis</i> ) <i>sgamosa</i> under controlled environmental conditions. (Abstract).	16546
Inherited sterility in progeny of irradiated male cabbage loopers.	16496		
<b>LEPTINOTARSA DECEMLINEATA</b> The influence of nutrient chemicals on the feeding behavior of the Colorado potato beetle, <i>Leptinotarsa decemlineata</i> (Coleoptera: Chrysomelidae).	16401		
Field trials to control Colorado beetle, <i>Leptinotarsa decemlineata</i> , with <i>Perillins biocinlatns</i> .	16474		
<b>LEPTOGRAPHIUM</b> Leptographium root decline of eastern white pine. (Abstract).	16568		



SUBJECT INDEX

LIMNOLOGY

LIMNOLOGY  
The increasing Chaoborid midge problem in California. 16284

LINDANE

Use of Daphnia magna for the microbioassay of pesticides.  
II. Comparison of microbioassay with gas chromatography  
for analysis of pesticide residues in plant extracts. 16296

Cabbage maggot resistance to organochlorine insecticides. 16317

Some physiological effects of sublethal doses of DDT on  
flour beetles. 16462

The use of organochlorine insecticides and possible  
alternatives against leatherjackets. 16715

The adsorption of chlorinated hydrocarbon pesticides on an  
unconsolidated aquifer substrate. 16901

LINOLEIC ACID

Dietary requirements of the bollworm, Heliothis zea (Lep-  
idoptera: Noctuidae), for lipids, choline, and inositol and  
the effect of fats and fatty acids on the composition of the  
body fat. 16470

LINOLENIC ACID

Dietary requirements of the bollworm, Heliothis zea (Lep-  
idoptera: Noctuidae), for lipids, choline, and inositol and  
the effect of fats and fatty acids on the composition of the  
body fat. 16470

LIPIDS

Variations of phospholipids in the course of metamorphosis  
of Tribolium confusum (Coleoptera). 16360

Contribution to the histochemical study of the digestive  
organs of Bhagium bifasciatum. (Col. Cerambycidae). 16390

Changes in lipid content during the reproductive cycle of  
Leucophaea maderae and effects of the juvenile hormone on  
lipid metabolism in vitro. 16392

Growth, feeding activity, and the utilization of reserves  
in larvae of Locusta. 16399

Metabolic thermal adaptations in the mosquito Culex pipiens  
pipiens (Diptera: Culicidae). 16447

Phospholipid synthesis during flight muscle development in  
the American silkworm, Hyalophora cecropia. 16464

Dietary requirements of the bollworm, Heliothis zea (Lep-  
idoptera: Noctuidae), for lipids, choline, and inositol and  
the effect of fats and fatty acids on the composition of the  
body fat. 16470

LIRIODENDRON TULIPIPERA

The impact of tuliptree scale feeding on its host, yellow-  
poplar. 16704

LISSORHOPTRUS OBYZOPBILUS

Rice water weevil resistance to aldrin in Texas. 16366

LISTERIA MONOCYTOGENES

Experimental ovine listeriosis. III. Inoculation of rams. 16848

Isolation of Listeria monocytogenes from vegetation. 16857

LISTERIOSIS

Experimental ovine listeriosis. III. Inoculation of rams. 16848

Isolation of Listeria monocytogenes from vegetation. 16857

LIVER

Studies on the aetiology of anaemia in chronic Fascioliasis  
in sheep. 16844

Epidemiological studies of fascioliasis; a third season of  
comparative studies with cattle. 16884

LIVER DISEASES

Fatty liver studies in laying hens. 16750

Studies on the serum proteins in experimental fascioliasis  
of sheep. 16876

LIVESTOCK

Selenium-responsive diseases of animals in New Zealand. 16746

Exotic plants--a hazard to animals. 16776

Tansy ragwort (Senecio jacobaea), a potential menace to  
livestock. 16828

Multiple drug resistance. 16965

LIVESTOCK DISEASES

The distribution of certain Escherichia coli strains in  
pigs and their environment. 16747

A note on experimental rabies in the donkey. 16772

Mycoplasma gallisepticum infection and hoiler weight. 16820

Attempts to produce cross-reactions for Brucella in cattle  
treated with hemorrhagic septicemia bacterins. 16830

Malabsorption in Johne's disease of cattle: depressed in  
vitro amino-acid uptake by isolated intestinal tissue  
preparations. 16833

Diagnosis of Vibrio fetus infection in the hull. II. An  
epidemiological survey using a fluorescent antibody test  
and comparing this with a cultural method. 16839

Studies on the aetiology of anaemia in chronic Fascioliasis  
in sheep. 16844

Experimental ovine listeriosis. III. Inoculation of rams. 16848

Bactericidal antibody studies in maternal serum, colostrum,  
and newborn serum of the pig. 16856

Efficacy of tetramisole. Studies on the efficacy of tetra-  
misole in the treatment of pre-type II and type II bovine  
ostertagiasis. 16882

LOCUSTA MIGRATORIA

Structure and physiology of a chordotonal organ in the  
locust leg. 16469

LOCUSTA MIGRATORIA MIGRATORIOIDES

Humor control of the water equilibrium in Locusta  
migratoria migratorioides. 16370

LODGING (CORN)

Effect of defoliation treatments at various stages of plant  
development and row spacings on corn (Zea mays L.) pro-  
duction. 16933

LOGS

Attractiveness of logs containing female spruce beetles,  
Dendroctonus ohesus (Coleoptera: Scolytidae). 16381

LONGEVITY

Movements, host-feeding preferences, and longevity of Boli-  
totherus cornutus (Coleoptera: Tenebrionidae). 16397

LOOSE SMUT (WHEAT)

Systemic oxathiin fungicide for control of loose smut  
(Ustilago tritici) of winter wheat. (Abstract). 16589

LOPHODERMIIUM

Infection of needles of Pinus strobus by Lophodermium  
pinastri. (Abstract). 16562

LOPHODERMIIUM PINASTRI

Infection of needles of Pinus strobus by Lophodermium  
pinastri. (Abstract). 16562

LUCILIA CUPRINA

A study of a melanic mutant of the blowfly Lucilia cuprina. 16395

LUNGS

Bovine adenoviruses. 16765

Bone-metastasizing lung carcinoma in a cat. 16784

Reoviruses. 16806

Studies on the biology and immunology of Ascaris suum in  
mice. 16877

## SUBJECT INDEX

## MELOIDOGYNE INCOGNITA

- The evagination of *Echinococcus granulosus* scolices from lung cysts of bovine origin. 16885
- LUPINE**  
Some problems of the studies on narrow leaf virus disease of yellow lupin. 16549
- The role of alkaloids in the resistance of some lupin varieties to the Pea aphid /*Acyrtosiphon pisum* Harris/. 16619
- LYCOPHOTIA MOLOTHINA**  
Observations on the breeding of *Lycophotia molothina* (Lepidoptera, Noctuidae). 16308
- LYGUS**  
Field studies on control of lygus bugs and onion thrips infesting safflower. 16567
- LYMPHOID HYPERPLASIA**  
Pneumonia of sheep in Kenya. I. Bacterial and parasitic pneumonia. 16855
- LYMPHOSARCOMA**  
The haematology of lymphosarcoma in the cat. 16764
- MACHACANTHOHHYNCHUS HIRUDINACEUS**  
Oligosaccharidases from *Macracanthorhynchus hirudinaceus* (Acanthocephala) from swine. 16875
- MACHOGLOSSUM**  
Observations on the larvae of *Hippotion celerio* L. (Lepid., Sphingidae in Tanzania. (Abstract). 16262
- MACROSIPHUM AVENAE**  
Immunodiffusion tests with three isolates of barley yellow dwarf virus. (Abstract). 16533
- MAGNESIUM**  
A study of tubers produced in plants infected with a strain of turnip yellow mosaic virus. 16598
- Effect of trace-elements bound to superphosphates on the resistance of potato tubers to *Phytophthora infestans* (Mont.) de Bary. 16643
- Some factors affecting mineral utilization by the baby pig. 16788
- MAGNESIUM TRISILICATE**  
Effect of magnesium trisilicate on the infectivity of tobacco mosaic virus. 16607
- MALARIA**  
*Anopheles* (*Myzomyia*) *sergenti* theobald from the island of Pantelleria and its probable implication in the transmission of malaria. 16374
- Pathologic physiology and chemotherapy of *Plasmodium berghei*. III. Renal function in rats infected with *Plasmodium berghei*. 16801
- MALATHION**  
Flight height, droplet size, and moisture influence on grasshopper control achieved with malathion applied aerially at ULV. 16455
- Some physiological effects of sublethal doses of DDT on flour beetles. 16462
- Field study of the safety of Abate for treating potable water and observations on the effectiveness of a control programme involving both Abate and malathion. 16505
- Laboratory evaluation of malathion as a protectant for almonds during storage. 16896
- Drift of water-diluted and undiluted formulations of malathion and azinphosmethyl applied by airplane. 16902
- Method for the preparation of O,O-dimethyl-S-(1,2-dicarb-ethoxyethyl)dithiophosphate. Patent 3,403,201. 16942
- MALIGNANT CATARRH**  
Malignant catarrhal fever. 16840
- Comments on malignant catarrhal fever. 16849
- MALLOPHAGA**  
Two new Mallophaga species of the genus *Ardeicola* Clay, 1935 (Ischnocera: Philopteridae). 16302
- External parasites of domestic pigeon in United Arab Republic. 16869
- MALPIGHIAN TUBES**  
Humor control of the water equilibrium in *Locusta migratoria migratorioides*. 16370
- Inhibition by acetylcholine of malpighian tubule muscle of the cockroach *Periplaneta americana*. 16450
- MAMMALS**  
Notes on the Siphonaptera of New Brunswick. 16270
- Small mammals and their ectoparasites from the Scottish islands of Handa (Sutherland), Muck, Pabay, Scalpay and Soay (Inner Hebrides). 16285
- Some ectoparasites from West Virginia mammals. II. 16339
- Natural antibody in mammalian serum reacting with an antigen in some Leptospirae. 16771
- Pesticidal N-acyl-N-lower alkyl carbamates of phenols and naphthols with decreased mammalian toxicity. Patent 3,404,208. 16913
- MANDIBULAR GLANDS**  
Source of a substance in *Heliothis virescens* (Lepidoptera: Noctuidae) that elicits a searching response in its habitual parasite *Cardiochiles nigriceps*. (Hymenoptera: Braconidae). 16471
- MANNITOL**  
Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by *Melampsora lini*. I. Uptake. 16939
- MANNOR TABACI**  
Effect of magnesium trisilicate on the infectivity of tobacco mosaic virus. 16607
- MECHANORECEPTORS**  
Structure and physiology of a chordotonal organ in the locust leg. 16469
- MEGACHILE ROTUNDATA**  
Controlling insect enemies of the alfalfa leaf-cutter bee, *Megachile rotundata*. 16400
- MEGASELIA SCALARIS**  
Whole body turnover of potassium traced by radiorubidium in adult *Drosophila* (*Drosophilidae*) and *Megaselia* (*Phoridae*). 16384
- MEIOSIS**  
Induction of multipolar spindles in the meiosis of *Triticum aestivum* as effected by acetone. 16404
- MELAMPSORA LINI**  
Electron microscopy of uredospores of *Melampsora lini* and of rust infected flax. 16633
- Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by *Melampsora lini*. I. Uptake. 16939
- MELANINS**  
A study of a melanic mutant of the blowfly *Lucilia cuprina*. 16395
- Evidence of winged insect sexual dimorphism in *Philophylla heraclei* (Dipt. Trypetidae) through use of a "photometer". 16419
- MELANOPLUS BIVITTATUS**  
A note on the influence of a range of plant chemicals on the growth and survival of *Aedes aegypti* L. larvae. 16396
- MELOIDAE**  
Bionomics, sexual behavior, and adult anatomy of the albida group of the genus *Epicauta* (Coleoptera: Meloidae). 16430
- MELOIDOGYNE INCOGNITA**  
Effect of temperature on the development of *Meloidogyne incognita* in sweetpotato. (Abstract). 16604
- The hatching response of *Meloidogyne incognita* eggs as affected by amino and nonamino acid fractions of root

SUBJECT INDEX

MELOIDOGYNE INCOGNITA ACRITA

exudates. 16718

MELOIDOGYNE INCOGNITA ACBITA

Organ culture of *Meloidogyne incognita acrita*. (Abstract). 16720

MELTING POINTS

Insecticidal tertiary alcohols. Patent 3,402,209. 16953

Freeze-resistant pesticidal composition. Patent 3,399,991. 16961

METABOLISM

Amino acid requirements and sulfur amino acid metabolism in the pea aphid, *Acyrtosiphon pisum* (Harris). 16334

Optake and metabolism of indoleacetic acid, naphthalene-acetic acid, and 2,4-dichlorophenoxyacetic acid by pea root segments in relation to growth inhibition during and after auxin application. 16511

Effect of tobacco mosaic virus infection on glucose metabolism in *Nicotiana tabacum* var. *Samsun. i.* Investigations with <sup>14</sup>C-labeled sugars. 16543

Effects of cytokinins on the absorption of victorin. 16627

The effect of *Anaplasma marginale* infection on the metabolic and osmotic behavior of bovine erythrocytes. 16813

Studies on the absorption and metabolism of D-(u-<sup>14</sup>C) glucose by *Polymorphus minutus* (*Acanthocephala*) in vitro. 16873

Purification and properties of fructose diphosphate aldolase from *Fusarium oxysporum* f. *lycopersici*. 16924

Growth and metabolism of live vaccine strain of *Pasteurella tularensis*. 16966

METABOLISM DISEASES

Selenium-responsive diseases of animals in New Zealand. 16746

Corticosteroid overdosage in dogs. 16907

METABOLITES

Hexosamine metabolism in imaginal disks of *Drosophila melanogaster*. 16388

The metabolism of carbaryl (1-naphthyl-N-methylcarbamate) by the fat body of the blowfly larva *Calliphora erythrocephala*. 16440

Determination of volatile acid production of *Clostridium* by gas chromatography. 16626

METAMORPHOSIS

Variations of phospholipids in the course of metamorphosis of *Tribolium confusum* (Coleoptera). 16360

Biology of *Deltocephalus sonorus* (Homoptera: Cicadellidae). 16394

The biology of *Campoplex haywardi* (Hymenoptera: Ichneumonidae), a primary parasite of the potato tuberworm. 16418

The effect of temperature upon the development of the heart-and-dart moth (*Agrotis exclamatoris* L.). 16431

Number of instars of the larva of *Herse convolvuli* L. 16454

Effects of some physical and biological factors on the reproduction, development, survival, and behavior of the cereal leaf beetle, *Oulema melanopus* (Linnaeus), under laboratory conditions. 16485

The life cycle of *Trichinella spiralis*. I. Intestinal phase of development. 16509

A new anti-coccidial drug (M and B 15,497): activity studies against laboratory and field strains of *Eimeria*. 16789

METASTASIS

Bone-metastasizing lung carcinoma in a cat. 16784

METASTRONGYLUS APBI

Anthelmintic evaluation of tetramisole against the swine lungworm, *Metastrongylus apri*. 16850

METHIONINE

Amino acid requirements and sulfur amino acid metabolism in the pea aphid, *Acyrtosiphon pisum* (Harris). 16334

Dietary amino acid requirements of the aphid, *Myzus persicae*. 16375

Avirulence of a methionine-sensitive leucine mutant of *Penicillium expansum* in Jonathan apple. (Abstract). 16545

Fatty liver studies in laying hens. 16750

METHODOLOGY

Economics of biological control. 16263

Insecticidal 2-halo- and 2,4-dihaloalkylphenyl carbamate compositions and method for controlling insects. Patent 3,402,245. 16417

Methods of killing pests selected from the group consisting of mites and insects with phosphonothioates. Patent 3,401,220. 16461

Process for oxidizing soluble alkylene bisdithiocarbamates to produce an oxygen containing product, and the product of said process. Patent 3,401,182. 16591

Monofluorophenyl-4'-nitrophenylether derivatives as herbicides. Patent 3,401,031. 16728

Herbicidal method. Patent 3,403,994. 16730

Herbicidal composition and method comprising 1-(tetrahydrodicyclopentadienyl)-3,3-dimethyl urea and a salt of methyl arsonic acid. Patent 3,403,017. 16731

Method of controlling the growth of weeds. Patent 3,399,988. 16735

Method of controlling fungi with sulfonium iodides. Patent 3,402,248. 16930

Method for the preparation of O,O-dimethyl-S-(1,2-dicarb-ethoxyethyl)dithiophosphate. Patent 3,403,201. 16942

Fungicidal and bactericidal compositions and methods employing isothiazolecarboxylates. Patent 3,403,209. 16945

Method for preparation of wettable sulfur. Patent 3,398,227. 16951

Non-irritant quaternary ammonium compound composition. patent 3,402,242. 16960

Metal salts of phosphorus acids and process. Patent 3,401,185. 16962

METHYLAMINE

The partitioning and distribution of simazine and propanil in spinach chloroplasts. 16927

METHYLINDOLE-3-ACETALDEHYDE, 1-

The oxidation of indole-3-acetaldehyde and its 1-methyl derivative by horseradish peroxidase. 16941

MICE

Bearing of the hog louse *Haematopinus suis* on mice. 16426

The study of fertility of the rat fleas (*Xenopsylla cheopis* Bothsch. and *Ceratophyllus fasciatus* Bosc.) under their feeding on different animals. 16449

Okawa virus proliferation in mosquitos. 16507

Natural antibody in mammalian serum reacting with an antigen in some Leptospire. 16771

Scrapic agent in blood. 16773

Antibody response and protection induced by immunization with smooth and rough strains in experimental Salmonellosis. 16798

Colorado tick fever virus: an electron microscopic study. 16827



SUBJECT INDEX

MORTALITY

Comments on the role of natural antibody in immunologic competence.	16843	Preliminary report on the introduction of <i>Phytoseiulus persimilis</i> to Poland.	16421
Laboratory evaluation of bovine respiratory disease vaccines for safety.	16852	Methods of killing pests selected from the group consisting of mites and insects with phosphonotbioates. Patent 3,401,220.	16461
Isolation of <i>Listeria monocytogenes</i> from vegetation.	16857	<i>Triplosporina tetranycbi</i> sp. n. (Phycomycetes, Entomophthoraceae), a fungus infecting the red mite <i>Tetranychus althaeae</i> Hanst.	16476
Studies on the biology and immunology of <i>Ascaris suum</i> in mice.	16877	Investigations of new insecticides.	16480
Population ecology of feral house mice.	16899	Relationships between <i>Tetranychus urticae</i> Koch and some plant viruses.	16651
Migration of <i>Toxocara cati</i> larvae in mice.	16900	External parasites of domestic pigeon in United Arab Republic.	16869
Acute toxicity of n-alpha-olefin sulfonates.	16912	<b>MITOCHONDRIA</b> The effect of 2,4-dichloropbenoxyacetic acid upon the metabolism and composition of soybean hypocotyl mitochondria.	16916
<b>MICROBIOLOGY</b> Antagonism of bacteria from elm to <i>Ceratocystis ulmi</i> in vitro. (Abstract).	16606	<b>MITOSIS</b> The effect of chloramphenicol on soybean callus tissue.	16917
Enzymatic and morphologic modifications in <i>Brucella</i> treated with interferon.	16921	<b>MOLDS</b> The microflora of fodders associated with bovine respiratory disease. Fungus flora, germinability and fat acidity values of stored corn.	16805 16895
<b>MICROCLIMATE</b> The distribution of Dermacentor ticks in Canada in relation to bioclimatic zones.	16350	<b>MOLECULAR WEIGHT</b> Chemical composition and biophysical properties of tomato ringspot virus.	16690
Bioclimatic studies of the aphid parasite <i>Praon exoetulum</i> . 1. Effects of temperature on the functional response of females to varying host densities.	16432	<b>MOLLUSCICIDES</b> Economics of the application of molluscicides to flowing water.	16403
<b>MICRONUTRIENTS</b> Effect of trace-elements bound to superphosphates on the resistance of potato tubers to <i>Phytophthora infestans</i> (Mont.) de Bary.	16643	<b>MOLLUSKS</b> Economics of the application of molluscicides to flowing water.	16403
<b>MICROORGANISMS</b> The probable significance of saprophytic colonization of wheat straw in the field by <i>Cephalosporium gramineum</i> .	16556	<b>MOLTING (INSECTS)</b> Growth, feeding activity, and the utilization of reserves in larvae of <i>Locusta</i> . The life cycle of <i>Tricbinella spiralis</i> . I. Intestinal phase of development.	16399 16509
<i>Ceratocystis fagacearum</i> distribution within bur and red oak seedlings. (Abstract).	16586	<b>MOLYBDENUM</b> Effect of trace-elements bound to superphosphates on the resistance of potato tubers to <i>Phytophthora infestans</i> (Mont.) de Bary.	16643
Antagonism of bacteria from elm to <i>Ceratocystis ulmi</i> in vitro. (Abstract).	16606	<b>MONACROSPORIUM RUTGERIENSIS</b> <i>Monacrosporium rutgeriensis</i> sp. n., a nematode-trapping hyphomycete.	16561
The microflora of fodders associated with bovine respiratory disease.	16805	<b>MORPHOLOGY</b> Electron microscopical studies on <i>Ditylenchus dipsaci</i> (Kuhn). Stomatal region. The life cycle of <i>Tricbinella spiralis</i> . I. Intestinal phase of development.	16484 16509
Non-irritant quaternary ammonium compound composition. patent 3,402,242.	16960	Watermelon mosaic virus: Tubular inclusions in pumpkin leaves and aggregates in leaf extracts.	16658
<b>MILK</b> Excretion of foot-and-mouth disease virus prior to the development of lesions.	16755	A physiological study of the development of the egg of <i>Fasciola hepatica</i> L., the common liver fluke.	16891
Attempts to produce cross-reactions for <i>Brucella</i> in cattle treated with hemorrhagic septicemia bacterins.	16830	Enzymatic and morphologic modifications in <i>Brucella</i> treated with interferon.	16921
<b>MILLET</b> New results on the control of the millet caterpillar, <i>Laphygma frugiperda</i> .	16701	<b>MORTALITY</b> Mortality of holl weevils in squares of genotypically different lines of cotton. Temperature effect on mortality of confused flour beetles, treated with CO <sub>2</sub> or N <sub>2</sub> before fumigation. Ecology of insect populations in theory and practice. QL496. C55.	16267 16276 16283
<b>MINERAL OIL</b> Mineral oil spray suppressed symptoms of virus yellows on sugar beets. (Abstract).	16563		
<b>MINERALS</b> Some factors affecting mineral utilization by the baby pig.	16788		
<b>MINKS</b> Pathological studies on Aleutian disease of mink.	16803		
<b>MIRIDAE</b> Studies on the salivary physiology of plant-bugs: Experimental induction of galls.	16433		
<b>MITES</b> Two new species of the genus <i>Ewingana</i> (Acarina: Myobiidae) from Cuba. Some raphignathoid mites from Israel. Taxonomy and the integrated control of mites. Laboratory research on <i>Acarapis woodi</i> Rennie, the causative agent of acarine disease of the honeybee. note 5.	16288 16298 16363 16393		

SUBJECT INDEX

MOSAIC (BEANS)

- Mortality of nasal bots in sheep treated with systemic insecticides. 16330
- The effects of cadmium compounds on reproduction and growth of the stable fly, *Stomoxys calcitrans* (Linnaeus). 16410
- Effects of ionizing radiation on the European chafer, the plum curculio, and the large milkweed bug. 16422
- The effect of temperature upon the development of the heart-and-dart moth (*Agrotis exclamationis* L.). 16431
- Some physiological effects of sublethal doses of DDT on flour beetles. 16462
- Survival and development of several grasshopper species on extracts of selected plant species. 16465
- Response and recovery on X-irradiated *Tribolium confusum* larvae. 16482
- Effects of some physical and biological factors on the reproduction, development, survival, and behavior of the cereal leaf beetle, *Oulema melanopus* (Linnaeus), under laboratory conditions. 16485
- Diseases of pitted-fruit trees, in 1966. 16621
- Fall death rates of drone honey bees. 16640
- Survival of root-infecting fungi in soil. VI. Effect of amendments on bean root rot caused by *Thielaviopsis basicola* and on inoculum density of the causal organism. 16653
- The impact of tuliptree scale feeding on its host, yellow-poplar. 16704
- Pathologic effects of *Escherichia coli* O83:K:NM in gnotobiotic pigs. 16753
- Comments on control and management of respiratory diseases in beef cattle. 16775
- Comments on management of respiratory diseases of dairy cattle. 16777
- Comments on combination vaccines for bovine respiratory diseases. 16793
- Comments on complications that arise after vaccination against bovine respiratory diseases. 16835

MOSAIC (BEANS)

- A comparison of species of Aphididae with species of three other aphid families regarding virus transmission and probe behavior. 16700

MOSAIC (CORN)

- The effects of maize dwarf mosaic virus on macro- and microelement accumulation in corn tissue of resistant and susceptible hybrids. (Abstract). 16631
- Two genetic systems control disease reaction to strains A and B of maize dwarf mosaic virus. (Abstract). 16695

MOSAIC (TOBACCO)

- Effect of tobacco mosaic virus infection on glucose metabolism in *Nicotiana tabacum* var. Samsun. i. Investigations with <sup>14</sup>C-labeled sugars. 16543
- Competitive inhibition by foreign nucleic acid and induced interference by yeast-BNA with the infection of tobacco mosaic virus. 16581
- Susceptibility and hypersensitivity to tobacco mosaic virus in wild species of potatoes. 16603
- Effect of magnesium trisilicate on the infectivity of tobacco mosaic virus. 16607
- Relationships between *Tetranychus urticae* Koch and some plant viruses. 16651

MOSAIC (TURNIPS)

- A virus disease of rhubarb in British Columbia. 166B1
- Effects of ultrasonic treatment on turnip mosaic virus and potato virus X. 16688

MOSAIC (WATERMELONS)

- Watermelon mosaic virus: Tubular inclusions in pumpkin leaves and aggregates in leaf extracts. 16658

MOSAIC (WHEAT)

- Serological detection of wheat striate mosaic virus in extracts of wheat plants and vector leafhoppers. 16677

MOTHS

- The labial gland: a salt-secreting organ of saturniid moths. 16405

MOOTH PARTS

- Types of feeding and structure of mandibles in different life forms of grasshoppers. 16371
- Comparative studies of the labellar sensitivity of female tabanids (Diptera) to sucrose and sodium chloride. 16413
- Structure and formation of coaptations of the maxillary stylets of *Rhodnius prolixus*. (Beter. Reduviidae). 16439

MUCOBACEAE

- Value of a plant growth retardant for isolating soil fungi. 16920

MUCOSAL DISEASE

- Comments on complications following vaccination of cattle against bovine respiratory diseases. 16754
- Comments on complications following vaccination against bovine respiratory diseases. 16779
- Comments on vaccination for bovine viral diarrhea-mucosal disease. 16785
- Comments on bovine viral diarrhea-mucosal disease. 16791
- Comments on bovine respiratory infections in northeastern dairy cattle. 16796
- Comments on clinical signs of respiratory diseases in feedlot cattle. 16812
- Bovine respiratory infections. 16816
- Complications following vaccination of cattle against infectious bovine rhinotracheitis, bovine viral diarrhea-mucosal disease, and parainfluenza type 3. 16841
- Comments on bovine viral diarrhea-mucosal disease. 16851

MUELLERIIUS CAPILLARIS

- Pneumonia of sheep in Kenya. I. Bacterial and parasitic pneumonia. 16855

MUNG BEANS

- Permeability changes in *Phaseolus anrens* associated with infection by *Rhizoctonia solani*. 16620

MUSCA AUTOMNALIS

- Heterotylenchus autumnalis* Nickle (1967)--a parasite of pasture flies. 16346
- A systematic insecticide for control of the face fly, *Musca autumnalis*. 16865

MUSCA DOMESTICA

- Sterility in house flies offered a choice of untreated diets and diets treated with chemosterilants. 16297
- Inhibition by 5-fluoroorotic acid of the ovarian development of house flies, *Musca domestica*. 16322
- Dispersal patterns and populations of the house fly affected by sanitation and weather in rural Maryland. 16331
- Immunochemical analysis of the origin of a sex-specific accumulated blood protein in female houseflies. 16364
- Embryology of the house fly, *Musca domestica* (Diptera: Muscidae), to the blastoderm stage. 16477
- Resistance levels in diazinon-pressured and nonpressured polyresistant house flies. 16493
- Parathion resistance in house fly populations in the Savannah, Georgia, area. 16495
- Control of larvae of the house fly and the horn fly in

SUBJECT INDEX

NEOPLASMS

manure of insecticide-fed cattle.	16866	<b>NAPHTHALENEACETIC ACID</b> Uptake and metabolism of indoleacetic acid, naphthalene-acetic acid, and 2,4-dichlorophenoxyacetic acid by pea root segments in relation to growth inhibition during and after auxin application.	16511
<b>MUSCIDAE</b> Notes on some Australasian Muscidae (Diptera) described by J. Macgnart.	16332	<b>NAPHTHOLS</b> Pesticidal N-acyl-N-lower alkyl carbamates of phenols and naphthols with decreased mammalian toxicity. Patent 3,404,208.	16913
Influence of photoperiod and temperature on diapause in the face fly, <i>Musca autumnalis</i> (Diptera: Muscidae).	16340	<b>NAPHTHOQUINONE COMPOUNDS</b> Naphthoquinone compounds. Patent 3,393,211.	16774
<i>Heterotylencbus autumnalis</i> Nickle (1967)--a parasite of pasture flies.	16346	<b>NATURAL CONTROL (INSECTS)</b> Economics of biological control.	16263
<b>MUSCLES</b> Inhibition by acetylcholine of malpighian tubule muscle of the cockroach <i>Periplaneta americana</i> .	16450	<b>NAUPHOETA CINEREA</b> Left colleterial proteins in the viviparous cockroach <i>Nauphoeta cinerea</i> .	16354
Phospholipid synthesis during flight muscle development in the American silkworm, <i>Hyalophora cecropia</i> .	16464	<b>NECROBACILLOSIS</b> Calf diphtheria.	16811
<b>MUSCULAR DYSTROPHY</b> A suspected case of muscular dystrophy in a horse.	16749	<b>NECROSIS</b> The effect of leaf water balance on the susceptibility of French bean to tobacco necrosis virus.	16613
<b>MUTATION</b> Avirulence of a methionine-sensitive leucine mutant of <i>Penicillium expansum</i> in Jonathan apple. (Abstract).	16545	<b>NEEDLE BLIGHT (PINUS)</b> Infection of needles of <i>Pinus strobus</i> by <i>Lophodermium pinastri</i> . (Abstract).	16562
A genetic study of leaf rust resistance in wheat.	16623	Ozone damage and semimature-tissue needle blight of eastern white pine.	16925
Hereditary change of an eye color mutant induced by DNA in <i>Ephesia</i> .	16742	<b>NEMATOCIDES</b> 2,6-Substituted cyclohexanones as insecticides, miticides, fungicides, nematocides and herbicides. Patent 3,389,986.	16948
<b>MYCOBACTERIUM BOVIS</b> Immunologic response of rabbits to <i>Mycobacterium bovis</i> ; chemical, electrophoretic and antigenic analyses of bacillary extracts.	16766	Bromodichloroacetanilides. Patent 3,405,176.	16952
Antigenic, chemical, chromatographic, and electrophoretic analyses of unheated culture filtrates of <i>Mycobacterium bovis</i> .	16767	Nematocidal 2,4-dihalophenyl esters of ethanesulfonic acid esters and alcohols. Patent 3,401,222.	16956
<b>MYCOPLASMA</b> Role of mycoplasma in bovine respiratory infection.	16786	N,N'-sulfonyl-bis-(carbamoylphosphonic acid esters). patent 3,401,214.	16959
A growth medium for mycoplasmas and its modification for longer survival of <i>M. mycoides</i> in culture.	16946	<b>NEMATODES</b> <i>Heterotylencbus autumnalis</i> Nickle (1967)--a parasite of pasture flies.	16346
<b>MYCOPLASMA GALLISEPTICUM</b> <i>Mycoplasma gallisepticum</i> infection and boiler weight.	16820	Amino acids from <i>Heterodera glycines</i> larvae. (Abstract).	16535
Preliminary investigation of methods for evaluating inactivated vaccines for infections bronchitis virus.	16821	<i>Monacrosporium rutgeriense</i> sp. n., a nematode-trapping byphomycete.	16561
<b>MYCORRHIZA</b> The effect of certain fungitoxicants on the formation of endotrophic mycorrhiza by <i>Endogone fasciculata</i> on corn and on root development in seedling corn.	16649	Organ culture of <i>Meloidogyne incognita acrita</i> . (Abstract).	16720
Effect of the nematode <i>Aphelenchus avenae</i> on some ectotrophic, mycorrhizal fungi and on a red pine mycorrhizal relationship.	16721	<i>Spirocerca lupi</i> infection in two central Texas dogs.	16872
<b>MYCOSIS</b> Observations of the spread of mycosis in mosquitoes.	16438	Helminthiasis in sheep.	16881
<b>MYMARIDAE</b> The biology and ecology of <i>Anaphes flavipes</i> (Hymenoptera: Mymaridae), an exotic egg parasite of the cereal leaf beetle.	16357	Anthelmintics for <i>Dictyocaulus filaria</i> in sheep.	16886
<b>MYOBIIDAE</b> Two new species of the genus <i>Ewingana</i> (Acarina: Myobiidae) from Cuba.	16288	Studies on immunity of calves to <i>Dictyocaulus viviparus</i> reinfection. II. Relationship between the age of calves and the dose of larvae causing clinical and lethal course of dictyocaulosis.	16888
<b>MYOPATHY</b> Selenium-responsive diseases of animals in New Zealand.	16746	Studies on immunity of calves to <i>Dictyocaulus viviparus</i> infection. 1. Immunization with single and double doses of normal or irradiated larvae.	16889
<b>MYZUS PERSICAE</b> Dietary amino acid requirements of the aphid, <i>Myzus persicae</i> .	16375	Anthelmintic evaluation of tetramisole against the swine lungworm, <i>Metastrongylus apri</i> .	16890
Mineral oil spray suppressed symptoms of virus yellows on sugar beets. (Abstract).	16563	<b>NEOMYCIN</b> Multiple drug resistance.	16965
Possible particles of beet western yellows virus in the intestines of viruliferous aphids.	16666	<b>NEOPLASMS</b> Physiological genetics of melanotic tumors in <i>Drosophila melanogaster</i> . IV. Gene-environment interactions of tu-bw with different third chromosome backgrounds.	16498
A virus disease of rhubarb in British Columbia.	16681	Bone-metastasizing lung carcinoma in a cat.	16784



SUBJECT INDEX

NERVES

**NERVES**  
The innervation of the terminal abdominal segments (VII- XI) of the desert locust, *Schistocera gregaria*. 16451  
Oedema disease in pigs. 16758

NERVOUS SYSTEM

A comparison of the larval and pupal nervous systems of the corn earworm, *Heliothis zea* (Lepidoptera: Noctuidae). 16279  
Humor control of the water equilibrium in *Locusta migratoria migratorioides*. 16370  
Segmentation and organogenesis in *Limnoria lignorum* (Rathke) (Isopoda). 16460  
Scrapic agent in blood. 16773

NEUTRALIZATION

Detection of antibodies neutralizing the virus of infectious bovine rhinotracheitis in the serum of French cattle. 16782

NIA 10242

Effect of soil clay and organic matter content upon systemic efficacy of two carbamate insecticides. 16259

NICARBAZIN

Testing the effectivity of coccidiostatics by using radio Iron-59 for the quantitative estimation of blood in the caeca and feces of chickens. 16842

NICOTIANA LONGIFLORA

Stem resistance to black shank in burley tobacco derived from *Nicotiana longiflora*. (Abstract). 16595

NITROGEN

The utilization of L-asparagine by two species of *Phytophthora*. 16521  
Effects of N, P, K, and inoculum density of *Verticillium dahliae* on populations of *Pratylenchus penetrans* in roots of American elm and sugar maple. (Abstract). 16570  
Effects of nitrogen sources on growth of *Phythora aphanidermatum* and *Pythium ultimum*. 16616  
The influence of simazine on the quality and composition of pome fruit. 16919  
The effect of differential nitrogen and calcium nutrition and B-Nine (N-dimethyl amino succinamic acid) application on foliar analysis and flowering quality of "Red Wing" azaleas. 16926

Process for preparing benzimidazole N-oxides. Patent 3,398,157. 16947

Bipyridylum compounds and herbicidal compositions containing the same. Patent 3,398,154. 16949

NITROGEN COMPOUNDS

Rodent damage to fertilized Pacific silver fir in Western Washington. 16736

NOCTUIDAE

Observations on the larvae of *Hippotion celerio* L. (Lepid., Sphingidae in Tanzania. (Abstract). 16262

Observations on the breeding of *Lycophotia molothina* (Lepidoptera, Noctuidae). 16308

The effect of temperature upon the development of the heart-and-dart moth (*Agrotis exclamationis* L.). 16431

Biological notes on, and eradication of *Trichogramma semifumatum* from laboratory cultures of eight species of Noctuidae. 16458

Dietary requirements of the hollworm, *Heliothis zea* (Lepidoptera: Noctuidae), for lipids, choline, and inositol and the effect of fats and fatty acids on the composition of the body fat. 16470

New results on the control of the millet caterpillar, *Laphygma frugiperda*. 16701

NOREPINEPHRINE

The estimation of epinephrine, norepinephrine, and aldrin (a chlorinated naphthalene derivative) in mammalian tissue employing biological and chemical methods of assay, and some

considerations of toxicological effects of aldrin. 16908

NORTHEASTERN STATES

Comments on bovine respiratory infections in northeastern dairy cattle. 16796

NOSEMA

*Plistophora scolyti* sp. n. (Protozoa, Microsporidia), a new parasite of *Scolytus scolytus* F. (Col., Scolytidae). 16475

NOSEMA APIS

*Nosema apis* and dysentery of the honeybee. 16359

NOSEMA DISEASE

*Nosema apis* and dysentery of the honeybee. 16359

NUCLEIC ACIDS

Competitive inhibition by foreign nucleic acid and induced interference by yeast-RNA with the infection of tobacco mosaic virus. 16581

Isolation and characterization of barley stripe mosaic virus protein. 16588

In vivo and in vitro decline of specific infectivity of tobacco ringspot virus correlated with nucleic acid degradation. 16671

Chemical composition and biophysical properties of tomato ringspot virus. 16690

Cytochemical studies with African horse sickness virus by fluorescent microscopy. 16822

Mode of action of 2,6-dichloro-4-nitroaniline (DCNA) in *Rhizopus arrhizus*. 16937

NUCLEOPROTEINS

The physiology of host-parasite relations. III. Further observations on nucleoprotein changes in wheat leaf nuclei during rust infection. 16547

NUCLEOSIDES

Effect of *Corpora allata* on protein and RNA synthesis in colleterial glands of *Blattella germanica*. 16486

NUCLEOTIDES

Polynucleotide homologies of *Brucella deoxyribonucleic acids*. 16794

NUTRIENT SOLUTIONS (PLANTS)

Effect of pH on recovery of fungi from foods. 16894

NYMPHS

A note on the influence of a range of plant chemicals on the growth and survival of *Aedes aegypti* L. larvae. 16396

OATS

The biology and ecology of *Anaphes flavipes* (Hymenoptera: Mymaridae), an exotic egg parasite of the cereal leaf beetle. 16357

Effects of cytokinins on the absorption of victorin. 16627

Cereal root eelworm pathotypes in England and Wales. 16717

OESOPHAGOSTOMUM

Experiences with a new broad-spectrum anthelmintic dichlorvos, in the adult pig. 16740

OESTRIDAE

*Leptomonas oestri* n.sp., a flagellate parasite of the digestive tract of *Oestrus ovis*. 16328

Mortality of nasal bots in sheep treated with systemic insecticides. 16330

OILS

Oils for summer control of pear psylla and their effects on pear trees. 16488

OILSEEDS

A comparison of annual crops for seed and residue in the semi-arid region of western Canada. 16510

OLEFINS

Acute toxicity of n-alpha-olefin sulfonates. 16912

SUBJECT INDEX

OXYGEN

<b>OLETHREUTIDAE</b> Estimation of carcass analysis of the growth requirements for amino acids in the codling moth, <i>Carpocapsa pomonella</i> (Lepidoptera: Olethreutidae).	16335	<b>OULEMA MELANOPUS</b> The biology and ecology of <i>Anaphes flavipes</i> (Hymenoptera: Mymaridae), an exotic egg parasite of the cereal leaf beetle.	16357
<b>OLIGOSACCHARIDES</b> Oligosaccharidases from <i>Macracanthorhynchus hirudinaceus</i> (Acanthocephala) from swine.	16875	Effects of some physical and biological factors on the reproduction, development, survival, and behavior of the cereal leaf beetle, <i>Oulema melanopus</i> (Linnaeus), under laboratory conditions.	16485
<b>ONCOPELTUS FASCIATUS</b> Effects of ionizing radiation on the European chafer, the plum curculio, and the large milkweed bug.	16422	Leaf pubescence in common wheat, <i>Triticum aestivum</i> L., and resistance to the cereal leaf beetle, <i>Oulema melanopus</i> (L.).	16713
The ultrastructure of insect surfaces by scanning electron microscopy.	16448	<b>OVA</b> Action of aqueous iodine on ova of <i>Ascaris lumbricoides</i> and <i>Ascaris suum</i> .	16716
<b>OPIUS</b> Pygidial glands in male Opins (Hymenoptera: Braconidae).	16367	<b>OVARIES</b> The effects of cadmium compounds on reproduction and growth of the stable fly, <i>Stomoxys calcitrans</i> (Linnaeus).	16410
<b>ORANGES</b> Entry of stem-end rot fungi in Florida oranges. (Abstract).	16555	<b>OVIPOSITORS</b> The diel oviposition periodicity of the black fly, <i>Simulium vittatum</i> .	16372
<b>ORGANIC COMPOUNDS</b> The adsorption of chlorinated hydrocarbon pesticides on an unconsolidated aquifer substrate.	16901	<b>OVULATION</b> Estimation of oviposition by the fir engraver, <i>Scolytus ventralis</i> (Coleoptera: Scolytidae).	16361
<b>ORGANOPHOSPHORUS COMPOUNDS</b> Investigations with the new organic phosphorus compounds.	16369	Biology of <i>Deltoccephalus sonorus</i> (Homoptera: Cicadellidae).	16394
Effect of insecticide-free rearing on the reproductive potential of organophosphorus-resistant African strains of <i>Aedes aegypti</i> (L.).	16402	The effects of cadmium compounds on reproduction and growth of the stable fly, <i>Stomoxys calcitrans</i> (Linnaeus).	16410
Metal salts of phosphorus acids and process. Patent 3,401,185.	16962	The biology of <i>Campoplex haywardi</i> (Hymenoptera: Ichneumonidae), a primary parasite of the potato tuberworm.	16418
Extraction of organochlorine and organophosphate insecticides from lake waters.	16964	Bioclimatic studies of the aphid parasite <i>Fraon exsoletum</i> . 1. Effects of temperature on the functional response of females to varying host densities.	16432
<b>ORIENTAL REGION</b> A tropic relict in the desert fauna of braconids (Hymenoptera, Braconidae) of Middle Asia.	16344	Ovarioles of the Blattaria.	16445
<b>ORNAMENTAL PLANTS</b> Pathogenic variability within <i>Phytophthora parasitica</i> as related to formation of post-infectious antifungal substances in <i>Peperomia</i> .	16678	Biological notes on, and eradication of <i>Trichogramma semifumatum</i> from laboratory cultures of eight species of Noctuidae.	16458
<b>ORYZAEPHILUS SURINAMENSIS</b> Glutamic acid requirements of the saw-toothed grain beetle, <i>Oryzaephilus surinamensis</i> (L.) (Coleoptera, Silvanidae).	16286	Some physiological effects of sublethal doses of DDT on flour beetles.	16462
Quantitative dietary requirements of <i>Oryzaephilus surinamensis</i> (L.) (Coleoptera: Silvanidae) for phenylalanine and tyrosine.	16378	Effects of some physical and biological factors on the reproduction, development, survival, and behavior of the cereal leaf beetle, <i>Oulema melanopus</i> (Linnaeus), under laboratory conditions.	16485
Small chamber tests of ethylene dibromide and ethylene dichloride on adult grain-infesting Coleoptera.	16382	Time of arrival of gravid <i>Culex pipiens fatigans</i> at an oviposition site, the oviposition cycle and the relationship between time of feeding and time of oviposition.	16500
<b>OSMOSIS</b> The effect of <i>Anaplasma marginale</i> infection on the metabolic and osmotic behavior of bovine erythrocytes.	16813	Cane-sugar feeding in <i>Culex pipiens fatigans</i> .	16501
<b>OSMOTIC PRESSURE</b> The effect of leaf water balance on the susceptibility of French bean to tobacco necrosis virus.	16613	Biophysical and biochemical studies on the nature of resistance of pineapples to the oriental fruit fly.	16710
<b>OSTERTAGIA OSTERTAGI</b> Efficacy of tetramisole. Studies on the efficacy of tetramisole in the treatment of pre-type II and type II bovine ostertagiasis.	16882	<b>OXIDASES</b> Indoleacetic acid oxidase activity in banana roots.	16629
Oral tetramisole; effect on <i>Dictyocaulus viviparus</i> , <i>Ostertagia ostertagi</i> and <i>Cooperia oncophora</i> in experimentally-infected calves.	16883	<b>OXIDES</b> Process for preparing benzimidazole N-oxides. Patent 3,398,157.	16947
<b>OSTERTAGIASIS</b> Efficacy of tetramisole. Studies on the efficacy of tetramisole in the treatment of pre-type II and type II bovine ostertagiasis.	16882	<b>OXYGEN</b> Oxygen consumption by soil larvae of insects in dependence on its tension.	16442
<b>OSTRINIA NUBILALIS</b> Differences in ecological responses of three biotypes of <i>Ostrinia nubilalis</i> from the north central United States.	16280	Photosynthetic activities of cotton plants infected with <i>Verticillium albo-atrum</i> .	16634
		Oxygen consumption and germination of <i>Cronartium fusiforme</i> aeciospores.	16694
		Process for preparing benzimidazole N-oxides. Patent 3,398,157.	16947

SUBJECT INDEX

<b>OZONE</b>			
An exposure chamber for studying the effects of air pollution on plants. (Abstract).	16532	On some new species of <i>Tetramesa</i> Walk., with notes on their parasites (Hymenoptera: Chalcidoidea).	16342
Relative sensitivity of twenty-two tree species to ozone. (abstract).	16565	The biology and ecology of <i>Anaphes flavipes</i> (Hymenoptera: Mymaridae), an exotic egg parasite of the cereal leaf beetle.	16357
Effects of ozone on conidiophores and conidia of <i>Alternaria solani</i> .	16663	Pygidial glands in male <i>Opius</i> (Hymenoptera: Braconidae).	16367
Factors affecting acute injury of <i>Pinus strobus</i> by ozone. (Abstract).	16674	Laboratory research on <i>Acarapis woodi</i> Rennie, the causative agent of acarine disease of the honeybee. note 5.	16393
Ozone damage and semimature-tissue needle blight of eastern white pine.	16925	Controlling insect enemies of the alfalfa leaf-cutter bee, <i>Megachile rotundata</i> .	16400
<b>PALYNOLOGY</b>			
Comparative study of pollen sources of honeybees and bumble bees.	16408	The biology of <i>Campoplex haywardi</i> (Hymenoptera: Ichneumonidae), a primary parasite of the potato tuberworm.	16418
<b>PANMEDE</b>			
A growth medium for mycoplasmas and its modification for longer survival of <i>M. mycoides</i> in culture.	16946	Bioclimatic studies of the aphid parasite <i>Praon exsoletum</i> . 1. Effects of temperature on the functional response of females to varying host densities.	16432
<b>PANONYCHUS CITRI</b>			
A virus disease of the European red mite <i>Panonychus ulmi</i> (Koch).	16362	Defense reactions of <i>Drosophila</i> species (Diptera: Drosophilidae) to the parasite <i>Pseudeucoila bochei</i> (Hymenoptera: Cynipidae).	16459
<b>PANONYCHUS ULMI</b>			
European red mite and two-spotted spider mite control on apple trees.	16358	Source of a substance in <i>Heliothis virescens</i> (Lepidoptera: Noctuidae) that elicits a searching response in its habitual parasite <i>Cardiophiles nigriceps</i> . (Hymenoptera: Braconidae).	16471
A virus disease of the European red mite <i>Panonychus ulmi</i> (Koch).	16362	External parasites of domestic pigeon in United Arab Republic.	16869
<b>PAPAIN</b>			
A growth medium for mycoplasmas and its modification for longer survival of <i>M. mycoides</i> in culture.	16946	<b>PARASITIC PLANTS</b>	
<b>PARACACOXYENUS</b>			
An annotated key to drosophilid genera with bare or micropubescent arista and a revision of <i>Paracacoxenus</i> (Diptera: Drosophilidae).	16316	The physiology of host-parasite relations. XIX. Further observations on nucleoprotein changes in wheat leaf nuclei during rust infection.	16547
<b>PARAINFLUENZA-3 VACCINES</b>			
Comments on combination vaccines for bovine respiratory diseases.	16800	<b>PARASITISM</b>	
Comments on bovine parainfluenza-3 immunization procedures.	16804	<i>Leptomonas oestri</i> n.sp., a flagellate parasite of the digestive tract of <i>Oestrus ovis</i> .	16328
Comments on bovine parainfluenza-3 immunization procedures.	16834	Some ectoparasites from West Virginia mammals. II.	16339
Comments on combination vaccines for bovine respiratory diseases.	16836	<i>Heterotylenchus autumnalis</i> Nickle (1967)--a parasite of pasture flies.	16346
Potency evaluation of vaccines used against bovine respiratory diseases.	16838	An interesting parasite of Thysanoptera: <i>Tetrastichus gentilei</i> (Hym. Chalcididae).	16365
Complications following vaccination of cattle against infectious bovine rhinotracheitis, bovine viral diarrhoea-mucosal disease, and parainfluenza type 3.	16841	Immunological relationships between the parasite <i>Cardiophiles nigriceps</i> Vierick and certain <i>Heliothis</i> species.	16420
Laboratory evaluation of bovine respiratory disease vaccines for safety.	16852	Biological notes on, and eradication of <i>Trichogramma semifumatum</i> from laboratory cultures of eight species of Noctuidae.	16458
<b>PARAINFLUENZA-3 VIRUS</b>			
Comments on bovine parainfluenza-3 immunization procedures.	16804	Ion uptake of sweet potato roots infected by the black rot fungus.	16519
The natural history of bovine myxovirus parainfluenza-3.	16860	Growth of the hyperparasite <i>Darlucalium</i> on a chemically defined medium.	16544
<b>PARALYSIS</b>			
Lumbar paralysis of a calf caused by aberration of an immature liver fluke into the spinal cord.	16892	Carbon dioxide exchange by radish tissue infected with <i>Albugo candida</i> measured with an infrared CO <sub>2</sub> analyzer.	16548
<b>PARASITES</b>			
Pyruvate kinase in <i>Haemonchus contortus</i> larvae.	16349	Host-parasite relationships between protozoans and their arthropod and vertebrate hosts.	16808
Effect of the nematode <i>Aphelenchus avenae</i> on some ectotrophic, mycorrhizal fungi and on a red pine mycorrhizal relationship.	16721	Advances in parasitology.	16874
<b>PARASITIC INSECTS</b>			
Small mammals and their ectoparasites from the Scottish islands of Banda (Sutherland), Muck, Pabay, Scalpay and Soay (Inner hebrides).	16285	Efficacy of tetramisole. Studies on the efficacy of tetramisole in the treatment of pre-type II and type II bovine ostertagiasis.	16882
		Oral tetramisole; effect on <i>Dictyocaulus viviparus</i> , <i>Ostertagia ostertagi</i> and <i>Cooperia oncophora</i> in experimentally-infected calves.	16883
		Epidemiological studies of fascioliasis; a third season of comparative studies with cattle.	16884
		Anthelmintics for <i>Dictyocaulus filaria</i> in sheep.	16886
		<i>Trypanosoma dafillae</i> sp. n. and <i>Leucocytozoon anatis</i> Wickware, 1915 in the northern pintail ( <i>Dafila acnta acnta</i>	



## SUBJECT INDEX

			PATENTS
L.)	16893	cides. Patent 3,401,031.	16728
PARASITOLOGY		Herbicides. Patent 3,388,171.	16729
A physiological study of the development of the egg of <i>Fasciola hepatica</i> L., the common liver fluke.	16891	Herbicides. Patent 3,403,994.	16730
PARATHION		Herbicides. Patent 3,397,977.	16732
Parathion resistance in house fly populations in the Savannah, Georgia, area.	16495	Herbicides. Patent 3,393,064.	16733
PARIS GREEN		Method of controlling the growth of weeds. Patent 3,399,988.	16735
The use of organochlorine insecticides and possible alternatives against leatherjackets.	16715	Naphthoquinone compounds. Patent 3,393,211.	16774
PARTHENOGENESIS		Novel thiazine and thiazoline anthelmintic agents. Patent 3,390,148.	16870
Role of genetic factors and fowl pox virus in parthenogenesis in turkey eggs.	16831	Coated 2,2-dichlorovinyl phosphate and polyvinyl chloride resin anthelmintic compositions. Patent 3,398,225.	16871
PARTICLE SIZE DETERMINATION		Pesticidal N-acyl-N-lower alkyl carbamates of phenols and naphthols with decreased mammalian toxicity. Patent 3,404,208.	16913
The adsorption of chlorinated hydrocarbon pesticides on an unconsolidated aquifer substrate.	16901	Method of controlling fungi with sulfonium iodides. Patent 3,402,248.	16930
PASTEURELLA		Method for the preparation of O,O-dimethyl-S-(1,2-dicarb-ethoxyethyl)dithiophosphate. Patent 3,403,201.	16942
Present status of immunization procedures for pasteurellosis.	16770	Fungicidal and bactericidal compositions and methods employing isothiazolecarboxylates. Patent 3,403,209.	16945
Comments on hovine myxovirus parainfluenza-3.	16787	Process for preparing benzimidazole N-oxides. Patent 3,398,157.	16947
Reoviruses.	16806	2,6-Substituted cyclohexanones as insecticides, miticides, fungicides, nematocides and herbicides. Patent 3,389,986.	16948
The natural history of bovine myxovirus parainfluenza-3.	16860	Bipyridylum compounds and herbicidal compositions containing the same. Patent 3,398,154.	16949
PASTEURELLA HAEMOLYTICA		Method for preparation of wettable sulfur. Patent 3,398,227.	16951
Pasteurellae in hovine respiratory disease.	16762	Bromodichloroacetanilides. Patent 3,405,176.	16952
Pneumonia of sheep in Kenya. I. Bacterial and parasitic pneumonia.	16855	Insecticidal tertiary alcohols. Patent 3,402,209.	16953
PASTEURELLA MOLTOCIDA		3-Amino-2,5,6-trichlorobenzoic acid. Patent 3,391,185.	16954
Pasteurellae in hovine respiratory disease.	16762	M-alkylphenyl N-chloroacetyl-N-methylcarbamates and their use as pesticides. Patent 3,402,246.	16955
A study of immunity against <i>Pasteurella multocida</i> in buffalo calves and their carrier status.	16823	Nematocidal 2,4-dihaloaryl esters of ethanesulfonic acid ethers and alcohols. Patent 3,401,222.	16956
Pneumonia of sheep in Kenya. I. Bacterial and parasitic pneumonia.	16855	Dimethylthiocarbonyl s-alkyldithiocarbonates. Patent 3,398,181.	16957
PASTEURELLA TULARENSIS		Triazine derivatives with herbicidal and fungicidal properties. Patent 3,403,151.	16958
Growth and metabolism of live vaccine strain of <i>Pasteurella tularensis</i> .	16966	N,N'-sulfonyl-bis-(carbamoylphosphonic acid esters). Patent 3,401,214.	16959
PASTORES		Non-irritant quaternary ammonium compound composition. Patent 3,402,242.	16960
<i>Heterotylenchus autumnalis</i> Nickle (1967)--a parasite of pasture flies.	16346	Freeze-resistant pesticidal composition. Patent 3,399,991.	16961
A thesis of Hme G. Ricon, on lasting prairie pasturage, a biocenological study of natural environment.	16514	Metal salts of phosphorus acids and process. Patent 3,401,185.	16962
Some economics of air pollution control.	16972	Imidocarbonates. Patent 3,401,201.	16967
PATENTS		M-(carbamoyloxy)-carbanilates as herbicides. Patent 3,404,975.	16968
Insecticidal 2-halo- and 2,4-dihaloalkylphenyl carbamate compositions and method for controlling insects. Patent 3,402,245.	16417	2-alkylaminobenzimidazoles as herbicides. Patent 3,399,987.	16969
Methods of killing pests selected from the group consisting of mites and insects with phosphonothioates. Patent 3,401,220.	16461		
Method of inhibiting plant growth. Patent 3,390,978.	16522		
Ammoniation process for detoxifying the seeds of <i>Crambe abyssinica</i> and rape. Patent 3,392,026.	16527		
Process for oxidizing soluble alkylene bisdithiocarbamates to produce an oxygen containing product, and the product of said process. Patent 3,401,182.	16591		
Lower aliphatic esters of N-phenyl and N-m-Chlorophenyl carbamic acid containing an acyl group. Patent 3,393,224.	16724		
Herbicides. Patent 3,399,989.	16725		
Method of controlling weeds in soil. Patent 3,393,065.	16726		
3'4'-Dichloropionanilide. Patent 3,382,280.	16727		
Monofluorophenyl-4'-nitrophenylether derivatives as herbi-			

SUBJECT INDEX

<b>PEACRES</b>			
2-alkylaminobenzimidazoles. Patent 3,401,174.	16970	<b>PERMEABILITY</b>	
Benz(d)indolo(3,2-b)thiopyrylium compounds. Patent 3,401,177.	16971	Permeability changes in <i>Phaseolus aureus</i> associated with infection by <i>Rhizoctonia solani</i> .	16620
<b>PEACRES</b>		<b>PEROXIDASES</b>	
Activity of soil fumigants in relation to increased growth response and control of decline and bacterial canker in trees of <i>Prunus persica</i> . (Abstract).	16566	The oxidation of indole-3-acetaldehyde and its 1-methyl derivative by horseradish peroxidase.	16941
Diseases of pitted-fruit trees, in 1966.	16621	<b>PEROXYACETYL NITRATE</b>	
<b>PEANUTS</b>		An exposure chamber for studying the effects of air pollution on plants. (Abstract).	16532
Laboratory evaluation of peanut varieties for resistance to the southern corn rootworm.	16277	<b>PEST CONTROL</b>	
<i>Pythium</i> pod rot of peanut.	16575	Sterilization of <i>Culex pipiens fatigans</i> Wiedemann by apholate.	16377
Residues of aldrin, endrin, and heptachlor in peanuts grown in treated soil.	16904	<b>PESTICIDE ANALYSIS</b>	
<b>PEARS</b>		A rapid procedure for the identification of organochlorine pesticides in blood and tissues.	16950
Oils for summer control of pear psylla and their effects on pear trees.	16488	<b>PESTICIDE APPLICATION</b>	
The evolution of apple and pear tree spot disease during the year 1966.	16540	Economics of the application of molluscicides to flowing water.	16403
<i>Erwinia amylovora</i> (Burr.) Winsl. in Poland.	16550	Investigations on fungicidal activity of combined fungicides.	16638
The influence of simazine on the quality and composition of pome fruit.	16919	Herbicidal composition and method. Patent 3,393,064.	16733
<b>PEAS</b>		<b>PESTICIDE MIXTURES</b>	
Uptake and metabolism of indoleacetic acid, naphthalene-acetic acid, and 2,4-dichlorophenoxyacetic acid by pea root segments in relation to growth inhibition during and after anxin application.	16511	Investigations on fungicidal activity of combined fungicides.	16638
<b>PECTINASE</b>		The examination of mixtures of Captan and Phaltan by gas chromatography.	16944
The relationship of mating capacities and polygalacturonase production in <i>Cochliobolus carbonum</i> . (Abstract).	16646	<b>PESTICIDE RESIDUES</b>	
<b>PECTINOPHORA</b>		Use of <i>Daphnia magna</i> for the microbioassay of pesticides. I. Development of standardized techniques for rearing <i>Daphnia</i> and preparation of dosage-mortality curves for pesticides.	16295
Temperature effect on reproduction and longevity of laboratory-reared adult pink hollworm (Lepidoptera: Gelechiidae).	16494	II. Comparison of microbioassay with gas chromatography for analysis of pesticide residues in plant extracts.	16296
<b>PELARGONIUM RORTORUM</b>		Toxicological criteria applied for establishment of the tolerances of pesticide residues.	16903
Natural occurrence of tobacco ringspot virus <i>Pelargonium</i> in Ontario.	16611	<b>PESTICIDES</b>	
<i>Geranium</i> plants differentiated in vitro from stem tip and callus cultures.	16929	Protecting honeybees from chemical poisons. Sf538 .n3.	16435
<b>PENICILLIUM EXPANSUM</b>		Methods of killing pests selected from the group consisting of mites and insects with phosphonothioates. Patent 3,401,220.	16461
Avirulence of a methionine-sensitive leucine mutant of <i>Penicillium expansum</i> in Jonathan apple. (Abstract).	16545	Investigations of new insecticides.	16480
Method of determining the sensitivity of fungus spores to hot water.	16656	The adsorption of chlorinated hydrocarbon pesticides on an unconsolidated aquifer substrate.	16901
<b>PEPEROMIA</b>		Pesticidal N-acyl-N-lower alkyl carbamates of phenols and naphthols with decreased mammalian toxicity. Patent 3,404,208.	16913
Pathogenic variability within <i>Phytophthora parasitica</i> as related to formation of post-infectious antifungal substances in <i>Peperomia</i> .	16678	The literature of pesticide chemistry.	16943
<b>PEPPERS</b>		M-alkylphenyl N-chloroacetyl-N-methylcarbamates and their use as pesticides. Patent 3,402,246.	16955
Comparative morphological and physiological studies of the progenies from intraspecific matings of <i>Phytophthora capsici</i> .	16669	Dimethylthiocarbamoyl S-alkyldithiocarbonates. Patent 3,398,181.	16957
<b>PERILLUS BIUCOLATUS</b>		Freeze-resistant pesticidal composition. Patent 3,399,991.	16961
Field trials to control Colorado beetle, <i>leptinotarsa decemlineata</i> , with <i>Perillus bioculatus</i> .	16474	Metal salts of phosphorus acids and process. Patent 3,401,185.	16962
<b>PERIPLANETA</b>		<b>PRARYNX</b>	
Temperature effects on nerve activity in DDT-TREATED American cockroaches.	16289	Excretion of foot-and-mouth disease virus prior to the development of lesions.	16755
<b>PERIPLANETA AMERICANA</b>		<b>PREMOLASES</b>	
Histochemical localization of catecholamines in the brain of normal and drug-treated cockroaches.	16389	A study of a melanic mutant of the blowfly <i>Lucilia cuprina</i> .	16395
Inhibition by acetylcholine of malpighian tubule muscle of the cockroach <i>Periplaneta americana</i> .	16450		
The toxicity of Oklahoma spider (Araneae) venoms using a new venom recovery and testing technique.	16910		

- PHENOLS**  
Systemic action of 2-chloro-4-diisobutyl-6-nitrophenol against powdery mildew of snapbean. (Abstract). 16572  
Polyphenols and discoloration in the elm disease investigated by histochemical techniques. 16580  
Festicial N-acyl-N-lower alkyl carbamates of phenols and naphthols with decreased mammalian toxicity. Patent 3,404,208. 16913
- PHENYLALANINE**  
Quantitative dietary requirements of *Oryzaephilus surinamensis* (L.) (Coleoptera: Silvanidae) for phenylalanine and tyrosine. 16378
- PHENYL CARBAMATES**  
N-alkylphenyl N-chloroacetyl-N-methylcarbamates and their use as pesticides. Patent 3,402,246. 16955
- PHEROMONES**  
Source of the trail pheromone and method of trail laying in the ant *Crematogaster peringueyi*. 16385
- PHILOPTERIDAE**  
Two new Mallophaga species of the genus *Ardeicola* Clay, 1935 (Ischnocera: Philopteridae). 16302
- PHOMOPSIS CITRI**  
Entry of stem-end rot fungi in Florida oranges. (Abstract). 16555
- PHORATE**  
Field evaluation of insecticides for the control of aphids on potatoes. 16657  
Insecticides applied to the soil for control of eight species of insects on Irish potatoes in Virginia. 16706
- PHOSFON**  
Value of a plant growth retardant for isolating soil fungi. 16920
- PHOSPHAMIDON**  
Field studies on control of lygns bugs and onion thrips infesting safflower. 16567  
Field evaluation of insecticides for the control of aphids on potatoes. 16657
- PHOSPHOLIPIDS**  
Variations of phospholipids in the course of metamorphosis of *Tribolium confusum* (Coleoptera). 16360  
The effect of 2,4-dichlorophenoxyacetic acid upon the metabolism and composition of soybean hypocotyl mitochondria. 16916
- PHOSPHONOTHIOIC ACID COMPOUNDS**  
Methods of killing pests selected from the group consisting of mites and insects with phosphonothioates. Patent 3,401,220. 16461
- PHOSPHORUS**  
Effects of N, P, K, and inoculum density of *Verticillium dahliae* on populations of *Pratylenchus penetrans* in roots of American elm and sugar maple. (Abstract). 16570  
Some factors affecting mineral utilization by the baby pig. 16788  
Translocation to and accumulation of phosphorus-32 in sclerotia of *Sclerotium rolfsii*. 16938  
Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm. 16940
- PHOSPHORUS COMPOUNDS**  
Method for the preparation of O,O-dimethyl-S-(1,2-dicarb-ethoxyethyl)dithiophosphate. Patent 3,403,201. 16942  
Method for preparation of wettable sulfur. Patent 3,398,227. 16951
- PHOSPHORUS ISOTOPES**  
Stimulation by 2,4-U and 2,4-U plus Fe EUTA of <sup>32</sup>P uptake by bean seedlings (*Phaseolus vulgaris*). 16573
- PHOSPHORYLATION**  
Effect of *Corpora allata* on protein and RNA synthesis in colleterial glands of *Blattella germanica*. 16486  
The effect of 2,4-dichlorophenoxyacetic acid upon the metabolism and composition of soybean hypocotyl mitochondria. 16916
- PHOTOCHEMISTRY**  
Phototactic response of adults of confused flour beetle and red flour beetle and larvae of black carpet beetle to flashes of blue-white light. 16456
- PHOTOGRAPHY**  
Nature's paradise. QL336. B3. 16260  
The ultrastructure of insect surfaces by scanning electron microscopy. 16448  
Sex attraction in the Mediterranean flour moth, *Anagasta kuhniella*: location of the female by the male. 16467
- PHOTOMETRY**  
Evidence of winged insect sexual dimorphism in *Philophylla heraclei* (Dipt. Trypetidae) through use of a "photopterometre". 16419
- PHOTOPEHIODISM**  
Two effects of photoperiod on wing development in *Grylodes sigillatus* (Walk). 16429
- PHOTOSENSITIZATION**  
Phototactic response of adults of confused flour beetle and red flour beetle and larvae of black carpet beetle to flashes of blue-white light. 16456  
Studies on lettuce seed germination. I. Coumarin induced dormancy. 16513
- PHOTOSYNTHESIS**  
Carbon dioxide exchange by radish tissue infected with *Albugo candida* measured with an infrared CO<sub>2</sub> analyzer. 16548  
Photosynthetic activities of cotton plants infected with *Verticillium albo-atrum*. 16634  
Effects of herbicides on carbon dioxide uptake by pine seedlings. 16668
- PHYTOHIMAZA OPEHCULELLA**  
The biology of *Campoplex haywardi* (Hymenoptera: Ichneumonidae), a primary parasite of the potato tuberworm. 16418
- PHYSIOLOGY**  
Comparative morphological and physiological studies of the progenies from intraspecific matings of *Phytophthora capsici*. 16669  
Characteristics of a C strain of foot-and-mouth disease virus propagated in BHK21 cells. 16769  
The growth cycle of equine herpes 3 virus as compared with other viruses of the herpes group. 16797  
Pathologic physiology and chemotherapy of *Plasmodium berghei*. III. Renal function in rats infected with *Plasmodium berghei*. 16801  
A physiological study of the development of the egg of *Fasciola hepatica* L., the common liver fluke. 16891  
Growth and metabolism of live vaccine strain of *Pasteurella tularensis*. 16966
- PHYTOPHTHOHA**  
Differentiation of three species of *Phytophthora* by polyacrylamide gel electrophoresis. (Abstract). 16583
- PHYTOPHTHOHA CACTOHEM**  
Intergrafting, preventive measures against the 'collar rot' on apples. 16528
- PHYTOPHTHOHA CAPSICI**  
Comparative morphological and physiological studies of the progenies from intraspecific matings of *Phytophthora capsici*. 16669



SUBJECT INDEX

- PHYTOPHTHORA CITRICOLA**
- PHYTOPHTHORA CITRICOLA**  
The utilization of L-asparagine by two species of  
Phytophthora. 16521
- PHYTOPHTHORA FRAGARIAE**  
The relationship of Phytophthora fragariae Hickm. to the  
fungal flora in the rhizosphere of the strawberry plant. 16612
- Serological investigations of races 1-8 of Phytophthora  
fragariae. (Abstract). 16684
- PHYTOPHTHORA HEVEAE**  
The utilization of L-asparagine by two species of  
Phytophthora. 16521
- PHYTOPHTHORA INFESTANS**  
Effect of trace-elements bound to superphosphates on the  
resistance of potato tubers to Phytophthora infestans  
(Mout.) de Bary. 16643
- PHYTOPHTHORA MEGASPERMA**  
Anatomy of heads or flagella of zoospores of Phytophthora  
megasperma var. sojae. 16599
- PHYTOPHTHORA PARASITICA**  
Pathogenic variability within Phytophthora parasitica as  
related to formation of post-infectious antifungal sub-  
stances in Peperomia. 16678
- PHYTOPHTHORA PARASITICA NICOTIANAE**  
Stem resistance to black shank in curly tobacco derived  
from Nicotiana glauca. (Abstract). 16595
- PHYTOSEIIDAE**  
Preliminary report on the introduction of Phytoseiulus  
persimilis to Poland. 16421
- PHYTOSEIULUS PERSIMILIS**  
Preliminary report on the introduction of Phytoseiulus  
persimilis to Poland. 16421
- PICEA**  
Tolerance of some imported conifer seeds to fumigation with  
carbon tetrachloride. 16932
- PICEA GLAUCA**  
Comparative susceptibility of large and small spruce roots  
to Polyporus tomentosus. 16698
- PICEA MARIANA**  
Comparative susceptibility of large and small spruce roots  
to Polyporus tomentosus. 16698
- PICORNAVIRUSES**  
Bovine rhinoviruses. 16752
- Isolation of a hemagglutinating picornavirus from a primary  
swine kidney cell culture. 16795
- PIERIS BRASSICAE**  
A new aberration of Pieris brassicae (Linn.)  
Lepidoptera, Pieridae. 16318
- PIGEONS**  
External parasites of domestic pigeon in United Arab  
Republic. 16869
- PIGMEETS**  
Evidence of winged insect sexual dimorphism in Philophylla  
heraclei (Dipt. Trypetidae) through use of a  
"photometer". 16419
- PIGMEETS (INSECT)**  
A study of a melanistic mutant of the blowfly Lucilia cupria.  
16395
- PIGMEETS (PLANT)**  
Some factors related to the production of a brown diffusible  
pigment by Lathyrus phaseoli var. fuscaus (Abstract). 16542
- PINE NEEDLES**  
Ozone damage and semimature-tissue needle blight of eastern  
white pine. 16925
- PINEAPPLES**  
Biophysical and biochemical studies on the nature of resis-  
tance of pineapples to the oriental fruit fly 16710
- PINUS**  
The blue engraver, Ips pini (Coleoptera: Scolytidae), in  
the southern Appalachian Mountains. 16282
- Prescribed fire as a possible control for Pines annosus.  
(Abstract). 16577
- Histology of canker rusts in pines. 16618
- Tolerance of some imported conifer seeds to fumigation with  
carbon tetrachloride. 16932
- PINUS ECHEINATA**  
Oxygen consumption and germination of Crouartina fusiforme  
aeciospores. 16694
- PINUS RESINOSA**  
Root exudates from red pine seedlings and their effects on  
Pythium ultimum. 16534
- Pathogenicity and physiology of Pythium vexans. (Abstract).  
16558
- Effects of herbicides on carbon dioxide uptake by pine  
seedlings. 16668
- Effect of the nematode Aphelenchus avenae on some  
ectotrophic, mycorrhizal fungi and on a red pine  
mycorrhizal relationship. 16721
- PINUS RIGIDA**  
Radiation-induced damage in vegetative tissues of  
Pinus rigida Mill. 16526
- Pathogenicity and physiology of Pythium vexans. (Abstract).  
16558
- PINUS STROBUS**  
Pathogenicity and physiology of Pythium vexans. (Abstract).  
16558
- Infection of needles of Pinus strobus by Lophodermium  
pinastri. (Abstract). 16562
- Leptographium root decline of eastern white pine.  
(Abstract). 16568
- Factors affecting acute injury of Pinus strobus by ozone.  
(Abstract). 16674
- Stem and needle inoculations of eastern white pine with  
the hister rust fungus. 16592
- Ozone damage and semimature-tissue needle blight of eastern  
white pine. 16925
- PLANT ABNORMALITIES**  
Somatic aberrations in Solanum tuberosum induced by ethyl  
methane sulfonate and I-irradiation. 16936
- PLANT ANATOMY**  
Proliferative symptoms in leafhoppers infected with  
western I-disease virus. 16696
- Structure and development of the flower of Brassica schre-  
beri Gmel. 16931
- PLANT BIOCHEMISTRY**  
The influence of simazine on the quality and composition of  
pome fruit. 16919
- The effect of differential nitrogen and calcium nutrition  
and B-nine (N-dimethyl amino succinamic acid) application  
on foliar analysis and flowering quality of "Red Wing"  
azaleas. 16926
- The partitioning and distribution of simazine and propaui  
in spinach chloroplasts. 16927
- Somatic aberrations in Solanum tuberosum induced by ethyl  
methane sulfonate and I-irradiation. 16936
- Metabolic and environmental factors affecting absorption and  
translocation of 2,4,5-trichlorophenoxyacetic acid in winged  
elm. 16940
- PLANT BREEDING**  
Mineral nutrition of cacao (Theobroma cacao L.). Compari-  
son of plant growth and nutrient content of leaves of six  
C.R.I. varieties grown in optimum and deficient condi-

## SUBJECT INDEX

## PLANT DISEASES

- tions in sand culture. 16524
- Intergrafting, preventive measures against the 'collar rot' on apples. 16528
- A morphological and biological concept of the species *Ceratocystis fimbriata*. 16530
- A genetic study of leaf rust resistance in wheat. 16623
- Studies on the development of insect resistant sorghum varieties and hybrids. 16707
- PLANT COMPOSITION**
- A note on the influence of a range of plant chemicals on the growth and survival of *Aedes aegypti* L. larvae. 16396
- The effect of 2,4-dichlorophenoxyacetic acid upon the metabolism and composition of soybean hypocotyl mitochondria. 16916
- PLANT CONTAMINATION**
- Selenium-responsive diseases of animals in New Zealand. 16746
- PLANT CUTTINGS**
- Growth substances isolated from woody cuttings of *Alnus glutinosa* Medic. and *Fraxinus excelsior* L. 16525
- Geranium plants differentiated in vitro from stem tip and callus cultures. 16929
- PLANT CYTOLOGY**
- Cytopathology of mixed infections with potato viruses X and Y in *Nicotiana tabacum* leaves. 16610
- Electron microscopy of X-body formation in cells of cabbage infected with *Brassica virus 3*. 16665
- PLANT DISEASE CONTROL**
- The present and the future of plant protection. 16531
- The sensitivity of fungi to alpha-tomatine. 16536
- Effect of magnesium trisilicate on the infectivity of tobacco mosaic virus. 16607
- A genetic study of leaf rust resistance in wheat. 16623
- Integrated method of control of plant diseases caused by fungi. 16630
- The effects of sugar maple stem tissue extracts on spore germination of *Puccinia solani*. (Abstract). 16655
- Method of determining the sensitivity of fungus spores to hot water. 16656
- PLANT DISEASE FORECASTING**
- A comparison of the electron microscope, microprecipitin tests, and indicator plants for the detection of potato viruses S, X, and Y. 16667
- Diseases and pests of the more important crops in 1966 and the forecast for 1967. 16714
- PLANT DISEASE RESISTANCE**
- Intergrafting, preventive measures against the 'collar rot' on apples. 16528
- Interaction of major factors influencing severity of bean root rot. (Abstract). 16539
- Crown rust resistance in tall oatgrass. (Abstract). 16551
- The probable significance of saprophytic colonization of wheat straw in the field by *Cephalosporium graminum*. 16556
- Substances, inducing plant resistance to pathogenic fungi and the problem of antimetabolites. 16585
- Induction of lettuce root rot under controlled environmental conditions. (Abstract). 16590
- Application of cotyledonary symptoms in screening for resistance to tomato bacterial canker and in host range studies. 16592
- Stem resistance to black shank in barley tobacco derived from *Nicotiana longiflora*. (Abstract). 16595
- Susceptibility and hypersensitivity to tobacco mosaic virus in wild species of potatoes. 16603
- Antagonism of bacteria from elm to *Ceratocystis ulmi* in vitro. (Abstract). 16606
- The effect of leaf water balance on the susceptibility of French bean to tobacco necrosis virus. 16613
- A genetic study of leaf rust resistance in wheat. 16623
- The effects of maize dwarf mosaic virus on macro- and microelement accumulation in corn tissue of resistant and susceptible hybrids. (Abstract). 16631
- Interactions between *Verticillium albo-atrum* and *Pratylenchus penetrans* in the *Verticillium* wilt of potatoes. (Abstract). 16642
- Symptom expression and varietal susceptibility in carnation, *Dianthus caryophyllus*, inoculated with the carnation strain of *Erwinia chrysanthemi*. 16645
- Observations on the nature of inheritance of resistance of lucerne to *Verticillium albo-atrum*. 16652
- Studies of the development of powdery mildew (*Erysiphe graminis* f. sp. *hordei* Marchal) on barley. II. Primary appressoria formation. 16654
- Interaction of pathogenicity genes in *Puccinia graminis* f. sp. *tritici* and reaction genes in *Triticum aestivum* ssp. *vulgare* "Margnis," "Beliance," and "Kota." 16664
- Relationship of clipping frequency to root and crown deterioration in red clover. 16673
- Resistance to *Puccinia graminis* derived from *Secale cereale* incorporated into *Triticum aestivum*. 16683
- The relative efficiency of ear-to-row and convergent improvement in increasing disease resistance of *Zea mays*. 16691
- Stem and needle inoculations of eastern white pine with the blister rust fungus. 16692
- Two genetic systems control disease reaction to strains A and B of maize dwarf mosaic virus. (Abstract). 16695
- Comparative susceptibility of large and small spruce roots to *Polyporus tomentosus*. 16698
- Stomatal penetration of wheat seedlings by stem and leaf rusts in relation to effects of carbon dioxide, light, and stomatal aperture. 16699
- PLANT DISEASE TRANSMISSION**
- Mineral oil spray suppressed symptoms of virus yellows on sugar beets. (Abstract). 16563
- Investigations of cherry rasp leaf disease in California. 16693
- A comparison of species of *Aphididae* with species of three other aphid families regarding virus transmission and probe behavior. 16700
- Geranium plants differentiated in vitro from stem tip and callus cultures. 16929
- PLANT DISEASES**
- Studies on the salivary physiology of plant-bugs: Experimental induction of galls. 16433
- Ion uptake of sweet potato roots infected by the black root fungus. 16519
- The influence of organic soil amendment on common scab of potato. 16541
- Polyphenols and discoloration in the elm disease investigated by histochemical techniques. 16580
- Electron microscopy of uredospores of *Melampsora lini* and of rust infected flax. 16633
- The first occurrence of disease of the carnation caused by *Pseudomonas caryophylli* (Burkholder) Starr et Burkholder

SUBJECT INDEX

PLANT DISSEMINATION

in Hungary. 16648  
 Tobacco diseases in Kentucky in 1967. 16679  
 'soil vessel system' or analysis of soils from diseased seedlings. 16686  
 Ozone damage and semimature-tissue needle blight of eastern white pine. 16925  
 The examination of mixtures of Captan and Phaltan by gas chromatography. 16944

PLANT DISSEMINATION

Ejection and dissemination of ascospores of *Hypoxyylon pruinatum*. 16578

PLANT ECOLOGY

Spectral distribution of light in forests of the Douglas fir zone of southern British Columbia. 16518  
 Rodent damage to fertilized Pacific silver fir in Western Washington. 16736

PLANT EXTRACTS

Survival and development of several grasshopper species on extracts of selected plant species. 16465  
 Effect of magnesium trisilicate on the infectivity of tobacco mosaic virus. 16607

PLANT GALLS

Studies on the salivary physiology of plant-bugs: Experimental induction of galls. 16433

PLANT GENETICS

A genetic study of leaf rust resistance in wheat. 16623  
 Observations on the nature of inheritance of resistance of lucerne to *Verticillium albo-atrum*. 16652  
 Resistance to *Puccinia graminis* derived from *Secale cereale* incorporated into *Triticum aestivum*. 16683  
 Two genetic systems control disease reaction to strains A and B of maize dwarf mosaic virus. (Abstract). 16695  
 Somatic aberrations in *Solanum tuberosum* induced by ethyl methane sulfonate and X-irradiation. 16936

PLANT GEOGRAPHY

A morphological and biological concept of the species *Ceratocystis fimbriata*. 16530

PLANT GRAFTING

Intergrafting, preventive measures against the 'collar rot' on apples. 16528

PLANT GROWTH INHIBITORS

Uptake and metabolism of indoleacetic acid, naphthalene-acetic acid, and 2,4-dichlorophenoxyacetic acid by pea root segments in relation to growth inhibition during and after auxin application. 16511  
 Spectral distribution of light in forests of the Douglas fir zone of southern British Columbia. 16518  
 Effect of boron on ribonucleic acid and indoleacetic acid metabolism in the apical meristems of sunflower plants. 16520  
 The utilization of L-asparagine by two species of *Phytophthora*. 16521  
 Method of inhibiting plant growth. Patent 3,390,978. 16522  
 Response of zigzag clover genotypes to management practices. 16529  
 Stimulation by 2,4-D and 2,4-D plus Fe EDTA of 32P uptake by bean seedlings (*Phaseolus vulgaris*). 16573  
 Competitive inhibition by foreign nucleic acid and induced interference by yeast-RNA with the infection of tobacco mosaic virus. 16581  
 CO<sub>2</sub> assimilation and yield of Little Club wheat infected by *Septoria nodorum*. 16670  
 Monofluorophenyl-4'-nitrophenylether derivatives as herbi-

cides. Patent 3,401,031. 16728  
 Herbicidal composition and method comprising 1-(tetrahydro-dicyclopentadienyl)-3,3-dimethyl urea and a salt of methyl arsonic acid. Patent 3,403,017. 16731  
 The effect of chloramphenicol on soybean callus tissue. 16917  
 Value of a plant growth retardant for isolating soil fungi. 16920

PLANT HARDINESS

Felted grass coccid on Rhodes grass in Queensland. 16703  
 Tolerance of some imported conifer seeds to fumigation with carbon tetrachloride. 16932

PLANT HORMONES

Uptake and metabolism of indoleacetic acid, naphthalene-acetic acid, and 2,4-dichlorophenoxyacetic acid by pea root segments in relation to growth inhibition during and after auxin application. 16511  
 The effect of chloramphenicol on soybean callus tissue. 16917

PLANT INJURIES

Injury to sugar beet leaves through growth inhibiting herbicides. 16515  
 Radiation-induced damage in vegetative tissues of *Pinus rigida* Mill. 16526  
 Relative sensitivity of twenty-two tree species to ozone. (abstract). 16565  
 The effect of substituted decenyl succinic acid (DSA), amides, esters, and 1,5-difluoro-2,4-dinitrobenzene (DFDNB) on preventing blossom freezing injury. (Abstract). 16597  
 Factors affecting acute injury of *Pinus strobus* by ozone. (Abstract). 16674  
 The loss of yield in a crop of sweet corn (*Zea mays* L.) following the complete destruction of some plants at an early stage by brown rats (*Rattus norvegicus* Berk.). 16737  
 Ozone damage and semimature-tissue needle blight of eastern white pine. 16925  
 Tolerance of some imported conifer seeds to fumigation with carbon tetrachloride. 16932

PLANT METABOLISM

Ion uptake of sweet potato roots infected by the black rot fungus. 16519  
 Effect of boron on ribonucleic acid and indoleacetic acid metabolism in the apical meristems of sunflower plants. 16520  
 CO<sub>2</sub> assimilation and yield of Little Club wheat infected by *Septoria nodorum*. 16670  
 The effect of 2,4-dichlorophenoxyacetic acid upon the metabolism and composition of soybean hypocotyl mitochondria. 16916  
 The effect of chloramphenicol on soybean callus tissue. 16917  
 Mode of action of 2,6-dichloro-4-nitroaniline (DCNA) in *Rhizopus arrhizus*. 16937  
 Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by *Helampora lini*. I. Uptake. 16939  
 Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm. 16940

PLANT MORPHOLOGY

A note on translocation-trisomic plant from gamma-irradiated barley. 16517  
 A morphological and biological concept of the species *Ceratocystis fimbriata*. 16530



SUBJECT INDEX

PLANT REGULATORS

A study of tubes produced in plants infected with a strain of turnip yellow mosaic virus.	16598	<b>PLANT PHYSIOLOGY</b>	Injury to sugar beet leaves through growth inhibiting herbicides.	16515
<b>PLANT NEMATODE RESISTANCE</b>			Mineral nutrition of cacao ( <i>Theobroma cacao</i> L.). Comparison of plant growth and nutrient content of leaves of six C.R.I. varieties grown in optimum and deficient conditions in sand culture.	16524
Laboratory evaluation of peanut varieties for resistance to the southern corn rootworm.	16277		Growth substances isolated from woody cuttings of <i>Alnus glutinosa</i> Medic. and <i>Fraxinus excelsior</i> L.	16525
Greenhouse and laboratory screening of sorghum lines for resistance to fall armyworm larvae.	16319		Radiation-induced damage in vegetative tissues of <i>Pinus rigida</i> Mill.	16526
Amino acids from <i>Heterodera glycines</i> larvae. (Abstract).	16535		The physiology of host-parasite relations. III. Further observations on nucleoprotein changes in wheat leaf nuclei during rust infection.	16547
Interactions between <i>Verticillium albo-atrum</i> and <i>Pratylenchus penetrans</i> in the <i>Verticillium</i> wilt of potatoes. (Abstract).	16642		Pathogenicity and physiology of <i>Pythium vexans</i> . (Abstract).	16558
Cereal root eelworm pathotypes in England and Wales.	16717		Effect of light on sporulation of <i>Helminthosporium stenospilum</i> . (Abstract).	16576
<b>PLANT NEMATODES</b>			The effect of certain fungitoxicants on the formation of endotrophic mycorrhiza by <i>Endogone fasciculata</i> on corn and on root development in seedling corn.	16649
Electron microscopical studies on <i>Ditylenchus dipsaci</i> (Kuhn). Stomatal region.	16484		Studies of the development of powdery mildew ( <i>Erysiphe graminis</i> f. sp. <i>hordei</i> Marchal) on barley. II. Primary appressoria formation.	16654
Activity of soil fumigants in relation to increased growth response and control of decline and bacterial canker in trees of <i>Prunus persica</i> . (Abstract).	16566		The loss of yield in a crop of sweet corn ( <i>Zea mays</i> L.) following the complete destruction of some plants at an early stage by brown rats ( <i>Rattus norvegicus</i> Berk.).	16737
Effects of N, P, K, and inoculum density of <i>Verticillium dahliae</i> on populations of <i>Pratylenchus penetrans</i> in roots of American elm and sugar maple. (Abstract).	16570		Effect of pH on recovery of fungi from foods.	16894
Effect of temperature on the development of <i>Meloidogyne incognita</i> in sweetpotato. (Abstract).	16604		In vitro culture of a dwarf mistletoe, <i>Arceuthobium pusillum</i> .	16918
Interactions between <i>Verticillium albo-atrum</i> and <i>Pratylenchus penetrans</i> in the <i>Verticillium</i> wilt of potatoes. (Abstract).	16642		Effect of substrate temperature on emergence and growth of seedling cotton following in-furrow applications of Temik (10% G formulation of union carbide UC-21149).	16922
Investigations of cherry rasp leaf disease in California.	16693		The dissociation of <i>Bacillus thuringiensis</i> .	16923
<i>Aphelenchoides echinocaudatus</i> sp. n. (Nematoda, Aphelenchoididae).	16719		Structure and development of the flower of <i>Brasenia schreberi</i> Gmel.	16931
First record of the occurrence of <i>Heterodera rostochiensis</i> in Panama.	16722		Effect of defoliation treatments at various stages of plant development and row spacings on corn ( <i>Zea mays</i> L.) production.	16933
<b>PLANT NUTRITION</b>			Inducing sporulation in different strains of <i>Alternaria solani</i> . I. Effect of visible light.	16935
Mineral nutrition of cacao ( <i>Theobroma cacao</i> L.). Comparison of plant growth and nutrient content of leaves of six C.R.I. varieties grown in optimum and deficient conditions in sand culture.	16524		Somatic aberrations in <i>Solanum tuberosum</i> induced by ethyl methane sulfonate and X-irradiation.	16936
Humus acids as a nutrition source for some white-rot fungi.	16685		Translocation to and accumulation of phosphorus-32 in sclerotia of <i>Sclerotium rolfsii</i> .	16938
The effect of differential nitrogen and calcium nutrition and B-Nine (N-dimethyl amino succinamic acid) application on foliar analysis and flowering quality of "Red Wing" azaleas.	16926		Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by <i>Melampsora lini</i> . I. Uptake.	16939
<b>PLANT PEST CONTROL</b>			<b>PLANT PROPAGATION</b>	
The present and the future of plant protection.	16531		<i>Geranium</i> plants differentiated in vitro from stem tip and callus cultures.	16929
The possibilities of development of chemical methods for the plant pest control.	16702		Inducing sporulation in different strains of <i>Alternaria solani</i> . I. Effect of visible light.	16935
Insect pests of farm, garden, and orchard. SB951. D3.	16705		<b>PLANT PROTECTION</b>	
The loss of yield in a crop of sweet corn ( <i>Zea mays</i> L.) following the complete destruction of some plants at an early stage by brown rats ( <i>Rattus norvegicus</i> Berk.).	16737		The role of biological control in the integrated programs of plant protection.	16523
<b>PLANT PEST RESISTANCE</b>			The present and the future of plant protection.	16531
Yellow rust of wheat.	16569		Three-year effects of systemic fungicides applied for the control of <i>Cytospora</i> in Italian prune tree.	16594
Studies on the development of insect resistant sorghum varieties and hybrids.	16707		Resistance to spread of virus from cell to cell in T. I. 245 tobacco.	16687
Leaf pubescence in common wheat, <i>Triticum aestivum</i> L., and resistance to the cereal leaf beetle, <i>Oulema melanopus</i> (L.).	16713		<b>PLANT REGULATORS</b>	
Rodent damage to fertilized Pacific silver fir in western Washington.	16736		Effect of boron on ribonucleic acid and indoleacetic acid metabolism in the apical meristems of sunflower plants.	16520

SUBJECT INDEX

PLANT REPRODUCTION

- Growth substances isolated from woody cuttings of *Alnus glutinosa* Medic. and *Fraxinus excelsior* L. 16525
- Value of a plant growth retardant for isolating soil fungi. 16920
- The relative effect of N,N-dimethyl-2,2-diphenylacetamide on root and shoot growth. 16934
- The oxidation of indole-3-acetaldehyde and its 1-methyl derivative by horseradish peroxidase. 16941

PLANT REPRODUCTION

- Cultural studies of sexual reproduction of *Ceratocystis fagacearum*. 16512

PLANT RESIDUES

- Effect of magnesium trisilicate on the infectivity of tobacco mosaic virus. 16607

PLANT RESPIRATION

- Carbon dioxide exchange by radish tissue infected with *Albugo candida* measured with an infrared CO<sub>2</sub> analyzer. 16548
- Factors affecting respiration in barley yellow dwarf virus-infected barley. 16605
- Changes in respiration rate of tobacco leaves infested with bacteria in relation to the hypersensitive reaction. 16647
- Effects of herbicides on carbon dioxide uptake by pine seedlings. 16668
- CO<sub>2</sub> assimilation and yield of Little Club wheat infected by *Septoria nodorum*. 16670
- The effect of 2,4-dichlorophenoxyacetic acid upon the metabolism and composition of soybean hypocotyl mitochondria. 16916
- Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm. 16940

PLANT TAXONOMY

- Triplosporium tetranychi* sp. n. (Phycomycetes, Entomophthoraceae), a fungus infecting the red mite *Tetranychus althaeae* Hanst. 16476
- A morphological and biological concept of the species *Ceratocystis fimbriata*. 16530
- Hyperparasites on some ascomycetes from Hyderabad, India. 16660

PLANT TRANSLOCATION

- A note on translocation-trisomic plant from gamma-irradiated barley. 16517
- Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm. 16940

PLANT WATER RELATIONS

- The effect of leaf water balance on the susceptibility of French bean to tobacco necrosis virus. 16613

PLANTAGO LANCEOLATA

- Atmospheric pollution and its effects on vegetation. 16516

PLANTING

- The relative efficiency of ear-to-row and convergent improvement in increasing disease resistance of *Zea mays*. 16691
- Effect of substrate temperature on emergence and growth of seedling cotton following in-furrow applications of Temik (10 % G formulation of union carbide UC-21149). 16922
- Effect of defoliation treatments at various stages of plant development and row spacings on corn (*Zea mays* L.) production. 16933

PLANTS

- A dynamic-equilibrium illuminated temperature-, humidity-, and pollutant-controlled plant fumigation chamber. (Abstract). 16559

PLASMODIUM

- Pathologic physiology and chemotherapy of *Plasmodium berghei*. III. Renal function in rats infected with *Plasmodium berghei*. 16801

PLEOTRICHOPHORUS

- A new *Pleotrichophorus* living of *Erigeron*. (Hom. Aphididae). 16312

PLISTOPHOBA

- Plistophora scolyti* sp. n. (Protozoa, Microsporidia), a new parasite of *Scolytus scolytus* F. (Col., Scolytidae). 16475

PLUMS

- Diseases of pitted-fruit trees, in 1966. 16621

PNEUMONIA

- Reoviruses. 16806
- Pneumonia of sheep in Kenya. I. Bacterial and parasitic pneumonia. 16855
- Pneumonia in cattle due to migrating *Ascaris lumbricoides* larvae. 16880

POA ANNUA

- Factors affecting the pathogenicity of selected fungi isolated from putting green turf. 16593

POA PRATENSIS

- The influence of controlled environments and grass hosts on the life cycle of *Endria inimica* (Homoptera: Cicadellidae). 16373
- Etiology of stripe smut, *Ustilago striiformis* (West.) Niessl, on Merion bluegrass, *Poa pratensis* L. 16600

POD BLIGHT (PEANUTS)

- Pythium* pod rot of peanut. 16575

POECILOCERUS PICTUS

- Testicular and haemolymph amino acids of *Poecilocerus pictus* (Acrididae). 16379

POISONING

- Protecting honeybees from chemical poisons. Sf538 .n3. 16435
- Exotic plants--a hazard to animals. 16776
- Thallium poisoning in cats. 16915

POISONOUS PLANTS

- Ammoniation process for detoxifying the seeds of *Crambe abyssinica* and rape. Patent 3,392,026. 16527
- Exotic plants--a hazard to animals. 16776
- Tansy ragwort (*Senecio jacobaea*), a potential menace to livestock. 16828

POLLEN

- Comparative study of pollen sources of honeybees and bumble bees. 16408

POLYDIPSIA

- Corticosteroid overdosage in dogs. 16907

POLYMERIZATION

- Isolation and characterization of barley stripe mosaic virus protein. 16588

POLYMORPHISM

- Cytogenetic observations on species A and B of the *Anopheles gambiae* complex. 16491

POLYMEROPHUS ROSCHADIS

- Studies on the absorption and metabolism of D-(u-<sup>14</sup>C) glucose by *Polymerophus wiantus* (Acanthocephala) in vitro. 16873

POLYPORUS TOMENTOSUS

- Comparative susceptibility of large and small spruce roots to *Polyporus tomentosus*. 16698

POLYPORUS TSUGAE

- Movements, host-fungus preferences, and longevity of *Bolitotherus cornutus* (Coleoptera: Tenebrionidae). 16397

SUBJECT INDEX

PRECIPITIN TEST

<b>POLYSACCHARIDES</b>		Preparation of antiserum against stolbur virus.	16579
Contribution to the histochemical study of the digestive organs of <i>Rhagium bifasciatum</i> . (Col. Cerambycidae).	16390	Process for oxidizing soluble alkylene bisdithiocarbamates to produce an oxygen containing product, and the product of said process. Patent 3,401,182.	16591
<b>POLYSEROITIS</b>		Susceptibility and hypersensitivity to tobacco mosaic virus in wild species of potatoes.	16603
Pathologic effects of <i>Escherichia coli</i> 083:K:NM in gnotobiotic pigs.	16753	Interactions between <i>Verticillium albo-atrum</i> and <i>Pratylenchus penetrans</i> in the <i>Verticillium</i> wilt of potatoes. (Abstract).	16642
<b>POLYURIA</b>		Effect of trace-elements bound to superphosphates on the resistance of potato tubers to <i>Phytophthora infestans</i> (Mont.) de Bary.	16643
Corticosteroid overdosage in dogs.	16907	Field evaluation of insecticides for the control of aphids on potatoes.	16657
<b>POLYVINYL CHLORIDE</b>		Eradication of potato virus X and S by thermotherapy and axillary bud culture.	16680
Coated 2,2-dichlorovinyl phosphate and polyvinyl chloride resin anthelmintic compositions. Patent 3,398,225.	16871	Effects of ultrasonic treatment on turnip mosaic virus and potato virus X.	16688
<b>POPILLIA JAPONICA</b>		Insecticides applied to the soil for control of eight species of insects on Irish potatoes in Virginia.	16706
The permanent and cumulative effect of tepa-induced sterility in male Japanese beetles.	16411	First record of the occurrence of <i>Heterodera rostochiensis</i> in Panama.	16722
Mass sterilization of Japanese beetles with tepa and the determination of residues.	16412	The residues of Disyston in potato tubers.	16906
<b>POPULATION</b>		Somatic aberrations in <i>Solanum tuberosum</i> induced by ethyl methane sulfonate and X-irradiation.	16936
Dispersal patterns and populations of the house fly affected by sanitation and weather in rural Maryland.	16331	<b>POTENTIOMETRY</b>	
Survival of overwintering alfalfa weevil eggs in Pennsylvania.	16466	Investigations on fungicidal activity of combined fungicides.	16638
Physiological genetics of melanotic tumors in <i>Drosophila melanogaster</i> . IV. Gene-environment interactions of tu-bw with different third chromosome backgrounds.	16498	<b>POULTRY</b>	
Field-cage releases of <i>Chrysopa carnea</i> for suppression of populations of the hollworm and the tobacco budworm on cotton.	16712	Selenium-responsive diseases of animals in New Zealand.	16746
<b>POPULATION STATISTICS</b>		Naphthoquinone compounds. Patent 3,393,211.	16774
Fluctuations in natural populations of <i>Drosophila</i> with special attention to sex ratio.	16261	<b>POULTRY FARM MANAGEMENT</b>	
Population inter-relationships. I. Evolution in mixtures of <i>Drosophila</i> mutants.	16452	Fatty liver studies in laying hens.	16750
Population ecology of feral house mice.	16899	<b>POWDERY MILDEW</b>	
<b>POPULUS BALSAMIFERA</b>		Studies of the development of powdery mildew ( <i>Erysiphe graminis</i> f. sp. <i>hordei</i> Marchal) on barley. II. Primary appressoria formation.	16654
An undescribed gall midge leaf spot of balsam poplar.	16697	<b>POWDERY MILDEW (BEANS)</b>	
<b>POPULUS DELTOIDES</b>		Systemic action of 2-chloro-4-diisobutyl-6-nitrophenol against powdery mildew of snapbean. (Abstract).	16572
Mycocology of willow and cottonwood lowland communities in Southern Wisconsin. I. Soil microfungi in the willow-cottonwood forests.	16584	<b>PRAIRIES</b>	
<b>POPULUS TREMULOIDES</b>		A thesis of Mae G. Ricou, on lasting prairie pasturage, a biocenological study of natural environment.	16514
Factors affecting the germination of basidiospores of the heart rot fungus, <i>Pomes igniarius</i> in the infection of trembling aspen.	16632	<b>PRAON EXSOLETUM PALITANS</b>	
<b>POBIA CARBONICA</b>		Bioclimatic studies of the aphid parasite <i>Praon exsoletum</i> . 1. Effects of temperature on the functional response of females to varying host densities.	16432
Inhibition of <i>Poria carbonica</i> by <i>Scytalidium</i> sp., an imperfect fungus isolated from Douglas-fir poles.	16662	<b>PRATYLENCBUS</b>	
<b>PORTERTRIA DISPAR</b>		Interactions between <i>Verticillium albo-atrum</i> and <i>Pratylenchus penetrans</i> in the <i>Verticillium</i> wilt of potatoes. (Abstract).	16642
Laboratory hatch production of <i>Bacillus thuringiensis</i> spores and crystals.	16380	<b>PRATYLENCBUS PENETRANS</b>	
<b>POTASSIUM</b>		Effects of N, P, K, and inoculum density of <i>Verticillium dahliae</i> on populations of <i>Pratylenchus penetrans</i> in roots of American elm and sugar maple. (Abstract).	16570
Whole body turnover of potassium traced by radiorubidium in adult <i>Drosophila</i> (Drosophilidae) and <i>Megaselia</i> (Phoridae).	16384	<b>PRECIPITATION</b>	
Mineral nutrition of cacao ( <i>Theobroma cacao</i> L.). Comparison of plant growth and nutrient content of leaves of six C.B.I. varieties grown in optimum and deficient conditions in sand culture.	16524	Fluctuations in natural populations of <i>Drosophila</i> with special attention to sex ratio.	16261
Effects of N, P, K, and inoculum density of <i>Verticillium dahliae</i> on populations of <i>Pratylenchus penetrans</i> in roots of American elm and sugar maple. (Abstract).	16570	<b>PRECIPITIN TEST</b>	
<b>POTASSIUM GIBBERELLATE</b>		A comparison of the electron microscope, microprecipitin tests, and indicator plants for the detection of potato viruses S, X, and Y.	16667
Value of a plant growth retardant for isolating soil fungi.	16920		
<b>POTATOES</b>			
The biology of <i>Campoplex haywardi</i> (Hymenoptera: Ichneumonidae), a primary parasite of the potato tuberworm.	16418		



## SUBJECT INDEX

## PREDACIOUS FUNGI

## PREDACIOUS FUNGI

*Monacrosporium rutgeriense* sp. n., a nematode-trapping  
hyphomycete.

16561

degradation.

16671

Fatty liver studies in laying hens.

16750

## PREDACIOUS INSECTS

Some raphignathoid mites from Israel.

16298

Some factors affecting mineral utilization by the baby pig.

16788

Preliminary report on the introduction of *Phytoseiulus*  
*persimilis* to Poland.

16421

Immunological response of the pig as affected by amino acid  
nutrition.

16815

Field trials to control Colorado beetle, *Leptinotarsa*  
*decehlineata*, with *Perillus bioculatus*.

16474

The effect of 2,4-dichlorophenoxyacetic acid upon the meta-  
bolism and composition of soybean hypocotyl mitochondria.

16916

## PREDATORY BIRDS

Bird predation on black fly larvae and pupae in Ontario.

16741

Enzymatic and morphologic modifications in *Brucella*  
treated with interferon.

16921

## PREGNANCY

Time of arrival of gravid *Culex pipiens fatigans* at an  
oviposition site, the oviposition cycle and the  
relationship between time of feeding and time of  
oviposition.

16500

## PROTOZOA

*Plistophora scolyti* sp. n. (Protozoa, Microsporidia), a  
new parasite of *Scolytus scolytus* F. (Col., Scolytidae).

16475

## PREVENTIVE MEDICINE

Preparation of antiserum against stolbur virus.

16579

Host-parasite relationships between protozoans and their  
arthropod and vertebrate hosts.

16808

## PRISTIPHORA ERICHSONII

Vital dyes as markers for behavioral and population  
studies of the larch sawfly, *Pristiphora erichsonii*  
(Hymenoptera: Tenthredinidae).

16398

Trypanosoma *dasilae* sp. n. and *Leucocytozoon anatis*  
Wickware, 1915 in the northern pintail (*Querula acuta*  
L.).

16893

## PROCESSING

Process for preparing benzimidazole N-oxides. Patent  
3,398,157.

16947

## PRUNUS DOMESTICA

Three-year effects of systemic fungicides applied for the  
control of *Cytospora* in Italian prune tree.

16594

## PRODUCTIVITY

The present and the future of plant protection.

16531

## PRUNUS MABALEB

Investigations of cherry rasp leaf disease in California.

16693

## PROPANIL

The partitioning and distribution of simazine and propanil  
in spinach chloroplasts.

16927

## PSEUDEUCOILA BOCHBEI

Defense reactions of *Drosophila* species (Diptera: Drosophi-  
lidae) to the parasite *Pseudeucoila bochei* (Hymenoptera:  
Cynipidae).

16459

## PROTEINS

An electrophoretic study of the changes in proteins in the  
haemolymph during the life cycle of the boll weevil,  
*Anthonomus grandis* (Coleoptera: Curculionidae).

16320

## PSEUDOMONAS CARYOPHYLLI

The first occurrence of disease of the carnation caused by  
*Pseudomonas caryophylli* (Burkholder) Starr et Burkholder  
in Hungary.

16648

Left colleterial proteins in the viviparous cockroach  
*Nauphoeta cinerea*.

16354

## PSEUDOMONAS FLOOBRESCENS

Changes in respiration rate of tobacco leaves infested with  
bacteria in relation to the hypersensitive reaction.

16647

Contribution to the histochemical study of the digestive  
organs of *Rhagium bifasciatum*. (Col. Cerambycidae).

16390

## PSEUDOMONAS SYRINGAE

Activity of soil fumigants in relation to increased growth  
response and control of decline and bacterial canker in  
trees of *Prunus persica*. (Abstract).

16566

The effect of host pregnancy on the reproductive  
capability of the tsetse fly, *Glossina morsitans*, in  
captivity.

16414

Changes in respiration rate of tobacco leaves infested with  
bacteria in relation to the hypersensitive reaction.

16647

A study of haemolymph proteins in Lepidoptera. Film 695.

16424

## PSEUDOMONAS TABACI

Changes in respiration rate of tobacco leaves infested with  
bacteria in relation to the hypersensitive reaction.

16647

Short-term effects of crustecdysone (20-hydroxyecdysone) on  
protein and rna synthesis in third instar larvae of  
*Calliphora*.

16437

## PSEUDOTORNEUMA

Contribution to the knowledge of the curculionids of the  
western Mediterranean Region. III. The pseudotorneuma  
of the Balearic Islands.

16299

Factors affecting protein synthesis by the fat body of the  
larva of the blowfly *Calliphora erythrocephala*.

16441

## PSEUDOTSUGA MENZIESII

Spectral distribution of light in forests of the Douglas  
fir zone of southern British Columbia.

16518

Metabolic thermal adaptations in the mosquito *Culex pipiens*  
*pipiens* (Diptera: Culicidae).

16447

Inhibition of *Poria carbonica* by *Scytalidium* sp., an  
imperfect fungus isolated from Douglas-fir poles.

16662

Protein synthesis in subcellular fractions of the blowfly  
during different developmental stages.

16453

## PSYLLA

Mating behavior, egg production, and egg fertility in the  
pear psylla.

16272

The separation and characterization of the haemolymph  
proteins of several insects.

16473

## PSYLLA PYRICOLA

Oils for summer control of pear psylla and their effects on  
pear trees.

16488

Response and recovery on X-irradiated *Tribolium confusum*  
larvae.

16482

Effect of *Corpora allata* on protein and RNA synthesis in  
colleterial glands of *Blattella germanica*.

16486

Isolation and characterization of barley stripe mosaic  
virus protein.

16588

## PUBLIC BEALTH

The toxicity of Oklahoma spider (Araneae) venoms using a  
new venom recovery and testing technique.

16910

Chromatographic purification of a single viral protein in  
sandal spike.

16636

In vivo and in vitro decline of specific infectivity of  
tobacco ringspot virus correlated with nucleic acid

SUBJECT INDEX

RADIOACTIVE TRACERS

- Puccinia coronata**  
 Crown rust resistance in tall oatgrass. (Abstract). 16551  
 A settling tower for quantitative inoculation of leaf blades of mature small grain plants with urediospores. 16574
- Puccinia graminis**  
 Reproductive potentials of races 15B and 56 of wheat stem rust. 16609  
 Resistance to Puccinia graminis derived from *Secale cereale* incorporated into *Triticum aestivum*. 16683
- Puccinia graminis tritici**  
 The physiology of host-parasite relations. XIX. Further observations on nucleoprotein changes in wheat leaf nuclei during rust infection. 16547  
 Interaction of pathogenicity genes in *Puccinia graminis* f. sp. *tritici* and reaction genes in *Triticum aestivum* ssp. *vulgare* "Marquis," "Reliance," and "Kota." 16664  
 Stomatal penetration of wheat seedlings by stem and leaf rusts in relation to effects of carbon dioxide, light, and stomatal aperture. 16699
- Pumpkins**  
 Watermelon mosaic virus: Tubular inclusions in pumpkin leaves and aggregates in leaf extracts. 16658
- Pupae**  
 A comparison of the larval and pupal nervous systems of the corn earworm, *Heliothis zea* (Lepidoptera: Noctuidae). 16279  
 Sterilization of *Culex pipiens fatigans* Wiedemann by apholate. 16377  
 The labial gland: a salt-secreting organ of saturniid moths. 16405  
 The biology of *Campoplex haywardi* (Hymenoptera: Ichneumonidae), a primary parasite of the potato tuberworm. 16418  
 Effect of irrigation and submersion in water on pupal survival of the bollworm. 16483  
 Bird predation on black fly larvae and pupae in Ontario. 16741
- Pupal cases**  
 A study of a melanic mutant of the blowfly *Lucilia cuprina*. 16395
- Potbescine**  
 Glutamic acid requirements of the saw-toothed grain beetle, *Oryzaephilus surinamensis* (L.) (Coleoptera, Silvanidae). 16286
- Pygidial glands**  
 Pygidial glands in male *Opius* (Hymenoptera: Braconidae). 16367
- Pybethum**  
 Carcinogens in burning mosquito coil smoke. 16911
- Pybbhocobidae**  
 Identification and functions of secretion from the posterior scent gland of fifth instar larva of the bug *Dysdercus intermedius*. 16274
- Pyruvate kinase**  
 Pyruvate kinase in *Haemonchus contortus* larvae. 16349
- Pyruvic acid**  
 Metabolism of glucose-14C, pyruvate-14C, and mannitol-14C by *Melampsora lini*. I. Uptake. 16939
- Pythium**  
 Activity of soil fumigants in relation to increased growth response and control of decline and bacterial canker in trees of *Prunus persica*. (Abstract). 16566  
 Pythium pod rot of peanut. 16575
- Pythium ultimum**  
 Root exudates from red pine seedlings and their effects on *Pythium ultimum*. 16534
- Pythium vexans**  
 Pathogenicity and physiology of *Pythium vexans*. (Abstract). 16558
- Quantitative analysis**  
 Toxicological criteria applied for establishment of the tolerances of pesticide residues. 16903  
 Extraction of organochlorine and organophosphate insecticides from lake waters. 16964
- Quabantine**  
 Domestic quarantine notices. Witchweed. Regulated areas. Correction. 16973
- Quaternary ammonium compounds**  
 Non-irritant quaternary ammonium compound composition. patent 3,402,242. 16960
- Quebecus**  
 Comparison of the soil inhabiting Coleoptera from two oak-birch forests. 16309  
*Ceratocystis fagacearum* distribution within bur and red oak seedlings. (Abstract). 16586
- Quebecus macbocarpa**  
*Ceratocystis fagacearum* distribution within bur and red oak seedlings. (Abstract). 16586
- Quinones**  
 Some physiological effects of sublethal doses of DDT on flour beetles. 16462
- Rabbits**  
 Immunologic response of rabbits to *Mycobacterium bovis*; chemical, electrophoretic and antigenic analyses of bacillary extracts. 16766  
 Antigenic, chemical, chromatographic, and electrophoretic analyses of unheated culture filtrates of *Mycobacterium bovis*. 16767  
 Studies to determine neutralizing antibody in sera from animals recovered from African swine fever and laboratory animals inoculated with African virus with adjuvants. 16768  
 Natural antibody in mammalian serum reacting with an antigen in some Leptospires. 16771  
 Comments on the role of natural antibody in immunologic competence. 16843  
 The estimation of epinephrine, norepinephrine, and aldrin (a chlorinated naphthalene derivative) in mammalian tissue employing biological and chemical methods of assay, and some considerations of toxicological effects of aldrin. 16908
- Rabies virus**  
 A note on experimental rabies in the donkey. 16772
- Radiation**  
 Radiation-induced damage in vegetative tissues of *Pinus rigida* Mill. 16526
- Radioactive tracers**  
 Utilization of tricarboxylic acid cycle intermediates by *Haemonchus contortus* larvae. 16321  
 Whole body turnover of potassium traced by radiorubidium in adult *Drosophila* (Drosophilidae) and *Megaselia* (Phoridae). 16384  
 Stimulation by 2,4-D and 2,4-D plus Fe EDTA of 32P uptake by bean seedlings (*Phaseolus vulgaris*). 16573  
 Testing the effectivity of coccidiostats by using radio Iron-59 for the quantitative estimation of blood in the caeca and feces of chickens. 16842  
 The partitioning and distribution of simazine and propanil in spinach chloroplasts. 16927  
 Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm. 16940

SUBJECT INDEX

RADIOACTIVITY

RADIOACTIVITY

Whole body turnover of potassium traced by radiorubidium in adult *Drosophila* (*Drosophilidae*) and *Megaselia* (*Phoridae*). 16384

Effect of *Corpora allata* on protein and RNA synthesis in colleterial glands of *Blattella germanica*. 16486

Evidence for polysomes in extracts of bean rust uredospores. 16682

RADIOBIOLOGY

Effects of ionizing radiation on the European chafer, the plus curculio, and the large milkweed bug. 16422

RADISHES

Carbon dioxide exchange by radish tissue infected with *Albugo candida* measured with an infrared CO<sub>2</sub> analyzer. 16548

RAINFALL

Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm. 16940

RAMS

Experimental ovine listeriosis. III. Inoculation of rams. 16848

RAPE

Ammoniation process for detoxifying the seeds of *Crambe abyssinica* and rape. Patent 3,392,026. 16527

RASP LEAF (CHERRIES)

Investigations of cherry rasp leaf disease in California. 16693

RATS

The study of fertility of the rat fleas (*Xenopsylla cheopis* Rothsch. and *Ceratophyllus fasciatus* Bosc.) under their feeding on different animals. 16449

The loss of yield in a crop of sweet corn (*Zea mays* L.) following the complete destruction of some plants at an early stage by brown rats (*Rattus norvegicus* Berk.). 16737

Natural antibody in mammalian serum reacting with an antigen in some Leptospirae. 16771

Pathologic physiology and chemotherapy of *Plasmodium berghei*. III. Renal function in rats infected with *Plasmodium berghei*. 16801

The estimation of epinephrine, norepinephrine, and aldrin (a chlorinated naphthalene derivative) in mammalian tissue employing biological and chemical methods of assay, and some considerations of toxicological effects of aldrin. 16908

RATTUS NORVEGICUS

The loss of yield in a crop of sweet corn (*Zea mays* L.) following the complete destruction of some plants at an early stage by brown rats (*Rattus norvegicus* Berk.). 16737

RECTUM

Humor control of the water equilibrium in *Locusta migratoria migratorioides*. 16370

Excretion of foot-and-mouth disease virus prior to the development of lesions. 16755

RED CLOVER

Relationship of clipping frequency to root and crown deterioration in red clover. 16673

RED ROT (SUGARCANE)

Spread of red rot in the leaves of sugarcane plant. 16675

RED STELE (STRAWBERRIES)

The relationship of *Phytophthora fragariae* Hickman to the fungal flora in the rhizosphere of the strawberry plant. 16612

REDUVIIDAE

New genera, new species of African Hemiptera, Reduviidae. 16347

Structure and formation of coaptations of the maxillary stylets of *Rhodnius prolixus*. (Heter. Reduviidae). 16439

REFERENCE MATERIALS

The literature of pesticide chemistry. 16943

REGRESSION ANALYSIS

Estimation of oviposition by the fir engraver, *Scolytus ventralis* (Coleoptera: Scolytidae). 16361

Some economics of air pollution control. 16972

REOVIRUSES

Reoviruses. 16806

REPRODUCTION

A suggested method of collectings insects associated with forage grass seed production. 16265

Observations on the breeding of *Lycophotia zolothina* (Lepidoptera, Noctuidae). 16308

Distribution of sperm in the storage organs of the *Drosophila melanogaster* female at various levels of insemination. 16387

Changes in lipid content during the reproductive cycle of *Leucophaea maderae* and effects of the juvenile hormone on lipid metabolism in vitro. 16392

Effect of insecticide-free rearing on the reproductive potential of organophosphorus-resistant African strains of *Aedes aegypti* (L.). 16402

The effects of cadmium compounds on reproduction and growth of the stable fly, *Stomoxys calcitrans* (Linnaeus). 16410

The permanent and cumulative effect of tepa-induced sterility in male Japanese beetles. 16411

The effect of host pregnancy on the reproductive capability of the tsetse fly, *Glossina morsitans*, in captivity. 16414

Some physiological effects of sublethal doses of DDT on flour beetles. 16462

Effects of some physical and biological factors on the reproduction, development, survival, and behavior of the cereal leaf beetle, *Oulema melanopus* (Linnaeus), under laboratory conditions. 16485

Temperature effect on reproduction and longevity of laboratory-reared adult pink hollworm (Lepidoptera: Gelechiidae). 16494

Time of arrival of gravid *Culex pipiens fatigans* at an oviposition site, the oviposition cycle and the relationship between time of feeding and time of oviposition. 16500

Ukanva virus proliferation in mosquitos. 16507

The utilization of L-asparagine by two species of *Phytophthora*. 16521

Ejection and dissemination of ascospores of *Hypoxyton pruinaum*. 16578

Induced sporulation of *Botryodiplodia theobromae* Pat. isolated from *Araucaria cunninghamii* Ait. in Malaysia. 16587

Anatomy of heads on flagella of zoospores of *Phytophthora megasperma* var. *sojae*. 16599

Levels of shikimate and folate in primary leaves of wheat and in uredospores of leaf rust. 16601

Reproductive potentials of races 15R and 56 of wheat stem rust. 16609

Electron microscopy of uredospores of *Melampsora lini* and of rust infected flax. 16633

The relationship of mating capacities and polygalacturonase production in *Cochliobolus carbonum*. (Abstract). 16646

The effects of sugar maple stem tissue extracts on spore germination of *Fusarium solani*. (Abstract). 16655

Effects of ozone on conidiophores and conidia of *Alternaria solani*. 16663



SUBJECT INDEX

RESPIRATORY DISEASES

Comparative morphological and physiological studies of the progenies from intraspecific matings of <i>Phytophthora capsici</i> .	16669	Scrapic agent in blood.	16773
Light requirement and light inhibition of sexual reproduction in <i>Fusarium (Hypomyces) solani</i> f. sp. <i>cucurbitae</i> race 2.	16689	Colorado tick fever virus: an electron microscopic study.	16827
Hereditary change of an eye color mutant induced by DNA in <i>Ephestia</i> .	16742	Studies on the pathogenesis of infectious bovine rhinotracheitis following aerosol exposure.	16845
Viral infertility in cattle.	16783	Antigenic relationship between influenza A viruses of human and animal origin.	16853
Bionomics of <i>Glycyphagus domesticus</i> (de Geer) (Acarina: Glycyphagidae), a pest of stored grain.	16897	Epidemiological studies of fascioliasis; a third season of comparative studies with cattle.	16884
<b>REPRODUCTIVE ORGANS</b>		A sprayer with semi-automatic gradual dilution.	16905
Two new species of <i>Drosophila</i> of the Saltans group ( <i>Drosophilidae</i> , diptera).	16323	Investigation of reported aflatoxin production by fungi outside the <i>Aspergillus flavus</i> group.	16914
Comparative morphology of the genital area of triploid intersexes of <i>Drosophila melanogaster</i> .	16415	<b>RESERPINE</b>	
The innervation of the terminal abdominal segments (VII- XI) of the desert locust, <i>Schistocera gregaria</i> .	16451	Histochemical localization of catecholamines in the brain of normal and drug-treated cockroaches.	16389
Possibilities of applying chemosterilants in plants protection.	16711	<b>BESINS</b>	
Viral infertility in cattle.	16783	Controlling short-nosed cattle lice with dichlorvos resin strips.	16868
<b>RESEARCH</b>		Coated 2,2-dichlorovinyl phosphate and polyvinyl chloride resin anthelmintic compositions. Patent 3,398,225.	16871
Observations on the larvae of <i>Hippotion celerio</i> L. (Lepid., Sphingidae in Tanzania. (Abstract).	16262	<b>RESPIRATION</b>	
The increasing Chaoborid midge problem in California.	16284	The influence of volatile substances from alfalfa on soil respiration and survival of soil fungi. (Abstract).	16582
Rice water weevil resistance to aldrin in Texas.	16366	Studies on the pathogenesis of infectious bovine rhinotracheitis following aerosol exposure.	16845
A study of a melanic mutant of the blowfly <i>Lucilia caaprina</i> .	16395	A physiological study of the development of the egg of <i>Fasciola hepatica</i> L., the common liver fluke.	16891
Induction of multipolar spindles in the meiosis of <i>Triticum aestivum</i> as effected by acetone.	16404	<b>RESPIRATORY DISEASES</b>	
The permanent and cumulative effect of tepa-induced sterility in male Japanese beetles.	16411	Future requirements for prevention and control of bovine respiratory diseases in the United States.	16743
Survival of overwintering alfalfa weevil eggs in Pennsylvania.	16466	Symposium on immunity to the bovine respiratory disease complex, June 19-21, 1967, Athens, Georgia.	16744
Evaluation of insecticides for control of pickleworm on summer squash.	16472	Bovine rhinoviruses.	16752
Effect of irrigation and submersion in water on pupal survival of the hollworm.	16483	Comments on complications following vaccination of cattle against bovine respiratory diseases.	16754
Effect of <i>Corpora allata</i> on protein and RNA synthesis in colleterial glands of <i>Blattella germanica</i> .	16486	Comments on potency evaluation of bovine respiratory disease vaccines.	16756
Field study of the safety of Abate for treating potable water and observations on the effectiveness of a control programme involving both Abate and malathion.	16505	Pasteurellae in bovine respiratory disease.	16762
A thesis of Mme G. Ricou, on lasting prairie pasturage, a biocenological study of natural environment.	16514	Comments on control and management of respiratory diseases in beef cattle.	16763
A note on translocation-trisomic plant from gamma-irradiated barley.	16517	Bovine adenoviruses.	16765
Studies on the interaction of p-Mercuribenzoate with turnip yellow mosaic virus. V. Induced ribonuclease sensitivity and degradation of the virion.	16608	Comments on control and management of respiratory diseases in beef cattle.	16775
Electron-microscopic studies on the cytopathology of maize plants infected with the maize rough dwarf virus (MRDV).	16614	Comments on management of respiratory diseases of dairy cattle.	16777
Diseases of pitted-fruit trees, in 1966.	16621	Comments on immunization procedures for pasteurellosis.	16778
In vivo and in vitro decline of specific infectivity of tobacco ringspot virus correlated with nucleic acid degradation.	16671	Comments on complications following vaccination against bovine respiratory diseases.	16779
Biophysical and biochemical studies on the nature of resistance of pineapples to the oriental fruit fly.	16710	Management of respiratory diseases in dairy cattle.	16781
Experiences with a new broad-spectrum anthelmintic dichlorvos, in the adult pig.	16740	Comments on vaccination for bovine viral diarrhea-mucosal disease.	16785
		Role of mycoplasma in bovine respiratory infection.	16786
		Comments on bovine myxovirus parainfluenza-3.	16787
		Comments on management of respiratory diseases in dairy cattle.	16790
		Comments on bovine viral diarrhea-mucosal disease.	16791
		Comments on combination vaccines for bovine respiratory diseases.	16793

SUBJECT INDEX

RESPIRATORY SYSTEM

Comments on bovine respiratory infections in northeastern dairy cattle.	16796	<b>RHINOVIRUSES</b> Hovine rhinoviruses.	16752
Comments on combination vaccines for bovine respiratory diseases.	16800	Comments on bovine rhinoviruses.	16824
Comments on bovine parainfluenza-3 immunization procedures.	16804	<b>RHIZOCTONIA SOLANI</b> Permeability changes in <i>Phaseolus aureus</i> associated with infection by <i>Rhizoctonia solani</i> .	16620
The microflora of fodders associated with bovine respiratory disease.	16805	Sprout rot of <i>Hemssels</i> sprouts. (Abstract).	16644
Reoviruses.	16806	<b>RHIZOPUS</b> Mode of action of 2,6-dichloro-4-nitroaniline (DCNA) in <i>Rhizopus arrhizus</i> .	16937
License requirements for vaccines for bovine respiratory diseases.	16807	<b>RHIZOPUS STOLONIFER</b> Responses of germinating <i>Rhizopus stolonifer</i> sporangiospores to heating, chilling, gamma irradiation, and anoxia. (Abstract).	16557
Calf diphtheria.	16811	<b>RHIZOSPHERE</b> The relationship of <i>Phytophthora fragariae</i> Hickman to the fungal flora in the rhizosphere of the strawberry plant.	16612
Comments on clinical signs of respiratory diseases in feedlot cattle.	16812	<b>RHODNIUS PROLIUS</b> Structure and formation of coaptations of the maxillary stylets of <i>Rhodnius prolixus</i> . (Heter. Reduviidae).	16439
Bovine respiratory infections.	16816	<b>RHODOENDRON</b> The effect of differential nitrogen and calcium nutrition and N-Nine (N-dimethyl amino succinamic acid) application on foliar analysis and flowering quality of "Red Wing" azaleas.	16926
Comments on infectious bovine rhinotracheitis.	16817	<b>RHOPALOCERA</b> Observations on the larvae of <i>Hippotion celerio</i> L. (Lepid., Sphingidae in Tanzania. (Abstract).	16262
Comments on bovine rhinoviruses.	16824	<b>RHOPALOSIPHUM PADI</b> Immunodiffusion tests with three isolates of barley yellow dwarf virns. (Abstract).	16533
Comments on bovine adenoviruses.	16825	<b>RHUHARR</b> A virns disease of rhubarb in British Columbia.	16681
Comments on bovine parainfluenza-3 immunization procedures.	16834	<b>RIBONUCLEIC ACID</b> Evidence for the DDT-INDUCED synthesis of messenger ribonucleic acid in <i>Triatoma infestans</i> .	16423
Comments on complications that arise after vaccination against bovine respiratory diseases.	16835	Short-term effects of crustecdysone (20-hydroxyecdysone) on protein and rna synthesis in third instar larvae of <i>Calliphora</i> .	16437
Comments on combination vaccines for bovine respiratory diseases.	16836	Protein synthesis in subcellular fractions of the blowfly during different developmental stages.	16453
Comments on combination vaccines for bovine respiratory diseases.	16837	Effect of <i>Corpora allata</i> on protein and RNA synthesis in colleterial glands of <i>Blattella germanica</i> .	16486
Potency evaluation of vaccines used against bovine respiratory diseases.	16838	Effect of boron on ribonucleic acid and indoleacetic acid metabolism in the apical meristems of sunflower plants.	16520
Complications following vaccination of cattle against infectious bovine rhinotracheitis, bovine viral diarrbea-mucosal disease, and parainfluenza type 3.	16841	Competitive inhibition by foreign nucleic acid and induced interference by yeast-RNA with the infection of tobacco mosaic virns.	16581
Comments on immunization procedures for pasteurellosis.	16850	Chemical composition and biophysical properties of tomato ringspot virns.	16690
Comments on bovine viral diarrbea-mucosal disease.	16851	The effect of 2,4-dichlorophenoxyacetic acid upon the metabolism and composition of soybean hypocotyl mitochondria.	16916
Laboratory evaluation of bovine respiratory disease vaccines for safety.	16852	The effect of chloramphenicol on soybean callus tissue.	16917
The natural history of bovine myxovirus parainfluenza-3.	16860	<b>RIBOSOMES</b> Protein synthesis in subcellular fractions of the blowfly during different developmental stages.	16453
Infectious bovine rhinotracheitis.	16862	Evidence for polysomes in extracts of bean rust uredospores.	16682
Comments on license requirements for vaccines for bovine respiratory diseases.	16863	<b>RICE</b> An international set of rice varieties for differentiating races of <i>Piricularia oryzae</i> .	16537
<b>RESPIRATORY SYSTEM</b>		Laboratory tests of five new insecticides as protectants for	
Infectious bronchitis in laying fowls; its effect upon egg production and subsequent egg quality.	16814		
A study of immunity against <i>Pasteurella multocida</i> in buffalo calves and their carrier status.	16823		
<b>RHINOTRACHEITIS</b>			
Present status of immunization procedures for infectious bovine rhinotracheitis.	16757		
Detection of antibodies neutralizing the virus of infectious bovine rhinotracheitis in the serum of French cattle.	16782		
Comments on vaccination for bovine viral diarrbea-mucosal disease.	16785		
Comments on bovine viral diarrbea-mucosal disease.	16791		
Comments on infectious bovine rhinotracheitis.	16817		
Comments on bovine viral diarrbea-mucosal disease.	16851		
Infectious bovine rhinotracheitis.	16862		

SUBJECT INDEX

SALIX NIGRA

stored rough rice.	16898	<b>ROOTS</b> Ion uptake of sweet potato roots infected by the black rot fungus.	16519
<b>RINDERPEST VIRUS</b> Experimental infection of sheep and goats with attenuated and virulent strains of rinderpest virns.	16748	Root exudates from red pine seedlings and their effects on <i>Pythium ultimum</i> .	16534
<b>RING SPOT (PELARGONIUM)</b> Natural occurrence of tobacco ringspot virus <i>Pelargonium</i> in Ontario.	16611	Electron microscopical proof of the presence of sugar beet yellows virns particles in the roots of sugar beets.	16560
<b>RING SPOT (TOBACCO)</b> In vivo and in vitro decline of specific infectivity of tobacco ringspot virus correlated with nucleic acid degradation.	16671	Indoleacetic acid oxidase activity in banana roots.	16629
<b>RING SPOT (TOMATOES)</b> Chemical composition and biophysical properties of tomato ringspot virus.	16690	The effect of certain fungitoxicants on the formation of endotrophic mycorrhiza by <i>Endogone fasciculata</i> on corn and on root development in seedling corn.	16649
<b>RODENT CONTROL</b> The repellent properties of certain plants to small field rodents.	16738	Survival of root-infecting fungi in soil. VI. Effect of amendments on bean root rot caused by <i>Thielaviopsis basicola</i> and on inoculum density of the causal organism.	16653
<b>RODENTICIDAL PLANTS</b> The repellent properties of certain plants to small field rodents.	16738	Comparative susceptibility of large and small spruce roots to <i>Polyporus tomentosus</i> .	16698
<b>RODENTS</b> Small mammals and their ectoparasites from the Scottish islands of Handa (Sutherland), Muck, Pabay, Scalpay and Soay (Inner hebrides).	16285	<b>ROSE BENGAL</b> Value of a plant growth retardant for isolating soil fungi.	16920
Arbovirns studies in Bush Forest, Trinidad, W. I. September 1959-December 1964. VI. Rodent-associated viruses (VEE and agents of group C and Guama): isolations and further studies.	16503	<b>ROT (BRUSSELS SPROUTS)</b> Sprout rot of Brussels sprouts. (Abstract).	16644
Rodent damage to fertilized Pacific silver fir in Western Washington.	16736	<b>ROUGH DWARF (CORN)</b> Electron-microscopic studies on the cytopathology of maize plants infected with the maize rough dwarf virus (MRDV).	16614
<b>ROMALEA MICROPTERA</b> Structure and physiology of a chordotonal organ in the locust leg.	16469	<b>ROUS SARCOMA VIRUS</b> Studies of interrelationships between genetically resistant chicken embryo cells and the Bryan high titer strain of Rous sarcoma virus.	16760
<b>RONNEL</b> Use of <i>Daphnia magna</i> for the microbioassay of pesticides. I. Development of standardized techniques for rearing <i>Daphnia</i> and preparation of dosage-mortality curves for pesticides.	16295	<b>ROBIDIUM</b> Whole body turnover of potassium traced by radiorubidium in adult <i>Drosophila</i> ( <i>Drosophilidae</i> ) and <i>Megaselia</i> ( <i>Phoridae</i> ).	16384
Effect of ronnel mineral block (Rid-Exy) on control of cattle grubs and weight gain of beef cattle.	16802	<b>ROELENE</b> Extermination of cattle grubs ( <i>Bypoderma</i> spp.) on a regional basis.	16799
<b>ROOT EXCRETIONS</b> The hatching response of <i>Meloidogyne incognita</i> eggs as affected by amino and nonamino acid fractions of root exudates.	16718	<b>RUST (BEANS)</b> Evidence for polysomes in extracts of bean rust uredospores.	16682
<b>ROOT ROT (ALFALFA)</b> The influence of <i>Fusarium</i> root rot and harvesting on the carbohydrate levels of alfalfa roots grown in a gnotobiotic environment. (Abstract).	16628	<b>RUST (FLAX)</b> Electron microscopy of uredospores of <i>Melampsora lini</i> and of rust infected flax.	16633
<b>ROOT ROT (BEANS)</b> Interaction of major factors influencing severity of bean root rot. (Abstract).	16539	<b>RUST (WHEAT)</b> Yellow rust of wheat.	16569
Survival of root-infecting fungi in soil. VI. Effect of amendments on bean root rot caused by <i>Thielaviopsis basicola</i> and on inoculum density of the causal organism.	16653	<b>RYE</b> Resistance to <i>Puccinia graminis</i> derived from <i>Secale cereale</i> incorporated into <i>Triticum aestivum</i> .	16683
<b>ROOT ROT (LETTUCE)</b> Induction of lettuce root rot under controlled environmental conditions. (Abstract).	16590	<b>SAPFLOWER</b> Field studies on control of lygus bugs and onion thrips infesting safflower.	16567
<b>ROOT ROT (PINUS RESINOSA)</b> Root exudates from red pine seedlings and their effects on <i>Pythium ultimum</i> .	16534	<b>SAISSETIA OLEAE</b> Glandular formations of the dorsal tegument of <i>Saissetia oleae</i> (Hom. Coccidae).	16391
<b>ROOT ROT (PINUS STROBUS)</b> Leptographium root decline of eastern white pine. (Abstract).	16568	<b>SALIVARY GLANDS (INSECTS)</b> The labial gland: a salt-secreting organ of saturniid moths.	16405
<b>ROOT ROT (RED CLOVER)</b> Relationship of clipping frequency to root and crown deterioration in red clover.	16673	Studies on the salivary physiology of plant-bugs: Experimental induction of galls.	16433
		Cytogenetic observations on species A and B of the <i>Anopheles gambiae</i> complex.	16491
		<b>SALIX NIGRA</b> Mycocoology of willow and cottonwood lowland communities in Southern Wisconsin. I. Soil microfungi in the willow-cottonwood forests.	16584



SUBJECT INDEX

<b>SALMONELLA ENTERITIDIS</b>		
<b>SALMONELLA ENTERITIDIS</b> Antibody response and protection induced by immunization with smooth and rough strains in experimental Salmonellosis.	16798	
<b>SALMONELLA PULLORUM</b> Immunological response of the pig as affected by amino acid nutrition.	16815	
<b>SALMONELLA TYPHIMURIUM</b> Antibody response and protection induced by immunization with smooth and rough strains in experimental Salmonellosis.	16798	
Salmonellosis typhimurium. Some epidemiological and therapeutical problems of salmonellosis.	16846	
<b>SALMONELLOSIS</b> Antibody response and protection induced by immunization with smooth and rough strains in experimental Salmonellosis.	16798	
Salmonellosis typhimurium. Some epidemiological and therapeutical problems of salmonellosis.	16846	
Anti-microbial drugs in animal feeds.	16847	
<b>SAMIA CYNTHIA RICHINI</b> Effects of ecyosone on epidermal cells in which DNA synthesis has been blocked.	16428	
<b>SAMPLING (STATISTICS)</b> Spermatozoan nucleus length in three strains of <i>Drosophila melanogaster</i> .	16490	
A note on translocation-trisomic plant from gamma-irradiated barley.	16517	
<b>SANITATION CONTROL (INSECTS)</b> Controlling insect enemies of the alfalfa leaf-cutter bee, <i>Megachile rotundata</i> .	164DD	
<b>SANNINOIDEA</b> The attractiveness of female to male peach tree borers.	16305	
<b>SANTALUM ALBUM</b> Chromatographic purification of a single viral protein in sandal spike.	16636	
<b>SAPROPHYTES</b> A baiting method for estimating the saprophytic activity of <i>Sclerotium rolfsii</i> in soil.	16538	
The probable significance of saprophytic colonization of wheat straw in the field by <i>Cephalosporium gramineum</i> .	16556	
<b>SARCOMA</b> <i>Spirocerca lupi</i> infection in two central Texas dogs.	16872	
<b>SATURNIIDAE</b> The labial gland: a salt-secreting organ of saturniid moths.	164D5	
<b>SCAB (POTATOES)</b> The influence of organic soil amendment on common scab of potato.	16541	
<b>SCARABAEIDAE</b> Oxygen consumption by soil larvae of insects in dependence on its tension.	16442	
<b>SCENT GLANDS</b> Identification and functions of secretion from the posterior scent gland of fifth instar larva of the bug <i>Dysdercus intermedius</i> .	16274	
Source of the trail pheromone and method of trail laying in the ant <i>Crematogaster peringueyi</i> .	16385	
<b>SCHISTOCERCA GREGARIA</b> The innervation of the terminal abdominal segments (VII- II) of the desert locust, <i>Schistocerca gregaria</i> .	16451	
Structure and physiology of a chordotonal organ in the locust leg.	16469	
<b>SCLEROTIA</b> Translocation to and accumulation of phosphorus-32 in sclerotia of <i>Sclerotium rolfsii</i> .	16938	
<b>SCLEBOTIUM ROLFSII</b> A baiting method for estimating the saprophytic activity of <i>Sclerotium rolfsii</i> in soil.	16538	
Translocation to and accumulation of phosphorus-32 in sclerotia of <i>Sclerotium rolfsii</i> .	16938	
<b>SCOLYTIDAE</b> The pine engraver, <i>Ips pini</i> (Coleoptera: Scolytidae), in the southern Appalachian Mountains.	16282	
Aspects of orientation behavior in the ambrosia beetle <i>Trypodendron lineatum</i> (Olivier).	16294	
New records and species of neotropical bark beetles (Scolytidae: Coleoptera), II.	16352	
Estimation of oviposition by the fir engraver, <i>Scolytus ventralis</i> (Coleoptera: Scolytidae).	16361	
<b>SCOLYTIDS MULTISTRIATUS</b> An evaluation of Bidrin for control of <i>Scolytus multistriatus</i> , the primary vector of <i>Ceratocystis ulmi</i> .	16709	
<b>SCOLYTIDS SCOLYTUS</b> <i>Plistophora scolyti</i> sp. n. (Protozoa, Microsporidia), a new parasite of <i>Scolytus scolytus</i> F. (Col., Scolytidae).	16475	
<b>SCOLYTIDS VENTRALIS</b> Estimation of oviposition by the fir engraver, <i>Scolytus ventralis</i> (Coleoptera: Scolytidae).	16361	
<b>SCRAPIE VIRUS</b> Scrapie agent in blood.	16773	
<b>SECRETION</b> Identification and functions of secretion from the posterior scent gland of fifth instar larva of the bug <i>Dysdercus intermedius</i> .	16274	
<b>SEED ANALYSIS</b> A comparison of annual crops for seed and residue in the semi-arid region of western Canada.	16510	
<b>SEED COATS</b> Erratum: the interaction of the seed coat and gibberellic acid in the germination of <i>Datura ferox</i> L.	16734	
<b>SEED DORMANCY</b> Studies on lettuce seed germination. I. Coumarin induced dormancy.	16513	
<b>SEED GERMINATION</b> Studies on lettuce seed germination. I. Coumarin induced dormancy.	16513	
Electron microscopy of uredospores of <i>Melampsora lini</i> and of rust infected flax.	16633	
The effects of sugar maple stem tissue extracts on spore germination of <i>Fusarium solani</i> . (Abstract).	16655	
Comparative morphological and physiological studies of the progenies from intraspecific matings of <i>Phytophthora capsici</i> .	16669	
Oxygen consumption and germination of <i>Cronartium fnsiforme</i> aeciospores.	16694	
The influence of temperature on longevity and germination of seed of western dwarf mistletoe.	16723	
Erratum: the interaction of the seed coat and gibberellic acid in the germination of <i>Datura ferox</i> L.	16734	
Fungus flora, germinability and fat acidity values of stored corn.	16895	
In vitro culture of a dwarf mistletoe, <i>Arceuthobium pusillum</i> .	16918	
Tolerance of some imported conifer seeds to fumigation with carbon tetrachloride.	16932	

SUBJECT INDEX

SHEEP

SEEDLINGS					
A suggested method of collectings insects associated with forage grass seed production.	16265			in Ontario.	16611
Rice water weevil resistance to aldrin in Texas.	16366			Serological detection of wheat striate mosaic virus in extracts of wheat plants and vector leafhoppers.	16677
Root exudates from red pine seedlings and their effects on <i>Pythium ultimum</i> .	16534			Serological investigations of races 1-8 of <i>Phytophthora fragariae</i> . (Abstract).	16684
Cucumber anthracnose: influence of nightly wetting of leaves on numbers of lesions.	16625			Effects of ultrasonic treatment on turnip mosaic virus and potato virus X.	16688
Effects of herbicides on carbon dioxide uptake by pine seedlings.	16668			Bovine rhinoviruses.	16752
'soil vessel system' or analysis of soils from diseased seedlings.	16686			Bovine adenoviruses.	16765
Stomatal penetration of wheat seedlings by stem and leaf rusts in relation to effects of carbon dioxide, light, and stomatal aperture.	16699			Reoviruses.	16806
Herbicidal composition and method. Patent 3,393,064.	16733			A study of immunity against <i>Pasteurella multocida</i> in buffalo calves and their carrier status.	16823
Effect of substrate temperature on emergence and growth of seedling cotton following in-furrow applications of Temik (10 % G formulation of nnon carbide UC-21149).	16922			Infectious bovine rhinotracheitis.	16862
Tolerance of some imported conifer seeds to fumigation with carbon tetrachloride.	16932			SERUM	
The relative effect of N,N-dimethyl-2,2-diphenylacetamide on root and shoot growth.	16934			Preparation of antiserum against stolbur virus.	16579
SEEDS				Detection of antibodies neutralizing the virus of infectious bovine rhinotracheitis in the serum of French cattle.	16782
Herbicidal composition and method. Patent 3,393,064.	16733			Bactericidal antibody studies in maternal serum, colostrum, and newborn serum of the pig.	16856
SELENIUM				SETARIA VIRIDIS	
Selenium-responsive diseases of animals in New Zealand.	16746			The influence of controlled environments and grass hosts on the life cycle of <i>Endria inimica</i> (Homoptera: Cicadellidae).	16373
SEMLIKI POBEST VIRUS				SEX	
Growth of arboviruses in primary tissue culture of <i>Aedes aegypti</i> embryos.	16508			Chemosterilization of the tobacco budworm: a survey of 21 compounds applied topically.	16386
SENECIO JACOBAEA				Inherited sterility in progeny of irradiated male cabbage loopers.	16496
Tansy ragwort ( <i>Senecio jacobaea</i> ), a potential menace to livestock.	16828			SEX ATTRACTANTS	
SEPTICEMIA				The attractiveness of female to male peach tree borers.	16305
Investigation on severity of acute swine erysipelas of septicemic type.	16832			Sex attraction in the Mediterranean flour moth, <i>Anagasta kuhniella</i> : location of the female by the male.	16467
SEPTORIA NODORUM				SEX BEHAVIOR	
Knowledge of <i>Septoria nodorum</i> Berk., the cause of leaf blotch and glume blotch in wheat.	16553			Bionomics, sexual behavior, and adult anatomy of the albida group of the genus <i>Epicauta</i> (Coleoptera: Meloidae).	16430
CO <sub>2</sub> assimilation and yield of Little Club wheat infected by <i>Septoria nodorum</i> .	16670			Sex attraction in the Mediterranean flour moth, <i>Anagasta kuhniella</i> : location of the female by the male.	16467
SEBODIAGNOSIS				SBEEP	
Studies to determine neutralizing antibody in sera from animals recovered from African swine fever and laboratory animals inoculated with African virus with adjuvants.	16768			Mortality of nasal bots in sheep treated with systemic insecticides.	16330
Characteristics of a C strain of foot-and-mouth disease virus propagated in BHK21 cells.	16769			Selenium-responsive diseases of animals in New Zealand.	16746
Isolation of a hemagglutinating picornavirns from a primary swine kidney cell culture.	16795			Experimental infection of sheep and goats with attenuated and virulent strains of rinderpest virus.	16748
Immune response of steers inoculated with chemically-treated foot-and-mouth disease virus preparations previously studied in swine.	16819			Excretion of foot-and-mouth disease virus prior to the development of lesions.	16755
SEROLOGICAL TESTS				Exotic plants--a hazard to animals.	16776
The serological differentiation of viruses in the tick-borne encephalitis subgroup by the gel-diffusion method.	16502			Enterotoxaemia in sheep in Nigeria.	16810
Arbovirus studies in Bush Bush Forest, Trinidad, W. I. September 1959-December 1964. VI. Rodent-associated viruses (VEE and agents of group C and Guama): isolations and further studies.	16503			Malignant catarrhal fever.	16840
Immunodiffusion tests with three isolates of barley yellow dwarf virus. (Abstract).	16533			Studies on the aetiology of anaemia in chronic fascioliasis in sheep.	16844
Preparation of antiserum against stolbur virns.	16579			Pneumonia of sheep in Kenya. I. Bacterial and parasitic pneumonia.	16855
Natural occurrence of tobacco ringspot virus <i>Pelargonium</i>				Studies on the serum proteins in experimental fascioliasis of sheep.	16876
				Belminthiasis in sheep.	16881
				Epidemiological studies of fascioliasis; a third season of	

SUBJECT INDEX

SHELL SD 7438

comparative studies with cattle.	16884	SITONA CYLINDRICOLLIS	
Anthelmintics for Dictyocaulus filaria in sheep.	16886	A water-soluble factor in Melilotus officinalis leaves which stimulates feeding by the adult sweetclover weevil.	16355
SHELL SD 7438		SITOPHILUS GRANARIDS	
Laboratory tests of five new insecticides as protectants for stored rough rice.	16898	Small chamber tests of ethylene dibromide and ethylene dichloride on adult grain-infesting Coleoptera.	163B2
SHIKIMIC ACID		SMOKE	
Levels of shikimate and folate in primary leaves of wheat and in uredospores of leaf rust.	16601	Carcinogens in burning mosquito coil smoke.	16911
SHIPPING FEVER		SMUT (COBN)	
Future requirements for prevention and control of bovine respiratory diseases in the United States.	16743	Effect of defoliation treatments at various stages of plant development and row spacings on corn (Zea mays L.) production.	16933
Comments on control and management of respiratory diseases in beef cattle.	16763	SOCIAL INSECTS	
Present status of immunization procedures for pasteurellosis.	16770	Nosema apis and dysentery of the honeybee.	16359
Comments on management of respiratory diseases of dairy cattle.	16777	Behaviour genetics of nest cleaning in honeybees. V. effect of previous experience and composition of mixed colonies on response to disease-killed brood.	16468
Comments on immunization procedures for pasteurellosis.	16778	SODIUM	
Management of respiratory diseases in dairy cattle.	167B1	Pathologic physiology and chemotherapy of Plasmodium berghei. III. Renal function in rats infected with Plasmodium berghei.	16801
Comments on bovine myxovirus parainfluenza-3.	16787	SODIUM CHLORIDE	
Comments on clinical signs of respiratory diseases in feedlot cattle.	16812	Comparative studies of the labellar sensitivity of female tabanids (Diptera) to sucrose and sodium chloride.	16413
Bovine respiratory infections.	16816	Herbicidal composition and method comprising 1-(tetrahydro-dicyclopentadienyl)-3,3-dimethyl urea and a salt of methyl arsonic acid. Patent 3,403,017.	16731
Attempts to produce cross-reactions for Brucella in cattle treated with hemorrhagic septicaemia bacterins.	16830	Treatment of salt poisoning in pigs.	16745
Comments on immunization procedures for pasteurellosis.	16850	SODIUM FLDOBIDE	
The natural history of bovine myxovirus parainfluenza-3.	16860	Some physiological effects of sublethal doses of DDT on flour beetles.	16462
SILANES		SODIUM N-1-NAPHTHYLPHTHALAMATE	
Method of inhibiting plant growth. Patent 3,390,978.	16522	Method of controlling weeds in soil. Patent 3,393,065.	16726
SILICIC ACID		SOIL CONSERVATION	
Variations of phospholipids in the course of metamorphosis of Triholium confusum (Coleoptera).	16360	The influence of organic soil amendment on common scab of potato.	16541
SILVER NITRATE		SOIL CONTAMINATION	
A rapid procedure for the identification of organochlorine pesticides in blood and tissues.	16950	The adsorption of chlorinated hydrocarbon pesticides on an unconsolidated aquifer substrate.	16901
SIMAZINE		SOIL FAUNA	
The influence of simazine on the quality and composition of pome fruit.	16919	Investigations of cherry rasp leaf disease in California.	16693
The partitioning and distribution of simazine and propanil in spinach chloroplasts.	16927	SOIL FUMIGATION	
SIMULIIDAE		Activity of soil fumigants in relation to increased growth response and control of decline and bacterial canker in trees of Prunus persica. (Abstract).	16566
The diel oviposition periodicity of the black fly, Simulium vittatum.	16372	The effect of certain fungitoxicants on the formation of endotrophic mycorrhiza by Endogone fasciculata on corn and on root development in seedling corn.	16649
Bird predation on black fly larvae and pupae in Ontario.	16741	SOIL FUNGI	
SIMULIUM VITTATUM		The influence of volatile substances from alfalfa on soil respiration and survival of soil fungi. (Abstract).	16582
The diel oviposition periodicity of the black fly, Simulium vittatum.	16372	Mycocoecology of willow and cottonwood lowland communities in Southern Wisconsin. I. Soil microfungi in the willow-cottonwood forests.	16584
Bird predation on black fly larvae and pupae in Ontario.	16741	The relationship of Phytophthora fragariae Hickman to the fungal flora in the rhizosphere of the strawberry plant.	16612
SIPHONAPTERA		Survival of root-infecting fungi in soil. VI. Effect of amendments on bean root rot caused by Thielaviopsis basicola and on inoculum density of the causal organism.	16653
Notes on the Sipbonaptera of New Brunswick.	16270	Value of a plant growth retardant for isolating soil fungi.	16920
Small mammals and their ectoparasites from the Scottish islands of Handa (Sutherland), Muck, Pabay, Scalpay and Soay (Inner hebrides).	162B5		
The study of fertility of the rat fleas (Xenopsylla cheopis Rothsch. and Ceratophyllus fasciatus Bosc.) under their feeding on different animals.	16449		



SUBJECT INDEX

SPRAYING

<b>SOIL INSECTS</b>		<b>SPERMATHECA</b>	
Comparison of the soil inhabiting Coleoptera from two oak-birch forests.	16309	Distribution of sperm in the storage organs of the <i>Drosophila melanogaster</i> female at various levels of insemination.	16387
Oxygen consumption by soil larvae of insects in dependence on its tension.	16442	<b>SPERMATOZOA</b>	
<b>SOIL LEACHING</b>		Distribution of sperm in the storage organs of the <i>Drosophila melanogaster</i> female at various levels of insemination.	16387
The adsorption of chlorinated hydrocarbon pesticides on an unconsolidated aquifer substrate.	16901	Spermatozoan nucleus length in three strains of <i>Drosophila melanogaster</i> .	16490
<b>SOIL MICROORGANISMS</b>		<b>SPHAEROPHORUS NECROPHORUS</b>	
<i>Candida shehatae</i> sp. n., a yeast associated with wood-destroying insects.	16368	Calf diphtheria.	16811
A baiting method for estimating the saprophytic activity of <i>Sclerotium rolfsii</i> in soil.	16538	<b>SPHECIDAE</b>	
'soil vessel system' or analysis of soils from diseased seedlings.	16686	Notes on some Hymenoptera of Portugal--V.	16287
<b>SOIL MOISTURE</b>		<b>SPHINGIDAE</b>	
Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm.	16940	Observations on the larvae of <i>Hippotion celerio</i> L. (Lepid., Sphingidae in Tanzania. (Abstract).	16262
<b>SOIL ORGANIC MATTER</b>		Notes on the study of Sphingidae of Venezuela. (Lep. Heterocera).	16313
The influence of organic soil amendment on common scab of potato.	16541	<b>SPIDERS</b>	
<b>SOIL PROPERTIES</b>		Spiders from south New Guinea x.	16281
Effect of soil clay and organic matter content upon systemic efficacy of two carbamate insecticides.	16259	Spiders (Prodidomidae, Zodariidae, and Symphytognathidae) in Hawaii.	16341
<b>SOIL TEMPERATURE</b>		The toxicity of Oklahoma spider (Araneae) venoms using a new venom recovery and testing technique.	16910
Eradication of potato virus X and S by thermotherapy and axillary bud culture.	16680	<b>SPIKE (SANTALUM)</b>	
<b>SOIL-BINDING PLANTS</b>		Chromatographic purification of a single viral protein in sandal spike.	16636
A comparison of annual crops for seed and residue in the semi-arid region of western Canada.	16510	<b>SPINACH</b>	
<b>SOILS</b>		The partitioning and distribution of simazine and propanil in spinach chloroplasts.	16927
The influence of volatile substances from alfalfa on soil respiration and survival of soil fungi. (Abstract).	16582	<b>SPINAL CORD</b>	
Felted grass coccid on Rhodes grass in Queensland.	16703	Lumbar paralysis of a calf caused by aberration of an immature liver fluke into the spinal cord.	16892
<i>Clostridium botulinum</i> type F in the soil of Argentina.	16909	<b>SPIROCERCA LUPI</b>	
<b>SOLANACEAE</b>		<i>Spirocerca lupi</i> infection in two central Texas dogs.	16872
Erratum: the interaction of the seed coat and gibberellic acid in the germination of <i>Datura ferox</i> L.	16734	<b>SPLEEN</b>	
<b>SOLUTES</b>		Comments on malignant catarrhal fever.	16849
The adsorption of chlorinated hydrocarbon pesticides on an unconsolidated aquifer substrate.	16901	<b>SPODOPTERA</b>	
<b>SORGHUM</b>		Greenhouse and laboratory screening of sorghum lines for resistance to fall armyworm larvae.	16319
Greenhouse and laboratory screening of sorghum lines for resistance to fall armyworm larvae.	16319	<b>SPODOPTERA FRUGIPERDA</b>	
A baiting method for estimating the saprophytic activity of <i>Sclerotium rolfsii</i> in soil.	16538	Studies on the development of insect resistant sorghum varieties and hybrids.	16707
Studies on the development of insect resistant sorghum varieties and hybrids.	16707	<b>SPORE GERMINATION</b>	
<b>SOUND WAVES</b>		Responses of germinating <i>Rhizopus stolonifer</i> sporangiospores to heating, chilling, gamma irradiation, and anoxia. (Abstract).	16557
Effects of ultrasonic treatment on turnip mosaic virus and potato virus X.	16688	Factors affecting the germination of basidiospores of the heart rot fungus, <i>Pomes igniarius</i> in the infection of trembling aspen.	16632
<b>SOYBEANS</b>		<b>SPORULATION</b>	
The effect of 2,4-dichlorophenoxyacetic acid upon the metabolism and composition of soybean hypocotyl mitochondria.	16916	Laboratory hatch production of <i>Bacillus thuringiensis</i> spores and crystals.	16380
The effect of chloramphenicol on soybean callus tissue.	16917	<b>SPRAYING</b>	
<b>SPECTROMETRY</b>		Oils for summer control of pear psylla and their effects on pear trees.	16488
Identification and functions of secretion from the posterior scent gland of fifth instar larva of the bug <i>Dysdercus intermedius</i> .	16274	Three-year effects of systemic fungicides applied for the control of <i>Cytospora</i> in Italian prune tree.	16594
<b>SPECTROSCOPY</b>		Stem and needle inoculations of eastern white pine with the blister rust fungus.	16692
Growth substances isolated from woody cuttings of <i>Alnus glutinosa</i> Medic. and <i>Fraxinus excelsior</i> L.	16525	Extermination of cattle grubs ( <i>Hypoderma</i> spp.) on a regional basis.	16799
		A rapid procedure for the identification of organochlorine pesticides in blood and tissues.	16950

SUBJECT INDEX

SPRAYING EQUIPMENT

SPRAYING EQUIPMENT			
A sprayer with semi-automatic gradual dilution.	16905	and the determination of residues.	16412
SPRING DEAD SPOT		Action of aqueous iodine on ova of <i>Ascaris lumbricoides</i> and <i>Ascaris suum</i> .	16716
Bermuda grass thatch decomposition in relation to spring dead spot. (Abstract).	16635	Purification and properties of fructose diphosphate aldolase from <i>Fusarium oxysporum</i> f. <i>lycopersici</i> .	16924
SQUASH		STERIODS	
Evaluation of insecticides for control of pickleworm on summer squash.	16472	Short-term effects of crustecdysone (20-hydroxyecdysone) on protein and rna synthesis in third instar larvae of <i>Calliphora</i> .	16437
STAPHYLINIDAE		STEROLS	
New Guinea Staphylinidae (Coleoptera).	16311	The influence of nutrient chemicals on the feeding behavior of the Colorado potato beetle, <i>Leptinotarsa decemlineata</i> (Coleoptera: Chrysomelidae).	16401
STAPHYLOCOCCUS		STIMULANTS	
Pathologic effects of <i>Escherichia coli</i> 083:K:NM in gnotobiotic pigs.	16753	Aspects of orientation behavior in the ambrosia beetle <i>Trypodendron lineatum</i> (Olivier).	16294
STAPHYLOCOCCUS AUREUS		A water-soluble factor in <i>Melilotus officinalis</i> leaves which stimulates feeding by the adult sweetclover weevil.	16355
Anti-microbial drugs in animal feeds.	16847	STIRELLINI	
STATISTICAL ANALYSIS		Notes on the tribe Stirellini (Homoptera, Cicadellidae).	16291
Analysis of annual outbreaks of parasitic fungi. II. qualitative and quantitative characteristics of attack curves.	16617	STOLBUR (POTATOES)	
STATISTICAL METHODS		Preparation of antiserum against stolbur virus.	16579
Estimation of oviposition by the fir engraver, <i>Scolytus ventralis</i> (Coleoptera: Scolytidae).	16361	STOLBUR (TOMATOES)	
STELLARIA MEDIA		Preparation of antiserum against stolbur virus.	16579
Atmospheric pollution and its effects on vegetation.	16516	STOMACH	
STEM END ROT (CITRUS)		Electron microscopical studies on <i>Ditylenchus dipsaci</i> (Kuhn). Stomatal region.	16484
Entry of stem-end rot fungi in Florida oranges. (Abstract).	16555	Oedema disease in pigs.	16758
STEM RUST (WHEAT)		STOMATA	
The physiology of host-parasite relations. XIX. Further observations on nucleoprotein changes in wheat leaf nuclei during rust infection.	16547	Stomatal penetration of wheat seedlings by stem and leaf rusts in relation to effects of carbon dioxide, light, and stomatal aperture.	16699
Reproductive potentials of races 15B and 56 of wheat stem rust.	16609	STOMOXYIS CALCITRANS	
Interaction of pathogenicity genes in <i>Puccinia graminis</i> f. sp. <i>tritici</i> and reaction genes in <i>Triticum aestivum</i> ssp. <i>vulgare</i> "Harguis," "Reliance," and "Kota."	16664	The effects of cadmium compounds on reproduction and growth of the stable fly, <i>Stomoxys calcitrans</i> (Linnaeus).	16410
Stomatal penetration of wheat seedlings by stem and leaf rusts in relation to effects of carbon dioxide, light, and stomatal aperture.	16699	STORAGE DISEASES	
STERILITY		Fungus flora, germinability and fat acidity values of stored corn.	16895
Sterilization of <i>Culex pipiens fatigans</i> Wiedemann by apholate.	16377	Laboratory evaluation of malathion as a protectant for almonds during storage.	16896
Some physiological effects of sublethal doses of DDT on flour beetles.	16462	STORED PRODUCTS	
Inherited sterility in progeny of irradiated male cabbage loopers.	16496	Fungus flora, germinability and fat acidity values of stored corn.	16895
A note on translocation-trisomic plant from gamma-irradiated barley.	16517	Bionomics of <i>Glycyphagus domesticus</i> (de Geer) (Acarina: Glycyphagidae), a pest of stored grain.	16897
Viral infertility in cattle.	16783	STRAW	
STERILIZATION		The probable significance of saprophytic colonization of wheat straw in the field by <i>Cephalosporium gramineum</i> .	16556
Studies on the eradication of <i>Anopheles pharoensis</i> Theobald by the sterile-male technique using cobalt-60. VI. Sperm activity in males irradiated with the sterilizing dose.	16264	STRAWBERRIES	
Modified laboratory techniques for preparing sterile larval diets for the holl weevil.	16310	Overwintering of <i>Colletotrichum fragariae</i> in strawberry crowns.	16602
Autocidal control of the codling moth by release of males and females sterilized as adults by gamma radiation.	16333	The relationship of <i>Phytophthora fragariae</i> Hickman to the fungal flora in the rhizosphere of the strawberry plant.	16612
Sterilization of <i>Culex pipiens fatigans</i> Wiedemann by apholate.	16377	STREPTOMYCES SCABIES	
Chemosterilization of the tobacco budworm: a survey of 21 compounds applied topically.	16386	The influence of organic soil amendment on common scab of potato.	16541
The permanent and cumulative effect of tepa-induced sterility in male Japanese beetles.	16411	STREPTOMYCIN	
Mass sterilization of Japanese beetles with tepa		Multiple drug resistance.	16965
		STRESS	
		Comments on control and management of respiratory diseases in beef cattle.	16763
		Comments on control and management of respiratory diseases in beef cattle.	16775

SUBJECT INDEX

SWINE ERYSIPELAS

Comments on complications following vaccination against bovine respiratory diseases.	16779	SULFUB Amino acid requirements and sulfur amino acid metabolism in the pea aphid, <i>Acyrtosiphon pisum</i> (Harris).	16334
<b>STRIATE MOSAIC (WHEAT)</b> Multiplication of wheat striate mosaic virus in its leafhopper vector <i>Endria inimica</i> .	16676	Process for preparing benzimidazole N-oxides. Patent 3,398,157.	16947
<b>STRIDULATION</b> Temperature compensation of the circadian oscillation in <i>Drosophila pseudoobscura</i> and its entrainment by temperature cycles.	16487	Method for preparation of wettable sulfur. Patent 3,398,227.	16951
<b>STBGA</b> Domestic quarantine notices. Witchweed. Regulated areas. Correction.	16973	<b>SULLA SWEETVETCH</b> <i>Verticillium</i> wilt of <i>Hedysarum coronarium</i> (Sulla).	16639
<b>STBIPE MOSAIC (BARLEY)</b> Isolation and characterization of barley stripe mosaic virus protein.	16588	<b>SULPHUR</b> A study of a melanic mutant of the blowfly <i>Lucilia cuprina</i> .	16395
<b>STBIPE SMUT (POA PRATENSIS)</b> Etiology of stripe smut, <i>Ustilago striiformis</i> (West.) Niessl, on Merion bluegrass, <i>Poa pratensis</i> L.	16600	<b>SUNFLOWERS</b> Effect of boron on ribonucleic acid and indoleacetic acid metabolism in the apical meristems of sunflower plants.	16520
<b>STUBBLE</b> A comparison of annual crops for seed and residue in the semi-arid region of western Canada.	16510	<b>SUPERPHOSPHATES</b> Effect of trace-elements bound to superphosphates on the resistance of potato tubers to <i>Phytophthora infestans</i> (Mont.) de Bary.	16643
<b>STYLETTS</b> Structure and formation of coaptations of the maxillary stylets of <i>Rhodnius prolixus</i> . (Heter. Beduviidae).	16439	<b>SURFACE-ACTIVE AGENTS</b> Acute toxicity of n-alpha-olefin sulfonates.	16912
<b>SUCCINATES</b> The effect of substituted decenyl succinic acid (DSA), amides, esters, and 1,5-difluoro-2,4-dinitrobenzene (DPDNB) on preventing blossom freezing injury. (Abstract).	16597	<b>SUBVEYS</b> Small mammals and their ectoparasites from the Scottish islands of Handa (Sutherland), Mack, Pabay, Scalpay and Soay (Inner hebrides).	16285
<b>SUCCINIC ACID COMPOUNDS</b> The effect of substituted decenyl succinic acid (DSA), amides, esters, and 1,5-difluoro-2,4-dinitrobenzene (DPDNB) on preventing blossom freezing injury. (Abstract).	16597	Tobacco diseases in Kentucky in 1967.	16679
<b>SUCCINIC ACID, 2,2-DIMETHYLBENZIDRAZIDE</b> The effect of differential nitrogen and calcium nutrition and B-Nine (N-dimethyl amino succinamic acid) application on foliar analysis and flowering quality of "Red Wing" azaleas.	16926	<b>SWEETCORN</b> Differences in ecological responses of three biotypes of <i>Ostrinia nubilalis</i> from the north central United States.	16280
<b>SUCROSE</b> Comparative studies of the labellar sensitivity of female tabanids (Diptera) to sucrose and sodium chloride.	16413	<b>SWEETPOTATOES</b> Effect of temperature on the development of <i>Meloidogyne incognita</i> in sweetpotato. (Abstract).	16604
<b>SUGAR BEETS</b> Injury to sugar beet leaves through growth inhibiting herbicides.	16515	<b>SWINE</b> Experiences with a new broad-spectrum anthelmintic dichlorvos, in the adult pig.	16740
Electron microscopical proof of the presence of sugar beet yellows virus particles in the roots of sugar beets.	16560	Selenium-responsive diseases of animals in New Zealand.	16746
Mineral oil spray suppressed symptoms of virus yellows on sugar beets. (Abstract).	16563	The distribution of certain <i>Escherichia coli</i> strains in pigs and their environment.	16747
Possible particles of beet western yellows virus in the intestines of viruliferous aphids.	16666	Excretion of foot-and-mouth disease virus prior to the development of lesions.	16755
<b>SUGARCANE</b> Cane-sugar feeding in <i>Culex pipiens fatigans</i> .	16501	Oedema disease in pigs.	16758
Spread of red rot in the leaves of sugarcane plant.	16675	Studies to determine neutralizing antibody in sera from animals recovered from African swine fever and laboratory animals inoculated with African virus with adjuvants.	16768
<b>SUGABS</b> The influence of nutrient chemicals on the feeding behavior of the Colorado potato beetle, <i>Leptinotarsa decemlineata</i> (Coleoptera: Chrysomelidae).	16401	Isolation of a hemagglutinating picornavirus from a primary swine kidney cell culture.	16795
Root exudates from red pine seedlings and their effects on <i>Pythium ultimum</i> .	16534	Foot-and-mouth disease in swine: response to inactivated vaccines.	16818
<b>SULFONIC ACIDS</b> Acute toxicity of n-alpha-olefin sulfonates.	16912	Investigation on severity of acute swine erysipelas of septicemic type.	16832
<b>SULFONYL-BIS-(CARBAMOYLPHOSPHONIC ACID), N,N'-N,N'-sulfonyl-bis-(carbamoylphosphonic acid esters). patent 3,401,214.</b>	16959	Bactericidal antibody studies in maternal serum, colostrum, and newborn serum of the pig.	16856
		Oligosaccharidases from <i>Macracanthorhynchus hirudinaceus</i> (Acanthocephala) from swine.	16875
		Anthelmintic evaluation of tetramisole against the swine lungworm, <i>Metastrongylus apri</i> .	16890
		<b>SWINE ERYSIPELAS</b> Investigation on severity of acute swine erysipelas of septicemic type.	16832



SUBJECT INDEX

<b>SYMPOSIA</b>			
<b>SYMPOSIUM</b>	Symposium on immunity to the bovine respiratory disease complex, June 19-21, 1967, Athens, Georgia.	16744	reproduction, development, survival, and behavior of the cereal leaf beetle, <i>Oulema melanopus</i> (Linnaeus), under laboratory conditions.
<b>T, 2,4,5-</b>	Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm.	16940	Physiological genetics of melanotic tumors in <i>Drosophila melanogaster</i> . IV. Gene-environment interactions of tu-bw with different third chromosome backgrounds.
<b>TABANIDAE</b>	Notes on Neotropical Tabanidae (Diptera). VII. The species described by C.R.W. Wiedemann.	16292	Production of the perfect stage of <i>Botryotinia</i> ( <i>Botrytis</i> ) <i>squamosa</i> under controlled environmental conditions. (Abstract).
	Comparative studies of the labellar sensitivity of female tabanids (Diptera) to sucrose and sodium chloride.	16413	Verticillium wilt reactions in cotton as affected by postinoculation temperatures. (Abstract).
<b>TAHYNA VIRUS</b>	Experimental survival of the virus tahyna in hibernating mosquitoes <i>Theobaldia annulata</i> (Scbrk.).	16376	A dynamic-equilibrium illuminated temperature-, humidity-, and pollutant-controlled plant fumigation chamber. (Abstract).
<b>TAXONOMY</b>	Two new species of the genus <i>Ewingana</i> (Acarina: Myobiidae) from Cuba.	16288	Ejection and dissemination of ascospores of <i>Hypoxyton pruinautum</i> .
	Spiders (Prodidomidae, Zodariidae, and Symphytognathidae) in Hawaii.	16341	Effect of temperature on the development of <i>Meloidogyne incognita</i> in sweetpotato. (Abstract).
	<i>Monacrosporium rutgeriense</i> sp. n., a nematode-trapping hyphomycete.	16561	Effect of diurnal temperature cycles on the production of aflatoxin.
	<i>Aphelenchoides echinocaudatus</i> sp. n. (Nematoda, Aphelenchoididae).	16719	Resistance to spread of virus from cell to cell in T. I. 245 tobacco.
<b>TEMIK</b>	Effect of soil clay and organic matter content upon systemic efficacy of two carbamate insecticides.	16259	The influence of temperature on longevity and germination of seed of western dwarf mistletoe.
	Effect of substrate temperature on emergence and growth of seedling cotton following in-furrow applications of Temik (10 % G formulation of union carbide UC-21149).	16922	Fungus flora, germinability and fat acidity values of stored corn.
<b>TEMPERATURE</b>	Fluctuations in natural populations of <i>Drosophila</i> with special attention to sex ratio.	16261	Ecionomics of <i>Glycyphagus domesticus</i> (de Geer) (Acarina: Glycyphagidae), a pest of stored grain.
	An environmental cabinet with variable air velocity for insect studies.	16338	The adsorption of chlorinated hydrocarbon pesticides on an unconsolidated aquifer substrate.
	The influence of controlled environments and grass hosts on the life cycle of <i>Endria inimica</i> (Homoptera: Cicadellidae).	16373	Effect of substrate temperature on emergence and growth of seedling cotton following in-furrow applications of Temik (10 % G formulation of union carbide UC-21149).
	Quantitative dietary requirements of <i>Oryzaephilus surinamensis</i> (L.) (Coleoptera: Silvanidae) for phenylalanine and tyrosine.	16378	Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm.
	Whole body turnover of potassium traced by radiorubidium in adult <i>Drosophila</i> (Drosophilidae) and <i>Megaselia</i> (Phoridae).	16384	<b>TENEBRIONIDAE</b> Movements, host-fungus preferences, and longevity of <i>Bolitoborus cornutus</i> (Coleoptera: Tenebrionidae).
	The effect of temperature upon the development of the heart-and-dart moth ( <i>Agrotis exclamationis</i> L.).	16431	<b>TEPA</b> The permanent and cumulative effect of tepa-induced sterility in male Japanese beetles.
	Bioclimatic studies of the aphid parasite <i>Praon exsoletum</i> . 1. Effects of temperature on the functional response of females to varying host densities.	16432	Mass sterilization of Japanese beetles with tepa and the determination of residues.
	Flight activity of honeybees in a flight and rearing room. I. The influence of light intensity.	16436	<b>TEREPHTHALIC ACID COMPOUNDS</b> Method of destroying undesirable plants. Patent 3,397,977.
	The metabolism of carbaryl (1-naphthyl-N-methylcarbamate) by the fat body of the blowfly larva <i>Calliphora erythrocephala</i> .	16440	<b>TESTES</b> Testicular and haemolymph amino acids of <i>Pocilocerus pictus</i> (Acrididae).
	Factors affecting protein synthesis by the fat body of the larva of the blowfly <i>Calliphora erythrocephala</i> .	16441	Experimental ovine listeriosis. III. Inoculation of rams.
	Metabolic thermal adaptations in the mosquito <i>Culex pipiens pipiens</i> (Diptera: Culicidae).	16447	<b>TETRACYCLINE</b> Multiple drug resistance.
	Survival of overwintering alfalfa weevil eggs in Pennsylvania.	16466	<b>TETRAHYDRODICYCLOPENTADIENYL</b> -3,3-DIMETHYL UREA, 1-(Herbicidal composition and method comprising 1-(tetrahydrodicyclopentadienyl)-3,3-dimethyl urea and a salt of methyl arsonic acid. Patent 3,403,017.
	Some responses of flying <i>Aedes aegypti</i> to visual stimuli.	16481	<b>TETRAMISOLE</b> Efficacy of tetramisole. Studies on the efficacy of tetramisole in the treatment of pre-type II and type II bovine ostertagiasis.
	Response and recovery on X-irradiated <i>Tribolium confusum</i> larvae.	16482	Oral tetramisole; effect on <i>Dictyocaulus viviparus</i> , <i>Ostertagia ostertagi</i> and <i>Cooperia oncophora</i> in experimentally-infected calves.
	Effects of some physical and biological factors on the		

## SUBJECT INDEX

ISSUES

- Anthelmintic evaluation of tetramisole against the swine lungworm, *Metastrongylus apri*. 16890
- TETRANYCHIDAE**  
Some raplignathoid mites from Israel. 16298
- TETRANYCHUS**  
Preliminary report on the introduction of *Phytoseiusulus persimilis* to Poland. 16421
- TETRANYCHUS ALTHAEAE**  
*Triplosporium tetranychii* sp. n. (Phycomyces, Entomophthoraceae), a fungus infecting the red mite *Tetranychus althaeae* Hanst. 16476
- TETRANYCHUS URTICAE**  
European red mite and two-spotted spider mite control on apple trees. 16358  
Relationships between *Tetranychus urticae* Koch and some plant viruses. 16651
- TETRASTICHUS GENTILEI**  
An interesting parasite of Thysanoptera: *Tetrastichus gentilei* (Hym. Chalcididae). 16365
- TETRIGIDAE**  
Types of feeding and structure of mandibles in different life forms of grasshoppers. 16371
- TETTIGONIIDAE**  
Types of feeding and structure of mandibles in different life forms of grasshoppers. 16371
- THALLIUM**  
Thallium poisoning in cats. 16915
- THERAPEUTICS**  
Oedema disease in pigs. 16758  
*Salmonellosis typhimurium*. Some epidemiological and therapeutical problems of salmonellosis. 16846  
The natural history of bovine myxovirus parainfluenza-3. 16860  
Pneumonia in cattle due to migrating *Ascaris lumbricoides* larvae. 16880
- THEREVIDAE**  
New Therevidae from Argentina. 16325
- THERMOTHERAPY**  
Eradication of potato virus X and S by thermotherapy and axillary bud culture. 16680
- THESES**  
A thesis of Mme G. Ricou, on lasting prairie pasturage, a biocenological study of natural environment. 16514
- THIAZINES**  
Novel thiazine and thiazoline anthelmintic agents. Patent 3,390,148. 16870
- THIAZOLINES**  
Novel thiazine and thiazoline anthelmintic agents. Patent 3,390,148. 16870
- THIELAVIOPSIS BASICOLA**  
Survival of root-infecting fungi in soil. VI. Effect of amendments on bean root rot caused by *Thielaviopsis basicola* and on inoculum density of the causal organism. 16653
- THIRAM**  
Biochemical action of thiram and some dialkyldithiocarbamates. 16928  
Chemistry of the fungicidal action of tetramethylthiuram disulphide (thiram) and ferbam. 16963
- TIBORAX**  
Ukawa virus proliferation in mosquitos. 16507
- TBBIPS**  
Field studies on control of lygus bugs and onion thrips infesting safflower. 16567
- THUJA**  
Tolerance of some imported conifer seeds to fumigation with carbon tetrachloride. 16932
- THYROID GLAND**  
Malignant catarrhal fever. 16840  
Comments on malignant catarrhal fever. 16849
- THYSANOPTERA**  
Patterns of structural diversity in the males of some Phlaeophilous tuhuliifera. (Thysanoptera). 16356  
An interesting parasite of Thysanoptera: *Tetrastichus gentilei* (Hym. Chalcididae). 16365
- TIME**  
Flight activity of honeybees in a flight and rearing room. I. The influence of light intensity. 16436  
Factors affecting protein synthesis by the fat body of the larva of the blowfly *Calliphora erythrocephala*. 16441  
Effect of irrigation and submersion in water on pupal survival of the hollworm. 16483  
Time of arrival of gravid *Cnlex pipiens fatigans* at an oviposition site, the oviposition cycle and the relationship between time of feeding and time of oviposition. 16500  
Changes in respiration rate of tobacco leaves infested with bacteria in relation to the hypersensitive reaction. 16647
- TINEIDAE**  
Some Tineid moths of the Ethiopian region in the collections of the British Museum (Nat. Hist.). I. 16301
- TIPOLA SCRIPTA**  
Oxygen consumption by soil larvae of insects in dependence on its tension. 16442
- TIPULIDAE**  
Oxygen consumption by soil larvae of insects in dependence on its tension. 16442  
The use of organochlorine insecticides and possible alternatives against leatherjackets. 16715
- TISSUE CULTURE**  
Growth of arboviruses in primary tissue culture of *Aedes aegypti* embryos. 16508  
Characteristics of a C strain of foot-and-mouth disease virus propagated in BHK21 cells. 16769  
Isolation of a hemagglutinating picornavirus from a primary swine kidney cell culture. 16795  
The growth cycle of equine herpes 3 virus as compared with other viruses of the herpes group. 16797
- TISSUES**  
In vitro cultivation of *Choristoneura fumiferana* (Clemens) (Lepidoptera: Tortricidae) tissues. 16457  
Atmospheric pollution and its effects on vegetation. 16516  
Ion uptake of sweet potato roots infected by the black rot fungus. 16519  
Radiation-induced damage in vegetative tissues of *Pinus rigida* Mill. 16526  
Relationships between *Tetranychus urticae* Koch and some plant viruses. 16651  
The effects of sugar maple stem tissue extracts on spore germination of *Fusarium solani*. (Abstract). 16655  
Scrapic agent in blood. 16773  
Malabsorption in Johne's disease of cattle: depressed in vitro amino-acid uptake by isolated intestinal tissue preparations. 16833  
Migration of *Toxocara cati* larvae in mice. 16900  
The estimation of epinephrine, norepinephrine, and aldrin (a chlorinated naphthalene derivative) in mammalian tissue

SUBJECT INDEX

<b>TOBACCO</b>			
employing biological and chemical methods of assay, and some considerations of toxicological effects of aldrin.	16908	Effect of diurnal temperature cycles on the production of aflatoxin.	16672
Ozone damage and semimature-tissue needle blight of eastern white pine.	16925	Possibilities of applying chemosterilants in plants protection.	16711
A rapid procedure for the identification of organochlorine pesticides in blood and tissues.	16950	Experiences with a new broad-spectrum anthelmintic dichlorvos, in the adult pig.	16740
<b>TOBACCO</b>			
Effect of tobacco mosaic virus infection on glucose metabolism in <i>Nicotiana tabacum</i> var. Samsun. 1. Investigations with <sup>14</sup> C-labeled sugars.	16543	Treatment of salt poisoning in pigs.	16745
Stimulation by 2,4-D and 2,4-D plus Fe EDTA of <sup>32</sup> P uptake by bean seedlings ( <i>Phaseolus vulgaris</i> ).	16573	Wild animal losses through poisons. .	16792
Stem resistance to black shank in burley tobacco derived from <i>Nicotiana longiflora</i> . (Abstract).	16595	Toxicological criteria applied for establishment of the tolerances of pesticide residues.	16903
Cytopathology of mixed infections with potato viruses X and Y in <i>Nicotiana tabacum</i> leaves.	16610	Corticosteroid overdosage in dogs.	16907
The effect of leaf water balance on the susceptibility of French bean to tobacco necrosis virus.	16613	The estimation of epinephrine, norepinephrine, and aldrin (a chlorinated naphthalene derivative) in mammalian tissue employing biological and chemical methods of assay, and some considerations of toxicological effects of aldrin.	16908
Changes in respiration rate of tobacco leaves infested with bacteria in relation to the hypersensitive reaction.	16647	<i>Clostridium botulinum</i> type F in the soil of Argentina.	16909
Nuclear crystals in zinnia and other nonsolanaceous plants infected with tobacco etch virus.	16659	The toxicity of Oklahoma spider (Araneae) venoms using a new venom recovery and testing technique.	16910
Tobacco diseases in Kentucky in 1967.	16679	Pesticidal N-acyl-N-lower alkyl carbamates of phenols and naphthols with decreased mammalian toxicity. Patent 3,404,208.	16913
Resistance to spread of virus from cell to cell in T. I. 245 tobacco.	16687	Thallium poisoning in cats.	16915
Carcinogens in burning mosquito coil smoke.	16911	<b>TOXINS</b>	
<b>TOMATINE</b>		Ammoniation process for detoxifying the seeds of <i>Crambe abyssinica</i> and rape. Patent 3,392,026.	16527
The sensitivity of fungi to alpha-tomatine.	16536	Cedema disease in pigs.	16758
<b>TOMATOES</b>		M and 8 15,497: acute, sub-acute and chronic tolerance studies in chickens.	16809
The sensitivity of fungi to alpha-tomatine.	16536	Purification and properties of fructose diphosphate aldolase from <i>Fusarium oxysporum</i> f. <i>lycopersici</i> .	16924
Preparation of antiserum against stolbur virus.	16579	<b>TOXOCARA CATI</b>	
Application of cotyledonary symptoms in screening for resistance to tomato bacterial canker and in host range studies.	16592	Migration of <i>Toxocara cati</i> larvae in mice.	16900
A quantitative local lesion bioassay for <i>Corynebacterium michiganense</i> .	16624	<b>TOXOPLASMOSIS</b>	
Comparative morphological and physiological studies of the progenies from intraspecific matings of <i>Phytophthora capsici</i> .	16669	Migration of <i>Toxocara cati</i> larvae in mice.	16900
Organ culture of <i>Meloidogyne incognita acrita</i> . (Abstract).	16720	<b>TREE DISEASES</b>	
Purification and properties of fructose diphosphate aldolase from <i>Fusarium oxysporum</i> f. <i>lycopersici</i> .	16924	The evolution of apple and peartree spot disease during the year 1966.	16540
The relative effect of N,N-dimethyl-2,2-diphenylacetamide on root and shoot growth.	16934	Diseases of pitted-fruit trees, in 1966.	16621
<b>TORTRICIDAE</b>		<b>TREES</b>	
In vitro cultivation of <i>Choristoneura fumiferana</i> (Clemens) (Lepidoptera:Tortricidae) tissues.	16457	New records and species of neotropical bark beetles (Scolytidae: Coleoptera), II.	16352
<b>TOUMNEYELLA LIRIODENDRI</b>		European red mite and two-spotted spider mite control on apple trees.	16358
The impact of tuliptree scale feeding on its host, yellow-poplar.	16704	Oils for summer control of pear psylla and their effects on pear trees.	16488
<b>TOXIAPHENE</b>		The evolution of apple and peartree spot disease during the year 1966.	16540
Use of <i>Daphnia magna</i> for the microbioassay of pesticides. I. Development of standardized techniques for rearing <i>Daphnia</i> and preparation of dosage-mortality curves for pesticides.	16295	Relative sensitivity of twenty-two tree species to ozone. (abstract).	16565
<b>TOXICITY</b>		Diseases of pitted-fruit trees, in 1966.	16621
Acute toxicity of n-alpha-olefin sulfonates.	16912	<b>TREBALOSE</b>	
<b>TOXICOLOGY</b>		Growth, feeding activity, and the utilization of reserves in larvae of <i>Locusta</i> .	16399
Investigations of new insecticides.	16480	<b>TREMATODA</b>	
Field study of the safety of Abate for treating potable water and observations on the effectiveness of a control programme involving both Abate and malathion.	16505	Studies on the serum proteins in experimental fascioliasis of sheep.	16876
		Lumbar paralysis of a calf caused by aberration of an immature liver fluke into the spinal cord.	16892



SUBJECT INDEX

URIDINE

<b>TRIAATOMA INFESTANS</b> Evidence for the DDT-INDUCED synthesis of messenger ribonucleic acid in <i>Triatoma infestans</i> .	16423	<b>TRYPANOSOMIDAE</b> <i>Leptomonas oestri</i> n.sp., a flagellate parasite of the digestive tract of <i>Oestrus ovis</i> .	16328
<b>TRIAZINES</b> Triazine derivatives with herbicidal and fungicidal properties. Patent 3,403,151.	16958	<b>TRYPDENDRON LINEATUM</b> Aspects of orientation behavior in the ambrosia beetle <i>Trypodendron lineatum</i> (Olivier).	16294
<b>TRIBOLIUM</b> Temperature effect on mortality of confused flour beetles, treated with CO <sub>2</sub> or N <sub>2</sub> before fumigation.	16276	<b>TUBERCULIN TEST</b> Diagnosis of bovine tuberculosis with tuberculin reaction.	16829
<b>TRIBOLIUM CASTANEUM</b> Phototactic response of adults of confused flour beetle and red flour beetle and larvae of black carpet beetle to flashes of blue-white light.	16456	<b>TUBERCULOSIS</b> Diagnosis of bovine tuberculosis with tuberculin reaction.	16829
<b>TRIBOLIUM CONFUSUM</b> Variations of phospholipids in the course of metamorphosis of <i>Tribolium confusum</i> (Coleoptera).	16360	<b>TURF</b> Factors affecting the pathogenicity of selected fungi isolated from putting green turf.	16593
Small chamber tests of ethylene dibromide and ethylene dichloride on adult grain-infesting Coleoptera.	16382	<b>TURKEY EGGS</b> Role of genetic factors and fowl pox virus in parthenogenesis in turkey eggs.	16831
Phototactic response of adults of confused flour beetle and red flour beetle and larvae of black carpet beetle to flashes of blue-white light.	16456	<b>TURNIPS</b> Effects of ultrasonic treatment on turnip mosaic virus and potato virus X.	16688
Some physiological effects of sublethal doses of DDT on flour beetles.	16462	<b>TYROSINE</b> Quantitative dietary requirements of <i>Oryzaephilus surinamensis</i> (L.) (Coleoptera: Silvanidae) for phenylalanine and tyrosine.	16378
Response and recovery on X-irradiated <i>Tribolium confusum</i> larvae.	16482	<b>UKAUA VIRUS</b> Ukua virus proliferation in mosquitos.	16507
<b>TRICARBOXYLIC ACID CYCLE</b> Utilization of tricarboxylic acid cycle intermediates by <i>Haemonchus contortus</i> larvae.	16321	<b>ULMUS</b> Antagonism of bacteria from elm to <i>Ceratocystis ulmi</i> in vitro. (Abstract).	16606
Chemistry of the fungicidal action of tetramethylthiuram disulphide (thiram) and ferbam.	16963	<b>ULMUS ALATA</b> Metabolic and environmental factors affecting absorption and translocation of 2,4,5-trichlorophenoxyacetic acid in winged elm.	16940
<b>TRICHINELLA SPIRALIS</b> The life cycle of <i>Trichinella spiralis</i> . I. Intestinal phase of development.	16509	<b>ULMUS AMERICANA</b> Effects of N, P, K, and inoculum density of <i>Verticillium dahliae</i> on populations of <i>Pratylenchus penetrans</i> in roots of American elm and sugar maple. (Abstract).	16570
<b>TRICHODERMA</b> Value of a plant growth retardant for isolating soil fungi.	16920	Polyphenols and discoloration in the elm disease investigated by histochemical techniques.	16580
<b>TRICHOGRAMMA SEMIPUNCTATUM</b> Biological notes on, and eradication of <i>Trichogramma semifumatum</i> from laboratory cultures of eight species of Noctuidae.	16458	An evaluation of Bidrin for control of <i>Scolytus multistriatus</i> , the primary vector of <i>Ceratocystis ulmi</i> .	16709
<b>TRICHOPLUSIA BI</b> Inherited sterility in progeny of irradiated male cabbage loopers.	16496	<b>ULTRAVIOLET RAYS</b> A rapid procedure for the identification of organochlorine pesticides in blood and tissues.	16950
<b>TRICHOSTRONGYLOSIS</b> Helminthiasis in sheep.	16881	<b>UPLAND COTTON</b> Effect of substrate temperature on emergence and growth of seedling cotton following in-furrow applications of Temik (10 % G formulation of union carbide UC-21149).	16922
<b>TRIPLOSPORIUM TETRANYCHI</b> <i>Triplosporium tetranychii</i> sp. n. (Phycomycetes, Entomophthoraceae), a fungus infecting the red mite <i>Tetranychus althaeae</i> Banst.	16476	<b>UREDINALES</b> Growth of the hyperparasite <i>Darlucula filum</i> on a chemically defined medium.	16544
<b>TRITICUM AESTIVUM</b> Induction of multipolar spindles in the meiosis of <i>Triticum aestivum</i> as effected by acetone.	16404	Yellow rust of wheat.	16569
A genetic study of leaf rust resistance in wheat.	16623	Biological decomposition of an oxathiin fungicide. (Abstract).	16571
Resistance to <i>Puccinia graminis</i> derived from <i>Secale cereale</i> incorporated into <i>Triticum aestivum</i> .	16683	Histology of canker rusts in pines.	16618
<b>TROPOLONES</b> Herbicidal tropolone esters. Patent 3,399,989.	16725	Evidence for polysomes in extracts of bean rust uredospores.	16682
<b>TRYPANOSOMA</b> <i>Trypanosoma dafillae</i> sp. n. and <i>Lencocytozoon anatis</i> Wickware, 1915 in the northern pintail ( <i>Dafila acuta acuta</i> L.).	16893	<b>UREDIOSPORES</b> A settling tower for quantitative inoculation of leaf blades of mature small grain plants with urediospores.	16574
<b>TRYPANOSOMIASIS</b> Recent advances in techniques for tsetse fly control: With special reference to northern Nigeria.	16506	Reproductive potentials of races 15B and 56 of wheat stem rust.	16609
A survey of wild animals as potential reservoirs of trypanosomiasis in the Ulunga District (Tanzania).	16780	<b>URIDINE</b> Effect of <i>Corpora allata</i> on protein and RNA synthesis in colleterial glands of <i>Blattella germanica</i> .	16486

SUBJECT INDEX

URINE

ORINE		(Abstract).	16642
Assessment of the usefulness of the examination of a gram smear of fresh uncentrifuged urine in the determination of significant bacteriuria in dogs.	16739	Observations on the nature of inheritance of resistance of lucerne to Verticillium albo-atrum.	16652
Pathologic physiology and chemotherapy of Plasmodium berghei. III. Renal function in rats infected with Plasmodium berghei.	16801	VERTICILLIUM DAHLIAE	
		Effects of N, P, K, and inoculum density of Verticillium dahliae on populations of Pratylenchus penetrans in roots of American elm and sugar maple. (Abstract).	16570
OROMYCES PHASEOLI		Verticillium wilt of Hooyarus coronarium (Sulla).	16639
Evidence for polysomes in extracts of bean rusturedospores.	16682	VETERINARY MEDICINE	
USTILAGO MAYDIS		A suspected case of muscular dystrophy in a horse.	16749
Biological decomposition of an oxathiin fungicide. (Abstract).	16571	Antigenic variations in isolates of infectious bronchitis virus.	16751
Effect of defoliation treatments at various stages of plant development and row spacings on corn (Zea mays L.) production.	16933	The haematology of lymphosarcoma in the cat.	16764
USTILAGO STRIIFORMIS		VIBRIO FETUS	
Etiology of stripe smut, Ustilago striiformis (West.) Niessl, on Merion bluegrass, Poa pratensis L.	16600	A comparison of immunofluorescence and cultural techniques for demonstration of Vibrio fetus.	16859
USTILAGO TRITICI		VIBRIO FETUS BACTERINS	
Systemic oxathiin fungicide for control of loose smut (Ustilago tritici) of winter wheat. (Abstract).	16589	Diagnosis of Vibrio fetus infection in the bull. II. An epidemiological survey using a fluorescent antibody test and comparing this with a cultural method.	16839
VACCINES		VICTORIN	
Antibody response and protection induced by immunization with smooth and rough strains in experimental Salmonellosis.	16798	Effects of cytokinins on the absorption of victorin.	16627
Foot-and-mouth disease in swine: response to inactivated vaccines.	16818	VINCA ROSEA	
Growth and metabolism of live vaccine strain of Pasteurella tularensis.	16966	Transmission by dodder of a yellows-type virus from declining white ash. (Abstract).	16596
VAGINA		VIVAL VACCINES	
Excretion of foot-and-mouth disease virus prior to the development of lesions.	16755	Comments on complications following vaccination of cattle against bovine respiratory diseases.	16754
VAPORS		Comments on potency evaluation of bovine respiratory disease vaccines.	16756
Controlling short-nosed cattle lice with dichlorvos resin strips.	16868	Comments on combination vaccines for bovine respiratory diseases.	16600
VARIANCE ANALYSIS		License requirements for vaccines for bovine respiratory diseases.	16807
Spermatozoan nucleus length in three strains of Drosophila melanogaster.	16490	Preliminary investigation of methods for evaluating inactivated vaccines for infectious bronchitis virus.	16621
VASCULAR SYSTEM (PLANTS)		Comments on complications that arise after vaccination against bovine respiratory diseases.	16835
The first occurrence of disease of the carnation caused by Pseudomonas caryophylli (Burkholder) Starr et Burkholder in Hungary.	16648	Comments on combination vaccines for bovine respiratory diseases.	16837
VEGETABLES		Potency evaluation of vaccines used against bovine respiratory diseases.	16838
Pathogenic variability within Phytophthora parasitica as related to formation of post-infectious antifungal substances in Peperomia.	16678	Complications following vaccination of cattle against infectious bovine rhinotracheitis, bovine viral diarrhea-mucosal disease, and parainfluenza type 3.	16841
Action of aqueous iodine on ova of Ascaris lumbricoides an Ascaris suum.	16716	Laboratory evaluation of bovine respiratory disease vaccines for safety.	16852
VEGETATION		Comments on license requirements for vaccines for bovine respiratory diseases.	16863
Atmospheric pollution and its effects on vegetation.	16516	VIROS DIARRHEA	
Radiation-induced damage in vegetative tissues of Pinus rigida Mill.	16526	Comments on bovine respiratory infections in northeastern dairy cattle.	16796
Isolation of Listeria monocytogenes from vegetation.	16857	Comments on clinical signs of respiratory diseases in feedlot cattle.	16812
VENOMS		Bovine respiratory infections.	16816
The toxicity of Oklahoma spider (Araneae) venoms using a new venom recovery and testing technique.	16910	VIRUS DISEASES (ANIMALS)	
VERTEBRATES		Antigenic variations in isolates of infectious bronchitis virus.	16751
Host-parasite relationships between protozoans and their arthropod and vertebrate hosts.	16808	Excretion of foot-and-mouth disease virus prior to the development of lesions.	16755
VERTICILLIUM ALBO-ATRUM		Precipitating antibodies associated with Marek's disease.	16759
Verticillium wilt reactions in cotton as affected by postinoculation temperatures. (Abstract).	16552		
Photosynthetic activities of cotton plants infected with Verticillium albo-atrum.	16634		
Interactions between Verticillium albo-atrum and Pratylenchus penetrans in the Verticillium wilt of potatoes.			

## SUBJECT INDEX

## VIRUS X (POTATOES)

- Comments on management of respiratory diseases of dairy cattle. 16777
- Comments on complications following vaccination against bovine respiratory diseases. 16779
- Detection of antibodies neutralizing the virus of infectious bovine rhinotracheitis in the serum of French cattle. 16782
- Viral infertility in cattle. 16783
- Infectious bronchitis in laying fowls; its effect upon egg production and subsequent egg quality. 16814
- Bovine respiratory infections. 16816
- Mycoplasma gallisepticum infection and boiler weight. 16820
- Preliminary investigation of methods for evaluating inactivated vaccines for infectious bronchitis virus. 16821
- Role of genetic factors and fowl pox virus in parthenogenesis in turkey eggs. 16831
- Malignant catarrhal fever. 16840
- Studies on the pathogenesis of infectious bovine rhinotracheitis following aerosol exposure. 16845
- Comments on malignant catarrhal fever. 16849
- Antigenic relationship between influenza A viruses of human and animal origin. 16853
- A study of the ultrastructure of the intestinal epithelial cells of piglets infected with a transmissible gastroenteritis virus. 16854
- VIRUS DISEASES (INSECTS)**
- A virus disease of the European red mite Panonychus ulmi (Koch). 16362
- VIRUS DISEASES (PLANTS)**
- Immunodiffusion tests with three isolates of barley yellow dwarf virus. (Abstract). 16533
- Effect of tobacco mosaic virus infection on glucose metabolism in Nicotiana tabacum var. Samsun. i. Investigations with <sup>14</sup>C-labeled sugars. 16543
- Some problems of the studies on narrow leaf virus disease of yellow lupin. 16549
- Electron microscopical proof of the presence of sugar beet yellows virus particles in the roots of sugar beets. 16560
- Mineral oil spray suppressed symptoms of virus yellows on sugar beets. (Abstract). 16563
- Preparation of antiserum against stolbur virus. 16579
- Isolation and characterization of barley stripe mosaic virus protein. 16588
- Transmission by dodder of a yellows-type virus from declining white ash. (Abstract). 16596
- A study of tubes produced in plants infected with a strain of turnip yellow mosaic virus. 16598
- Susceptibility and hypersensitivity to tobacco mosaic virus in wild species of potatoes. 16603
- Factors affecting respiration in barley yellow dwarf virus-infected barley. 16605
- Effect of magnesium trisilicate on the infectivity of tobacco mosaic virus. 16607
- Studies on the interaction of p-Mercuribenzoate with turnip yellow mosaic virus. V. Induced ribonuclease sensitivity and degradation of the virion. 16608
- Cytopathology of mixed infections with potato viruses X and Y in Nicotiana tabacum leaves. 16610
- Natural occurrence of tobacco ringspot virus Pelargonium in Ontario. 16611
- The effect of leaf water balance on the susceptibility of
- French bean to tobacco necrosis virus. 16613
- Electron-microscopic studies on the cytopathology of maize plants infected with the maize rough dwarf virus (MRDV). 16614
- Experiments with a new virus disease of the pea tree (Caragana arborescens Lam.). 16615
- The effects of maize dwarf mosaic virus on macro- and microelement accumulation in corn tissue of resistant and susceptible hybrids. (Abstract). 16631
- Chromatographic purification of a single viral protein in sandal spike. 16636
- Investigation of virus diseases of hops. 16637
- Relationships between Tetranychus urticae Koch and some plant viruses. 16651
- Watermelon mosaic virus: Tubular inclusions in pumpkin leaves and aggregates in leaf extracts. 16658
- Nuclear crystals in zinnia and other nonsolanaceous plants infected with tobacco etch virus. 16659
- Electron microscopy of X-body formation in cells of cabbage infected with Brassica virus 3. 16665
- Possible particles of beet western yellows virus in the intestines of viruliferous aphids. 16666
- A comparison of the electron microscope, microprecipitin tests, and indicator plants for the detection of potato viruses S, X, and Y. 16667
- In vivo and in vitro decline of specific infectivity of tobacco ringspot virus correlated with nucleic acid degradation. 16671
- Serological detection of wheat striate mosaic virus in extracts of wheat plants and vector leafhoppers. 16677
- A virus disease of rhubarb in British Columbia. 16681
- Resistance to spread of virus from cell to cell in T. I. 245 tobacco. 16687
- Chemical composition and biophysical properties of tomato ringspot virus. 16690
- Investigations of cherry rasp leaf disease in California. 16693
- Two genetic systems control disease reaction to strains A and B of maize dwarf mosaic virus. (Abstract). 16695
- Proliferative symptoms in leafhoppers infected with western X-disease virus. 16696
- VIRUS DISEASES PLANTS**
- Effects of ultrasonic treatment on turnip mosaic virus and potato virus X. 16688
- VIRUS S (POTATOES)**
- A comparison of the electron microscope, microprecipitin tests, and indicator plants for the detection of potato viruses S, X, and Y. 16667
- Eradication of potato virus X and S by thermotherapy and axillary bud culture. 16680
- VIRUS X (POTATOES)**
- Relationships between Tetranychus urticae Koch and some plant viruses. 16651
- A comparison of the electron microscope, microprecipitin tests, and indicator plants for the detection of potato viruses S, X, and Y. 16667
- Eradication of potato virus X and S by thermotherapy and axillary bud culture. 16680
- Effects of ultrasonic treatment on turnip mosaic virus and potato virus X. 16688



## SUBJECT INDEX

- VIBUS X (TOBACCO)**
- VIRUS X (TOBACCO)**  
Cytopathology of mixed infections with potato viruses X and Y in *Nicotiana tabacum* leaves. 16610
- VIRUS Y (POTATOES)**  
A comparison of the electron microscope, microprecipitation tests, and indicator plants for the detection of potato viruses S, X, and Y. 16667
- VIRUS Y (TOBACCO)**  
Cytopathology of mixed infections with potato viruses X and Y in *Nicotiana tabacum* leaves. 16610
- VIBUS 3 (CABBAGE)**  
Electron microscopy of X-body formation in cells of cabbage infected with *Brassica virus 3*. 16665
- VIBUSES**  
Biology of the corn earworm and control with insecticides and virus in Washington. 16407  
The serological differentiation of viruses in the tick-borne encephalitis subgroup by the gel-diffusion method. 16502
- VISION**  
Some responses of flying *Aedes aegypti* to visual stimuli. 16481
- VITAMIN A**  
Comments on control and management of respiratory diseases in beef cattle. 16763
- VITAMINS**  
The influence of nutrient chemicals on the feeding behavior of the Colorado potato beetle, *Leptinotarsa decemlineata* (Coleoptera: Chrysomelidae). 16401  
The dissociation of *Bacillus thuringiensis*. 16923
- VOLUMETRIC ANALYSIS**  
Growth of arboviruses in primary tissue culture of *Aedes aegypti* embryos. 16508
- WATEB**  
A water-soluble factor in *Melilotus officinalis* leaves which stimulates feeding by the adult sweetclover weevil. 16355  
Economics of the application of molluscicides to flowing water. 16403  
Effect of irrigation and submersion in water on pupal survival of the hollyhock. 16483  
Treatment of salt poisoning in pigs. 16745  
Drift of water-diluted and undiluted formulations of malathion and azinphosmethyl applied by airplane. 16902  
Method for preparation of wettable sulfur. Patent 3,398,227. 16951  
Freeze-resistant pesticidal composition. Patent 3,399,991. 16961
- WATEB ANALYSIS**  
The increasing Chaoborid midge problem in California. 16284  
Extraction of organochlorine and organophosphate insecticides from lake waters. 16964
- WATEB POLLUTION**  
The adsorption of chlorinated hydrocarbon pesticides on an unconsolidated aquifer substrate. 16901  
Acute toxicity of n-alpha-olefin sulfonates. 16912
- WATEB TREATMENT**  
Sterilization of *Culex pipiens fatigans* Wiedemann by apholate. 16377  
Field study of the safety of Abate for treating potable water and observations on the effectiveness of a control programme involving both Abate and malathion. 16505
- WATEB MELONS**  
Selective fnsaric acid (FA) production on synthetic substrates by forms of *Pusarium oxysporum*. (Abstract). 16564  
Watermelon mosaic virus: Tubular inclusions in pumpkin leaves and aggregates in leaf extracts. 16658
- WEANING**  
Oedema disease in pigs. 16758
- WEATHER**  
Flight activity of honeybees in a flight and rearing room. I. The influence of light intensity. 16436  
Survival of overwintering alfalfa weevil eggs in Pennsylvania. 16466
- WEEDS**  
Economics of biological control. 16263
- WEIGHTS**  
*Mycoplasma gallisepticum* infection and hoiler weight. 16820
- WEST NILE VIRUS**  
Growth of arboviruses in primary tissue culture of *Aedes aegypti* embryos. 16508
- WESTERN YELLOWS (SUGAR BEETS)**  
Possible particles of beet western yellows virus in the intestines of viruliferous aphids. 16666
- WHEAT**  
The biology and ecology of *Anaphes flavipes* (Hymenoptera: Mymaridae), an exotic egg parasite of the cereal leaf beetle. 16357  
Production of the perfect stage of *Botryotinia* (*Botrytis*) *squamosa* under controlled environmental conditions. (Abstract). 16546  
The physiology of host-parasite relations. XIX. Further observations on nucleoprotein changes in wheat leaf nuclei during rust infection. 16547  
Yellow rust of wheat. 16569  
Systemic oxathiin fungicide for control of loose smut (*Ustilago tritici*) of winter wheat. (Abstract). 16589  
Levels of shikimate and folate in primary leaves of wheat and inured spores of leaf rust. 16601  
A genetic study of leaf rust resistance in wheat. 16623  
Interaction of pathogenicity genes in *Puccinia graminis* f. sp. *tritici* and reaction genes in *Triticum aestivum* ssp. *vulgare* "Marquis," "Reliance," and "Kota." 16664  
CO<sub>2</sub> assimilation and yield of Little Club wheat infected by *Septoria nodorum*. 16670  
Multiplication of wheat striate mosaic virus in its leafhopper vector *Endria inimica*. 16676  
Resistance to *Puccinia graminis* derived from *Secale cereale* incorporated into *Triticum aestivum*. 16683  
Stomatal penetration of wheat seedlings by stem and leaf rusts in relation to effects of carbon dioxide, light, and stomatal aperture. 16699  
Leaf pubescence in common wheat, *Triticum aestivum* L., and resistance to the cereal leaf beetle, *Oulema melanopus* (L.). 16713  
The use of organochlorine insecticides and possible alternatives against leatherjackets. 16715  
The relative effect of N,N-dimethyl-2,2-diphenylacetamide on root and shoot growth. 16934
- WHITE MUSCLE DISEASE**  
Selenium-responsive diseases of animals in New Zealand. 16746
- WILDLIFE**  
Nature's paradise. QL336. B3. 16260  
Notes on the Siphonaptera of New Brunswick. 16270  
A survey of wild animals as potential reservoirs of trypanosomiasis in the Ulanga District (Tanzania). 16780  
Malignant catarrhal fever. 16840

## SUBJECT INDEX

## ZOOGEOGRAPHY

- WILDLIFE CONSERVATION**  
Wild animal losses through poisons. 16792
- WILDLIFE DISEASES**  
Wild animal losses through poisons. 16792
- WILT (ACEE)**  
Effects of N, P, K, and inoculum density of *Verticillium dahliae* on populations of *Pratylenchus penetrans* in roots of American elm and sugar maple. (Abstract). 16570
- WILT (ALFALFA)**  
Observations on the nature of inheritance of resistance of lucerne to *Verticillium albo-atrum*. 16652
- WILT (COTTON)**  
*Verticillium* wilt reactions in cotton as affected by postinoculation temperatures. (Abstract). 16552
- WILT (POTATOES)**  
Interactions between *Verticillium albo-atrum* and *Pratylenchus penetrans* in the *Verticillium* wilt of potatoes. (Abstract). 16642
- WILT (QUERCUS)**  
*Ceratocystis fagacearum* distribution within bur and red oak seedlings. (Abstract). 16586
- WILT (ULMUS)**  
Effects of N, P, K, and inoculum density of *Verticillium dahliae* on populations of *Pratylenchus penetrans* in roots of American elm and sugar maple. (Abstract). 16570
- WIND**  
Drift of water-diluted and undiluted formulations of malathion and azinphosmethyl applied by airplane. 16902
- WINGS (INSECTS)**  
Evidence of winged insect sexual dimorphism in *Philophylla heraclei* (Dipt. Trypetidae) through use of a "photoperimeter". 16419  
Two effects of photoperiod on wing development in *Grylodes sigillatus* (Walk). 16429
- WOOD DECAY**  
Inhibition of *Poria carbonica* by *Scytalidium* sp., an imperfect fungus isolated from Douglas-fir poles. 16662
- WOOD DESTROYING FUNGI**  
Movements, host-fungus preferences, and longevity of *Bolitotherus cornutus* (Coleoptera: Tenebrionidae). 16397
- WOOD-DESTROYING INSECTS**  
*Candida shehatae* sp. n., a yeast associated with wood-destroying insects. 16368
- X-RAYS**  
Response and recovery on X-irradiated *Tribolium confusum* larvae. 16482  
Somatic aberrations in *Solanum tuberosum* induced by ethyl methane sulfonate and X-irradiation. 16936
- XANTHOMONAS PHASEOLI**  
Some factors related to the production of a brown diffusible pigment by *Xanthomonas phaseoli* var. *fuscans* (Abstract). 16542
- XENOPSYLLA CHEOPIS**  
The study of fertility of the rat fleas (*Xenopsylla cheopis* Rothsch. and *Ceratophyllus fasciatus* Bosc.) under their feeding on different animals. 16449
- YEASTS**  
*Candida shehatae* sp. n., a yeast associated with wood-destroying insects. 16368  
Competitive inhibition by foreign nucleic acid and induced interference by yeast-RNA with the infection of tobacco mosaic virus. 16581
- YELLOW DWARF (BARLEY)**  
Immunodiffusion tests with three isolates of barley yellow dwarf virus. (Abstract). 16533  
Factors affecting respiration in barley yellow dwarf virus-infected barley. 16605
- YELLOW DWARF (ONIONS)**  
Relationships between *Tetranychus urticae* Koch and some plant viruses. 16651
- YELLOW FAT**  
Selenium-responsive diseases of animals in New Zealand. 16746
- YELLOW MOSAIC (TURNIPS)**  
A study of tubes produced in plants infected with a strain of turnip yellow mosaic virus. 16598  
Studies on the interaction of p-Mercuribenzoate with turnip yellow mosaic virus. V. Induced ribonuclease sensitivity and degradation of the virion. 16608
- YELLOW SWEETCLOVER**  
A water-soluble factor in *Melilotus officinalis* leaves which stimulates feeding by the adult sweetclover weevil. 16355
- YELLOWS (SUGAR BEETS)**  
Electron microscopical proof of the presence of sugar beet yellows virus particles in the roots of sugar beets. 16560  
Mineral oil spray suppressed symptoms of virus yellows on sugar beets. (Abstract). 16563
- ZIGZAG CLOVER**  
Response of zigzag clover genotypes to management practices. 16529
- ZINC**  
Effect of trace-elements bound to superphosphates on the resistance of potato tubers to *Phytophthora infestans* (Mont.) de Bary. 16643
- ZINNIA ELEGANS**  
Nuclear crystals in zinnia and other nonsolanaceous plants infected with tobacco etch virus. 16659
- ZOOGEOGRAPHY**  
Notes on the Siphonaptera of New Brunswick. 16270  
The pine engraver, *Ips pini* (Coleoptera: Scolytidae), in the southern Appalachian Mountains. 16282  
Critical list of Central European tick species. 16290  
Notes on Neotropical Tabanidae (Diptera). VII. The species described by C.R.W. Wiedemann. 16292  
New species and new records of Fulgoroidea (Homoptera) from Samoa and Tonga. 16293  
Notes on the study of Sphingidae of Venezuela. (Lep. Heterocera). 16313  
To the knowledge of the genus *Culicoides* Latr. 1809 (Diptera, Ceratopogonidae) in Czechoslovakia. 16327  
A tropic relict in the desert fauna of braconids (Hymenoptera, Braconidae) of Middle Asia. 16344  
The aquatic Acarina of Sweden. III. 16427  
Felted grass coxoid on Rhodes grass in Queensland. 16703  
Migration of *Toxocara cati* larvae in mice. 16900





## BIOGRAPHICAL INDEX

Ruckingham, G R

Aapola, A I E U. S. Dept. of Agriculture	16533	The Upjohn Company, Kalamazoo, Michigan Agriculture Research and Development Fungicide, Bactericide, Viricide Section	16723
Ahinanti, P R National Institutes of Health, Bethesda, Maryland National Institute of Allergy and Infectious Diseases	16743	Bell, W B Pennsylvania State University, University Park, Dept. of Botany	16512
Adams, J B Canada Dept. of Agriculture, New Brunswick Research Station	16353	Bellin, B H Shell Oil Company, New York, N. Y.	16871
Adiyodi, K G Kerala University, Trivandrum, India Dept. of Zoology.	16354	Renson, W B U. S. Food and Drug Administration, Washington, D. C. Division of Food Chemistry	16943
Ahring, B M U. S. Dept. of Agriculture, Ohio Agricultural Research Service Crops Research Division	16265	Beraha, L U.S. Dept. of Agriculture Agricultural Research Service Market Quality Research Division	16545
Aist, S Arkansas University, Fayetteville	16535	Berczik, A von Ungarische Donauforschungsstation, Budapest, Hungary L. Eotvos-universitat Institut fur Tiersystematik	16268
Akeson, W R Nebraska University	16355	Bergquist, R B Cornell University, Ithaca, New York	16546
Ananthkrishnan, T N Loyola College, Madras, India Dept. of Zoology	16356	Berrie, H M M Glasgow University, Glasgow Dept. of Botany And Chemistry	16513
Anderson, A C Peterhead, Aherdeenshire, England	16745	Berry, D M Glaxo Laboratories Ltd., Greenford, Middlesex	16751
Anderson, C H Canada Dept. of Agriculture, Swift Current, Saskat	16510	Berryman, A A Washington State University, Pullman	16361
Anderson, D C Massey University, New Zealand. Veterinary Faculty.	16907	Revenue, A Hawaii University, Honolulu Dept. of Agricultural Biochemistry	16944
Anderson, R C Purdue University, Lafayette, Indiana Dept. of Entomology	16357	Bhattacharya, P K Western Ontario University, London, Ontario Dept. of Botany	16547
Andreae, W A Canada Dept. of Agriculture, London, Ontario Agricultural Research Institute	16511	Rird, P T Canada Dept. of Forestry and Rural Development Insect Pathology Research Institute	16362
Andrews, E D Dept. of Agriculture, Wellington, New Zealand. Wallaceville Animal Research Center.	16746	Black, L L West Virginia University, Morgantown Dept. of Plant Pathology, Bacteriology, and Entomology	16548
Arnuckle, J R R Royal Veterinary College, Potters Bar Dept. of Animal Husbandry and Veterinary Hygiene	16747	Blake, D H Smithsonian Institution, Washington, D. C. Department of Entomology	16269
Argauer, R J U. S. Dept. of Agriculture, Beltsville, Maryland Agricultural Research Service	16902	Blaydes, D F West Virginia University, Morgantown Dept. of Biology	16917
Arneson, Pa Tela Railroad Company, La Lima, Honduras Division of Tropical Research	16536	Rodnaryk, B P National Institutes of Health, Bethesda, Maryland National Institute of Arthritis and Metabolic Diseases Laboratory of Physical Biology	16364
Asguith, D Pennsylvania State University, Arendtsville Fruit Research Laboratory	16358	Rogel, K Bundesforschungsanstalt fur Viruskrankheiten der Tiere, Wa	16752
Ata, P A Near East Animal Health Institute, Cairo Rinderpest Research Laboratories	16748	Ronga, J M Dept. of Forestry and Rural Development of Canada Forest Research Laboratory, Fredericton, New Brunswick	16918
Avizohar-Hershenzon, Z Volcani Institute of Agricultural Research, Bet Dagan, Israel Division of Plant Pathology	16538	Bonnaesson, D L Etude Biocoenotique Diun Milieu Naturel	16514
Bailey, L Rothamsted Experimental Station, Harpenden, England	16359	Boncher, F R Wisconsin University	16901
Baker, J R Liverpool University Department Of Veterinary Pathology	16749	Bournier, A Ecole Nationale Superieure Agronomique de Montpellier, Fran Laboratoire de Recherches de la Chaire de Zoologie	16365
Baker, R Colorado State University, Fort Collins	16539	Bowling, C C Texas A and M University, Beaumont Rice Pasture Research and Extension Center	16366
Barker, P S Canada Dept. of Agriculture, Winnipeg, Manitoba, Canada Research Station	16897	Braverman, S W U. S. Dept. of Agriculture, Geneva, New York Crops Research Division	16551
Barton, T L Michigan State University	16750	Brinkerhoff, L A Oklahoma State University, Stillwater	16552
Basu-Chandbary, K C Minnesota University, St. Paul Dept. of Plant Pathology	16541	Britt, A L Michigan State University	16753
Basu, P K Canada Dept. of Agriculture, Ottawa Cell Biology Research Institute	16542	Brotzman, H G Maine University, Orono	16554
Baur, J B Texas A and M University, College Station Dept. of Plant Sciences	16543	Brown, G E University of Florida, Lake Alfred Citrus Experiment Station	16555
Baxter, R Illinois University	16916	Brown, J F Clemson University	16865
Bean, G A Maryland University, College Park Botany Dept.	16544	Brown, L N Iowa State University, Ames	16754
Beatty, B A Agricultural Research Council Unit of Animal Genetics	16490	Brown, N R New Brunswick University, Fredericton	16270
Beaudoin, A R Laval Universite, Quebec, Canada Faculte de Medecine Dept. de Biochimie	16360	Bruehl, G W Washington State University, Pullman Dept. of Plant Pathology	16556
Beckman, K M		Ruckingham, G B California University, Berkeley Dept. of Entomology	

## BIOGRAPHICAL INDEX

- Buckley, H R  
Division of Biological Control  
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De Meillon, B  
U. S. National Museum, Washington  
Smithsonian Institution  
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Dima, V F  
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Diniz, M de A  
Bolsairo Do Instituto De Alta Cultura, Portugal  
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Doling, D A  
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Northeastern Experiment Station  
Forest Insect and Disease Laboratory  
Dunnagan, T T  
Southern Illinois University, Carbondale

BIOGRAPHICAL INDEX

Hardy, A H

Dept. of Physiology	16875	Agricultural University College, Lublin, Poland	
Dwinell, L D		Dept. of Parasitology	16876
Cornell University, Ithaca, New York	16570	Gahorjanyi, B	
Dyer, E D A		Plant Protection Laboratory, Kesztaely, Hungary	16579
Dept. of Forestry and Rural Development, Victoria		Gagnon, C	
Forest Research Laboratory	16381	Dept. of Forestry and Rural Development, Quebec, Quebec	
Edgington, L V		Forest Research Laboratory	16580
University of Guelph, Canada	16571	Gerson, U	
Eichler, W		The Hebrew University, Rehovot, Israel	
Parasitology Laboratory and Documentation, Klausenerstr	16290	Faculty of Agriculture	16298
El-Zayat, M M		Gessel, S P	
Connecticut Agricultural Experimental Station, New Haven	16572	University of Washington	
Ellis, C B		College of Forestry and Zoology Dept.	16736
Dept. of Agriculture and Marketing, Nova Scotia	16382	Giannotti, J	
Ener, H S		Institut National de la Recherche Agronomique, Toulouse, F	
Minnesota University	16908	Faculte des Sciences	
Engelbrecht, H		Laboratoire de Recherches de la Chaire de Zoology Appliq	16391
Fort Dodge Laboratories, Iowa	16770	Gihbons, W J	
Eriksen, C H		Auburn University, Auburn, Alabama	
The Claremont Colleges, Claremont, California	16383	School of Veterinary Medicine	16781
Etter, B H		Gicherman, G	
Canada Dept. of Forestry, Calgary	16573	Volcani Institute of Agricultural Research, Bet Dagan, Israel	
Forest Research Laboratory		Virus Laboratory	16581
Every, B L		Gilbert, L I	
Continental Oil Company, Ponca City, Okla.	16951	Northwestern University, Evanston, Illinois	
Eyal, Z		Dept. of Biological Sciences	16392
Purdue University, Lafayette, Indiana	16574	Gilbert, H G	
Dept. of Botany and Plant Pathology		U. S. Dept. of Agriculture, Beltsville	16582
Faine, S		Gill, H S	
Sidney University, Australia	16771	Illinois University, Urbana	16583
Dept. of Bacteriology		Gienez, D P	
Fairbanks, L D		Universidad Nacional de Cuyo, Mendoza, Argentina	
Tulane University School of Medicine, New Orleans, Louisiana	16384	Instituto de Microbiologia	16909
Dept. of Medicine		Giordani, G	
Fairchild, G H		Universita di Hologna, Italy	
Gorgas Memorial Laboratory, Panama	16292	Instituto di Zooculture	16393
Pennah, B G		Gledhill, H L	
British Museum (natural History), London, England	16293	Pennsylvania University, New Bolton Center, Kennett Square	
Commonwealth Institute of Entomology		School of Veterinary Medicine	
Ferris, D B		Dept. of Clinical Studies	
Near East Animal Institute	16772	Section of Reproduction	16783
Field, E J		Goehenanr, S E	
Medical Research Council, Newcastle	16773	Wisconsin University, Madison	
Demyelinating Diseases Research Unit		Dept. of Botany	16584
Fletcher, D J C		Gonzalez, H	
Natal University, Pietermaritzburg, South Africa	16385	Barcelona Universidad, Spain	
Dept. of Entomology		Facultad de Ciencias	
Flint, H M		Laboratorio de Zoologia	16299
U. S. Dept. of Agriculture, Fargo, North Dakota	16386	Gorev, N E	
Agricultural Research Service		USSR Ministry of Health	
Entomology Research Division		State Influenza Research Institute	16502
Fowler, G L		Goulden, H E	
Brown University, Providence, Rhode Island	16387	Massey University, Palmerston North, New Zealand	
Division of Biological and Medical Sciences.		Dept. of Veterinary Clinical Sciences.	16739
Fowler, H E		Gozmany, L A	
California University, Davis	16776	Hungarian Natural History Museum, Budapest	
Dept. of Clinical Sciences		Zoological Dept.	16301
Fox, F H		Gregory, G P	
Cornell University, Ithaca, New York	16777	NE Forest Exp. Station, Delaware, Ohio	16586
New York State Veterinary College		Griffiths, D A	
Francia, F C		La Trobe University, Bundoora, Australia	
University of British Columbia	16294	School Biological Sciences	16587
Faculty of Forestry		Grothans, H H	
Dept. of Zoology		Oklahoma State University	16910
Frank, G H		Gumpf, D J	
U. S. Dept. of Agriculture, Ames, Iowa	16778	Nebraska University, Lincoln	
Agricultural Research Service		Dept. of Plant Pathology	16588
National Animal Disease Laboratory		Gustafsson, P O	
Frank, Z R		Hospital for Special Surgery, New York	
Volcani Institute of Agricultural Research, Rehovot, Israel	16575	Laboratory for Comparative Orthopaedics	16784
Freeman, T E		Gustin, H D	
Florida University, Gainesville	16576	U. S. Dept. of Agriculture, Brookings, South Dakota	
Freyman, S		Agricultural Research Service	
Canada Dept. of Agriculture, Kamloops, British Columbia	16518	Entomology Research Division	16394
Pristrom, J W		Gntekunst, D E	
California University, Berkeley	16388	Jensen-Salshery Laboratories, Kansas City, Kansas	16785
Dept. of Genetics		Hackman, H H	
Froelich, B C		CSIRO, Canberra, Australia	
U. S. Dept. of Agriculture, New Orleans, Louisiana	16577	Division of Entomology	16395
Forest Service		Hackaylo, J	
Southern Forest Experiment Station		U. S. Dept. of Agriculture, Texas A and M University,	
Frontali, N		Agriculture Research Station	
Istituto Superiore di Sanita, Rome, Italy	16389	Crop Research Division	16922
Fuller, D A		Bajela, K P	
Diamond Laboratories, Des Moines, Iowa	16779	University of Lucknow, India	
Phranga, S		Dept. of Zoology	16302
		Hardy, A H	
		Upjohn Company, Kalamazoo, Michigan	16786



BIOGRAPHICAL INDEX

Handy, A H			
Handy, A H			
Upjohn Company, Kalamazoo, Michigan	16787	Rural Sociological Society, Armenia	
Hamlen, R A		Academie des Sciences	
Pennsylvania State University, University Park		Institut zoologique	16304
Dept. of Plant Pathology	16718	Imaseki, H	
Hannay, C L		Nasu High School of Agriculture, Nishi-nasuno, Tochigi	16519
University Sub Post Office, London, Ontario		Ingram, J M	
Agricultural Research Institute	16923	Canada Dept. of Agriculture, Ottawa	
Hansing, E D		Research Branch	
Kansas State University, Manhattan	16589	Cell Biology Research Institute	16924
Hague, M M		Inwang, E E	
USSR Academy of Sciences, Moscow		University of Notre Dame, Notre Dame, Indiana	
Helminthological Laboratory	16719	Dept. of Biology	16402
Harley, K L S		Jacobs, D E	
C. S. I. B. D. Division of Entomology, Brisbane, Australia	16396	Glasgow University	
Hartnett, J P		Dept. of Veterinary Pathology	16740
Cornell University, Ithaca, New York	1659D	James, H G	
Harvey, T L		Canada Dept. of Agriculture, Belleville, Ontario	16741
Kansas State University Agriculture Station, Hays		Jatala, P	
Port Hays Branch	16868	Dklahoma State University, Stillwater	16604
Hassan, A A		Jaweed, M M	
Cornell University, Ithaca, New York		West Virginia University, Morgantown	
Vegetable Crops Department	16592	Dept. of Horticulture	16520
Healy, M J		Jensen, S G	
Illinois University	16593	U. S. Dept. of Agriculture, Brookings, South Dakota	
Heatwole, H		Agricultural Research Service	
University of New England, Armidale, Australia		Crops Research Division	16605
Dept. of Zoology	16397	Jewell, T B	
Helton, A W		Maine University, Drono	16606
Idaho University, Moscow, Idaho		Jobin, W H	
Dept. of Plant Sciences	16594	U. S. Dept. of Health, Education, and Welfare, San Juan,	
Hendricks, D G		Public Health Service	
Michigan State University	16788	Bureau of Disease Prevention and Environmental Control	16403
Hendrix, J W		Jonkers, A H	
U. S. Dept. of Agriculture, Lexington, Kentucky	16595	University of the West Indies, Port-of-Spain	
Heron, H J		Trinidad Regional Virus Laboratory	16503
Canada Dept. of Forestry and Rural Development, Winnipeg		Joshi, L	
Forest Research Laboratory	16398	Illinois University, Urbana	
Hibben, C R		Dept. of Plant Pathology	166D7
Brooklyn Bot. Garden, Ossining, New York	16596	Judenko, E	
Hilborn, M T		Rothamsted Experimental Station, Harpenden, Hertfordshire,	16737
Maine University, Orono	16597	Kabarity, A	
Hill, L		Ain Shams University, Cairo, United Arab Republic	
Sheffield University, England		Botany Dept.	164D4
Dept. of Zoology	16399	Kafatos, P C	
Hirumi, H		Harvard University, Cambridge, Massachusetts	
Boyce Thompson Institute, Yonkers, New York	16720	Biological Laboratories	16405
Hitchborn, J H		Kahrs, R P	
Agricultural Research Council, Cambridge, England		Cornell University, Ithaca, New York	
Virus Research Unit	16598	New York State Veterinary College	16796
Ho, B H		Kaper, J M	
Western Ontario University, London, Canada		George Washington University, Washington, D. C.	166D8
Dept. of Botany	16599	Karpas, A	
Hobbs, G A		Harvard Medical School, Boston	
Canada Dept. of Agriculture, Lethbridge, Alberta	16400	Animal Research Center	16797
Hodges, C F		Karsten, K S	
Illinois University	16600	Vanderbilt R T Co, New York, N. Y.	16957
Hodgson, J W		Katsuya, K	
May and Baker Limited, Ongar, Essex		National Institute of Genetics, Japan	16609
Veterinary Research Laboratories	16789	Kauffman, H E	
Hollister, C J		Michigan State University	16610
Pennsylvania University, Philadelphia		Kellogg, P E	
School of Veterinary Medicine	1679D	British Columbia Research Council, Vancouver	16504
Holloway, D W		Kemp, W G	
Csiro		Canada Dept. of Agriculture, Vineland Station	
Division of Plant Industry, Canberra, Australia	166D1	Research Station	16611
Holper, J C		Kenny, K	
Abbott Laboratories, North Chicago, Illinois	16791	Max-planck-institut fur Immunobiologie, Stubeweg, Germany	16798
Horchong, T		Khan, M A	
Dklahoma State University	16707	Canada Dept. of Agriculture, Lethbridge, Alberta	
Horn, A Von		Research Station	16799
Pflanzenschutzamt Hannover, Bezirksstelle Braunschweig,	16792	Khare, H N	
Germany		Illinois University	16612
Horn, N L		Kimmins, W C	
Louisiana State University, Baton Rouge		Dalhousie University, Halifax, Nova Scotia	
Dept. of Plant Pathology	166D2	Hiology Dept.	16613
Horvath, J		Kingan, S L	
Research Institute for Plant Protection, Budapest, Hungary	16603	Wisconsin University, Madison	
Boyer, H H		College of Agriculture	
National Institute of Allergy and Infectious Diseases, Bet		Dept. of Bacteriology	16406
Laboratory of Biology of Viruses	16794	Kirkpatrick, H J	
Hsiao, T H		Diamond Laboratories, Des Moines, Iowa	16800
Illinois University, Urbana		Kishimoto, T	
Dept. of Entomology	16401	Pennsylvania University, Philadelphia	
Hnygelen, C		School of Medicine	
B. I. T. Laboratories, Genval, Belgium		Dept. of Pharmacology	16801
Vaccine Dept.	16795	Kislev, N	
Iablokoff-Khazorian, S M		Hebrew University, Behevot, Israel	
		Faculty of Agriculture	16614

## BIOGRAPHICAL INDEX

McKercher, O G

- Klostermeyer, E C  
Washington State University, Prosser  
Irrigated Agriculture Research and Extension Center 16407
- Knee, W J  
Wisconsin University  
Dept. of Entomology 16408
- Kozasa, M  
Tokyo University, Japan  
Faculty of Agriculture  
Dept. of Veterinary Pathology 16803
- Krebill, R G  
U. S. Dept. of Agriculture  
Forest Service  
Intermountain Forest and Range Experiment Station 16618
- Kucera, C J  
Fort Dodge Laboratories, Iowa 16804
- Kunz, S E  
Oklahoma State University 16410
- Lacey, J  
Rothamsted Experimental Station, Harpenden, England 16805
- Ladd, T L  
U. S. Dept. of Agriculture, Moorestown, New Jersey  
Agricultural Research Service  
Entomology Research Division 16411
- Ladd, T L  
U. S. Dept. of Agriculture, Moorestown, New Jersey  
Agricultural Research Station  
Entomology Research Division 16412
- Lai, M T  
California University, Berkeley  
Dept. of Plant Pathology 16620
- Lall, S B  
University of Udaipur, India  
Dept. of Zoology 16413
- Lamont, P H  
Ohio State University, Columbus  
Dept. of Veterinary Pathology 16806
- Langley, P A  
International Atomic Energy Agency, Karntnerring, Austria 16414
- LaSalle, B  
U. S. Dept. of Agriculture, Hyattsville, Maryland 16807
- Last, H B  
Banstead, England 16311
- Latham, A J  
Auburn University, Auburn, Alabama  
Dept. of Botany and Plant Pathology 16622
- Lauge, G  
Faculte des Sciences, Orsay, France  
Laboratoires de Zoologie et d'Entomologie 16415
- Law, C W  
Plant Breeding Institute, Cambridge, England 16623
- Laws, E R  
Pesticides Program, Atlanta, Georgia  
Toxicology Laboratory 16505
- Layne, R E C  
Canada Dept. of Agriculture, Ontario  
Research Station 16624
- Leal, J A  
West Virginia University, Morgantown  
Dept. of Plant Pathology and Bacteriology 16521
- Leben, C  
Ohio Agricultural Research and Development Center, Wooster 16625
- Leclant, P  
Ecole Nationale Supérieure Agronomique, Montpellier, France  
Centre de Recherches Agronomiques du Midi  
Laboratoire de Zoologie 16312
- Lee, G L  
California University, Davis 16416
- Lehnert, J P  
Illinois University 16877
- Leong, J K L  
California University, Riverside  
Citrus Research Center and Agricultural Experiment Station  
Dept. of Biological Control 16418
- Lewis, V J  
U.S. Dept. of Health, Education, and Welfare, Atlanta, Ga.  
Public Health Service  
Communicable Disease Center 16626
- Lewis, W J  
U. S. Dept. of Agricultural  
Agricultural Research Service.  
Southern Grain Insects Research Laboratory. 16420
- Lichy, R  
Universidad Central, Venezuela  
Facultad de Agronomia  
Laboratorio de Entomologia 16313
- Lincoln, A C  
New York State University, Syracuse  
College of Forestry at Syracuse University 16709
- Linzon, S N  
Forest Research Laboratory, Maple, Ontario, Canada 16925
- Lipa, J J  
Instytut Ochrony Roslin, Poznan, Poland 16421
- Lipa, J J  
Instytut Ochrony Roslin, Poznan, Poland 16523
- Lippold, P C  
New York State Agricultural Experiment Station, Geneva 16422
- Litvak, S  
Chile University School of Medicine, Santiago  
Chair of Chemistry 16423
- Lockard, R G  
Cocoa Research Institute, Tafo, Ghana 16524
- Loew, P M  
University of Saskatchewan, Saskatoon, Canada  
Western College of Veterinary Medicine 16878
- Lowe, C H  
Arizona University  
Dept. of Biological Sciences 16425
- Lucas, J M S  
May and Baker Limited, Ongar, Essex  
Veterinary Research Laboratories 16805
- Ludvig, H W  
Heidelberg Universität, Germany  
Zoologisches Institut 16426
- Luke, H H  
U. S. Dept. of Agriculture  
Agricultural Research Service  
Crops Research Division 16627
- Lukezic, P L  
Pennsylvania State University, State College 16628
- Macadam, I  
Ministry of Agriculture, Forestry and Wildlife, Tanganyika 16610
- Mace, P E  
West Virginia University, Morgantown  
Dept. of Plant Pathology and Bacteriology 16894
- Mace, M E  
United Fruit Company, Norwood, Massachusetts  
Central Research Laboratories 16629
- Macion, E A  
Philippine Packing Corporation, Box 1B33, Manila  
Research Dept. 16710
- MacKenzie, D R  
Pennsylvania State University, University Park 16631
- MacLennan, K J R  
Ministry of Animal and Forest Resources, Northern Nigeria  
Tsetse and Trypanosomiasis Division 16506
- Madhavan, K  
Case Western Reserve University, Cleveland  
Dept. of Biology and Developmental Biology Center 16428
- Manion, P D  
Minnesota University 16632
- Mann, D K  
Illinois University 16813
- Manocha, M S  
Brock University, St. Catharines, Ontario  
Dept. of Biological Sciences 16633
- Martin, J C  
West Virginia University, Morgantown  
Dept. of Biology 16261
- Mason, W R M  
Canada Dept. of Agriculture, Ottawa  
Entomology Research Institute 16314
- Mathad, S B  
Karnatak University, Dharwar, Mysore State, India  
Dept. of Zoology 16429
- Mathieu, J M  
Illinois University 16430
- Mathre, D E  
Montana State University, Bozeman  
Dept. of Botany and Microbiology 16634
- Matoff, K  
De l'Académie des Sciences de Bulgarie, Sofia  
Laboratoire central d'helminthologie 16879
- McAlpine, J P  
Canada Dept. of Agriculture, Ottawa  
Entomology Research Institute 16316
- McCoy, R E  
Cornell University, Ithaca, New York 16635
- McOougall, J S  
Houghton Poultry Research Station, Huntingdon 16814
- McOowell, T C  
Ohio State University 16926
- McGillivray, J J  
Illinois University 16815
- McKercher, D G  
California University, Davis  
School of Veterinary Medicine

## BIOGRAPHICAL INDEX

McKercher, D G			
Dept. of Veterinary Microbiology	16816	Nemeth, J	
McKercher, D G		Research Institute for Plant Protection, Budapest, Hungary	1664B
California University, Davis		Nesheim, O W	
School of Veterinary Medicine		Illinois University	1664A
Dept. of Veterinary Microbiology	16B17	Neufeld, G J	
McKercher, P D		Kansas State Teachers College, Emporia	
U. S. Dept. of Agriculture, Greenport, Long Island, New York		Dept. of Biology	16437
Agricultural Research Service		Nicoletti, P	
Animal Disease and Parasite Research Division	16819	U. S. Dept. of Agriculture, Albany, New York	
Plus Island Animal Disease Laboratory		Dept. of Agriculture and Markets	1683D
McLeod, L		North, D T	
Chesterford Park Research Station, Saffron Walden, Essex	1631B	U. S. Dept. of Agriculture, Fargo, North Dakota	
McMartin, D A		Agricultural Research Service	
Ministry of Agriculture, Fisheries and Food		Metabolism and Radiation Research Laboratory	16496
Veterinary Laboratory, Eskgrove, Lasswade, Midlothian, Engla	16820	Oba, K	
McMartin, D A		Lion Fat and Oil Co. Ltd., Tokyo	
Ministry of Agriculture, Fisheries and Food, Lasswade		Research Laboratory	16912
Veterinary Laboratory	16B21	Ogunbi, O	
McWilliam, D C		Lagos University, Lagos, Nigeria	
Government Chemical Laboratory, Brisbane, Australia	16911	Medical College	
Hendez, J		Dept. of Microbiology	165D7
C. S. I. C., Apartado		Oldroyd, B	
Plant Physiology Dept.	16525	British Museum (natural History), London	16325
Mergen, P		Olsen, M W	
Yale University, New Haven		U. S. Dept. of Agriculture, Beltsville, Maryland	16831
School of Forestry	16526	Orloh, G B	
Merzheevskaya, O I		Toronto University, Canada	
Byelorussian SSR Academy of Sciences, Minsk		Dept. of Botany	16651
Division of Zoology	16431	Orszagh, I	
Messenger, P S		Cosenus University, Bratislava, Czechoslovakia	
California University, Berkeley		Dept. of Systematical and Ecological Zoology	16327
Division of Biological Control	16432	Pampiglione, S	
Miles, P W		Roma University, Italy	
Adelaide University, South Australia		Istituto di Parassitologia	16328
Waite Agricultural Research Institute	16433	Panton, C A	
Milton, J M		Swedish Seed Association, Svalof, Sweden	16652
Swansea University College	16639	Papavizas, G C	
Mirchamsy, B		U. S. Dept. of Agriculture, Beltsville, Maryland	
State Nazi Institute, Teheran, Iran	16822	Agricultural Research Service	
Mohan, K		Crops Research Division	16653
National Institute of Communicable	16823	Patterson, D S P	
Diseases, Calcutta, India		Central Veterinary Laboratory, Weybridge, Surrey	16833
Mohanty, S B		Pawuk, W B	
Maryland University, College Park		Pennsylvania State University, State College	16655
Dept. of Veterinary Science	16824	Peacock, G V	
Mohanty, S B		U. S. Dept. of Agriculture, Hyattsville, Maryland	
Maryland University, College Park		Agricultural Research Service	
Dept. of Veterinary Science	16825	Veterinary Biologics Division	16834
Monaco, T J		Peacock, G V	
North Carolina State University, Raleigh	16927	U. S. Dept. of Agriculture, Hyattsville, Maryland	
Moore, K E		Agricultural Research Service	
University of New South Wales, Kensington, Australia	16321	Veterinary Biologics Division	16835
Dept. of Biochemistry		Peleg, J	
Morrow, D A		Israel Institute for Biological Research, Ness-Ziona	165DB
New York State College of Agriculture, Ithaca	168B0	Phillips, C E	
Dept. of Animal Science		U. S. Dept. of Agriculture, Ames, Iowa	
Morsink, P	16642	Agricultural Research Service	16B36
New Hampshire University, Durham		Phillips, C E	
Mount, G A		U. S. Dept. of Agriculture, Ames, Iowa	
U. S. Dept. of Agriculture, Gainesville, Florida		Agricultural Research Service	16837
Agricultural Research Station	16434	Phillips, C E	
Entomology Research Division		U. S. Dept. of Agriculture, Ames, Iowa	
Mourao, C A		Agricultural Research Service	1683B
Ciencias e Letras, Sao Jose do Rio Preto, Sao Paulo		Philpott, M	
Faculdade de Filosofia	16323	Bristol University, England	
Dept. de Biologia Geral		Dept. of Veterinary Medicine	16839
Mudich, A		Pierson, C P	
College of Agriculture, Keozthely	16643	Agricultural Research Service, Wenatchee, Washington	
Dept. of Plant Protection		Market Quality Research Division	16656
Murphy, P A		Pillai, S K	
U. S. Dept. of Health, Education, and Welfare	16827	Wisconsin University, Madison	
Public Health Service		Dept. of Plant Pathology	16929
Muth, O B		Pinet, J M	
Oregon State University, Corvallis	1682B	Institut National Agronomique, Paris, France	
Dept. of Veterinary Medicine		Laboratoire de Zoologie	16439
Matti, J J		Pionke, B B	
New York Agricultural Experiment Station, Geneva	16644	Wisconsin University, Madison	
Mawa, S	16742	Dept. of Soils	16964
National Institute of Genetics, Misima, Japan		Plowright, W	
Melson, E V	16436	East African Veterinary Research Organization, Muguga, Kenya	16840
Ohio Northern University, Ada, Ohio		Pont, A C	
Dept. of Biology		British Museum (natural History) London, England	16332
Melson, P E	16645	Price, G M	
Pennsylvania State University, University Park		Agricultural Research Council Pest Infestation Laboratory,	
Dept. of Plant Pathology		Biochemistry Dept.	16440
Melson, B B	16646	Price, G M	
Pennsylvania State University, University Park		Agricultural Research Council Pest Infestation Laboratory	
Neumeth, J	16647	Biochemistry Dept.	16441
Research Institute for Plant Protection, Budapest			



## BIOGRAPHICAL INDEX

Sinha, R C

Prokopyeva, M G V. I. Lenin Pedagogical Institute of Moscow, Russia Dept. of Zoology and Darwinism	16442	Tasmanian Dept. of Agriculture, Hobart, Australia	16667
Purcifull, U E Florida University, Gainesville	16658	Sang, J R University of Sussex, Brighton, England School of Biology	16498
Purcifull, U E Florida University, Gainesville Plant Pathology Department	16659	Sasaki, S University of Wisconsin Dept. of Forestry	1666B
Rao, P N Osmania University, Hyderabad Dept. of Botany	16660	Satour, M M California University, Uavis Dept. of Plant Pathology	16669
Rao, R Marathwada University, Aurangahad-Dn, India Botany Dept.	16661	Sauer, D B Minnesota University	16895
Rayle, R E Illinois University	16497	Schaefer, C W Connecticut University, Storrs Biological Sciences Group Systematic and Environmental Biology Section	16450
Reid, J F S Glasgow University, Glasgow, England Dept. of Veterinary Medicine	168B2	Schanzel, H College of Agriculture, Brno, Czechoslovakia Veterinary Faculty	16B42
Retnakaran, A Wisconsin University, Madison Dept. of Entomology	16334	Scharen, A L U.S. Dept. of Agriculture, Beltsville, Maryland Agricultural Research Service Crops Research Division	16670
Ricard, J L Oregon State University, Corvallis, Oregon School of Forestry	16662	Scharer, J M Waterloo University, Waterloo, Ontario, Canada Dept. of Chemical Engineering	16966
Rich, S Connecticut Agricultural Experiment Station, New Haven Dept. of Plant Pathology and Botany	16663	Schmidle, A Institute fur Ostkrankheiten, Heidelberg, Germany Biologische Bundesanstalt	16528
Richardson, P C California University, Santa Barbara	16931	Schneider, I R U. S. Dept. of Agriculture, Beltsville, Maryland Plant Industry Station Plant Virology Laboratory	16671
Richter, S B Velsicol Chemical Corp., Chicago, Ill.	16732	Schroeder, H W Agricultural Research Service, College Station, Texas Market Quality Research Division	16672
Ridgway, R L U. S. Dept. of Agriculture, College Station, Texas Agricultural Research Service Entomology Research Division	16712	Scott, E G West Virginia University, Morgantown Dept. of Horticulture	16934
Ringlund, K Michigan State University	16713	Scott, K R Canada Dept. of Agriculture, Ottawa Engineering Research Service	1633B
Rock, G C North Carolina State University, Raleigh Dept. Of Entomology	16335	Seahrook, W U New Brunswick Uonversity, Frederiction Dpet. of Biology	16451
Romankowowa, A Instytut Ochrony Roslin, Poznan, Poland	1673B	Seaton, A P C University College of North Wales, Rangor Dept. of Agricultural Botany	16452
Rondon, M R North Dakota State University	16664	Segre, U Illinois University, Urhana College of Veterinary Medicine	16843
Rosner, S P Dow Chemical Company, Midland, Michigan Bioproducts Center	16841	Sekeri, K E Physiologisch-chemisches Institut	16453
Ross, D R Animal Health Trust, Stock, Essex, England Farm Livestock Research Centre	16883	Selim, M K Faculty of Veterinary Medicine, Giza, UAB	16869
Ross, J C Veterinary Research Laboratories, Stormont, Belfast, England	16884	Sevastopulo, D G K. C. R., Oxleas, Burghclere, Berkshire	16454
Roth, R U. S. Dept. of Agriculture, Hohoken, New Jersey Agricultural Research Service Entomology Research Division	16932	Sevell, M M H East African Veterinary Research Organization, Muguga, Kenya	16844
Roth, L M U. S. Army, Natick, Massachusetts Natick Laboratories Pioneering Research Division	16444	Shanta, C S McGill University, Macdonald College P. O., Quebec Institute of Parasitology	16509
Roth, L M U. S. Army Natick, Massachusetts Natick Laboratories Pioneering Research Division	16445	Sherman, K U Razi Institute, Hessarak, Iran Near East Animal Health Institute	16886
Rowley, W A Port Uetrick, Frederick, Maryland U. S. Army Biological Laboratories.	16446	Shoemaker, J P Marshall University, Runtington, West Virginia Dept. of Biological Sciences	16339
Royal, W A Ruakura Agricultural Research Center, Hamilton, New Zealand	16965	Shroyer, E L U. S. Army Medical Unit, Fort Detrick, Frederick, Maryland	16845
Rubio-Buertos, M Instituto "jaime Ferran" de Microbiologia, Madrid, Spain	16665	Siddiqni, W M Rutgers- The State University, New Brunswick, New Jersey Dept. of Plant Biology	16673
Ruffington, J D Illinois University	16447	Simmonds, P J Commonwealth Institute of Biological Control, London	16263
Ruppel, E G U. S. Dept. of Agriculture, Mesa, Arizona Agricultural Research Service Crops Research Division	16666	Sinclair, W A Cornell University, Ithaca, New York	16674
Russell, W J Ohio State University	16933	Singh, B M Punjab Agricultural University, Kulu, India Plant Pathology Laboratory	16935
Rycke, P R de Ghent University, Belgina Laboratory of Zoophysiology	16885	Singh, G R Sugarcane Breeding Institute, Coimbatore	16675
Salkeld, E H Canada Dept. of Agriculnture, Ottawa Entomology Research Institute	16448	Sinha, R C Canada Dept. of Agriculture, Ottawa Plant Research Institute	16676
Sampson, P J		Sinha, R C Canada Dept. of Agriculture, Ottawa Cell Biology Research Institute	16677

BIOGRAPHICAL INDEX

Siradhana, B S			
Siradhana, B S		California University, Berkeley	
Ohio State University	16678	Dept. of Plant Pathology	16689
Skoog, F E		Townsend, C E	
U. S. Dept. of Agriculture, Bozeman, Montana		Agricultural Research Service, Fort Collins, Colorado	
Agricultural Research Service		Crops Research Division	16529
Entomology Research Division	16455	Townsend, H G	
Slais, J		Pennsylvania State University, University Park	
Czechoslovak Academy of Sciences, Prague		Pesticide Research Laboratory and Graduate Study Center	
Institute of Parasitology	16887	Dept. of Entomology	16466
Smiley, J H		Traynier, B M M	
Kentucky University, Lexington	16679	British Columbia Research Council, Vancouver	16467
Smith, H W		Tremaine, J H	
Animal Health Trust, Stock, Essex	16847	Canada Agriculture Research Station, Vancouver	16690
Smith, R E		Trpis, M	
Massachusetts University, Amherst		Slovak Academy Of Science, Bratislava, Czechoslovakia	16345
Massachusetts Agricultural Experiment Station		Trump, B P	
Dept. of Veterinary and Animal Sciences	16848	Ames High School, Ames, Iowa	16468
Soderstrom, E L		Tumova, B	
U. S. Dept. of Agriculture, Savannah, Georgia		Institute of Microbiology and Epidemiology, Prague, Czecho	
Agricultural Research Service		Czechoslovak Influenza Centre	16853
Market Quality Research Division	16456	Ueno, H	
Sohi, S S		National Institute of Animal Health, Tokyo, Japan	
Dept. of Forestry and Rural Development, Ontario		First Research Division	16890
Insect Pathology Research Institute	16457	Ulrich, V	
Stace-Smith, B		West Virginia University, Morgantown	
Canada Agriculture Research Station, Vancouver	16680	Dept. of Agronomy and Genetics	16691
Staples, R C		Usherwood, P M R	
Boyce Thompson Institute, Yonkers, New York	16682	Glasgow University	
Stern, V M		Dept. of Zoology	16469
California University, Riverside		Van Arsdel, E P	
Dept. of Entomology	16458	Texas A and M University, College Station	
Stewart, D M		Dept. of Plant Sciences	16692
Minnesota University, St. Paul	16683	Vanderzant, E S	
Stone, B F		U. S. Dept. of Agriculture, College Station, Texas	
Commonwealth Scientific and Industrial Research Organizatio		Agricultural Research Service	
Division of Entomology	16499	Entomology Research Division	16470
Storz, J		Vilagiova, I	
Colorado State University, Fort Collins		Slovak Academy of Sciences, Kosice, Czechoslovakia	
College of Veterinary Medicine	16849	Helminthological Institute	16346
Streams, P A		Villiers, A	
Connecticut University, Storrs		Museum National d'Histoire Naturelle, Paris, France	
Dept. of Zoology and Entomology	16459	Laboratoire d'Entomologie	16347
Suerth, C J		Vinson, S B	
Rutgers-the State University, New Brunswick, New Jersey	16684	Mississippi State University, State College	
Sutherland, J B		Dept. of Entomology	16471
Forest Research Laboratory, Victoria, B. C., Canada	16721	Vogel, W	
Sutton, M L		Chemische Fabrik, Dielsdorf bei Zurich	16905
Philips Roxane, Saint Joseph, Missouri	16850	Wagner, J E	
Sweat, R L		Illinois University	16854
Idaho Agricultural Experiment Station, Caldwell	16851	Wagnon, H K	
Swietlikowski, M		California Dept. of Agriculture, Sacramento	
Polish Academy of Sciences, Warsaw, Poland		Bureau of Plant Pathology	16693
Dept. of Parasitology	16888	Wailes, R E	
Swietlikowski, M		Florida University, Gainesville	
Polish Academy of Sciences, Warsaw, Poland		Dept. of Entomology	16472
Dept. of Parasitology	16889	Walkinshaw, C B	
Szelenyi, G		Mississippi University, Jackson	
Hungarian Research Institute for Plant Protection, Budapest	16342	School of Medicine	
Szocs, J		Dept. of Microbiology	16694
Hungarian Natural History Museum, Budapest		Wallis, R C	
Zoological Dept.	16343	Yale University School of Medicine, New Haven, Connecticut	
Taher, M		Dept. of Epidemiology and Public Health	
Minnesota University	16462	Yale Arbovirus Research Unit	16348
Tamaglia, T W		Wang, C M	
U. S. Dept. of Agriculture, Ames, Iowa		Wisconsin University, Madison	
Agricultural Research Service		Dept. of Entomology	16473
National Animal Disease Laboratory	16852	Ward, C W	
Tarte, R		University of New South Wales, Kensington, Australia	16349
Panama Universidad		Webb, P M	
Facultad de Agronomia	16722	Minnesota University Medical School, Minneapolis	
Tesarova, M		Dept. of Microbiology	16856
Czechoslovak Academy of Sciences, Brno		Webster, R E	
Institute of Botany	16685	California University, Davis	
Thomas, K K		Dept. of Plant Pathology	16530
Northwestern University, Evanston, Illinois		Wegorek, W	
Dept. of Biological Sciences	16464	Instytut Ochrony Roslin, Poznan, Poland	16474
Thomas, P E		Wegorek, W	
Irrigated Agriculture Research and Extension Center		Instytut Ochrony Roslin, Poznan, Poland	16531
Prosser, Washington	16687	Weiser, J	
Tobias, V I		Czechoslovak Academy of Sciences, Prague	
USSR Academy of Sciences, Leningrad		Institute of Entomology	16476
Zoological Institute	16344	Welshimer, H J	
Toczek, D R		Virginia Medical College, Richmond	
North Dakota State University	16465	Dept. of Microbiology	16857
Tomlinson, J A		Wernham, C C	
National Vegetable Research Station, Wellesbourne, England	16688	Pennsylvania State University, University Park	16695
Toussoun, T A		West, J A	
		U. S. Dept. of Agriculture, Beltsville, Maryland	
		Agricultural Research Service	
		Entomology research Division	16477

## BIOGRAPHICAL INDEX

Zwick, R W

Wheeler, G C		Zwick, R W	
Canada		Oregon State University, Hood River	
Nevada University, Reno		Mid-columbia Branch Experiment Station	16488
Desert Research Institute	16478		
Whitcomb, B F			
Institut für Genetik der Universität zu Köln, Germany	16696		
White, J H			
National Agricultural Advisory Service, Newcastle-upon Tyne	16715		
Whitney, H S			
Canada Dept. of Forestry and Rural Development, Calgary			
Alberta			
Forest Research Laboratory	16697		
Wilcoxson, B D			
Minnesota University, St. Paul			
Dept. of Plant Pathology	16938		
Wilkinson, P R			
Canada Dept. of Agriculture, British Columbia			
Research Station	16350		
Williams, P G			
Saskatchewan University, Saskatoon			
Dept. of Biology	16939		
Wills, G D			
Oklahoma State University	16940		
Wilson, B J			
Vanderbilt University School of Medicine, Nashville, Tennes			
Division of Toxicology	16914		
Wilson, R A			
York University, Heslington, York, England			
Dept. of Biology	16891		
Wilson, W T			
Ohio State University	16479		
Winter, A J			
Cornell University, Ithaca, New York			
New York State Veterinary College	16858		
Winter, A J			
Cornell University, Ithaca, New York			
New York State Veterinary College,			
Dept. of Large Animal Medicine, Obstetrics, and Surgery	16859		
Wood, F A			
Pennsylvania State University, University Park	16532		
Wood, P W			
British Columbia Research Council, Vancouver	16481		
Wood, S L			
Brigham Young University, Provo, Utah			
Dept. of Zoology and Entomology	16352		
Woods, G T			
Illinois University, Urbana			
College of Veterinary Medicine	16860		
Yamamoto, B			
Isahaya Livestock Hygiene Service Center, Nagasaki, Japan	16892		
Yang, C			
Illinois University	16482		
Yeh, R H			
Michigan State University	16941		
Yirgou, D			
Haile Sellassie I University, Debre Zeit, Ethiopia			
College of Agriculture	16699		
York, C J			
Institute for Comparative Biology, San Diego, California	16862		
York, C J			
Institute for Comparative Biology, San Diego, California	16863		
York, C J			
Institute for Comparative Biology, San Diego, California	16864		
Yonng, J H			
Oklahoma State University, Stillwater			
Dept. of Entomology	16483		
Yuen, P			
University of Manitoba, Winnipeg			
Dept. of Zoology	16484		
Yun, Y M			
Michigan State University	16485		
Zajicek, D			
Czechoslovak Academy of Sciences, Prague			
Institute of Parasitology	16893		
Zalokar, M			
California Institute of Technology, Pasadena			
Division of Biology	16486		
Zaman, V			
Singapore University, Sepoy Lines			
Dept. of Parasitology	16716		
Zimmerman, W P			
Amherst College, Amherst Massachusetts			
Dept. of Biology	16487		
Zook, B C			
Angell Memorial Animal Hospital, Boston, Massachusetts	16915		





AUTHOB INDEX

Gicherwan, G

Aapola, A I E	16533	Black, L L	16548	Chod, J	16560	Dwinell, L D	16570
Abdel-Malek, A A	16264	Blake, D H	16269	Chrysanthus,	16281	Dyer, E D A	16381
Abdellatif, H A	16259	Blaszczak, W	16549	Chubb, R C	16759	Dyk, V	16867
Abinanti, F R	16743	Blaydes, D P	16917	Chung, M	16760	Easterday, B C	16845
Abou-Youssef, M	16772	Bloom, J R	16718	Churchill, A E	16759	Eaton, J L	16289
Adair, C A	16537	Boczek, J	16363	Ciccarelli, A S	16909	Ebeling, W	16492
Adams, J B	16353	Bodnaryk, R P	16364	Ciesla, W M	16282	Edgington, L V	16571
Adams, T S	16489	Bogel, K	16752	Clark, D	16761	Edlin, F E	16529
Adiyodi, K G	16354	Bojanowska, A	16903	Clark, G W	16848	Edwardson, J R	16658
Adrian, V	16942	Bollen, W B	16662	Clark, K A	16872	16659	
Agnihotri, V P	16534	Bonga, J M	16918	Clark, L R	16283	Eichler, W	16290
Agosin, M	16423	Bonnemaison, D L	16514	Clifford, S C	16574	El-Kasaby, A	16869
Ahring, R M	16265	Borecki, Z	16550	Clinch, P G	16913	El-Retail, A H	16869
Aist, S	16535	Boucher, F R	16901	Cogburn, R R	16898	El-Zayat, M M	16572
Aitken, T H G	16503	Bouckova, I	16867	Cole, H	16631	Eliakis, C E	16950
Aizawa, T	16892	Bournier, A	16365	Coleman, P H	16827	Eliaziaw, M	16886
Akeson, W R	16355	Bowling, C C	16366	Collier, C W	16412	Elkana, M	16859
Akutsu, K	16519	Boyd, J C	16706	Collier, J R	16762	Ellis, C R	16382
Alexeyev, A N	16449	Boyd, J E	16295	Coluzzi, M	16491	Ely, D G	16868
Almeida, P R	16701	Bradley, N W	16802	Conover, L H	16870	Emeljanov, A F	16291
Ananthakrishnan, T N	16356	Brand, J M	16385	Cook, S F	16284	Ener, H S	16908
Anderson, A C	16745	Braverman, S W	16551	Cooke, R C	16561	Engelbrecht, H	16770
Anderson, C H	16510	Briehlecombe, A R	16703	Corbet, G B	16285	English, W H	16566
Anderson, D C	16907	Brinkerhoff, L A	16552	Corbet, P S	16372	Ensign, J C	16406
Anderson, N H	16306	Britt, A L	16753	Corke, C	16571	Eriksen, C H	16383
Anderson, F C	16357	Broadbent, D J	16461	Corley, C	16902	Ernst, S E	16866
Andreac, W A	16511	Bronninan, A	16553	Cornis, L	16516	Eroshevich, K E	16387
Andrews, E D	16746	Brookes, R F	16724	Costonis, A C	16562	Erwin, D C	16616
Antonovics, J	16452	Brooks, L A	16591	16674		Eslami, A H	16886
Arbuckle, J B R	16747	Brotzman, H G	16554	Cotten, J	16717	Etter, H M	16573
Argauer, R J	16902	Brown, G E	16555	Coupe, T R	16373	Every, R L	16951
Armsour, J	16882	Brown, J F	16865	Coutsellis, A S	16950	Eyal, Z	16574
Armstrong, D E	16964	Brown, L N	16754	Cowan, F T	16455	Faine, S	16771
Arneson, Pa	16536	Brown, N R	16270	Crane, G L	16563	Fairbanks, L D	16384
Arthur, D R	16290	Bruehl, G W	16556	Crawford, R F	16969	Fairchild, G B	16292
Asomaning, E J A	16524	Buckingham, G R	16367	16970		Farah, B S	16952
Asquith, D	16358	Buckley, H R	16368	Crenshaw, G L	16763	Farris, H E	16818
Ata, F A	16748	Buckley, P M	16557	Crighton, G W	16764	Fennah, R G	16293
Atkins, J G	16537	Bunn, D S	16271	Crocker, T D	16972	Fergus, C L	16512
Ausemus, E R	16683	Burch, G E	16384	Crompton, D W T	16873	Ferris, D H	16772
Austin, W C	16870	Burnet, B	16498	Curl, E A	16920	Field, E J	16773
Aviado, D M	16801	Burns, D P	16704	D'Alessandro, G	16374	Fischer, W R	16272
Avizohar-Hershenzon,	16538	Furns, E C	16351	Dadd, R H	16375	Fisher, M H	16774
Badiali, L	16772	Burrows, R	16755	Daft, G C	16625	Flack, D E	16775
Bailey, J C	16266	Burton, D J	16504	Danielova, V	16376	Fletcher, D J C	16385
16267		Burts, E C	16272	Darbyshire, J H	16765	Flint, H M	16386
Bailey, L	16359	Bushong, J W	16945	Dardas, G F	16766	Flowers, B A	16679
Baker, D R	16735	Buss, E G	16831	Dardas, T J	16767	Flynn, A D	16495
Baker, J A	16793	Butler Jr, G D	16273	Das, K	16517	Forqash, A J	16493
Baker, J R	16749	Butler, E E	16530	Das, M	16377	Fortin, J A	16721
Baker, R	16539	16669		Davidson, F H	16705	Fowler, G L	16387
Bakuniak, E	16702	Buttery, S H	16946	Davies, D M	16413	Fowler, M E	16776
Bankowska, J	16711	Byrd, S	16369	Davis, A C	16317	Fox, P H	16777
Baranay, J A	16697	Cabasso, V J	16756	Davis, D	16564	Fraenkel, G	16401
Barbotin, F	16540	Caca, Z	16515	Davis, D D	16532	Francia, P C	16294
Barker, P S	16897	Calam, D H	16274	16565		Frank, G H	16778
Bartlett, D	16260	Calderone, B A	16558	Davis, G R P	16286	Frank, Z R	16575
Bartlett, J	16260	Caldwell, R M	16574	16378		Fraser, J	16913
Barton, T L	16750	16699		Daves, B	16874	Frear, D E H	16295
Basu-Chaudhary, K C	16541	Callahan, P S	16278	De Boer, C J	16768	16296	
Basu, P K	16542	16279		De Meillon, B	16500	Freeman, T E	16576
Baur, J R	16543	Calpouzos, L	16563	16501		16627	
Baxter, R	16916	Cameron, R A D	16285	De Vay, J E	16566	French, D W	16578
Beamer, P D	16772	Campana, R J	16554	Dell, T R	16577	Freyman, S	16518
Bean, G A	16544	16606		DeLong, K T	16899	Fristrom, J W	16388
Beatty, R A	16490	Campbell, J I	16469	DePew, L J	16567	Froelich, R C	16577
Beaudoin, A R	16360	Campbell, J M	16275	Di Bella, E P	16948	Frontali, N	16389
Beck, E W	16904	Campbell, T C	16914	Dickey, R S	16645	Froyd, J D	16578
Beck, S D	16334	Cantwell, A M	16559	Diderholm, H	16769	Fuchs, A	16601
Beckman, K M	16723	Cantwell, G E	16477	Diener, T O	16671	Fujita, H	16728
Bedigian, D	16682	Carlson, D B	16919	Dikshith, T S S	16379	Fuller, D A	16779
Beglinger, R	16780	Carlson, S D	16276	Dima, V F	16921	Fulton, R W	16687
Bell, J C Jr.	16282	Carroll, R B	16628	Diniz, M de A	16287	Furaga, S	16876
Bell, W R	16512	Carter, J N	16771	Dinning, D C	16844	Fye, B L	16297
Bellin, R H	16871	Carver, R B	16602	Dinter, Z	16769	Gaborjanyi, R	16579
Bencsics, M	16579	Caspary, E A	16773	Dochinger, L S	16568	Gagnon, C	16580
Bennett, A P	16310	Casselberry, N H	16757	Docolomansky, A	16846	Gal, G	16947
Benson, W R	16943	Cavalcante, R D	16701	Doling, D A	16569	Gallegly, M E	16521
Beraha, L	16545	Cazal, M	16370	Donaruma, L G	16725	Gambrell, F L	16422
Berczik, A von	16268	Cerny, J	16758	Dotzenko, A D	16529	Garber, E D	16545
Bergquist, R R	16546	Chakraborty, C	16918	Dowling, R J	16726	Gary, G W	16827
Berrett, S	16833	Chalfant, R S	16277	Downes, J E	16949	Gautier, J Y	16390
Berrie, H M M	16513	Chauthani, A R	16278	Downs, W G	16503	Geier, P W	16283
Berry, D M	16751	16279		Drummond, D B	16532	Geigy, R	16780
Berryman, A A	16361	Cheserda, J M	16947	Drummond, R O	16866	Gerson, U	16298
Bevenue, A	16944	Chen, T	16720	Dubey, J P	16900	Gessel, S P	16736
Bhattacharya, P K	16547	Chernyakhovskii, M E	16371	Dubois, N R	16380	Gesto, M D V	16525
Bicudo, M de C	16323	Chesters, G	16964	Dunagan, T T	16875	Giannotti, J	16391
Bird, P T	16362	Chiang, H C	16280	Durbin, R D	16536	Gibbons, W J	16781
Bishop, J L	16409	Chiykowski, L N	16676	Dusbabek, F	16288	Gicherwan, G	16581





AUTOR INDEX

Taylor, D W

McCullough, N B	16794	Oatman, E R	16418	Rinick Jr, H B	16317	Sherman, K D	16686
McDougall, J S	16814	Oba, K	16912	Ritchie Jr, P L	16273	Sherwood, R T	16646
McDowell, T C	16926	Ogata, J N	16944	Rivera, A D	16505	Shiranovich, P I	16449
McEwen, F I	16317	Ogawa, J M	16937	Robert, A L	16537	Shoemaker, J P	16339
McFarland, J W	16870	Ogunbi, O	16507	Robertson, W A H	16913	Shorey, H H	16458
McFarlane, J E	16429	Oldroyd, H	16325	Robinson, R A	16965	Shortino, T J	16477
McGillivray, J J	16815	Olin, J F	16730	Rochow, W F	16533	Shroyer, E L	16845
McKercher, D G	16816	Oliver, R F	16326	Rock, G C	16335	Siddiqui, W M	16673
16817		Olsen, M W	16831	Rohringer, R	16601	Sidhu, N S	16490
McKercher, P D	16818	Orians, G H	16736	Romankowowa, A	16738	Sikora, A	16615
16819		Orlob, G B	16651	Romulns, T	16942	Simmonds, F J	16263
McLeod, L	16318	Orszagh, I	16327	Rondon, M R	16664	Sinclair, W A	16562
McMartin, D A	16820	Oskoui, M	16801	Rooney, C S	16774	16570,	16674
16821		Ouye, M T	16494	Rosen, D	16336	Singh, B M	16935
McMillian, W W	16319	Owens, R G	16928	Rosicky, B	16376	Singh, G R	16675
McWilliam, D C	16911	16963		Rosner, S F	16841	Singh, K V	16748
McWilliams, J G	16434	Oyama, S	16832	Ross, D B	16883	Singh, R P	16823
Meerovitch, E	16509	Pampiglione, S	16328	Ross, J C	16884	Sinha, M N	16823
Meinhardt, N A	16962	Panton, C A	16652	Roth, H	16932	Sinha, R C	16676
Melara, H E	16323	Papavizas, G C	16653	Roth, L F	16723	16677	
Mellor, F C	16680	Parker, R	16513	Roth, L M	16444	Siradhana, R S	16678
Mendez, J	16525	Parrott, W L	16315	16445		Sivak, S	16846
Menon-Nayer, R	16636	Paschke, J D	16357	Rothenduhler, W C	16468	Skoog, F E	16455
Menzies, J O	16582	Pasquier, C	16419	Rowley, W A	16446	Slabnik, S	16734
Mergen, F	16526	Patterson, D S P	16833	Royal, W A	16965	Slais, J	16887
Merzheevskaya, O I	16431	Patton, R L	16329	Rubinstein, J H	16963	Sletzinger, M	16947
Messenger, P S	16432	16473		Rubio-Huertos, M	16665	Smiley, J H	16679
Micinski, S	16637	Paulech, C	16654	Rudesco, K	16921	Smith, H W	16847
Miernik, J	16638	Pavlidis, T	16487	Ruffington, J O	16447	Smith, J R	16710
Miles, J W	16505	Pawuk, W H	16655	Rumanowski, E J	16953	Smith, J N	16331
Miles, P W	16433	Peacock, G V	16834	Rumpf, J	16958	Smith, N	16300
Milton, J M	16639	16835		Runion, H I	16469	Smith, R E	16848
Minar, J	16376	Peairs, L M	16705	Ruppel, E G	16666	Saorodincev, A A	16502
Mirchamsy, H	16822	Peetermans, J	16795	Russell, W F	16957	Snell, R S	16691
Mitchell, E B	16303	Peifer, F W	16488	Russell, W J	16933	Soboleski, A	16726
Mitchell, E R	16277	Peleg, J	16508	Rycke, P H de	16885	Soderstrom, E L	16456
Mitchell, W C	16710	Pennoit-De Cooman, E	16885	Sabatini, A	16491	Sohl, S S	16457
Mitlin, N	16320	Pereira, H G	16853	Sacca, G	16374	Sommer, N F	16557
Moeller, F E	16408	Petrovici, A	16921	Salkeld, E H	16448	Soong, S Y C	16735
Mohan, K	16823	Pfadt, R E	16330	Samarina, G P	16449	Sordi, G de	16701
Mohanty, S B	16824	Phillips, C E	16836	Samayoa, E	16552	Soriano, A	16734
16825		16837,	16838	Sampson, P J	16667	Spence, L	16503
Monaco, T J	16927	Philpott, M	16839	Samuelson, J D	16859	Spitler, G H	16896
Moon, K E	16321	Pickens, L G	16331	Sanchez, R A	16734	Stace-Smith, R	16680
Morgan, D H	16870	Piekarczyk, K	16714	Sang, J H	16498	16681,	16690
Morgan, L W	16904	Pierson, C F	16656	Sasaki, S	16668	Stanley, R F	16310
Morgan, N O	16331	Pillai, S K	16929	Sato, A	16803	Staples, R C	16682
Morgan, P B	16322	Pinet, J M	16439	Satour, M M	16669	Starks, K J	16319
Morita, M	16826	Pionke, B B	16964	Sauer, D B	16895	Stec, M	16638
Morris, R F	16283	Pittendriugh, C S	16487	Sauls, J N	16902	Sterburg, J G	16289
Morrison, F O	16382	Plasket, E L	16412	Sawicki, K	16585	Stern, V M	16458
Morrison, L S	16604	Plowright, W	16840	Schaefer, C W	16450	Stevenson, R	16261
Morrison, P E	16364	Poblete, P	16423	Schanel, L	16685	Stewart, D M	16683
Morrow, D A	16880	Polak, J	16560	Schanzel, H	16842	Stoffolano Jr, J G	16340
Morse, R A	16640	Pond, D D	16657	Scharen, A L	16670	Stokes, K J	16751
16641		Pont, A C	16332	Scharer, J M	16966	Stone, K F	16499
Morsink, F	16642	Pop, A	16921	Scheifle, G L	16695	Stoner, W N	16394
Morton, D J	16559	Powell, D	16583	Scherer, G	16337	Storer, K R	16529
Moss, C W	16626	Prager, O	16561	Schmidle, A	16528	Storz, J	16849
Mount, G A	16434	Price, G M	16440	Schneider, I R	16671	Strang, G E	16640
Mourao, C A	16323	16441		Schneiderman, H A	16428	Streams, P A	16459
Mudich, A	16643	Price, R G	16483	Schofield, P J	16321	Strider, D L	16592
Mulla, M S	16489	Prokopyeva, M G	16442	16349		Stromberg, J-o	16460
Murphy, P A	16827	Proverbs, M D	16333	Schoof, H F	16495	Studzinski, A	16714
Murray, J C	16552	Pruszyński, S	16421	Schreck, C E	16300	Subbarayudu, S	16938
Muschel, L H	16856	Przedziecki, Z	16711	Schroeder, H W	16672	Suerth, C B	16684
Mussell, D R	16522	Purcifull, D E	16658	Schulz, J T	16373	Sukornick, J	16953
Mustakas, G C	16527	Purifull, O E	16659	Scott, E G	16520	Suman, T W	16341
Muth, O H	16828	Ramsey, F K	16754	16934		Surovka, L	16846
Nathanson, M E	16324	Rao, P N	16660	Scott, K R	16338	Sutherland, J R	16721
Natti, J J	16644	Rao, R	16661	Scott, P H	16971	Sutton, M L	16850
Nawa, S	16742	Ratts, K W	16930	Seabrook, W D	16451	Sutton, R A	16650
Naylor, J M	16547	Rawson, J W	16731	Seaton, A P C	16452	Sweat, R L	16851
Nazarov, S S	16425	Rayle, R E	16497	Sebastian, A	16500	Swietlikowski, M	16888
Nelson, E V	16436	Reed, G L	16280	16501		16889	
Nelson, P E	16645	Reid, J F S	16882	Sedlak, V A	16505	Szabados, J	16921
Nelson, R R	16646	Reiersen, D A	16492	Segre, D	16843	Szabo, K	16461
Nemeth, J	16647	Retnakaran, A	16334	Sekeri, K E	16453	Szelenyi, G	16342
16648		Rey, J M	16443	Sekeris, C E	16453	Szmidt, A	16474
Nemoto, H	16829	Reynolds, H T	16259	Selim, M K	16869	Szocs, J	16343
Nesheia, O N	16649	Reynolds, I M	16848	Seoane, E	16525	Taher, M	16462
Neufeld, G J	16437	Ricard, J L	16662	Sevastopulo, D G	16262	Tamaglia, T W	16852
Newton, J R	16333	Rich, S	16663	16454		Tamura, J	16912
Nicoletti, P	16830	Rich, A E	16642	Sewell, M M H	16844	Tandan, B K	16302
Norland, J	16386	Richardson, F C	16931	Shacked, P	16538	Taniguchi, O	16890
Norman, P A	16650	Richter, S B	16732	Shahlapour, A A	16886	Tantawy, A C	16264
North, O T	16496	16733		Shanta, C S	16509	Tarrago-Litvak, L	16423
Novak, D	16438	Ridgway, R L	16712	Shaw, H	16547	Tarte, R	16722
Nowakowski, J	16640	Riggs, R D	16535	16633,	16939	Taslimi, S	16822
O'Brien, J D P	16881	Ringlund, K	16713	Shepherd, D R	16973	Taylor, O W	16381

AUTHOR INDEX

Taylor, J M

Taylor, J M	16670	Whitney, E D	16698
Taylor, R H	16667	Whittingham, W F	16584
Templeton JR, W C	16802	Wilcoxson, R D	16938
Tesarova, M	16685	Wilhour, R G	16532
Tesche, M	16686	Wilkes, A	16448
Tetefort, J-P	16463	Wilkinson, P F	1635D
Thielges, B A	16526	Williams, H E	16693
Thiemes, M	16426	Williams, P G	16939
Thomas, K K	16464	Williams, P H	16548
Thomas, F E	16687	16682	
Thompson, V C	16468	Wills, G D	1694D
Thomson, J A	16437	Wilson, B J	16914
Thornberry, H H	16607	Wilson, J E	16820
Thornton, G W	16915	Wilson, K R	16968
Tobias, V I	16344	Wilson, R A	16891
Toczek, D R	16465	Wilson, W C	16555
Todd, J R	16884	Wilson, W T	16479
Tomlinson, h	16663	Winter, A J	16858
Tomlinson, J A	16688	16859	
Toussoun, T A	16689	Wintrebert, D	16463
Townsend, C E	16529	Witherspoon, B	16351
Townsend, H G	16466	Witkowski, W	16480
Toyama, T	16728	Wiygul, G	1632D
Traian, M	16942	Wolfe, D	16784
Traylor, J	16693	Wood, F A	16532
Traynier, R M M	16467	16565	
Tremaine, J H	16690	Wood, P W	16481
Trpis, M	16345	Wood, S L	16352
True, K P	16558	Woodham, D W	16904
Trump, R F	16468	Woods, G T	16860
Tumova, S	16853	Woods, W G	16969
Ueno, H	16890	16970	
16892		Worth, C B	16503
Ulrich, V	16691	Wright, R H	16481
Umaerus, M	16936	16504	
Uritani, I	16519	Yamada, M	16537
Urquhart, G M	16882	Yamada, M A	16742
Usherwood, P N A	16469	Yamaguchi, A	16665
Vaartaja, O	16534	Yamamoto, H	16892
Van Arsdell, E P	16692	Yamamoto, M	16861
Van Uden, N	16368	Yamamoto, S	168D3
Vanderzant, E S	16470	Yanagida, R	16537
Varney, E H	16684	Yang, C	16482
Vasilescu, T	16921	Yau, T M	16875
Vasuki, K	16379	Yeh, R H	16941
Vazquez, A	16525	Yendol, W G	16466
Vieitez, E	16525	Yirgou, D	16699
Vilagiova, I	16346	Yonce, C E	163D5
Villeneuve, J L	16360	York, C J	16862
Williers, A	16347	16863,	16864
Vinson, S B	16420	Yoshimoto, T	16728
16471		Youdeowei, A	16274
Visuvalingam, N	16716	Young, H C	16635
Vogel, W	16905	Young, J H	16483
Volpp, G P	16945	Young, T E	16971
Wagner, J E	16854	Yuen, P	16484
Wagner, R E	16492	Yun, Y M	16485
Wagnon, H K	16693	Zachariah, K	16599
Waites, R E	16472	Zajicek, D	16893
Wakid, A M	16264	Zalokar, M	16486
Walkey, D G A	16688	Zaman, v	16716
Walkinshaw, C H	16694	Zettler, F W	16700
Wallis, R C	16348	Zimmering, S	16387
Walton, E	16967	Zimmerman, W F	16487
Wandera, J G	16855	Zook, B C	16915
Wang, C M	16473	Zwart, D	1681D
Ward, C W	16349	Zwick, R W	16488
Watanabe, S	16890	Zwolinska-Sniatalova	16906
Waterfield, B L	167D6		
Webb, P M	16856		
Weber, D J	16937		
Webster, R E	16530		
Wegorek, W	16421		
16474,	16531		
Weiner, A C	16693		
Weinhold, A B	16620		
16689			
Weiser, J	16475		
16476			
Welshimer, H J	16857		
Wernham, C C	16695		
West, J A	16477		
Wheeler, G C	16478		
Wheeler, J	16478		
Whetstone, T M	16866		
Whitcomb, R F	16696		
White, J H	16715		
White, S A	16434		
Whitman, L	16348		
Whitney, H S	16697		

ORGANIZATION INDEX

Adelphi University, Garden City, New York Biology Dept.	16584	Mississippi Agricultural Experiment Station Dept. of Entomology,	1642D
Albert Einstein College Of Medicine, Bronx, N.Y. Dept. Of Anatomy	16324	Mississippi State University Dept. Of Entomology	16266 16267 1632E 16728
Allied Chemical Corp., New York, N. Y.	16952 16953	Mitsui Chemical Industry Co., Ltd., Tokyo, Japan	16730 1693D 16727
American Veterinary Medical Association U. S. Dept. of Agriculture Agricultural Research Service Veterinary Biologics Division	16744	Monsanto Co., St. Louis, Mo. Monsanto Research Corporation, St. Louis Museum G. Frey, Tutzing Nagoya University Faculty of Agriculture Laboratory of Biochemistry	16729 16337 16519
Athens University, Greece Dept. of Forensic Medicine and Toxicology	16950	National Institute of Allergy and Infectious Diseases 16406 16857	16341
Atomic Energy Commission	16526	National Institute of Allergy and Infectious Diseases California University, Berkeley Division of Entomology	16696
Boots Pure Drug Co., Ltd., Nottingham, England	16913	National Institute of Allergy and Infectious Diseases Division of General Medical Sciences Florida University, Gainesville Dept. of Bacteriology	1679B
Boots Pure Drug Company Limited, Nottingham, England	16724	National Institute of Child Health and Human Development National Institute of General Medical Sciences National Institute Of General Medical Sciences Montana State University, Bozeman Dept. of Botany and Microbiology	16915 16588 16416
Brooklyn College, New York Dept. of Biology	16450	National Institute of Health National Institutes of Health Office of Research and Projects of Southern Illinois Univ 16875	
Burroughs Wellcome and Co., Inc., Tuckahoe, N. Y.	16967	National Research Council Dept. of Forestry and Rural Development, Quebec, Canada Forest Research Laboratory	16721
C. S. I. R. O. Division of Entomology, Canberra, Australia 16396		National Science Foundation 16352 163BB 16459 16460	
California University, Davis Dept. of Plant Pathology U. S. Dept. of Agriculture Cooperative States Research Services	16634	National Science Foundation U. S. Dept. of Agriculture, Madison, Wisconsin Agricultural Research Service Crops Research Division	16536
Canada Dept. Of Agriculture, Fredericton, N.B.	16657	National Science Foundation U.S. Public Health Service National Institutes of Health	16464
Canada Dept. Of Agriculture, Summerland, B.C.	16333	National Science Foundation Wisconsin University, Madison Dept. of Plant Pathology	16687
Central Statistical Unit, Tours, France Laboratoire d'Ecologie et Bioecologique Experimentales 16419		New York State Agricultural Experiment Station, Geneva New York State Veterinary College, Ithaca Dept. of Large Animal Medicine, Obstetrics, and Surgery 16880	16317
Coastal Plain Experiment Station, Tifton, Ga.	16904	North Carolina State University Mountain Horticultural Crops Research Station, Fletcher 16592	
Cornell University Dept. Of Entomology	16329 1634D 16640	North Dakota State University, Fargo Dept. of Entomology	16373
Cornell University Plant Pathology Dept.	16700	North Dakota University, Grand Forks Dept. of Biology	16478
Cornell University, Ithaca, New York Dept. of Entomology	16473	Northeastern Regional Project NE-4D National Association of Artificial Breeders Office of Naval Research. National Aeronautics and Space Administration National Science Foundation.	16487 16959
Czechoslovak Academy of Sciences, Prague Institute of Entomology Dept. Insect Pathology	16475	Olin Mathieson Chemical Corp., New Haven, Conn. Oregon State University Dept. Of Entomology	16306
Czechoslovak Academy of Sciences, Prague Institute of Parasitology	16288	Parachlor Chemical Corp., Brooklyn, N. Y.	1696D
Dow Chemical Company, Midland, Michigan	16522	Pennsylvania State University Dept. Of Entomology	16296
Du Pont de Nemours (E. I.) and Co., Wilmington, Del.	16961	Pennsylvania State University Dept. Of Entomology Pesticide Research Laboratory	16295
E. I. du Pont de Nemours, Wilmington, Delaware	16954	Pfizer and Co., New York Public Health Service Research Wisconsin Alumni Research Foundation Wisconsin University	1687D
Florida Citrus Experiment Station, Lake Alfred	16555	Punjab Agricultural University, Bissar Dept. of Botany and Plant Pathology	16935
FMC Corporation, New York, N. Y.	16945 16968	Purdue University, Lafayette, Indiana Research Corp., New York, N. Y.	16699 16725
Fort Detrick, Frederick, Maryland	16966	Royal School of Veterinary Studies, Roslin, Midlothian Veterinary Field Station Dept. of Animal Health	16844
Geigy J. R. A.-G., Basel, Switzerland	1695B	Rutgers University Dept. Of Entomology And Economic Zoology	16493
Georgia Coastal Plain Experiment Station, Tifton	16278	Saskatchewan University, Saskatoon Dept. of Biology	16547
Georgia Coastal Plain Experiment Station, Tifton Dept. Of Entomology	16277	Saskatchewan University, Saskatoon, Canada Dept. of Biology	16633
Gulhenkian Institute of Science, Oeiras, Portugal Laboratory of Microbiology	16368	Sheffield University, England Bacteriology Dept.	169D0
Hawaii University, Honolulu Dept. of Entomology	16710		
Hehrev University, Rehovot, Israel Faculty Of Agriculture	16336		
Hercules Inc., Del.	16731		
Hercules Inc., Wilmington, Del.	16955		
Illinois University, Urbana Dept. of Plant Pathology	16622		
Imperial College Field Station, Ascot, Berkshire, England 16891			
Imperial College of Science and Technology, London Dept. of Zoology and Applied Entomology	16451		
Institut Pasteur, Paris Service des Virus	16797		
Kansas Agricultural Experiment Station, Garden City	16567		
Livestock Research Station, Bihar, Patna	16823		
Louisiana State University Dept. Of Entomology	16351		
Louisiana State University, Baton Rouge Dept. of Botany and Plant Pathology	16675		
Lnhrizol Corp., Wickliffe, Ohio	16962		
Manitoha University, Winnipeg, Canada Dept. of Entomology	16436		
Marburg Universitat, Germany	16453		
McGill University, Macdonald College, Quebec, Canada Dept. of Entomology	16429		
McGill University, Quebec	16580		
McMaste University, Hamilton, Canada Dept. of Biology	16413		
Medical Research Council of Canada Toronto University, Toronto, Canada School of Hygiene	16507		
Melbourne University, Australia Dept. of Genetics	16437		
Merck and Company	16774		
Michigan University Dept. of Zoology	16383		
Ministerul Industriei Chimice, Bucharest, Rumania.	16942		



ORGANIZATION INDEX

Shell Oil Co., New York, N. Y.	16956	Entomology Research Division	16650
Slovak Academy of Sciences, Bratislava, Czech. Botanical Institute	16654	U.S. Dept. Of Agriculture, State College, Miss. Agricultural Research Service	16315
South Dakota Agricultural Experiment Station, Brookings 16394		U.S. Dept. Of Agriculture, State College, Miss. Agricultural Research Service	
Stauffer Chemical Co., New York, N. Y.	16461	Entomology Research Division	
Tenneco Chemicals	16948	Boll Weevil Research Laboratory	16303 16320
The Ohio State University, Columbus		U.S. Dept. Of Agriculture, Tifton, Ga. Agricultural Research Service	
Dept. of Zoology and Entomology		Entomology Research Division	16319
Public Health Service			
National Institute of Mental Health	16468	U.S. Dept. Of Agriculture, Tucson, Ariz. Cotton Insects Laboratory	16273
Toronto University, Canada			
Dept. of Botany	16925	U.S. Dept. Of Health, Education And Welfare, Savannah, Ga. Bureau Of Disease Prevention And Environmental Control National Communicable Disease Center	
U. S. Air Force, Brooks AFB, Texas		Aedes Aegypti Eradication Program	16495
Air Force Systems Command			
USAF School of Aerospace Medicine		U.S. Dept. Of Agriculture	
Veterinary Sciences Division	16872	Agriculture Research Service,	16973
U. S. Army		U.S. of America	
Medical Research and Development Command	16504	Secretary of Agriculture	16527
U. S. Army		U.S. Public Health Service	
Research Program on Malaria	16801	National Institutes of Health	16556
U. S. Atomic Energy Commission	16659	United States Borax and Chemical Corp., Los Angeles, Calif.	
U. S. Communicable Disease Center, Atlanta	16467	16969 16970	
U. S. Dept. of Agriculture	16538 16581 16929	University College of Rhodesia, Salisbury, Rhodesia	
U. S. Dept. of Agriculture		Dept. of Biological Science	16414
Agricultural Marketing Service	16693	University Of California, Davis	
U. S. Dept. of Agriculture		Dept. Of Entomology	16307
Agricultural Research Service		University Of California, Los Angeles	16492
Entomology Research Division		University Of California, Riverside	
Insect Identification and Parasite Introduction Research Br	16357	Dept. Of Entomology	16259 16489
U. S. Dept. of Agriculture		University Of California, Riverside	
Agricultural Research Service	16355 16471 16552	Dept. Of Plant Pathology	16616
U. S. Dept. of Agriculture, Beltsville, Maryland		University Of Georgia, Tifton	
Agricultural Research Service		College Of Agriculture	
Crops Research Division	16629	Coastal Plain Experiment Station	16279
U. S. Dept. of Agriculture, Fresno, California		University Of Illinois	
Market Quality Research Division		Dept. Of Entomology	16285
Dried-fruit and Tree-nut Insects Investigations	16456	University Of Illinois, Urbana	16345
U. S. Dept. of Agriculture, Greenport, Long Island		University Of Kentucky	
Agricultural Research Service		Agricultural Experiment Station	16802
Animal Disease and Parasite Research Division		University of Malaya, Kuala Lumpur, Malaysia	
Plum Island Animal Disease Laboratory	16818	Dept. of Botany	16587
U. S. Forest Service, St. Paul, Minnesota		University of Sydney, New South Wales, Australia	
North Central Forest Experiment Station	16692	Dept. of Biochemistry	16939
U. S. Public Health Service	16561	16608	
U. S. Public Health Service		University of Western Ontario, London, Canada	
Division of Air Pollution	16663	Dept. of Zoology	16402 16499
U. S. Public Health Service		University Of Wyoming	
Division of Research Grants	16423	Entomology Section	16330
U. S. Public Health Service		Upjohn Co., Kalamazoo, Mich.	16417
National Institute of Allergy and Infectious Diseases	16645	USSR Academy of Sciences, Leningrad	
U. S. Public Health Service		Zoological Institute	16291
National Institutes of Health	16348	Utah State University, Logan	
U. S. Public Health Service, Atlanta, Georgia		Dept. of Zoology	16401
National Communicable Disease Center	16848	Vanderbilt B. T. Co., Inc., New York, N. Y.	16591
U. S. Rubber Company, New York, New York	16726	Velsicol Chemical Corporation, Chicago	16733
U.S. Dept. Of Agriculture, Baton Rouge, La.		Veterinary Investigation Centre, Madingley Road, Cambridge	
Agricultural Research Service		16747	
Entomology Research Division	16310	Virginia Polytechnic Institute	
U.S. Dept. Of Agriculture, Beaumont, Tex.		Dept. Of Entomology	16409
Agricultural Research Service		Virginia Polytechnic Institute, Blacksburg	16335
Cereal Crops Research Branch	16537	Virginia Truck Experiment Station, Painter Eastern Shore Branch	16706
U.S. Dept. Of Agriculture, Beltsville, Md.		Virginia University Pesbroke	
Agricultural Research Service	16331	Mountain Lake Biological Station	16397
U.S. Dept. Of Agriculture, Brownsville, Tex.		Warner-lambert Pharmaceutical Co., Morris Plains, N. J.	
Agricultural Research Service	16494	16971	
Entomology Research Division		Washington State University	
U.S. Dept. Of Agriculture, Fort Valley, Ga.	16305	Tree Fruit Research Center	16272
Agricultural Research Service		Waterloo University, Ontario, Canada	
Entomology Research Division		Dept. of Biology	16364
U.S. Dept. Of Agriculture, Fresno, Calif.	16898	Wisconsin University, Madison	
Agricultural Research Service		Dept. of Veterinary Science	16845
Market Quality Research Division		World Health Organization	
U.S. Dept. Of Agriculture, Fresno, Calif.	16896	Filaria Research Unit, Rangoon, Burma	
Agricultural Research Service		U. S. Public Health Service	
Stored-Product Insects Research Branch		Division of Environmental Engineering and Food Protection	
U.S. Dept. Of Agriculture, Gainesville, Fla.	16297 16300	16500	
Agricultural Research Service		World Health Organization	
Entomology Research Division	16322	Filaria Research Unit, Rangoon, Burma	
U.S. Dept. Of Agriculture, Kerrville, Tex.		U. S. Public Health Service	
Agricultural Research Service	16866	Division of Environmental Engineering and Food Protection	
Entomology Research Division		16501	
U.S. Dept. Of Agriculture, Manhattan, Kans.			
Agricultural Research Service	16276		
Market Quality Research Division			
Stored-Product Insects Research Branch			
U.S. Dept. Of Agriculture, Orlando, Fla.			
Agricultural Research Service			









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