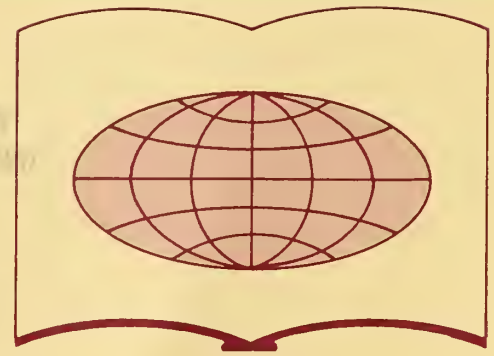


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This issue of the Pesticides Documentation Bulletin introduces a new computer generated current awareness service. Through the Pesticides Information Center's Update, Publication and Search (PICUPS) system, a categorized bibliographic citation file, accompanied by subject, author, organization and biographical indices will be issued bi-weekly.

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Since retrospective information was not previously published in searchable form, the next several issues of the Bulletin will contain selected coverage of pest control literature issued between 1960 and 1966. Additional retrospective material will be incorporated in future bulletins through the special bibliographies prepared by the Center. Current pest control literature will receive comprehensive coverage. Future expansion will include selected abstracts when such abstracts appear in the source document.

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Blanche L. Oliveri

Blanche L. Oliveri
Acting Director
National Agricultural Library



PESTICIDES DOCUMENTATION BULLETIN

A BI-WEEKLY PUBLICATION OF

U. S. DEPARTMENT OF AGRICULTURE

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Number 25

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.

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- 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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- I-67
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J Econ Entom 59(3):663-668
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Can Entom 94(2):221-222
Feb 1962 421 C16
Insect taxonomy,
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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE: NOTICE OF PROPOSED USE OF PLENARY POWERS IN CERTAIN CASES (A. (N.S.)51).
Can Entom 94(2):222
Feb 1962 421 C16
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J Econ Entom 57(2):194-197
Apr 1964 421 JB22
Coleoptera, Curculionidae, *Hypera brunneipennis*,
Predaceous insects.
- 5-67
SEASONAL BIOLOGY OF THE BALSAM WOOLLY APHID ON MT. MITCHELL, NORTH CAROLINA.
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J Econ Entom 55(1):96-98
Feb 1962 421 JB22
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J Econ Entom 57(3):420-421
Jun 1964 421 JB22
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A CONTRIBUTION TO THE KNOWLEDGE OF FLIGHT MUSCLE CHANGES IN THE SCOLYTIIDAE (COLEOPTERA).
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Can Entom 94(1):25-32
Jan 1962 421 C16
Coleoptera, *Dendroctonus pseudotsugae*,
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- 8-67
POPULATION DYNAMICS OF SPIDER MITES INFLUENCED BY DDT. .
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J Econ Entom 57(1):53-57, TABS.
Feb 1964 421 JB22
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Can Entom 95(12):1285-1292
Dec 1963 421 C16
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INSECT PARASITE AND PREDATOR STUDIES IN A DECLINING SAWFLY POPULATION.
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J Econ Entom 58(5):925-926
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RECENT RESEARCH ON THE BOLL WEEVIL IN NORTHERN SONORA, MEXICO, AND THE THURBERIA WEEVIL IN ARIZONA.
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J Econ Entom 57(2):286-290, TABS.
Apr 1964 421 JB22
Anthonomus grandis, *Anthonomus grandis*,
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EFFECT OF NITROGEN LEVELS ON RICE WATER WEEVIL POPULATIONS.
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J Econ Entom 56(6):826-827
Dec 1963 421 JB22
Insect populations, *Lissorhoptrus oryzophilus*,
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- 13-67
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Can Entom 94(6):653-654
Jun 1962 421 C16
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- 14-67
ADULT ELATERIDAE OF SOUTHERN ALBERTA, SASKATCHEWAN AND MANITOBA (COLEOPTERA).
A A Brooks
Can Entom 92, SUPPL. 20
1960 421 C16
Alberta, Coleoptera, Elateridae, Elateridae, Manitoba, Saskatchewan.
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AN ANNOTATED LIST OF THE HIPPODAMIINI OF NORTHERN AMERICA WITH A KEY TO THE GENERA (COLEOPTERA: COCCINELLIDAE).
W J Brown R de Ruelle
Can Entom 94(6):643-652
Jun 1962 421 C16
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Insect taxonomy.
- 16-67
A NEW SPECIES OF *EUXOA* HBN. (LEPIDOPTERA: NOCTUIDAE) FROM THE SIERRA NEVADA IN CALIFORNIA.
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Can Entom 96(7):967-970
Jul 1964 421 C16
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- 17-67
THE NEARCTIC SPECIES OF THE *XYSTICUS LABRADORENSIS* SUBGROUP (ARANEAE: THOMISIDAE).
D J Buckle J H Redner
Can Entom 96(8):113B-1142
Aug 1964 421 C16
Araneae, Thomisidae, *Xysticus labradorensis*.
- 18-67
DETERMINING TRENDS IN WESTERN SPRUCE BUDWORM EGG POPULATIONS.
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J Econ Entom 59(6):1442-1444
Dec 1966 421 JB22
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P E Buffam
Can Entom 94(5):461-472
May 1962 421 C16
Adelges piceae Ratz, Chermes piceae, Coleoptera, Derodontidae, Insect biology, Laricobius erichsonii Rosen, Predaceous insects.
- 20-67
THE PROVANCHER SPECIES OF CHALCIDIDEA (HYMENOPTERA).
S D Burks
Can Entom 95(12):1254-1263
Dec 1963 421 C16
Chalcidoidea, Hymenoptera.
- 21-67
THE NATURAL ENEMIES OF THE LETTUCE ROOT APHID, PEMPHIGUS BURSARIUS (L.).
J A Dunn
Bull Entomol R 51(2):271-278
Jul 1960 421 B87
Lettuce, Pemphigus bursarius (L.).
- 22-67
THE BIOLOGY OF OLIGONYCHUS PLATANI ON PYRACANTHA.
G Butler Jr M Abrid
J Econ Entom 58(4):687-688
Aug 1965 421 J822
Oligonychus platani (McGregor), Pyracantha.
- 23-67
THE BIOLOGY OF SPANOGONICUS ALBOFASCIATUS.
G D Butler Jr A Stoner
J Econ Entom 58(4):664-665
Aug 1965 421 JB22
Black fleahopper, Spanogonicus albofasciatus (Reuter).
- 24-67
THE LOOPER COMPLEX IN ALABAMA (LEPIDOPTERA PLUSIINAE).
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J Econ Entom 59(3):742-743
Jun 1966 421 JB22
Alabama, Geometridae, Lepidoptera, Plusiinae, Trichoplusia ni (Huebner).
- 25-67
A NOTE ON GLOSSINA MEDICORUM AUST. (DIPTERA) IN GHANA.
R F Chapman
Bull Entomol R 51(3):435-440
Nov 1960 421 B87
Diptera, Ghana, Glossina medicorum Aust..
- 26-67
OBSERVATIONS ON THE LIFE HISTORY OF ANTILOCHUS COCQUERBERTI, A PREDATOR OF DYSDERCUS KOENIGI.
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J Econ Entom 59(3):767-768, PL.
Jun 1966 421 J822
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- 27-67
A NEW SPECIES OF PARAPROSALPIA VILLENEUVE (DIPTERA: ANTHOMYIIDAE) REARED FROM A BEETLE LARVA.
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Can Entom 98(7):699-702
Jul 1966 421 C16
Anthomyiidae, Diptera, Larvae, Paraprosalpia villeneuve.
- 28-67
A REVISION OF THE PLATYPALPUS JUVENIS COMPLEX IN NORTH AMERICA (DIPTERA: EMPIDIDAE).
J G Chilcote
Can Entom 94(2):113-143
Feb 1962 421 C16
Diptera, Empididae, Insect morphology, Platypalpus juvenis Melander.
- 29-67
A NEW HOST RECORD FOR THE SEEDWORM LASPEYRESIA TOREUTA, WITH NOTES ON ITS BIOLOGY.
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J Econ Entom 59(4):1025-1026, PL.
Aug 1966 421 JB22
Host records, Insect biology, Laspeyresia toreuta, Seedworm.
- 30-67
OBSERVATIONS ON THE LIFE HISTORY OF TELENOMUS ALSOPHILAE, AN EGG PARASITE OF THE ELM SPANWORM, ENNOMOS SUBSIGNARIUS.
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J Econ Entom 58(4):702-704
Aug 1965 421 J822
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- 31-67
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J Econ Entom 56(5):603-605, TABS.
Oct 1963 421 J822
Aphytis holoxanthus DeBach, Chrysomphalus aonidium, Chrysomphalus aonidium (L.), Florida, Parasitic insects.
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Feb 1966 421 J822
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J Econ Entom 56(6):897
Dec 1963 421 J822
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J Econ Entom 56(5):609-611
Oct 1963 421 JB22
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Can Entom 98(7):703-706
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Dec 1963 421 J822
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Can Entom 94(4):395-408
Apr 1962 421 C16
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A METHOD OF REARING SOUTHERN POTATO WIREWORM.
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Dec 1966 421 JB22
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Jan 1961 421 BB7
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Dec 1965 421 JB22
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J Econ Entom 55(2):263-264
Apr 1962 421 JB22
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J Econ Entom 55(3):28B-292, TABS.
Jun 1962 421 JB22
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- 52-67
THE LIFE HISTORY AND CONTROL OF NEMOCESTES INCOMPTUS
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J Econ Entom 59(4):1004-1005
Aug 1966 421 JB22
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Can Entom 95(9):1002-1005
Sep 1963 421 C16
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Feb 1964 421 JB22
Anthonomus grandis, Anthonomus grandis, Insect behavior,
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IMMATURE STAGES OF FOUR NEARTIC NOTODONTIDAE (LEPIDOPTE-
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Can Entom 95(9):946-953
Sep 1963 421 C16
Larvae, Lepidoptera, Notodontidae, Pupae.
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A BIOLOGICAL AND ECOLOGICAL STUDY OF THE RICE PENTATOMID BUG
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Bull Entomol R 51(3):559-576, TABS.
Nov 1960 421 BB7
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- 57-67
THE CAUDAL APPENDAGE OF FINAL-INSTAR LARVAE OF SOME PORIZ-
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Can Entom 96(9):1155-1158
Sep 1964 421 C16
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Can Entom 94(1):11-17
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Can Entom 95(7):716-720, BIBL. 719-720
Jul 1963 421 C16
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THE CIRCUMSTANCES OF SPECIES REPLACEMENT AMONG PARASITIC
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S E Flanders
Can Entom 9B(10):1009-1024, BIBL. 1023-1024
Oct 1966 421 C16
Hymenoptera, Insect evolution, Parasitic insects.

BIBLIOGRAPHY

10 61-67

- 61-67
THE BIOLOGY OF THE MOUNTAIN-ASH SAWFLY, PRISTIPHORA GENICULATA (HTG.) (HYMENOPTERA: TENTHREDINIDAE), IN EASTERN CANADA.
R S Forbes L Davila
Can Entom 96(B):1117-1133, BIBL. 1132-II33, TABS.
Aug 1964 42I C16
Canada, Hymenoptera, Insect biology, Pristiphora geniculata, Tenthredinidae.
- 62-67
TWO NEW SPECIES OF CONIFEROUS NEEDLE MINERS FROM LOUISIANA AND THE DESCRIPTION OF A NEW GENUS (LEPIDOPTERA: GELECHIIDAE).
T N Freeman
Can Entom 95(7):727-730
Jul 1963 42I C16
Gelechiidae, Lepidoptera, Louisiana, Miners, Pullcalvaria.
- 63-67
INFESTATION PATTERNS OF DOUGLAS-FIR BEETLE IN STANDING AND WINDTHROWN TREES IN SOUTHERN IDAHO.
M M Furness
J Econ Entom 55(4):486-491, TABS.
Aug 1962 42I JB22
Dendroctonus pseudotsugae, Dendroctonus pseudotsugae, Population statistics (insects), Trees.
- 64-67
A METHOD TO DETERMINE PROGRESSIVE MORTALITY DURING SEASONAL DEVELOPMENT OF DOUGLAS-FIR BEETLE BROOD.
M M Furness
J Econ Entom 57(1):17B-180, PL.
Feb 1964 42I JB22
Dendroctonus pseudotsugae, Dendroctonus pseudotsugae, Mortality (insects), Sample designs (insects).
- 65-67
CONTROL OF FOUR DISEASES OF LABORATORY-REARED BOLL WEEVILS.
R T Gast
J Econ Entom 59(4):793-797, PL.
Aug 1966 42I JB22
Anthonomus grandis, Insect diseases, Laboratory-reared insects.
- 66-67
ADULT BOLL WEEVILS AND EGGS MARKED WITH DYE FED IN LARVAL DIET.
R T Gast M Landin
J Econ Entom 59(2):474-475
Apr 1966 42I JB22
Anthonomus grandis, Anthonomus grandis Boheman, Diet, Dyes, Insect eggs, Insect identification, Larvae.
- 67-67
REGULARITIES IN THE SIZE AND ORIENTATION OF JUNIPER FRAGMENTS ATTACHED TO THE CASES OF THE BAGWORM, THYRIDOPTERYX EPHEMERAIFORMIS (HAW.).
A W Ghent J L Larson
Can Entom 96(B):1097-1106
Aug 1964 42I C16
Bagworm cases, Juniperus, Thyridopteryx ephemeriformis (Haw.).
- 68-67
THE VARIABILITY OF FLY-ROUND CATCHES IN FIELD STUDY OF GLOSSINA.
J P Glasgow
Bull Entomol R 51(4):7B1
Jan 1960 42I BB7
Field study, Fly-round, Glossina, Glossina swynertonii.
- 69-67
INFLUENCE OF MOISTURE ON WINTER SURVIVAL OF THE PINK BOLLWORM.
H M Graham
J Econ Entom 59(2):430-432
Apr 1966 42I JB22
Hibernation, Pectinophora gossypiella, Soil moisture.
- 70-67
INFESTATION OF PINK BOLLWORMS IN OKRA.
H M Graham B C Stephenson
J Econ Entom 59(3):756
Jun 1966 42I JB22
Okra, Pectinophora gossypiella, Pectinophora gossypiella.
- 71-67
SEASONAL OCCURRENCE OF HELIOTHIS LARVAE ON COTTON IN.
J B Graves D F Clower J L Bagent J R Bradley Jr
J Econ Entom 58(6):II52-II53
Dec 1965 42I JB22
Cotton, Heliothis virescens, Heliothis virescens (F), Heliothis zea, Heliothis zea (Boddie), Louisiana.
- 72-67
FLIGHT AND DISPERSAL OF THE EUROPEAN SHOOT MOTH, RHYACIONIA BUOLIANA (SCHIFF.) I. FACTORS AFFECTING FLIGHT AND THE FLIGHT POTENTIAL OF FEMALES.
G W Green
Can Entom 94(3):2B2-299
Mar 1962 42I C16
Insect dissemination, Insect flight, Rhyacionia buoliana, Rhyacionia buoliana (Schiff.).
- 73-67
FLIGHT AND DISPERSAL OF THE EUROPEAN PINE SHOOT MOTH, RHYACIONIA BUOLIANA (SCHIFF.) II. NATURAL DISPERSAL OF EGG-LADEN FEMALES.
G W Green P J Pointing
Can Entom 94(3):299-314
Mar 1962 42I C16
Insect dissemination, Insect eggs, Insect flight, Rhyacionia buoliana, Rhyacionia buoliana (Schiff.).
- 74-67
THE LIFE HISTORY AND ECOLOGY OF THE WOOLLY PINE NEEDLE APHID SCHIZOLACHNUS PINI-RADIATAE (DAVIDSON) (HOMOPTERA: APHIDAE).
J H Grobler
Can Entom 94(1):35
11 Jan 1962 42I C16
Aphididae, Homoptera, Insect ecology, Life cycle, Pinus, Pinus, Schizolachnus pini-radiatae (Davidson), Woolly pine needle aphid.
- 75-67
SOME BEES (APOIDEA) ASSOCIATED WITH PEANUT FLOWERING.
R O Hammonds K V Krombein D B Leuck
J Econ Entom 56(6):905
Dec 1963 42I JB22
Apidae, Bees, Peanuts.
- 77-67
SEASONAL AND GEOGRAPHICAL DISTRIBUTION OF TABANIDAE (DIPTERA) IN MANITOBA, BASED ON FEMALES CAPTURED IN TRAPS.
W Hanec G K Bracken
Can Entom 96(10):1362-369
Oct 1964 42I C16
Diptera, Insect ecology, Insect traps, Manitoba, Tabanidae.
- 78-67
THE MOSQUITOS OF ZARIA PROVINCE, NORTHERN NIGERIA.
P W Hanney
Bull Entomol R 51(1):145-171
Apr 1960 42I BB7
Anopheles, Culicidae, Nigeria, Zaria province.
- 79-67
SEQUENTIAL SAMPLING FOR THE IMPORTED CABBAGEWORM, PIERIS RAPAE (L.).
D G Harcourt
Can Entom 98(7):741-746
Jul 1966 42I C16
Pieris rapae, Pieris rapae (L.), Sequential sampling, Statistical analysis.
- 80-67
POPULATION DYNAMICS OF LEPTINOTARSA DECEMLINEATA (SAY) IN EASTERN ONTARIO II. POPULATION AND MORTALITY ESTIMATION DURING SIX AGE INTERVALS.
D G Harcourt
Can Entom 96(9):1190-119B, TABS.
Sep 1964 42I C16
Demography, Leptinotarsa decemlineata (Say), Ontario.
- 81-67
SURVEY OF THE HEMIPTERA AND HOMOPTERA INFESTING GRASSES (GRAMINEAE) IN NEW YORK.
D D Hardee H Y Forsythe Jr G G Gyrisco
J Econ Entom 56(5):555-559, BIBL. 559
Oct 1963 42I JB22
Grasses, Grasses, Hemiptera, Homoptera, New York.

- B2-67
A SYNOPSIS OF THE WESTERMANNI GROUP OF THE GENUS EUXOA HBN. (LEPIDOPTERA: NOCTUIDAE) WITH DESCRIPTIONS OF TWO NEW SPECIES.
D F Hardwick
Can Entom 9B(7):760-76B
Jul 1966 421 C16
Chimoensis, Euxoa Hbn., Insect taxonomy, Lepidoptera, Luteomaculata, Noctuidae, Westermanni.
- B3-67
RELIABILITY OF TRAPPING IN DETERMINING THE EMERGENCE PERIOD AND SEX RATIO OF THE SUGAR-BEET ROOT MAGGOT TETANOPS MYOPAEFORMIS (RODER) (DIPTERA:UTITIDAE).
A M Harper T P Story
Can Entom 94(3):26B-27I
Mar 1962 421 C16
Diptera, Insect emergence, Insect traps, Otitidae, Tetanops myopaeformis, Tetanops myopaeformis (Roder).
- B4-67
DISTRIBUTION OF CYCLODIENE-INSECTICIDE RESISTANCE IN THE SEED MAGGOT COMPLEX IN RELATION TO CROPPING PRACTICES IN SOUTHWESTERN ONTARIO.
C R Harris J L Hitchon G F Manson
J Econ Entom 59(6):14B3-14B7
Dec 1966 421 JB22
Cyclodiene, Hylemya liturata, Hylemya platura, Insecticide resistant insects, Ontario, Seed maggots.
- B5-67
EFFECTS OF THE FALL ENVIRONMENT OF THE BOLL WEEVIL IN NORTHEAST MISSISSIPPI.
F A Harris E P Lloyd D N Baker
J Econ Entom 59(6):1327-1330
Dec 1966 421 JB22
Anthonomus grandis, Anthonomus grandis, Environmental effects, Mississippi.
- B6-67
LIFE HISTORY AND HABITS OF A MIDGE, CONTARINIA WASHINGTONENSIS JOHNSON (DIPTERA: CECIDOMYIIDAE), IN DOUGLAS-FIR CONES.
A F Hedlin N E Johnson
Can Entom 95(II):116B-1175, BIBL. 1174-1175
Nov 1963 421 C16
Cecidomyiidae, Cecidomyiidae, Contarinia washingtonensis Johnson, Diptera, Pseudotsuga menziesii.
- B7-67
LIFE HISTORY AND HABITS OF A MIDGE, PHYTOPHAGE THUJAE HEDLIN (DIPTERA: CECIDOMYIIDAE) IN WESTERN RED CEDAR.
A F Hedlin
Can Entom 96(7):950-957, TABS.
Jul 1964 421 C16
Cecidomyiidae, Cedrus, Cones, Diptera, Phytophaga thujae Hedlin.
- BB-67
OVERWINTERING FEMALES AND THE NUMBER OF GENERATIONS OF TYPHLODROMUS (T.) PYRI SCHEUTEN (ACARINA:PHYTOSEIIDAE) IN NOVA SCOTIA.
H J Herbert
Can Entom 94(3):233-242
Mar 1962 421 C16
Acarina, Hibernation, Life cycle, Nova Scotia, Phytoseiidae, Predaceous insects, Typhlodromus (T.) pyri Scheuten.
- B9-67
NOCTURNAL RESTING PLACES OF THE SCREW-WORM FLY.
B G Hightower
J Econ Entom 56(4):49B-500, TABS.
Aug 1963 421 JB22
Cochliomyia hominivorax, Cochliomyia hominivorax (Coquerel), Insect ecology.
- 90-67
LOCAL DISTRIBUTION OF RELEASED LABORATORY-REARED SCREW-WORM FLIES IN RELATION TO WATER SOURCES.
B G Hightower D A Alley
J Econ Entom 56(6):79B-802, TABS.
Dec 1963 421 JB22
Cochliomyia hominivorax, Cochliomyia hominivorax (Coquerel), Insect dissemination, Insect rearing, Ponds, Streams.
- 91-67
SEASONAL ABUNDANCE OF THE SCREW-WORM IN NORTHERN MEXICO.
B G Hightower R B Davis A H Baumhover D H Graham
J Econ Entom 59(2):416-420
Apr 1966 421 JB22
Cochliomyia hominivorax, Cochliomyia hominivorax (Coquerel), Environment, Weather.
- 92-67
ECOLOGY OF SPECIES OF BOMBUS LATR. (HYMENOPTERA: APIDAE) IN SOUTHERN ALBERTA. I. SUBGENUS ALPINOBOMBUS SKUR.
G A Hobbs
Can Entom 96(11):1465-1470
Nov 1964 421 C16
Alberta, Alpinobombus Skor., Apidae, Bombus Latr., Hymenoptera, Insect ecology.
- 93-67
EFFECT OF PRE-EMERGENCE RAINFALL ON POPULATION SIZE IN THE TOBACCO HORNWORM.
J R Holman E W King
J Econ Entom 59(5):1199-1200
Oct 1966 421 JB22
Insect population, Manduca quinquemaculata, Manduca sexta (Johannson), Rainfall.
- 94-67
THE NORTH AMERICAN SPECIES IN GROUPS IV AND V OF IPS DE GEER (COLEOPTERA: SCOLYTIDAE).
G R Hopping
Can Entom 96(7):970-979
Jul 1964 421 C16
Coleoptera, Ips, Ips avulsus, Ips bonansea, Ips perroti Swaine, Ips pini, Scolytidae.
- 95-67
THE NORTH AMERICA SPECIES IN GROUP I OF IPS DE GEER (COLEOPTERA: SCOLYTIDAE).
G R Hopping
Can Entom 95(10):1091-1096
Oct 1963 421 C16
Coleoptera, Ips concinnus (Mannerheim), Ips mexicanus (Hopkins), Ips DeGeer, Scolytidae.
- 96-67
THE SEX RATIOS IN IPS TRIDENS MANNERHEIM (COLEOPTERA: SCOLYTIDAE).
G R Hopping
Can Entom 94(5):506
May 1962 421 C16
Coleoptera, Insect genetics, Ips tridens Mannerheim, Scolytidae, Sex ratios.
- 97-67
THE NORTH AMERICAN SPECIES IN GROUP II AND III OF IPS DE GEER (COLEOPTERA: SCOLYTIDAE).
G R Hopping
Can Entom 95(II):1202-1210
Nov 1963 421 C16
Coleoptera, Insect taxonomy, Ips emarginatus (Leconte), Ips knausi Swaine, Ips plastographus (Leconte), Ips De Geer, Scolytidae.
- 98-67
EUROPEAN CORN BORER IN PEACHES.
W S Hough
J Econ Entom 57(2):300-301, PL.
Apr 1964 421 JB22
Ostrinia nubilalis, Ostrinia nubilalis, Peaches.
- 99-67
NOTES ON CANTHONINI OF THE BIOLOGIA CENTRALI-AMERICANA AND DESCRIPTIONS OF NEW SPECIES (COLEOPTERA: SCARABAEIDAE).
H F Howden
Can Entom 9B(7):725-741
Jul 1966 421 C16
Biologia Centrali-Americana, Canthon, Canthonini, Central America, Coleoptera, Deltochilum, Insect taxonomy, Megathopa, Scarabaeidae.
- 100-67
POTENTIAL OF BIOLOGICAL CONTROL OF TWO-SPOTTED SPIDER MITES ON STRAWBERRIES IN CALIFORNIA.
C B Huffaker D L Flaherty
J Econ Entom 59(4):7B6-792, BIBL., TABS.
Aug 1966 421 JB22
Biological control, California, Strawberries, Tetranychus urticae.

BIBLIOGRAPHY

10 101-67

- 101-67
OCCURRENCE OF ASIATIC OAK WEEVIL IN ALFALFA AND RED CLOVER IN MARYLAND.
J L Huggans
J Econ Entom 56(4):531
Aug 1963 421 J822
Alfalfa, *Cyrtopistomus castaneus*,
Cyrtopistomus castaneus (Roelofs), Maryland, Red clover.
- 102-67
POPULATION AND MORTALITY ASSESSMENT DURING THE EGG AND LARVAL STAGES OF THE LARCH SAWFLY, *PRISTIPHORA ERICHSONII* (HTG.).
G H Ives
Can Entom 94(3):256-268, 818L. 267-268
Mar 1962 421 C16
Insect eggs, Insect populations, Larvae,
Pristiphora erichsonii, *Pristiphora erichsonii* (Htg.).
- 103-67
EFFECTS OF DEFOLIATION ON SURVIVAL OF LARVAE OF THE LARCH SAWFLY *PRISTIPHORA ERICHSONII* (HTG.).
W G H Ives
Can Entom 95(8):887-892
Aug 1963 421 C16
Defoliation, Larvae, *Pristiphora erichsonii*.
- 104-67
EFFECTS OF WATER LEVELS ON THE OVERWINTERING SURVIVAL AND EMERGENCE OF THE LARCH SAWFLY IN A BOG HABITAT.
W G H Ives L D Nairn
Can Entom 98(7):768-777, TABS.
Jul 1966 421 C16
Aquatic insects, Bogs, Hibernation, *Pristiphora erichsonii*,
Pristiphora erichsonii, Water table.
- 105-67
LARVAL HABITATS, DEVELOPMENT, AND PARASITES OF SOME TABANIDAE (DIPTERA) IN SOUTHERN ONTARIO.
H G James
Can Entom 95(11):1223-1232
Nov 1963 421 C16
Diptera, Habitats, Insect morphology, Larvae, Ontario,
Parasites, Tabanidae.
- 106-67
INSECTS AND SPIDERS FROM GOLDENROD GALLS OF *GNORIMOSCHEMA GALLAESOLIDAGINIS* RILEY (GELECHIIDAE).
W W Judd
Can Entom 96(7):987-991
Jul 1964 421 C16
Gelechiidae, *Gnorimoschema gallaesolidaginis*, Insects,
Plant galls, Solidago, Spiders.
- 107-67
INSECTS AND OTHER INVERTEBRATES FROM NESTS OF THE CARDINAL, *RICHMONDENA CARDINALIS* (L.), AT LONDON, ONTARIO.
W W Judd
Can Entom 94(1):92-95
Jan 1962 421 C16
Bird nests, Cardinal, Insect taxonomy, Insects,
Richmondia cardinalis (L.).
- 108-67
INSECTS ASSOCIATED WITH FLOWERING MARSH MARIGOLD, *CALTHA PALUSTRIS* L., AT LONDON, ONTARIO.
W W Judd
Can Entom 96(11):1472-1476
Nov 1964 421 C16
Caltha palustris, Insects, Ontario.
- 110-67
THE BIOLOGY AND ECOLOGY OF THE RED-PINE NEEDLE MIDGE AND ITS ROLE IN FALL BROWNING OF RED PINE FOLIAGE.
W H Kearby D M Benjamin
Can Entom 96(10):1313-1322
Oct 1964 421 C16
Browning, *Pinus*, *Thecodiplosis piniresinosae*.
- 111-67
THELOHANIA CALIFORNICA N. SP., A MICROSPORIDIAN PARASITE OF *CULEX TARSALIS* COQUILLET.
W R Keilen J J Lipa
J Invertebrate Path 2(1):1-12
1960 421 J826
Culex tarsalis Coquillett, Microsporidia, Nosematidae,
Thelohania californica.
- 112-67
REVISION OF THE GENUS *REUTEROSCOPIUS* KIRKALDY 1905 WITH DESCRIPTION OF ELEVEN NEW SPECIES (HEMIPTERA: MIRIDAE).
L A Kelton
Can Entom 96(11):1421-1433
Nov 1964 421 C16
Hemiptera, Miridae, *Reuteroscopus*.
- 113-67
THE FORMS OF *SYNTOMOSPHYRUM* (HYM., EULUPHIDAE) PARASITIC ON TSETSE FLIES.
G J Kerrich
Bull Entomol R 51(1):21-23
Apr 1960 421 887
Glossina spp., *Syntomosphyrum*.
- 114-67
THE FLIGHT OF *CULICOIDES IMPUNCTATUS* GOETGHEBUER (DIPTERA, CERATOPOGONIDAE) OVER MOORLAND AND ITS BEARING ON MIDGE CONTROL.
D S Kettle
Bull Entomol R 51(3):461-489
Nov 1960 421 887
Ceratopogonidae, *Culicoides impunctatus* Goetghebuer,
Diptera, Flight range, Moorland.
- 115-67
THE PYRGOMORPHIDAE (ORTHOPTERA: ACRIDOIDEA) : THEIR SYSTEMATICS, TRIBAL DIVISIONS AND DISTRIBUTION.
D K M Kevan S S Akbar
Can Entom 96(12):1505-1536, BIBL. 1534-1535
Dec 1964 421 C16
Acridoidea, Orthoptera, Pyrgomorphidae.
- 116-67
QUANTITATION OF EFFECT OF SEVERAL STIMULI ON THE APPROACH OF *AEDES AEGYPTI*.
A A Khan H I Maibach W G Strauss W R Fenley
J Econ Entom 59(3):690-696
Jun 1966 421 J822
Aedes aegypti, Approach, Stimuli.
- 117-67
FURTHER NOTES ON THE GENUS *EVYLAEUS* ROBERTSON (HYMENOPTERA: HALICITIDAE).
G Knerer C E Atwood
Can Entom 96(7):957-962
Jul 1964 421 C16
Evylaeus Robertson, Halictidae, Hymenoptera.
- 118-67
PHAENOPRIA POPEI (HYMENOPTERA: DIAPRIIDAE) REARED FROM PUPARIA OF SCIOMYZID FLIES.
L V Knutson C D Berg
Can Entom 95(7):724-726
Jul 1963 421 C16
Diapriidae, Hymenoptera, *Phaenopria popei*, Sciomyzidae.
- 119-67
STUDIES ON THE FEEDING BEHAVIOR OF ALFALFA WEEVIL ADULTS FROM THE EASTERN AND WESTERN UNITED STATES.
C S Koehler G G Gyrisco
J Econ Entom 56(4):489-492, TABS.
Aug 1963 421 J822
Eastern United States, *Hypera postica*,
Hypera postica (Gyllenhal), Insect behavior,
Insect nutrition, Western United States.
- 120-67
PERIPILOCA NIGRA, A MAJOR CAUSE OF DIEBACK OF ORNAMENTAL JUNIPER IN CALIFORNIA.
C S Koehler M Tauber
J Econ Entom 57(4):563-566, TABS.
Aug 1964 421 J822
California, Dieback (ornamental juniper), *Juniperus*,
Periploca nigra (Hodges).
- 121-67
SERIOUS INCREASE OF COTTON WHITEFLY AND VIRUS TRANSMISSION IN CENTRAL AMERICA.
P Kraemer
J Econ Entom 59(6):1531
Dec 1966 421 J822
Bemisia tabaci, Central america, Cotton whitefly,
Leaf curl (cotton).
- 122-67
EMERGENCE AND FLIGHT OF CLICK BEETLES (COLEOPTERA: ELATERIDAE) IN ORGANIC SOILS OF SOUTHWESTERN QUEBEC.
J Lafrance

- Can Entom 95(8):873-878
Aug 1963 421 C16
Coleoptera, Elateridae, Insect emergence, Insect flight,
Quebec, Soils.
- 123-67
THE BIOLOGY OF TWO SPECIES OF MOSQUITO, *MANSONIA AFRICANA*
(THEOBALD) AND *MANSONIA UNIFORMIS* (THEOBALD), BELONGING
TO THE SUBGENUS *MANSONIOIDES* (DIPTERA, CULICIDAE).
R Laurence
Bull Entomol R 51(3):491-517, 818L.513-517
Nov 1960 421 887
Culicidae, Diptera, Insect biology,
Mansonia africana (Theobald), *Mansonia uniformis* (theobald).
- 124-67
PUPATION SITES OF THE EYE-SPOTTED BUD MOTH, *SPILONOTA*
OCCELLANA AND DIFFERENCES IN DEGREE OF DEVELOPMENT ON TWO
APPLE VARIETIES IN WISCONSIN.
E F Legner E R Oatman
J Econ Entom 56(5):689-690
Oct 1963 421 J822
Apples, Insect ecology, *Spilonota ocellana*,
Spilonota ocellana, Wisconsin.
- 125-67
SPIDERS ON APPLE IN WISCONSIN AND THEIR ABUNDANCE IN A NAT-
URAL AND TWO ARTIFICIAL ENVIRONMENTS.
E F Legner E R Oatman
Can Entom 96(9):1202-1207, TABS.
Sep 1964 421 C16
Apples, Spiders, Wisconsin.
- 126-67
BIOLOGY OF THE LESSER CORNSTALK BORER IN SOUTH GEORGIA.
D B Leuck
J Econ Entom 59(4):797-801, TABS.
Aug 1966 421 J822
Biology, *Elasmopalpus lignosellus*, *Elasmopalpus lignosellus*,
Georgia.
- 127-67
BIOLOGICAL RELATIONSHIPS BETWEEN *CARDIOCHILES NIGRICEPS* AND
THE *HELIOTHIS* COMPLEX.
W J Lewis J R Brazzel
J Econ Entom 59(4):820-823, TABS.
Aug 1966 421 J822
Cardiochiles nigriceps, *Heliothis viscerens*, *Heliothis zea*,
Parasitic insects.
- 128-67
A TAXONOMIC REVIEW OF THE GENUS *HOPLOSEIUS* BERLESE (ACA-
RINA: BLATTISODIACE).
E F Lindquist
Can Entom 95(11):1175-1185
Nov 1963 421 C16
Acarina, Blattisodiaceae, *Hoploseius berlesei*, Insect taxonomy.
- 129-67
A FIELD STUDY OF DIAPAUSE, DIAPAUSE CONTROL, AND POPULATION
DYNAMICS OF THE BOLL WEEVIL.
E P Lloyd M L Laster M E Merkl
J Econ Entom 57(4):433-436
Aug 1964 421 J822
Anthonomus grandis, *Anthonomus grandis*, Diapause,
Insect demography.
- 130-67
PARASITISM OF THE DOGWOOD FLEA-BEETLE, *ALTICA CORNI*, IN
ONTARIO.
C C Loan
J Econ Entom 56(4):537-538
Aug 1963 421 J822
Altica corni Woods, Dogwood flea-beetle, Ontario,
Parasitic insects.
- 132-67
THE EFFECT OF AGGREGATION ON EGG AND LARVAL SURVIVAL IN
NEODIPRION SWAINI MIDD. (HYMENOPTERA: DIPRIONIDAE).
L A Lyons
Can Entom 94(1):49-58
Jan 1962 421 C16
Diprionidae, Hymenoptera, Insect eggs, Larvae,
Neodiprion swaini Midd..
- 133-67
THE SPATIAL DISTRIBUTION OF TWO PINE SAWFLIES AND METHODS OF
SAMPLING FOR THE STUDY OF POPULATION DYNAMICS.
L A Lyons
Can Entom 96(11):1373-1407, 818L. 1406-1407, TABS.
- Nov 1964 421 C16
Demography, *Neodiprion sertifer*, *Neodiprion swaini*,
Sampling (statistics).
- 134-67
A RE-EXAMINATION OF C. F. BAKER'S COLLECTION OF APHID
PARASITES (HYMENOPTERA: APHIDIIDAE).
M J P Mackauer
Can Entom 95(9):921-935, 818L. 935
Sep 1963 421 C16
Aphidiidae, Hymenoptera, Parasites.
- 135-67
HOUSE FLY BREEDING IN OAK SAWDUST AND PEANUT HULLS USED AS
BEDDING IN CALF PENS.
D MacCreary G F W Haenlein
J Econ Entom 55(3):419
Jun 1962 421 J822
Bedding (livestock), Breeding, *Musca domestica*,
Musca domestica, Peanuts, *Quercus*, *Quercus*, Sawdust.
- 136-67
FLIGHT RANGE OBSERVATIONS ON *LYGUS LINEOLARIUS* AND CERTAIN
OTHER HEMIPTERA.
D MacCreary
J Econ Entom 58(5):1004-1005
Oct 1965 421 J822
Flight range, Hemiptera, *Lygus lineolaris*.
- 137-67
A NEW SUBGENUS AND SPECIES OF *FULLAWAYA* ESSIG (HOMOPTERA,
APHIDIDAE) FROM *POPULUS TREMULOIDES* MICHX.
M E MacGillivray
Can Entom 95(9):941-946
Sep 1963 421 C16
Aphididae, *Fullawaya essig*, Homoptera,
Populus tremuloides Michx..
- 138-67
EVOLUTION AND ADAPTATION OF LARVAL CHARACTERS IN THE TOR-
TRICIDAE.
M R MacKay
Can Entom 95(12):1321-1344, 818L. 1343-1344
Dec 1963 421 C16
Insect adaptation, Insect evolution, Larvae, Tortricidae.
- 139-67
PROBLEMS IN NAMING THE SETAE OF LEPIDOPTEROUS LARVAE.
M R MacKay
Can Entom 95(9):996-999
Sep 1963 421 C16
Hair, Larvae, Lepidoptera.
- 140-67
OBSERVATIONS ON THE NATURAL CONTROL OF THE PEAR PSYLLA,
PSYLLA PYRICOLO FORSTER, IN CALIFORNIA.
H F Madsen P H Westgard R L Sisson
Can Entom 95(8):837-844
Aug 1963 421 C16
California, Natural control (insects), *Psylla pyricola*,
Psylla pyricola Forster.
- 141-67
HOLOCYCLIC STRAIN OF THE SPOTTED ALFALFA APHID IN NEBRASKA
AND ADJACENT STATES.
G R Manglitz C O Calkins R J Waistrom S D Hintz S D Kindler
J Econ Entom 59(3):636-639
Jun 1966 421 J822
Holoecyclic insects, Nebraska, *Therioaphis maculata*,
Therioaphis maculata.
- 142-67
THE INSECT ECOLOGY OF RED PINE PLANTATIONS IN CENTRAL ONTA-
RIO. II. LIFE HISTORY AND CONTROL OF CURCULIONIDAE.
J L Martin
Can Entom 96(11):1408-1417
Nov 1964 421 C16
Curculionidae, Insect ecology, Ontario, Pinus.
- 143-67
THE GENUS *CHRYSOPOPHTHORUS* GOIDANICH (HYMENOPTERA : BRA-
CONIDAE).
W R Mason
Can Entom 96(7):1005-1017
Jul 1964 421 C16
Braconidae, *Chrysopophthorus Goidanich*, Hymenoptera.

BIBLIOGRAPHY

10 144-67

- 144-67
A REVISION OF THE GENUS *CAMPICHOETA* MACQUART (DIPTERA: DIASTATIDAE).
V F McAlpine
Can Entom 94(1):I-10
Jan 1962 42I C16
Campichoeta Macquart, Diastatidae, Diptera, Insect morphology, Insect taxonomy.
- 145-67
CONTINUOUS REARING OF THE CARRUT RUST FLY, *PSILA ROSAE* (FAB.).
R J McClanahan H D Niemczyk
Can Entom 95(8):B27-B30
Aug 1963 42I C16
Insect rearing, *Psila rosae*, *Psila rosae*.
- 146-67
A METHOD OF REARING LARVAE OF THE WHEAT STEM SAWFLY *CEPHUS CINCTUS* NORT. (HYMENOPTERA: CEPHIDAE), UNDER ARTIFICIAL CONDITIONS.
A J McGinnis R Kasting
Can Entom 94(6):S73-S74
Jun 1964 42I C16
Cephalidae, *Cephus cinctus*, *Cephus cinctus* Nort., Hymenoptera, Insect rearing, Larvae.
- 147-67
THE IMMATURE STAGES OF THE CANADIAN SPECIES OF *PERO HERRICH-SCHAEFFER* (LEPIDOPTERA: GEOMETRIDAE).
W C McGuffin
Can Entom 95(11):I159-I167
Nov 1963 42I C16
Geometridae, Lepidoptera, *Pero Herrich-Schaeffer*.
- 148-67
THE LIFE HISTORY AND HABITS OF *SCOLYTUS UNISPINOSUS* LECONTE (COLEOPTERA: SCOLYTIDAE) IN THE INTERIOR OF BRITISH COLUMBIA.
L H McMullen M D Atkins
Can Entom 94(1):17-25
Jan 1962 42I C16
Coleoptera, Douglas-fir engraver, Insect behavior, Life cycle, *Pseudotsuga menziesii* (Mirb) Franco, Scolytidae, *Scolytus unispinosus* Leconte.
- 149-67
ANTHOPHORA (CLISODON) TERMINALIS CRESSON IN TRAP-NESTS IN WISCONSIN (HYMENOPTERA: ANTHOPHORIDAE).
J T Medler
Can Entom 96(10):1332-1336
Oct 1964 42I C16
Anthophora terminalis Cresson, Anthophoridae, Hymenoptera, Insect traps, Wisconsin.
- 150-67
LIFE-HISTORY STUDIES AND REARING TECHNIQUES FOR THE THREE-CORNERED ALFALFA HOPPER.
M V Meisch N M Randolph
J Econ Entom 58(6):1057-1059
Dec 1965 42I J822
Insect rearing, Life cycle, *Spissistilus festinus*, *Spissistilus festinus* (Say).
- 151-67
A NEW SPECIES OF *GROTIUSOMYIA* GIRAULT (HYMENOPTERA: EULOPHIDAE).
C D F Miller
Can Entom 96(7):I021-I023
Jul 1964 42I C16
Eulophidae, *Grotiusomyia Girault*, Hymenoptera.
- 152-67
THE EUROPEAN PRAYING MANTIS (*MANTIS RELIGIOSA* L.) AS A PREDATOR OF THE RED-LEGGED GRASSHOPPER (*MELANOPLUS FERRUBRUM*) (DE GEER).
L J Mook D M Davies
Can Entom 98(9):913-918, TABS.
Sep 1966 42I C16
Insect behavior, Mantis *religiosa* L., *Melanoplus ferrubrum* (De Geer), Predaceous insects.
- 153-67
OCCURRENCE OF THE EGG PARASITE *CLOSTEROCERUS CINCTIPENNIS* IN VIRGINIA.
C L Morris W J Schroeder
J Econ Entom 59(6):I533-I534
Dec 1966 42I J822
Closterocerus cinctipennis, Eggs, Predaceous insects, Virginia.
- 154-67
SYNONYMY AND COLOR VARIATION IN THE FALL WEBWORM, *HYPHANTRIA CUNEA* DRURY (LEPIDOPTERA: ARCTIIDAE).
R F Morris
Can Entom 95(II):I217-1223
Nov 1963 42I C16
Arctiidae, Color, *Hyphantria cunea*, *Hyphantria cunea* Drury, *Hyphantria textor* Harris, Lepidoptera.
- 155-67
NOTE ON THE OCCURRENCE OF *ANACAMPSIS POPULELLA* (CLERCK) (LEPIDOPTERA: GELECHIIDAE) IN CANADA.
R F Morris
Can Entom 98(9):1003-1004
Sep 1966 42I C16
Anacamptis populella (Clerck), Canada, Gelechiidae, Insect outbreaks, Lepidoptera.
- 156-67
THE EFFECT OF PREDATOR AGE AND PREY DEFENSE ON THE FUNCTIONAL RESPONSE OF *PODISUS MACULIVENTRIS* SAY TO THE DENSITY OF *HYPHANTRIA CUNEA* DRURY.
R F Morris
Can Entom 95(10):1009-1020
Oct 1963 42I C16
Hyphantria cunea, *Hyphantria cunea* Drury, Pentatomidae, *Podisus maculiventris*, Predaceous insects.
- 157-67
A NEW SPECIES OF *TETRALOPHA* (LEPIDOPTERA: PYRALIDAE) FROM VACCINIUM.
E Munroe
Can Entom 95(7):677-679
Jul 1963 42I C16
Lepidoptera, Pyralidae, *Tetralopha vaccinivora*.
- 158-67
HISTORY OF LARCH SAWFLY OUTBREAKS AND THEIR EFFECT ON TAMARACK STANDS IN MANITOBA AND SASKATCHEWAN.
L D Nairn W A Reeks F E Webb V Hildahl
Can Entom 94(3):242-258, BIBL. 2S4-2S5
Mar 1962 42I C16
Insect ecology, Insect outbreaks, *Larix laricina*, *Larix laricina*, *Pristiphora erichsonii*, *Pristiphora erichsonii* (Htg.).
- 159-67
A LIST OF TRICHOPTERA TAKEN AT MONTREAL AND CHAMBLY, QUEBEC, WITH DESCRIPTIONS OF THREE NEW SPECIES.
A P Nimmo
Can Entom 98(7):688-693
Jul 1966 42I C16
Aquatic insects, *Cheumatopsyche montrealensis*, *Hydropsyche corbeti*, *Protophila expositiois*, Quebec, Trichoptera.
- 160-67
METHODS FOR DETERMINING PINK BOLLWORM POPULATIONS IN BLOOMS.
L W Noble O T Robertson
J Econ Entom 57(4):S01-S03
Aug 1964 42I J822
Cotton, Insect populations, *Pectinophora gossypiella*, *Pectinophora gossypiella*.
- 161-67
A STUDY OF THE KHAPRA BEETLE, *TROGODERMA GRANARIUM*, IN COMMERCIAL GRAIN STORAGE IN SOUTHERN ARIZONA.
W L Nutting P D Gerhardt
J Econ Entom 57(3):305-314, TABS.
Jun 1964 42I J822
Arizona, Storage, *Trogoderma granarium*, *Trogoderma granarium*.
- 162-67
THE TAENIOTHIRPS OF CANADA (THYSANOPTERA: THIRIPIDAE).
K O Neil R S Bigelow
Can Entom 96(9):I219-1239, BIBL. I238-I239
Sep 1964 42I C16
Canada, Taeniothrips, Thripidae, Thysanoptera.
- 163-67
BIONOMICS OF THE DESTRUCTIVE PRUNE WORM, *MINEOLA SCITULELLA*, ON SOUR CHERRY IN WISCONSIN.
E R Oatman
J Econ Entom 57(1):100-102, PL.
Feb 1964 42I J822
Destructive prune worm, Insect ecology, *Mineola scitulella*, Sour cherries, Wisconsin.

- 164-67
ORCHARD INSECT SURVEYS WITH BLACKLIGHT TRAPS.
E R Datman
J Econ Entom 57(1):6-8
Feb 1964 421 J822
Insect ecology, Light traps, Orchards.
- 165-67
AN ECOLOGICAL STUDY OF ARTHROPOD POPULATIONS ON APPLE IN NORTHEASTERN WISCONSIN: SPECIES AFFECTING THE FRUIT.
E R Datman E F Legner R F Brooks
J Econ Entom 59(1):165-169
Feb 1966 421 J822
Apples, *Argyrotaenia velutinana* (Walker), Arthropoda, *Carpocapsa pomonella* (L.), *Conotrachelus nenuphar* (Herbst), Ecology, Fruit, Insect population, *Ragoletis pomonella* Walsh, *Spilonota ocellana* (Denis and Schiffersmuller), *Venturia inequalis* (Winters), Wisconsin.
- 166-67
ADDITIONAL STUDIES ON THE BIONOMICS OF THE EYE-SPOTTED BUD MOTH, *SPILONOTA OCELLANA*, ON SOUR CHERRY IN WISCONSIN.
E R Datman
J Econ Entom 56(6):903-904
Dec 1963 421 J822
Insect ecology, Sour cherries, *Spilonota ocellana*, *Spilonota ocellana*, Wisconsin.
- 167-67
GREATER WAX MOTH DEVELOPS ON BUMBLE BEE CELLS.
E Dertel
J Econ Entom 56(4):543-544
Aug 1963 421 J822
Bee combs, *Bombus*, *Bombus*, *Galleria mellonella*, *Galleria mellonella* (L.).
- 168-67
STUDIES ON THE BIOLOGICAL CONTROL OF THE FALL WEBWORM, *HYPHANTHRIA CUNEA*, IN LOUISIANA.
A D Oliver
J Econ Entom 57(3):314-318, TABS.
Jun 1964 421 J822
Biological control (insects), *Hyphantria cunea*, *Hyphantria cunea*, Louisiana.
- 169-67
METHODS OF SEXING AND SEX RATIOS OF THE SOUTHERN PINE BEE-TLE, *DENDROCTONUS FRONTALIS* ZIMM.
E A Osgood Jr E W Clark
Can Entom 95(10):1106-1109
Oct 1963 421 C16
Dendroctonus frontalis, *Dendroctonus frontalis* Zimm., Sex determination.
- 170-67
A SAMPLING TECHNIQUE FOR POPULATION AND MORTALITY FACTORS OF THE FRUIT-TREE LEAF ROLLER, *ARCHIPS ARGYROSPILUS* (WLK.) (LEPIDOPTERA: TORTRICIDAE), ON APPLES IN QUEBEC.
R O Paradis E J LeRoux
Can Entom 94(6):561-573, BIBL. 572-573
Jun 1962 421 C16
Archips argyrospilus, *Archips argyrospilus* (Wlk.), Insect ecology, Insect mortality, Insect population, Sampling.
- 171-67
FIRST FINDINGS OF COTTON LEAFWORM LARVAE IN THE UNITED STATES, 1922 TO 1963.
C R Parencia Jr C F Rainwater
J Econ Entom 57(4):432, BIBL.
Aug 1964 421 J822
Alabama argillacea, Alabama argillacea, Larvae, United States.
- 172-67
STUDIES ON THE ABILITY OF OVERWINTERED BOLL WEEVILS TO FIND FRUITING COTTON PLANTS.
C R Parencia Jr J W Davis C B Cowan Jr
J Econ Entom 57(1):162
Feb 1964 421 J822
Anthonomus grandis, *Anthonomus grandis*, Cotton, Hibernation.
- 173-67
A LIST OF THE TABANIDAE (DIPTERA) OF QUEBEC.
L L Pechuman
Can Entom 96(12):1495-1496
Dec 1964 421 C16
Diptera, Quebec, Tabanidae.
- 174-67
DESCRIPTION OF THE IMMATURE STAGES OF *PULVINARIA VITIS* (L.) AND *P. INNUMERABILIS* (RATHVON) (HOMOPTERA: COCCOIDEA), WITH NOTES ON THE HABITS OF THESE SPECIES IN ONTARIO, CANADA.
J H H Phillips
Can Entom 94(5):497-502
May 1962 421 C16
Coccoidea, Homoptera, Insect morphology, *Pulvinaria innumerabilis* (Rathvon), *Pulvinaria vitis* (L.).
- 176-67
POTATO LEAFHOPPER TRAPPING STUDIES TO DETERMINE LOCAL FLIGHT ACTIVITY.
R L Pienkowski J T Medler
J Econ Entom 59(4):837-843
Aug 1966 421 J822
Empoasca fabae, Flight activity, Light traps.
- 177-67
INTRODUCING PARASITES AND PREDATORS TO CONTROL NATIVE PESTS.
D Pimentel
Can Entom 95(B):785-792, BIBL. 791-792
Aug 1963 421 C16
Insect pests, Parasites, Predaceous insects.
- 178-67
HYMENOPTEROUS PARASITES OF THE ALFALFA WEEVIL, *HYPERA POSTICA*, IN NEW YORK.
G O Poinar Jr G G Gyrisco
J Econ Entom 56(4):533-534, BIBL. 534
Aug 1963 421 J822
Hymenoptera, *Hypera postica*, *Hypera postica* (Gyllenhal), New York, Parasitic insects.
- 179-67
A COMPARISON OF TWO SAMPLING METHODS FOR ESTIMATING POPULATION TRENDS OF THRIPS AND MITES ON POTATOES.
D M Powell B J Landis
J Econ Entom 58(6):1141-1144
Dec 1965 421 J822
Potatoes, Sampling, *Tetranychus telarius* (L.), *Tetranychus urticae*, *Thrips tabaci*, *Thrips tabaci* Lindeman.
- 180-67
SPECIES OF *COLPOCEPHALUM* (MALLOPHAGA: MENOPONIDAE) PARASITIC UPON THE FALCONIFORMES.
R D Price J R Beer
Can Entom 95(7):731-763
Jul 1963 421 C16
Colpocephalum, Falconiformes, Mallophaga, Menoponidae.
- 181-67
A NEW *COLPOCEPHALUM* (MALLOPHAGA: MENOPONIDAE) FROM *DAPTIRIUS ATER*.
R D Price J R Beer
Can Entom 96(11):1483-1484
Nov 1964 421 C16
Colpocephalum, *Daptirius ater*, Mallophaga, Menoponidae.
- 182-67
BIOLOGICAL NOTES ON SOME HYPERPARASITES OF *BATHYPLECTES CURCULLIONIS* (THOMSON).
B Puttler
J Econ Entom 59(2):483-484, 818L.
Apr 1960 421 J822
Bathyplectes curculionis (Thomson), *Hypera postica*, *Hypera postica* (Gyllenhal), Hyperparasitism.
- 183-67
SOME SEXUAL DIFFERENCES IN THE GRANARY WEEVIL *SITOPHILUS GRANARIUS* (L.).
A H Qureshi
Can Entom 95(10):1117-1119
Oct 1963 421 C16
Insect morphology, Sex behavior, *Sitophilus granarius*, *Sitophilus granarius* (L.).
- 184-67
THE MALE GENITALIA IN GRYLLINAE (ORTHOPTERA: GRYLLIDAE) AND A TRIBAL REVISION.
R L Randell
Can Entom 96(12):1565-1607, BIBL. 1602-1607
Dec 1965 421 C16
Gryllidae, Gryllinae, Orthoptera, Reproductive organs.
- 185-67
FURTHER STUDIES ON TECHNIQUES FOR SAMPLING THE DENSITY OF AFRICAN HOUSE FLY POPULATIONS. 1. A FIELD COMPARISON OF THE USE OF THE SCUDDER GRILL AND THE STICKY-FLYTRAP METHOD FOR

10 186-67

- SAMPLING THE INDOOR DENSITY OF AFRICAN HOUSE FLIES.
J N Raybould
J Econ Entom 59(3):639-644
Jun 1966 421 J822
Africa, Fly traps, Insect population density,
Musca domestica, *Musca domestica calieva* Walker,
Musca domestica curviforceps Rivoecchi,
Musca domestica curviforceps Sacca.
- 186-67
THE OCCURENCE AND LIFE HISTORY OF THE LEAF TIER, *CNEPHASIA VIRGAUREANA* TREIT. (LEPIDOPTERA: TORTRICIDAE), AND ITS PARASITES IN NEWFOUNDLAND AND PRINCE EDWARD ISLAND.
D C Read R F Morris
Can Entom 96(10):1336-1339
Oct 1964 421 C16
Cnephassa virgaureana Treit., Lepidoptera, Newfoundland, Prince Edward Island, Tortricidae.
- 187-67
ESTABLISHING AND MAINTAINING A CULTURE OF *HYLEMIA BRASSICAE* (BOUCHE) DIPTERA: ANTHOMYIIDAE) IN THE GREENHOUSE OR LABORATORY.
D C Read H E Welch
Can Entom 94(5):458-460
May 1962 421 C16
Anthomyiidae, Diptera, Greenhouse culture,
Hylemya brassicae, *Hylemya brassicae* (Bouche),
Insect rearing.
- 188-67
BIONOMICS OF THE BARK BEETLE *PSEUDOPITYOPHTHORUS PRUINOSUS* WITH SPECIAL REFERENCE TO ITS ROLE AS A VECTOR OF OAK WILT, *CERATOCYSTIS FAGACEARUM*.
C O Rexrode H M Kulman C K Dorsey
J Econ Entom 58(5):913-916
Oct 1965 421 J822
Ceratocystis fagacearum, Ecology,
Pseudopityophthorus pruinus, *Quercus*, Scolytidae,
Wilt (oak).
- 189-67
A NEW ARTIC APHID (HOMOPTERA: APHIDIDAE).
W R Richards
Can Entom 96(7):1027-1029
Jul 1964 421 C16
Aphididae, Arctic, Homoptera, *Metapoplium*.
- 190-67
THREE NEW NORTH AMERICAN POPLAR-INFESTING CHAITOPHORINAE (HOMOPTERA: APHIDIDAE).
W R Richards
Can Entom 98(10):1104-1111
Oct 1966 421 C16
Aphididae, Chaitophorinae, *Chaitophorus nodulosus*, *Chaitophorus nudus*, Homoptera, North America, *Populus*, *Pseudopterocomma canadensis*.
- 191-67
THE MYZAPHIDINES OF CANADA (HOMOPTERA: APHIDIDAE).
W R Richards
Can Entom 95(7):680-704, 818L. 703-704
Jul 1963 421 C16
Aphididae, Canada, Homoptera, Myzaphidines.
- 192-67
THE SCALE INSECTS OF THE CANADIAN ARTIC (HOMOPTERA: COCCOIDEA).
W R Richards
Can Entom 96(11):1457-1462
Nov 1964 421 C16
Arctic, Coccoidea, Homoptera.
- 193-67
SURVEYS OF ADULT GRASSHOPPERS IN SASKATCHEWAN IN RELATION TO SEASONAL DEVELOPMENT.
P W Riegert R Pickford
Can Entom 95(9):936-941
Sep 1963 421 C16
Grasshoppers, Saskatchewan.
- 194-67
MASS REARING OF THE WESTERN SPOTTED CUCUMBER BEETLE.
L C Rimando R A Corey Y Sun
J Econ Entom 59(1):230-231
Feb 1966 421 J822
Diabrotica undecimpunctata howardi,
Diabrotica undecimpunctata Mannerheim,
Diabrotica virgifera LeConte, Insect rearing.
- 195-67
THE LIFE-HISTORY OF THE MELON WEEVIL, *BARIS GRANULIPENNIS* (TOURN.) IN ISRAEL.
E Rivnay
Bull Entomol R 51(1):115-122
Apr 1960 421 887
Baris granulipennis, Israel.
- 196-67
A NEW HOST AND DISTRIBUTIONAL RECORD FOR *SYSTOLE GENICULATA* (HYMENOPTERA: EURYTOMIDAE).
R S Roberts
J Econ Entom 56(4):541-542
Aug 1963 421 J822
Eurytomidae, Hymenoptera, *Systole geniculata*.
- 197-67
SPREAD OF BOLL WEEVIL AND ITS CONTROL IN FAR WEST TEXAS.
O T Robertson L W Noble G E Orr
J Econ Entom 59(3):754-756
Jun 1966 421 J822
Anthonomus grandis, *Anthonomus grandis*, Control, Spread, Texas.
- 198-67
ASIPHONAPHIS WILSON AND DAVIS IN NORTH AMERICA (HOMOPTERA: APHIDIDAE).
A G Robinson
Can Entom 96(8):1093-1097
Aug 1964 421 C16
Aphididae, *Asiphonaphis*, Homoptera, North America.
- 199-67
A NEW SPECIES OF *DACTYNOTUS RAFINESQUE* (HOMOPTERA: APHIDIDAE) FROM *GRINDELIA SQUARROSA* (PURSH) DUNAL.
A G Robinson
Can Entom 96(10):1330-1332
Oct 1964 421 C16
Aphididae, *Dactynotus rafinesque*, *Grindelia squarrosa*, Homoptera.
- 200-67
A NEW SPECIES OF *ACROPSILUS* FROM THE SOLOMON ISLANDS (DIPTERA: DOLICHOPODIDAE).
H Robinson
Can Entom 95(8):830-831
Aug 1963 421 C16
Acropsilus, Diptera, Dolichopodidae, Solomon Islands.
- 201-67
FIELD STUDIES ON FLIGHT PATTERNS AND OLFACTORY RESPONSES OF AMBROSIA BEETLES IN DOUGLAS-FIR FORESTS OF WESTERN OREGON.
J A Rudinsky G E Daterman
Can Entom 96(10):1339-1352, 818L. 1351-1352, TABS.
Oct 1964 421 C16
Gnathotrichus retusus, *Gnathotrichus sulcatus*,
Insect flight, Oregon, *Pseudotsuga menziesii*,
Trypodendron lineatum.
- 202-67
ON THE STAGES IN THE DEVELOPMENT OF *SYNTOMOSPHYRUM ALBICLAVUS* KERRICH (HYM., GLOSSINIDAE), A PARASITE OF TSETSE FLIES.
D S Saunders
Bull Entomol R 51(1):25-32
Apr 1960 421 887
Glossina, Insect morphology, *Syntomosphyrum albiclavus*.
- 203-67
THE WHITE-CLUBBED FORM OF *SYNTOMOSPHYRUM* (HYM., EULOPHIDAE) PARASITIC ON TSETSE FLIES.
D S Saunders
Bull Entomol R 51(1):17-20
Apr 1960 421 887
Glossina morsitans, *Glossina palpalis*,
Syntomosphyrum glossinae.
- 204-67
SEASONAL DENSITIES AND CONTROL OF THE CYCLAMEN MITE, *STENEOTARSONEMUS PALLIDUS* (ACARINA: TARSONEMIDAE) ON STRAWBERRY IN NEW YORK.
G A Schaefer
J Econ Entom 56(5):565-571, TABS.
Oct 1963 421 J822
Acarina, New York, Population (insects),
Steneotarsonemus pallidus,
Steneotarsonemus pallidus (Banks), Strawberries,
Tarsonemidae.

- 205-67
THE FEASIBILITY OF USING A NEOAPLECTANID NEMATODE FOR CONTROL OF SOME FOREST INSECT PESTS.
D C Schmiege
J Econ Entom 56(4):427-431
Aug 1963 421 JB22
Forest insects, Insect pests, Nematodes, Neoaplectana, Parasitism.
- 206-67
A TECHNIQUE FOR THE STATISTICAL SAMPLING OF FANNIA LARVAL DENSITIES ON POULTRY RANCHES.
R B Schoenburg T M Little
J Econ Entom 59(6):1536-1537
Dec 1966 421 JB22
Fannia spp., Larvae, Poultry houses, Sampling (statistics).
- 207-67
THE ECONOMIC SIGNIFICANCE OF COLLEMBOLA IN THE SALINAS VALLEY OF CALIFORNIA.
D B Scott
J Econ Entom 57(2):297-298
Apr 1964 421 JB22
California, Collembola.
- 208-67
THE WORLD RHYPAROCHROMINAE (HEMIPTERA: LYGAEIDAE) III. NEW RHYPAROCHROMINAE FROM THE ETHIOPIAN REGION.
G E Scudder
Can Entom 95(12):1233-1253
Dec 1963 421 C16
Ethiopia, Hemiptera, Lygaeidae, Rhyparochrominae.
- 209-67
WING BASE STRUCTURE IN LEPIDOPTERA. III. TAXOMIC CHARACTERS.
J Sharplin
Can Entom 96(7):943-949
Jul 1964 421 C16
Insect taxonomy, Lepidoptera, Wings (insects).
- 210-67
WING BASE STRUCTURE IN LEPIDOPTERA. II. HIND WING BASE.
J Sharplin
Can Entom 95(11):1121-1145
Nov 1963 421 C16
Lepidoptera, Wings (insects), Zeugloptera.
- 211-67
WING BASE STRUCTURE IN LEPIDOPTERA I. FORE WING BASE.
J Sharplin
Can Entom 95(10):1024-1050, BIBL. 1050
Oct 1963 421 C16
Lepidoptera, Wings (insects).
- 212-67
A NEW CANADIAN SPECIES OF STENOPTERINA MACQ. WITH NOTES ON THE SPECIES ALLIED TO BREVIPEDES (FAB.) (DIPTERA: OTITIDAE).
G E Shewell
Can Entom 94(2):194-200
Feb 1962 421 C16
Dacus brevipes (Fab.), Diptera, Insect taxonomy, Otitidae, Stenopterina Macquart.
- 213-67
MASS-REARING OF THE LARVAE OF NINE NOCTUID SPECIES ON A SIMPLE ARTIFICIAL MEDIUM.
H H Shorey R L Hale
J Econ Entom 58(3):522-524
Jun 1965 421 JB22
Culture media, Insect rearing, Noctuidae.
- 214-67
OUTBREAKS OF THE FOREST TENT CATERPILLAR, MALACOSOMA DISSTRIA HBN., A PERIODIC DEFOLIATOR OF BROAD-LEAVED TREES IN ONTARIO.
W L Sippell
Can Entom 94(4):408-416, BIBL. 416
Apr 1962 421 C16
Defoliation, Insect outbreaks, Malacosoma disstria, Malacosoma disstria Hbn., Populus, Populus.
- 215-67
PREFERENTIAL ATTACK BY DENDROCTONUS TEREBRANS ON PINUS ELLIOTTII.
R H Smith
J Econ Entom 56(6):B17-B19
Dec 1963 421 JB22
Dendroctonus terebrans (Olivier), Pinus elliotii Engelm.
- 216-67
FIELD STUDIES OF EUROPEAN CORN BORER BIOTYPES IN THE MIDWEST.
A N Sparks H C Chiang A J Keaster M L Fairchild
J Econ Entom 59(4):922-928, PL., TABS.
Aug 1966 421 JB22
Biotypes, Midwest, Ostrinia nubilalis, Ostrinia nubilalis.
- 217-67
LABORATORY AND FIELD STUDIES OF F1 PROGENIES FROM RECIPROCAL MATINGS OF BIOTYPES OF THE EUROPEAN CORN BORER.
A N Sparks T A Brindly N D Penny
J Econ Entom 59(4):915-921, TABS.
Aug 1966 421 JB22
Biotypes, F1 progeny, Ostrinia nubilalis, Ostrinia nubilalis.
- 218-67
OBSERVATIONS ON MORTALITY FACTORS OF THE FIR ENGRAVER BEETLE, SCOLYTUS VENTRALIS (COLEOPTERA: SCOLYTIDAE).
R W Stark J H Borden
J Econ Entom 58(6):1162-1163
Dec 1965 421 JB22
Abies, Abies, Scolytus ventralis, Scolytus ventralis LeConte.
- 219-67
THE BIOLOGY OF PISSODES TERMINALIS HOPPING (COLEOPTERA: CURCULIONIDAE) IN CALIFORNIA.
R W Stark D L Wood
Can Entom 96(9):120B-121B, BIBL. 1217-1218, TABS.
Sep 1964 421 C16
California, Coleoptera, Curculionidae, Pissodes terminalis Hopping.
- 220-67
A COLOR CHARACTERISTIC FOR SEXING LIVE ADULT LESSER GRAIN BORERS.
P G Stemley D A Wilbur
J Econ Entom 59(3):760-761
Jun 1966 421 JB22
Color characteristic, Rhizophorthera dominica, Sex determination.
- 221-67
SEQUENTIAL SAMPLING FOR THE LODGEPOLE NEEDLE MINER, EVAGORA MILLERI.
R E Stevens R W Stark
J Econ Entom 55(4):491-494
Aug 1962 421 JB22
Population statistics (insects), Recurvaria milleri, Recurvaria milleri, Sampling (statistics).
- 222-67
SEASONAL HISTORY OF ROOT-INFESTING PHYLLXERA VITIFOLIAE (FITCH) (HOMOPTERA: PHYLLXERIDAE) IN ONTARIO.
A B Stevenson
Can Entom 96(7):979-987
Jul 1964 421 C16
Homoptera, Ontario, Phylloxera vitifoliae (Fitch), Phylloxeridae.
- 223-67
PATASSON LUNA IN OVERWINTERING EGGS OF THE ALFALFA WEEVIL.
F A Streams R W Fuester
J Econ Entom 59(2):331-333
Apr 1966 421 JB22
Biological control, Hibernation, Hymenoptera, Hypera postica, Hypera postica (Gyllenhal), Insect eggs, Myrmecidae, Parasitic insects, Patasson luna (Girault).
- 224-67
THE CLERID BEETLE, THANASIMUS DUBIUS, AS A PREDATOR OF THE SOUTHERN PINE BEETLE.
R C Thatcher L S Pickard
J Econ Entom 59(4):955-957, PL.
Aug 1966 421 JB22
Clerid beetle, Dendroctonus frontalis, Dendroctonus frontalis, Predaceous insects, Thanasimus dubius.
- 225-67
FLY POPULATIONS IN DAIRY BARNES.
HANSEN, E J.
J Econ Entom 56(6):B42-B44, TABS.
Dec 1963 421 JB22
Dairy barns, Diptera, Fannia, Insect populations, Musca domestica L., Stomoxys calcitrans, Stomoxys calcitrans.

BIBLIOGRAPHY

10 226-67

- 226-67
THE TACHINIDS OF TRINIDAD. V. SIPHOSTURMIINES AND MASI-PHYIINES.
W R Thompson
Can Entom 95(12):1292-1320
Dec 1963 421 C16
Masiphya, Masiphysidae, Mystacomyoidea, Pseudomasiphya, Siphosturmia, Tachinidae, Trinidad.
- 227-67
THE TACHINIDS OF TRINIDAD IV. WINTHEMIINES.
W R Thompson
Can Entom 95(9):953-995, BIBL. 994-995
Sep 1963 421 C16
Diptera, Tachinidae, Trinidad, Winthemia.
- 228-67
PINEUS PINEOIDES (CHOLODKOVSKY) (HOMOPTERA: ADELGIDAE)
ON RED SPRUCE IN NEW BRUNSWICK AND NOVA SCOTIA.
G R Underwood
Can Entom 95(7):720-724
Jul 1963 421 C16
Adelgidae, Homoptera, New Brunswick, Nova Scotia, Picea rubens, Pineus pineoides.
- 229-67
THE HOST-PARASITE RELATIONSHIP OF THE EUROPEAN CORN BORER, OSTRINIA NUBILALIS, AND THE PROTOZOAN, PEREZIA PYRAUSTAE, IN DELAWARE.
R S Van Denburgh P P Burbutis
J Econ Entom 55(1):65-67
Feb 1962 421 JB22
Ostrinia nubilalis, Ostrinia nubilalis, Parasites, Perezia pyraustae, Protozoa.
- 230-67
THE RE-INTRODUCTION AND RECOVERY OF LYDELLA STABULANS GRISSESCENS, A PARASITE OF THE EUROPEAN CORN BORER IN DELAWARE.
R S Van Denburgh Paul P Burbutis George T York
J Econ Entom 55(1):11-14, TABS.
Feb 1962 421 JB22
Lydella stabulans griseescens, Ostrinia nubilalis, Ostrinia nubilalis, Parasites.
- 231-67
THE AVAILABILITY OF THE COCONUT BUG, PSEUDOTHERAPTUS WAYI BROWN, (COREIDAE).
F L Vanderplank
Bull Entomol R 51(1):57-60
Apr 1960 421 BB7
Coconuts, Coreidae, Pseudotheraptus wayi Brown.
- 232-67
A SURVEY OF THE SUCKING INSECTS OF THE BIRCHES IN THE MARITIME PROVINCES.
I W Varty
Can Entom 95(10):1097-1106, TABS.
Oct 1963 421 C16
Betula, Hemiptera, Homoptera, Maritime Provinces, Sucking Insects.
- 233-67
THE PROVANCHER TYPES OF ORTHOPTERA.
V R Vickery D K M Kevan
Can Entom 96(12):1549-1554
Dec 1964 421 C16
Orthoptera.
- 234-67
THE GENUS SCHISTOCERCA (ORTHOPTERA : ACRIDIDAE) IN CANADA.
V R Vickery D K M Kevan
Can Entom 96(12):1555-1558
Dec 1964 421 C16
Acrididae, Canada, Orthoptera, Schistocerca.
- 235-67
A NEW SPECIES OF DOLICHOPUS FROM NORTH CAROLINA (DIPTERA: DOLICHOPODIDAE).
J R Vockeroth
Can Entom 94(6):502-505
May 1962 421 C16
Diptera, Dolichopodidae, Dolichopus, Insect morphology.
- 236-67
THE RELATIONSHIP OF THE FRUITING OF THE COTTON PLANT AND OVERWINTERED BOLL WEEVILS TO THE F1 GENERATION.
J K Walker Jr
J Econ Entom 59(2):323-326, TABS.
Apr 1966 421 JB22
Anthonomus grandis, Anthonomus grandis Boheman, Cotton, Hibernation, Insect genetics, Gviposition.
- 237-67
LABORATORY AND FIELD INVESTIGATIONS OF THE EFFECT OF TEMPERATURE ON THE DEVELOPMENT OF NEODIPRION SERTIFER (GEOFF.) IN THE COCCOON.
D R Wallace C R Sullivan
Can Entom 95(10):1051-1066
Oct 1963 421 C16
Insect morphology, Neodiprion sertifer (Geoff.), Pupal cases, Temperature.
- 238-67
THE DISCOVERY OF STREBLOCERA IN CANADA (HYMENOPTERA: BRACONIDAE).
G S Wailey M R MacKay
Can Entom 95(9):999-1001
Sep 1963 421 C16
Braconidae, Canada, Hymenoptera, Streblocera.
- 239-67
FLUORESCENT BIOLOGICAL STAINS AS MARKERS FOR DROSOPHILA.
H E Wave T J Henneberry H C Mason
J Econ Entom 56(6):B90-B91
Dec 1963 421 JB22
Biological stains, Drosophila melanogaster Meigan, Fluorescent substances, Labeling.
- 240-67
NATURAL SOURCE OF FOOD OF THE APPLE MAGGOT.
W T A Weilson F A Wood
J Econ Entom 59(4):997-998
Aug 1966 421 JB22
Insect food, Rhagoletis pomonella, Rhagoletis pomonella.
- 241-67
RELATIONSHIP OF PREDATORY AND INJURIOUS INSECTS IN COTTON FIELDS IN THE SALT RIVER VALLEY AREA OF ARIZONA.
G P Wene L W Sheets
J Econ Entom 55(3):395-398, TABS.
Jun 1962 421 JB22
Cotton, Insect pests, Predaceous insects.
- 242-67
WHITE HORSENETTLE OR SILVERLEAF NIGHTSHADE, AN IMPORTANT HOST OF LYGUS BUGS.
G P Wene L W Sheets
J Econ Entom 57(1):1B1
Feb 1964 421 JB22
Lygus hesperus, Solanum elaeagnifolium, White horsenettle.
- 243-67
DISTRIBUTION OF THE GRAPE MEALYBUG ON PEAR.
P H Westgard
J Econ Entom 57(1):1-3, BIBL., TABS.
Feb 1964 421 JB22
Pears, Pseudococcus maritimus, Pseudococcus maritimus.
- 244-67
THE LARGE ASPEN TORTRIX, CHORISTONEURA CONFLICTANA, IN CALIFORNIA (LEPIDOPTERA: TORTRICIDAE).
B E Wickman
J Econ Entom 56(5):593-596
Oct 1963 421 JB22
California, Choristoneura conflictana (Walker), Large aspen tortrix, Lepidoptera, Tortricidae.
- 245-67
NEW SPECIES AND KEYS TO THE SPECIES OF ABLAUTUS LOEW AND OMNIABLAUTUS PRITCHARD (DIPTERA: ASILIDAE).
J Wilcox
Can Entom 98(7):673-682
Jul 1966 421 C16
Ablautus Loew, Asilidae, Diptera, Insect identification, Insect taxonomy, Omniablautus Pritchard.
- 246-67
A NOTE ON COLOUR PREFERENCES OF SOME HOMOPTERA AND THYSANOPTERA IN BRITISH COLUMBIA.
W H A Wilde
Can Entom 94(1):107
Jan 1962 421 C16
Color preference, Homoptera, Insect traps, Insects, Thysanoptera.
- 247-67
DOWNY CHESS GRASS AS A HOST OF THE PEAR PSYLLA.
W H A Wilde
Can Entom 95(9):1005-1006

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- Sep 1963 421 C16
Bromus tectorum L., Plant hosts, *Psylla pyricola*,
Psylla pyricola Foerster.
- 248-67
 A NEW SPECIES OF DYSMICOCOCCUS FERRIS (PSEUDOCOCCIDAE,
 HOMOPTERA) ON BANANA.
 D J Williams
 Bull Entomol R 51(2):239-241
 Jul 1960 421 B87
 Bananas, Dysmicoccus Ferris, Homoptera, Insect taxonomy,
 Pseudococcidae.
- 249-67
 THE CONTROL OF BLACK SAGE (CORDIA MACROSTACHYA) IN
 MAURITIUS: THE INTRODUCTION, BIOLOGY AND ECONOMICS OF A
 SPECIES OF EURYTOMA (HYMENOPTERA, CHALCIDOIDEA).
 J R Williams P O Wiehe
 Bull Entomol R 51(1):123-135
 Apr 1960 421 887
 Chalcidoidea, *Cordia macrostachya*, *Eurytoma*, Hymenoptera,
 Insect biology, Mauritius.
- 251-67
 EFFECTS OF DIFFERENT POPULATION LEVELS OF THE EUROPEAN
 PINE SAWFLY ON YOUNG SCOTCH PINE TREES.
 L F Wilson
 J Econ Entom 59(5):1043-1049
 Oct 1966 421 J822
 Insect population, *Neodiprion sertifer*,
Neodiprion sertifer (Geoffroy), *Pinus sylvestris*.
- 252-67
 SITE OF SPRUCE BUDWORM EGG MASSES ON THEIR PREFERRED HOSTS
 IN THE LAKE STATES.
 L F Wilson J L Bean
 J Econ Entom 56(5):574-578, TABS.
 Oct 1963 421 J822
Choristoneura fumiferana,
Choristoneura fumiferana (Clemens), Insect eggs,
 Lake states, Plant hosts.
- 253-67
 APHID TRAP COLLECTIONS OVER A THREE-YEAR PERIOD FROM FOUR
 SOUTHERN FLORIDA LOCATIONS.
 D D Wolfenbarger
 J Econ Entom 59(4):953-954
 Aug 1966 421 J822
 Aphidae, Florida, Trap collections.
- 254-67
 THE EXTERNAL MORPHOLOGY OF THE ADULTS AND ULTIMATE LARVAL
 INSTAR OF THE LARCH SAWFLY, PRISTIPHORA ERICHSONII (HTG.)
 (HYMENOPTERA: TENTHREDINIDAE).
 H R Wong
 Can Entom 95(9):897-921, 818L. 920-921
 Sep 1963 421 C16
 Hymenoptera, Insect morphology, Larvae,
Pristiphora erichsonii, *Pristiphora erichsonii*,
 Tenthredinidae.
- 255-67
 THE OLFATORY RESPONSE OF *IPS CONFUSUS* (LECONTE) (COLE-
 OPTERA: SCOLYTIDAE) TO THE SECONDARY ATTRACTION IN THE LAB-
 ORATORY.
 D L Wood R W Bushing
 Can Entom 95(10):1066-1078, 818L. 1077-1078
 Oct 1963 421 C16
 Attractants, Coleoptera, *Ips confusus* (LeConte), Scolytidae.
- 256-67
 LIFE HISTORY AND CONTROL OF A CASEBEARER, *CHLAMISUS CRIBRIPENNIS*
 (COLEOPTERA: CHRYSOMELIDAE), ON BLUEBERRY.
 G W Wood
 J Econ Entom 59(4):823-825
 Aug 1966 421 J822
 Blueberries, Casebearer, *Chlamisus cribripennis*,
 Coleoptera: Chrysomelidae, Life history.
- 257-67
 AN UNUSUAL RECORD OF THE SOUTHERN FIRE ANT, *SOLENOPSIS XY-
 LONI*, IN NORTH CAROLINA.
 D L Wray
 J Econ Entom 55(1):145
 Feb 1962 421 J822
 Formicidae, Population migration (insects),
 Population statistics (insects), *Solenopsis xyloni*,
 Southern fire ants.
- 258-67
 IDENTIFICATION AND OCCURRENCE OF COCKROACHES IN DWELLINGS
 AND BUSINESS ESTABLISHMENTS IN NORTH CAROLINA.
 C G Wright
 J Econ Entom 58(5):1032-1033
 Oct 1965 421 J822
Blattella germanica, *Blattella orientalis*, Blattellidae, Houses,
 North Carolina, *Periplaneta americana*,
Periplaneta fuliginosa, *Supella supellectillum*.
- 259-67
 SOME EFFECTS OF HOST AGE ON PARASITISM BY *NASONIA VITRIPEN-
 NIS* (WALK.) (HYMENOPTERA: PTEROMALIDAE).
 H G Wylie
 Can Entom 95(8):881-886 TABS.
 Aug 1963 421 C16
 Hymenoptera, Insect hosts, *Nasonia vitripennis*, Parasitism,
 Pteromalidae.
- 260-67
 FIVE NEW SPECIES OF THE CADDISFLY *POLYCENTROPUS* FROM
 SOUTH AMERICA (TRICHOPTERA: POLYCENTROPODIDAE).
 Toshio Yamamoto
 Can Entom 98(9):908-912
 Sep 1966 421 C16
 Insect morphology, Insect taxonomy, Polycentropodidae,
Polycentropus, South america, Trichoptera.

Physiology & Biochemistry

- 261-67
 DEHYDROCHLORINATION AND DDT-RESISTANCE IN *Aedes Aegypti*.
 Z H Abedi J R Duffy A W A Brown
 J Econ Entom 56(4):511-517, 818L. 516-517, TABS.
 Aug 1963 421 J822
Aedes aegypti (L.), Dehydrochlorination, DDT,
 Insecticide resistant insects.
- 262-67
 RESISTANCE OF THE ALFALFA WEEVIL TO HEPTACHLOR.
 V E Adler C C Slickenstaff
 J Econ Entom 57(2):299-300, PL.
 Apr 1964 421 J822
 Heptachlor, *Hypera postica*, *Hypera postica*,
 Insecticide resistant insects.
- 263-67
 CAUSAL AGENTS OF BACTERIAL DISEASES OF THE SILKWORM AND THE
 USE OF ANTI-BIOTICS IN THEIR CONTROL.
 E G Afrikian
 J Invertebrate Path 2(3):299-304
 1960 421 J826
 Antibiotics, Bacteria, *Bombyx mori* (Linnaeus).

- 264-67
 CHARACTERS FOR DETERMINATION OF SEX OF THE BOLL WEEVIL.
 H R Agee
 J Econ Entom 57(4):500-501
 Aug 1964 421 J822
Anthonomus grandis, *Anthonomus grandis* Boheman,
 Sex determination.

- 265-67
 RESISTANCE INDUCTION IN *TETRANYCHUS TELARIUS* WITH
 BINAPACRYL.
 H E Ailer D C Lippold
 J Econ Entom 56(6):721-722, 818L. 721-722
 Dec 1963 421 J822
 Binapacryl, Insecticide resistant insects,
Tetranychus telarius (L.).

- 266-67
 MATING BEHAVIOR OF THE SCREW-WORM FLY AS AFFECTED BY
 DIFFERENCES IN STRAIN AND SIZE.
 D A Alley B G Hightower
 J Econ Entom 59(6):1499-1502
 Dec 1966 421 J822
Cochliomyia hominivorax, *Cochliomyia hominivorax*,
 Sex behavior.

BIBLIOGRAPHY

10 267-67

- 267-67
A SIMPLIFIED TECHNIQUE FOR THE LABORATORY REARING OF FANNIA CANNICULARIS.
J R Anderson J H Poorbaugh
J Econ Entom 57(2):254-256
Apr 1964 421 JB22
Fannia canicularis, Insect rearing.
- 268-67
HOST SPECIFICITY STUDIES OF PHRYDIUCHUS TOPIARIUS AND PHRYDIUCHUS SP.
L A Andres
J Econ Entom 59(1):69-76
Feb 1966 421 JB22
Biological control (Insects), Phrydiuchus sp., Phrydiuchus topiarius (Germar).
- 269-67
PARASITES OF TWO WEEVILS, MICROLARINUS LAREYNII AND M. LYPRIFORMIS, THAT FEED ON THE PUNCTURE VINE, TRIBULUS TERRESTRIS L.
G W Angalet L A Andres
J Econ Entom 58(6):1167
Dec 1965 421 JB22
Microlarinus lareynii (Jacquelin du Val), *Microlarinus lypriformis* (Wollaston), Parasitism, Puncture vine, Seed weevil, Stem weevil.
- 270-67
ECOLOGICAL AND NUTRITIONAL STUDIES ON COLEOMEGLIA MACULATA DEGEER (COLEOPTERA: COCCINELLIDAE). II. THE EFFECTS OF DIFFERENT POPULATION DENSITIES AND SEX RATIOS ON OVIPOSITION.
Y H Atallah
J Econ Entom 59(5):1179-1180
Oct 1966 421 JB22
Coccinellidae, Coleomeglia maculata DeGeer, Coleoptera, Ecology, Insect population, Nutrition, Oviposition, Sex ratios.
- 271-67
DDT RESISTANCE IN HONEY BEES.
E L Atkins Jr L D Anderson
J Econ Entom 55(5):791-792, TABS.
Oct 1962 421 JB22
Apis mellifera, *Apis mellifera* L., DDT, Insecticide resistant insects.
- 272-67
LABORATORY STUDIES ON THE FEEDING HABITS OF SEVEN SPECIES OF ANTS (HYMENOPTERA: FORMICIDAE) IN ONTARIO.
G L Ayre
Can Entom 95(7):712-715
Jul 1963 421 C16
Formicidae, Hymenoptera, Ontario.
- 273-67
EXPERIMENTS ON CONTROL OF THE ALFALFA SEED CHALCID, BRUCHOPHAGUS RODDI, IN SEED ALFALFA.
O G Bacon W D Riley J R Russell W C Batista
J Econ Entom 57(1):105-110, TABS.
Feb 1964 421 JB22
Alfalfa, Alfalfa seed chalcid, Bruchophagus roddi, Insect control.
- 274-67
THE INFLUENCE OF CERTAIN BIOLOGICAL AND ENVIRONMENTAL FACTORS ON INSECTICIDE TOLERANCE OF THE LYGUS BUG, LYGUS HESPERUS.
O G Bacon W D Riley G Zweig
J Econ Entom 57(2):225-230, 818L. 229-230, TABS.
Apr 1964 421 JB22
Biology, Environment, Insecticide resistant insects, Lygus bugs, Lygus hesperus.
- 275-67
THE EPIZOOTIOLOGY OF EUROPEAN FOULBROOD OF THE LARVAL HONEY BEE, APIS MELLIFERA LINNAEUS.
L Bailey
J Invertebrate Path 2(2):67-83
1960 421 JB26
Apis mellifera Linnaeus, Epizootic diseases, European foulbrood, Streptococcus pluton (White).
- 276-67
INSECTICIDE RESISTANCE IN THE ADULT WESTERN CORN ROOTWORM IN NEBRASKA.
H J Bail G T Weekman
J Econ Entom 55(4):439-441
Aug 1962 421 JB22
Diabrotica virgifera, *Diabrotica virgifera*, Insecticide resistant insects, Insecticides.
- 277-67
DIFFERENTIAL EFFECT OF GAMMA RADIATION ON FRUIT FLIES AND FRUIT FLY PARASITES.
J W Baiock Honolulu, Hawaii U. S. Dept. Of Agriculture
J Econ Entom 58(6):1169
Dec 1965 421 JB22
Gamma rays, Parasitism, Tephritidae, Tephritidae.
- 278-67
STUDIES ON SOD WEBWORMS. II. OVIPOSITION BEHAVIOR OF CRAMBUS TRISECTUS UNDER REGULATED LIGHT CONDITIONS IN THE LABORATORY.
A C Banerjee G C Decker
J Econ Entom 59(5):1245-1248
Oct 1966 421 JB22
Crambus trisectus Walker, Oviposition, Sod webworms.
- 279-67
STUDIES ON SOD WEBWORMS. I. EMERGENCE RHYTHM, MATING, AND OVIPOSITION BEHAVIOR UNDER NATURAL CONDITIONS.
A C Banerjee G C Decker
J Econ Entom 59(5):1237-1244
Oct 1966 421 JB22
Crambus trisectus Walker, Emergence rhythm, Mating, Oviposition, Sod webworms.
- 280-67
LABORATORY EVALUATION OF CERTAIN CHLORINATED HYDROCARBON INSECTICIDES AGAINST THE IMPORTED FIRE ANT.
W A Banks C S Lofgren C E Stringer Jr
J Econ Entom 57(2):298-299
Apr 1964 421 JB22
Insecticides, *Solenopsis saevissima richteri*, *Solenopsis saevissima richteri*.
- 281-67
DEVELOPMENT, SURVIVAL AND FECUNDITY OF THE POTATO APHID MACROSIPHUM EUPHORBIAE (THOMAS), AT CONSTANT TEMPERATURES.
C A Barlow
Can Entom 94(6):667-671
Jun 1962 421 C16
Insect fertility, Insect morphology, Insect mortality, Insect temperature, Macrosiphum euphorbiae, Macrosiphum euphorbiae (Thomas).
- 282-67
RESISTANCE TO DDT IN THE ADULT CODLING MOTH AND REFERENCE CURVES FOR GUTHION AND CARBARYL.
M M Barnes H R Moffitt
J Econ Entom 56(6):722-725, TABS.
Dec 1963 421 JB22
Azinphosmethyl, Carbaryl, Carpocapsa pomonella, Carpocapsa pomonella (L.), DDT, Insecticide resistant insects.
- 283-67
FURTHER TESTS OF THE EFFECT OF FOOD PLANTS ON THE MIGRATORY GRASSHOPPER.
O L Barnes
J Econ Entom 58(3):475-479
Jun 1965 421 JB22
Food plants, *Melanoplus sanguinipes*, *Melanoplus sanguinipes* (F.).
- 284-67
OBSERVATIONS ON THE LIFE HISTORY OF THE DESERT GRASSHOPPER (TRIMEROTROPIS PALLIDIPENNIS PALLIDIPENNIS) IN LABORATORY AND INSECTARY CAGES.
O L Barnes
J Econ Entom 56(4):525-529, TABS.
Aug 1963 421 JB22
Grasshoppers, Insect cages, Life cycle, *Trimerotropis pallidipennis pallidipennis* (Burmeister).
- 285-67
TESTS FOR PARTHENOGENESIS IN MIGRATORY, DIFFERENTIAL, AND DESERT GRASSHOPPERS.
O L Barnes
J Econ Entom 58(1):173-174
Feb 1965 421 JB22
Melanoplus differentialis, *Melanoplus differentialis* Thomas, *Melanoplus sanguinipes*, *Melanoplus sanguinipes* (f), Parthenogenesis, *Schistocerca gregaria*, *Schistocerca gregaria* Forskal.

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- 2B6-67
IN VITRO ESTABLISHMENT AND DEVELOPMENT OF EUCOSMA SP. LARVAE FROM CONES OF PINUS RESINOSA ON AN ARTIFICIAL NUTRIENT MEDIUM.
S J Barros M Norris Jr
J Econ Entom 5B(5):1033-1034
Oct 1965 421 JB22
Culture media, Eucosma sp., Larvae, Pinus resinosa.
- 2B7-67
THE STABILIZATION OF RELATIVE HUMIDITY WITH HONEY IN CLOSED SYSTEMS.
B R Bartlett
J Econ Entom 55(1):149-150
Feb 1962 421 JB22
Food moisture, Honey, Humidity, Insects, Temperature.
- 2BB-67
TEMPERATURES LETHAL TO THE ALFALFA WEEVIL.
M H Bass
J Econ Entom 59(6):1530-1531
Dec 1966 421 JB22
Heat, Hypera postica, Hypera postica.
- 2B9-67
INFLUENCE OF AERATION DURING GAMMA IRRADIATION OF SCREW-WORM PUPAE.
A H Baumhover
J Econ Entom 56(5):628-631, BIBL. 631
Oct 1963 421 JB22
Aeration, Cochliomyia hominivorax, Cochliomyia hominivorax (Coquere), Gamma rays, Irradiation, Pupae.
- 290-67
SEXUAL AGGRESSIVENESS OF MALE SCREW-WORM FLIES MEASURED BY EFFECT ON FEMALE MORTALITY.
A H Baumhover
J Econ Entom 5B(3):544-54B
Jun 1965 421 JB22
Cochliomyia hominivorax, Cochliomyia hominivorax (Coquere), Mortality, Sex behavior.
- 291-67
LIPID CONTENT OF THE ALFALFA WEEVIL AS RELATED TO SEASONAL ACTIVITY.
S E Bennet C A Thomas Jr
J Econ Entom 57(2):237-239.
Apr 1964 421 JB22
Hypera postica, Hypera postica, Lipids, Seasonal activity (insects).
- 292-67
COMPARATIVE MORPHOLOGY OF SOME CHRYSOBOTHRIS LARVAE (COLEOPTERA: BUPRESTIDAE) OF EASTERN CANADA.
P Benoit
Can Entom 96(B):1107-1117
Aug 1964 421 C16
Buprestidae, Canada, Chrysobothris, Coleoptera, Insect morphology, Larvae.
- 293-67
HISTOPATHOLOGICAL CHANGES AND HISTOCHEMICAL STUDIES ON THE NUCLEIC ACID METABOLISM IN THE POLYHEDROSIS-INFECTED GUT OF DIPRION HERCYNIAE (HARTIG).
G Benz
J Invertebrate Path 2(3):259-273
1960 421 JB26
Diprion hercyniae (Hartig), Nucleic acids, Polyhedroses.
- 294-67
SEX ATTRACTANTS OF HELIOTHIS ZEA AND H VIRESCENS.
R S Berger J M McGough D F Martin
J Econ Entom 5B(5):1023-1024
Oct 1965 421 JB22
Heliothis virescens, Heliothis zea, Sex attractants.
- 295-67
INSECT ATTRACTANTS: NEW ATTRACTANTS FOR THE MEDITERRANEAN FRUIT FLY.
M Beroza N Green S I Gertler L F Steiner D H Miyashita
J Agr Food Ch 9(5):361-365
Sep 1961 3B1 JB223
Attractants, Ceratitis capitata (Wied.).
- 296-67
TERT-BUTYL AND TERT-PENTYL ESTERS OF 6-METHYL-3-CYCLOHEXENE-1-CARBOXYLIC ACID AS ATTRACTANTS FOR THE MEDITERRANEAN FRUIT FLY.
M Beroza T P McGovern L F Steiner D H Miyashita
J Agr Food Ch 12(3):25B-259
May 1964 3B1 JB223
Attractants, Ceratitis capitata, Ceratitis capitata (Weidemann), Esters, 6-methyl-3-cyclohexene-1-carboxylic acid.
- 297-67
THE BIOLOGY OF THE BOLL WEEVIL IN RELATION TO COTTON TYPL.
J H Black T F Leigh
J Econ Entom 56(6):7B9-790, TABS.
Dec 1963 421 JB22
Anthonomus grandis, Anthonomus grandis Boheman, Cotton, Insect biology.
- 29B-67
FAILURE OF THE GRASSHOPPERS MELANOPLUS BILITURATUS AND MELANOPLUS CONFUSUS TO CROSS-MATE IN CONFINEMENT.
C C Blickenstaff
J Econ Entom 55(3):421
Jun 1962 421 JB22
Grasshoppers, Insect mating, Melanoplus bilituratus, Melanoplus confusus.
- 299-67
INFESTATION OF OVERWINTERING NYMPHS OF CHORTOPHAGA VIRIDIFASCIATA BY MERMITHIDS.
C C Blickenstaff M Sharifullah
J Econ Entom 55(2):26B
Apr 1962 421 JB22
Chortophaga viridifasciata, Hibernation, Mermithids, Nymphs.
- 300-67
LABORATORY INSECTICIDE TESTS AGAINST THE BOLLWORM.
G T Bottger A N Sparks
J Econ Entom 55(1):143-144
Feb 1962 421 JB22
Heliothis zea, Insecticides.
- 301-67
RELATION OF GOSSYPOL CONTENT OF COTTON PLANTS TO INSECT RESISTANCE.
G T Bottger E T Sheehan M J Lukefahr
J Econ Entom 57(2):2B3-2B5, PL.
Apr 1964 421 JB22
Cotton, Gossypol, Insect resistant plants.
- 302-67
LABORATORY TESTS OF INSECTICIDES AGAINST LYGUS HESPERUS ON COTTON.
G T Bottger A N Sparks
J Econ Entom 55(1):142-143
Feb 1962 421 JB22
Cotton, Insecticides, Lygus hesperus.
- 303-67
CONTROL OF THE BLUEBERRY THRIPS IN MAINE.
L W Boulanger D A Abdalla
J Econ Entom 59(4):1007-100B
Aug 1966 421 JB22
Frankliniella vaccinii, Frankliniella vaccinii, Maine.
- 304-67
MECHANISMS OF INSECT RESISTANCE TO THE CHLOROHYDROCARBON INSECTICIDES.
F R Bradbury H Standen
J Sci Food A 11(2):92-100
Feb 1960 3B2 S012
Chlorohydrocarbons, Insecticide resistant insects, Musca domestica.
- 305-67
ABSORPTION AND METABOLISM OF RUELENE BY ARTHROPODS.
U F Brady Jr B W Arthur
J Econ Entom 55(6):B33-B36, TABS.
Dec 1962 421 JB22
Adsorption, Arthropoda, Insect metabolism, Ruelene.
- 306-67
A TECHNIQUE OF CONTINUOUS EXPOSURE FOR DETERMINING RESISTANCE OF HOUSE FLIES TO INSECTICIDES.
U E Brady
J Econ Entom 59(3):764-765
Jun 1966 421 JB22
Exposure, Insecticides, Musca domestica, Resistance.
- 307-67
RESISTANCE TO DDT IN HELIOTHIS VIRESCENS.
J R Brazzel
J Econ Entom 56(5):571-574
Oct 1963 421 JB22

BIBLIOGRAPHY

- 10 308-67
DDT, *Heliothis virescens* (F.),
Insecticide resistant insects.
- 30B-67
THE STATUS OF BOLL WEEVIL RESISTANCE TO CHLORINATED HYDRO-
CARBON INSECTICIDES IN TEXAS.
J R Brazzei O E Shipp
J Econ Entom 55(6):941-944
Dec 1962 421 JB22
Anthonomus grandis, *Anthonomus grandis*, Chlorine,
Hydrocarbons, Insecticides.
- 309-67
DDT RESISTANCE IN HELIOTHIS ZEA.
J R Brazzei
J Econ Entom 57(4):455-457
Aug 1964 421 JB22
DDT, *Heliothis zea* (Boddie), Insecticide resistant insects.
- 310-67
REDUCTION OF ADULT HOUSE-FLY EMERGENCE BY THE EFFECTS OF
BACILLUS SPP. ON THE DEVELOPMENT OF IMMATURE FORMS.
J D Briggs
J Invertebrate Path 2(4):41B-432, TABS.
1960 421 JB26
Bacillus cereus Frankland and Frankland,
Bacillus thuringiensis var. *thuringiensis* Berliner,
Musca domestica.
- 311-67
MECHANICAL EXCISION OF THE RETROCEREBRAL COMPLEX FROM FROZEN
COCKROACH HEADS.
B E Brown
J Econ Entom 57(3):41B-419
Jun 1964 421 JB22
Dissection, Neuroendocrines, *Periplaneta americana*.
- 312-67
POTENTIAL BACTERIAL PATHOGENS OF INSECTS AND THEIR CHARAC-
TERISTICS.
G E Bucher
J Invertebrate Path 2(2):172-195, BIBL. 193-195, TABS.
1960 421 JB26
Bacteria, Insect diseases, Potential pathogens.
- 313-67
CARBARYL, PHOSPHAMIDON, AND DDT TESTS ON THE WESTERN HEM-
LOCK LOOPER IN WASHINGTON.
P E Buffam
J Econ Entom 58(5):1006-1008
Oct 1965 421 JB22
Carbaryl, DDT, *Lambdina fiscellaria lugubrosa*,
Phosphamidon, Washington.
- 314-67
ABSORPTION AND METABOLISM OF C14-LABELED DDT BY DDT-
SUSCEPTIBLE AND DDT-RESISTANT PINK BOLLWORM ADULTS.
D L Bull P L Adkisson
J Econ Entom 56(5):641-643, TABS.
Oct 1963 421 JB22
Absorption, C14, DDT, Insect metabolism,
Insecticide resistant insects, *Pectinophora gossypiella*,
Pectinophora gossypiella (Saunders).
- 315-67
STERILIZATION OF THE MALE ALFALFA WEEVIL (*HYPERA POSTICA*:
CURCULIONIDAE) BY X-RADIATION.
E E Burgess S E Bennett
J Econ Entom 59(2):26B-270
Apr 1966 421 JB22
Hypera postica, Sterilization, X-rays.
- 316-67
EVIDENCE OF SEX HORMONES IN FEMALES OF SEVERAL SPECIES OF
DERMESTIDAE.
W F Burkholder R J Dicke
J Econ Entom 59(3):540-543
Jun 1966 421 JB22
Attagenus piceus, Dermestidae, Sex attractants,
Sex hormones, *Trogoderma glabrum*, *Trogoderma inclusum*.
- 317-67
FIELD RESISTANCE OF HORN FLIES TO THE ORGANIC PHOSPHATE
INSECTICIDE RONNEL.
E C Burns B H Wilson
J Econ Entom 56(5):71B
Oct 1963 421 JB22
Haematobia irritans (L.), Insecticide resistant insects,
Insecticides, Ronnel.
- 318-67
THE DETERMINATION OF FALL ARMYWORM PARASITISM BY DISSEC-
TION.
R W Burrell
J Econ Entom 59(3):763-764
Jun 1964 421 JB22
Dissection, Parasitism, *Spodoptera frugiperda*,
Spodoptera frugiperda.
- 319-67
THE EFFECT OF TEMPERATURE ON THE CONSUMPTION OF FAT DURING
PUPAL DEVELOPMENT IN GLOSSINA.
E Bursell
Bull Entomol R 51(3):5B3-59B
Nov 1960 421 BB7
Fats, *Glossina*, Insect morphology, Pupae, Temperature.
- 320-67
ZIMMERMAN PINE MOTH BIOLOGY AND CONTROL.
J W Butcher R B Carlson
J Econ Entom 55(5):668-671
Oct 1962 421 JB22
Dioryctria zimmermani, *Dioryctria zimmermani* Grote,
Insect biology, Insecticides, Larvae.
- 321-67
DEVELOPMENT OF THE BEET ARMYWORM AND ITS PARASITE
CHELONUS TEXANUS IN RELATION TO TEMPERATURE.
G D Butler Jr
J Econ Entom 59(6):1324-1327
Dec 1966 421 JB22
Chelonus texanus, Insect rearing, *Spodoptera exigua*,
Spodoptera exigua.
- 322-67
TECHNIQUES FOR REARING THE CORN EARWORM, HELIOTHIS ZEA.
P S Callahan
J Econ Entom 55(4):453-457
Aug 1962 421 JB22
Heliothis zea, *Heliothis zea*, Insect rearing, Larvae.
- 323-67
EVALUATION OF SOME ORGANIC PHOSPHATE AND CARBAMATE INSECTI-
CIDES AGAINST THIRD-INSTAR GREEN JUNE BEETLE LARVAE.
W V Campbell R L Robertson J M Falter
J Econ Entom 59(3):516-518
Jun 1966 421 JB22
Cotinis nitida, Larvicides.
- 324-67
RESPIRATION MEASUREMENT OF TRIBOLIUM CONFUSUM BY GAS
CHROMATOGRAPHY.
S D Carlson
J Econ Entom 59(2):335-338, BIBL. 337-338
Apr 1966 421 JB22
Chromatography, Insect respiration, *Tribolium confusum*,
Tribolium confusum Jacquelin duVal.
- 325-67
OVIPOSITION AND FECUNDITY OF BOLL WEEVILS IN MASS REARING
LABORATORY CULTURES.
R T Cast
J Econ Entom 59(1):173-176
Feb 1966 421 JB22
Anthonomus grandis Boheman, Culture, Fertility,
Mass rearing, Oviposition.
- 326-67
A COMPARISON OF THE AMOUNTS OF METEPA REQUIRED TO STERILIZE
THE SCREW-WORM FLY AND THE STABLE FLY.
W F Chamberlain C C Barrett
J Econ Entom 57(2):267-269, TABS.
Apr 1964 421 JB22
Cochliomyia hominivorax, *Cochliomyia hominivorax*, Metepa,
Sterilization, *Stomoxys calcitrans*, *Stomoxys calcitrans*.
- 327-67
CHEMOSTERILIZATION AND MATING BEHAVIOR OF MALE HOUSE FLIES.
C Chang
J Econ Entom 58(4):669-672, BIBL. 671-672, TABS.
Aug 1965 421 JB22
Chemosterilants, *Musca domestica*, *Musca domestica* L,
Sex behavior.
- 328-67
QUANTITATIVE EFFECTS OF TEPA, METEPA, AND APHOLATE ON STERI-
LIZATION OF MALE HOUSE FLIES.
S C Chang A B Borkovec
J Econ Entom 57(4):4BB-490
Aug 1964 421 JB22

- Apholate, Metepa, *Musca domestica*, *Musca domestica* L., Sterility, Tapa.
- 329-67
MICROORGANISMS FROM THE MID-GUT OF LARVAL AND ADULT CULEX QUINQUEFASCIATUS SAY.
J Chao G A Wistreich
J Invertebrate Path 2(3):220-224
1960 421 JB26
Culex quinquefasciatus Say, Microorganisms.
- 330-67
PINK BOLLWORM RESISTANCE TO DDT IN THE LAGUNA AREA OF MEXICO.
A J Chapman L B Coffin
J Econ Entom 57(1):148-150
Feb 1964 421 JB22
DDT, Insecticide resistant insects, Mexico, Pectinophora gossypiella, Pectinophora gossypiella.
- 331-67
FIELD STUDIES ON ATTACK FLIGHT AND LOG SELECTION BY THE AMBROSIA BEETLE TRYPODENDRON LINEATUM (OLIV.) (COLEOPTERA: SCOLYTIDAE).
J A Chapman
Can Entom 94(1):74-92, 8IBL. 91-92
Jan 1962 421 C16
Attractants, Coleoptera, Insect behavior, Insect flight, Piatypodidae, Scolytidae, Trypodendron lineatum (Oliv.).
- 332-67
SURVIVAL OF NORTHERN CORN ROOTWORM EGGS THROUGH ONE AND TWO WINTERS.
H C Chiang
J Econ Entom 58(3):470-472
Jun 1965 421 JB22
Diabrotica longicornis, Diabrotica longicornis, Environment, Insect eggs.
- 333-67
CHANGES IN WEIGHT OF ABRADED AND UNABRADED LARVAL PINK BOLLWORM UNDER SUBMERSION AND DESICCATION.
E W Clark C A Richmond
J Econ Entom 57(1):14-16
Feb 1964 421 JB22
Insect physiology, Larvae, Pectinophora gossypiella, Pectinophora gossypiella, Soil moisture.
- 334-67
LABORATORY STUDIES ON RESISTANCE OF THE BODY LOUSE TO INSECTICIDES.
P H Clark M M Cole
J Econ Entom 57(2):205-210, TABS.
Apr 1964 421 JB22
Insecticide resistant insects, Pediculus humanus humanus, Pediculus humanus humanus.
- 335-67
DETERMINATION OF RESISTANCE BY DIPPING LICE IN ACETONE SOLUTIONS.
P H Clark M M Cole
J Econ Entom 57(2):296
Apr 1964 421 JB22
Acetone, Insecticide resistant insects, Pediculus humanus humanus, Pediculus humanus humanus.
- 336-67
INHERITANCE OF RESISTANCE TO DDT IN BLATTELLA GERMANICA.
D G Cochran M H Ross
J Econ Entom 55(1):88-89
Feb 1962 421 JB22
Blattella germanica, Blattella germanica, DDT, Inheritance, Insecticide resistant insects.
- 337-67
RESISTANCE TO TELODRIN IN THE GERMAN COCKROACH, BLATTELLA GERMANICA.
D G Cochran M H Ross
J Econ Entom 57(4):485
Aug 1964 421 JB22
Blattella germanica, Blattella germanica, Insecticide resistant insects, Telodrin.
- 338-67
GROSS EFFECTS OF GAMMA RADIATION ON THE INDIAN-MEAL MOTH AND THE ANGOUMOIS GRAIN MOTH.
R R Cogburn E W Tilton W E Burkholder
J Econ Entom 59(3):682-685
Jun 1966 421 JB22
Gamma rays, Plodia interpunctella, Plodia interpunctella,
- Sitotroga cerealella, Sitotroga cerealella.
- 339-67
EXPERIMENTAL FIELD TECHNIQUES USED TO EVALUATE GYPSY MOTH, PORTHETRIA DISPAR, CONTROL IN NEW YORK.
D P Connoia F B Lewis J L McDonough
J Econ Entom 59(2):284-287
Apr 1966 421 JB22
Defoliation, Frass, Larvae, New York, Porthetria dispar, Porthetria dispar, Spraying.
- 340-67
AN ENTOMOGENOUS FUNGUS OBSERVED ATTACKING ALFALFA WEEVIL ADULTS IN NEW YORK.
W R Cothran G G Gyrisco
J Econ Entom 59(1):243-244
Feb 1966 421 JB22
Beauveria bassiana (Balsamo), Entomogenous fungi, Hypera postica, Hypera postica (Gyllenhal), New York.
- 341-67
INFLUENCE OF COLD STORAGE ON THE VIABILITY OF ALFALFA WEEVIL EGGS AND FEEDING ABILITY OF HATCHING LARVAE.
W R Cothran G G Gyrisco
J Econ Entom 59(4):1019-1020, BIBL., PL.
Aug 1966 421 JB22
Cold storage, Eggs, Feeding ability, Hypera postica, Hypera postica, Larvae, Viability.
- 342-67
EFFECT OF REPEATED SPRAYS ON SUSCEPTIBILITY OF CALIFORNIA RED SCALE TO PARATHION.
A W Cressman
J Econ Entom 56(6):884-885
Dec 1963 421 JB22
Aonidiella aurantii, Aonidiella aurantii (Maskell), Insecticide resistant insects, Parathion, Spraying.
- 343-67
STUDIES OF DIMETHOATE FOR CONTROL OF CALIFORNIA RED SCALE.
A W Cressman J E Gilmore
J Econ Entom 57(3):322-324
Jun 1964 421 JB22
Aonidiella auranti, Aonidiella aurantii, Dimethoate, Insect control.
- 344-67
A COMPARISON OF THE NUMBER OF TROPICAL RAT MITES AND TROPICAL FOWL MITES THAT FED AT DIFFERENT TEMPERATURES.
H F Cross G W Wharton
J Econ Entom 57(4):439-443
Aug 1964 421 JB22
Feeding, Ornithonyssus bacoti, Ornithonyssus bacoti (Hirst), Ornithonyssus bursa, Ornithonyssus bursa (Berlese), Temperature.
- 345-67
A COMPARISON OF THE NUMBER OF TROPICAL RAT MITES AND TROPICAL FOWL MITES THAT FED UNDER VARYING CONDITIONS OF HUMIDITY.
H F Cross G W Wharton
J Econ Entom 57(4):443-445, TABS.
Aug 1964 421 JB22
Feeding, Humidity, Ornithonyssus bacoti, Ornithonyssus bacoti (Hirst), Ornithonyssus bursa, Ornithonyssus bursa (Berlese).
- 346-67
THE INDUCTION OF SEXUAL STERILITY IN THE SCREW-WORM FLY BY ANTIMETABOLITES AND ALKYLATING AGENTS.
M M Crystal
J Econ Entom 56(4):468-473, 8IBL., 473, TABS.
Aug 1963 421 JB22
Alkylation, Antimetabolites, Cochliomyia hominivorax, Cochliomyia hominivorax (Coquerel), Sterilization.
- 347-67
OBSERVATIONS ON THE ROLE OF LIGHT, TEMPERATURE, AGE, AND SEX IN THE RESPONSE OF SCREW-WORM FLIES TO ATTRACTANTS.
M M Crystal
J Econ Entom 57(3):324-325
Jun 1964 421 JB22
Age, Attractants, Cochliomyia hominivorax, Cochliomyia hominivorax, Light, Sex, Temperature.
- 348-67
THE EFFECT OF PHYSIO-CHEMICAL TREATMENTS ON DIAPAUSING EGGS OF NORTHERN CORN ROOTWORMS, DIABROTICA LONGICORNIS.
V D Cunningham D C Peters
J Econ Entom 57(4):436-438

BIBLIOGRAPHY

10 349-67

- Aug 1964 421 JB22
Diabrotica longicornis, *Diabrotica longicornis* (Say),
 Experimental treatments, Insect egg hatching.
- 349-67
 STUDIES OF SEX ATTRACTANT OF BANDED CUCUMBER BEETLE.
 F P Cuthbert Jr W J Reid Jr
 J Econ Entom S7(2):247-250, PL.
 Apr 1964 421 JB22
 Attractants, *Diabrotica balteata*, *Diabrotica balteata*.
- 350-67
 UPTAKE OF METEPA AND ITS EFFECT ON TWO SPECIES OF MOSQUITOES
 (ANOPHELES QUADRIMACULATUS, Aedes Aegypti) AND HOUSE FLIES
 (MUSCA DOMESTICA).
 D A Dame C H Schaidt
 J Econ Entom S7(1):77-81, TABS.
 Feb 1964 421 JB22
Aedes aegypti, *Anopheles quadrimaculatus*, *Metepa*,
Musca domestica, *Musca domestica*.
- 351-67
 CHOLINESTERASE VARIATION AS A FACTOR IN ORGANOPHOSPHATE
 SELECTIVITY IN INSECTS.
 W C Dauterman R D O'Brien
 J Agr Food Ch 12(4):318-319, B18L. 319
 Jul 1964 3B1 JB223
 Organophosphorus.
- 352-67
 LIFE HISTORY AND HABITS OF THE GREEN SPRUCE LEAF MINER,
 EPINOTIA NANANA (TREITSCHKE) (LEPIDOPTERA: TORTRICIDAE).
 L Daviault R Ducharme
 Can Entom 98(7):693-699, TABS.
 Jul 1966 421 C16
Epinotia nanana (Treitschke), Green spruce leaf miners,
 Insect behavior, Lepidoptera, Life cycle, Tortricidae.
- 353-67
 A PIERIS BRASSICAE (LINNAEUS) CULTURE RESISTANT TO A
 GRANULOSIS.
 W A L David B O C Gardiner
 J Invertebrate Path 2(2):106-114, TABS.
 1960 421 JB26
Granuloses, *Pieris brassicae* (Linnaeus).
- 354-67
 BIOLOGY OF THE LEAFHOPPER DALBUUS MAIDIS AT SELECTED TEM-
 PERATURES.
 R Davis
 J Econ Entom S9(3):766
 Jun 1966 421 JB22
 Biology, *Dalbulus maidis*.
- 355-67
 REARING OF WOOLLY PINE NEEDLE APHID, SCHIZOLACHNUS PINIRA-
 DIATAE, VIVIPARAE.
 A J DeLyzer
 J Econ Entom S8(S):1021-1022
 Oct 1965 421 JB22
 Insect rearing, *Schizolachnus pinipradiatae*.
- 356-67
 THE EFFECTS OF POSITION ON HATCHING OF HONEY BEE EGGS IN THE
 LABORATORY.
 A Dietz
 J Econ Entom S7(3):392-395
 Jun 1964 421 JB22
Apis mellifera, *Apis mellifera*, Incubation, Insect rearing.
- 357-67
 FACE FLY OVIPOSITION STUDIES.
 R A Dillough E S McClellan
 J Econ Entom S8(4):716-719
 Aug 1965 421 JB22
Musca autumnalis, *Musca autumnalis* DeGeer, Oviposition.
- 358-67
 SOME EFFECTS OF IRRADIATION ON COCHLIOMYIA HOMINIVORAX.
 E B Dixon
 J Econ Entom SS(6):826-827
 Dec 1962 421 JB22
Cochliomyia hominivorax (Coquerel), Irradiation.
- 359-67
 EVIDENCE FOR A SEX ATTRACTANT IN FEMALES OF THE RED PINE
 SCALE.
 C C Doane
 J Econ Entom S9(6):1S39-1S40
 Dec 1966 421 JB22
- Matsucoccus resinosae, Red pine scale, Sex attractants.
- 360-67
 STUDIES ON OVIPOSITION AND FECUNDITY OF CTENICERA DESTRUC-
 TOR (BROWN) (COLEOPTERA:ELATERIDAE).
 J F Doane
 Can Entom 9S(11):114S-115S
 Nov 1963 421 C16
 Coleoptera, *Ctenicera destructor* (Brown), Elateridae,
 Fertility, Oviposition.
- 361-67
 OBSERVATIONS ON EMERGENCE AND LIFE-SPAN OF WHEAT 8UL8 FLY,
 LEPTOHYLEMYIA COARCTATA (FALL.)
 DICTIONS.
 R M Dobson M G Morrois
 Bull Entomol R S1(4):B03
 Jan 1961 421 BB7
 Emergence, Field-cage, Insect cages, Insect morphology,
Leptohylemyia coarctata (Fall.), Life-span, Wheat.
- 362-67
 STUDIES ON MOSQUITO LARVAE. I. LATER INSTARS OF EASTERN
 NORTH AMERICAN SPECIES.
 H R Dodge
 Can Entom 9S(B):796-813, 818L. 812-813
 Aug 1963 421 C16
 Culicidae, Larvae.
- 363-67
 TRICHOGRAMMA MINUTUM AS A PARASITE OF THE CODLING MOTH
 AND RED-BANDED LEAF ROLLER.
 K E Dolphin M L Cleveland
 J Econ Entom S9(6):1S2S-1S26
 Dec 1966 421 JB22
Argyrotaenia velutinana, *Argyrotaenia velutinana*,
Carpocapsa pomonella, Parasitic insects,
Trichogramma minutum.
- 364-67
 FACE FLY CONTROL STUDIES IN WEST VIRGINIA IN 1960-1961.
 C K Dorsey H E Kidder C J Cunningham
 J Econ Entom SS(3):369-374, TABS.
 Jun 1962 421 JB22
 Insect control, Insecticides, *Musca autumnalis*,
Musca autumnalis.
- 365-67
 ALFALFA WEEVIL CONTROL STUDIES IN WEST VIRGINIA.
 C K Dorsey D O Quinn
 J Econ Entom SS(3):365-368, TABS.
 Jun 1962 421 JB22
 Granules, *Hypera postica*, *Hypera postica*, Insect control,
 Spraying.
- 366-67
 A SURVEY OF THE INCIDENCE OF NOSEMA DISEASE IN CALIFORNIA.
 K M Doull J E Eckert
 J Econ Entom SS(3):313-317, TABS.
 Jun 1962 421 JB22
 Bees, *Nosema* disease, Queen bees.
- 367-67
 BIOASSAY OF BACILLUS THURINGIENSIS-BASED MICROBIAL INSECT-
 ICIDES. III. CONTINUOUS PROPAGATION OF THE SALT-MARSH
 CATERPILLAR, ESTIGMENE ACREA.
 P H Dunn I M Hall M L Snideman
 J Econ Entom S7(3):374-377
 Jun 1964 421 JB22
Bacillus thuringiensis, Biological assay, *Estigmene acraea*,
Estigmene acraea, Insect rearing, Microbial insecticides.
- 368-67
 MATING BEHAVIOR OF THE ORIENTAL FRUIT MOTH, GRAPHOLITHA MO-
 LESTA (BUSCK) (LEPIDOPTERA: OLETHREUTIDAE).
 G G Dustan
 Can Entom 96(8):1087-1093, TABS.
 Aug 1967 421 C16
Grapholitha molesta (Busck), Insect behavior, Lepidoptera,
 Olethreutidae.
- 369-67
 STERILIZATION OF PINK BOLLWORM ADULTS WITH METEPA.
 M T Duye
 J Econ Entom S8(S):101B-1020
 Oct 1965 421 JB22
Metepa, *Pectinophora gossypiella*, Sterilization.

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- 370-67
INFLUENCE OF REPELLENCY ON THE EFFICACY OF BLATTICIDES
I. LEARNED MODIFICATIONS OF BEHAVIOR OF THE GERMAN
COCKROACH.
W Ebeling R E Wagner D A ReIerson
J Econ Entom S9(6):1374-1388
Dec 1966 421 J822
Blattella germanica, *Blattella germanica*, Insect behavior,
Insect repellents.
- 371-67
GROWTH INHIBITION OF THE HOUSE CRICKET WITH ETHYLENE.
L J Edwards
J Econ Entom S9(6):1S41-1S42
Dec 1966 421 J822
Acheta domesticus, *Acheta domesticus*, Ethylene,
Insect growth inhibitors.
- 372-67
SUSCEPTIBILITY TO ACARICIDES OF THE MITE TETRANYCHUS CINNA-
BARINUS INFESTING COTTON IN EGYPT.
M E Eldefrawi A H Hosny A Topozada S Hassan
J Econ Entom S8(6):1106-1110, 8IBL. 1109-1110
Dec 1965 421 J822
Acaricides, Cotton, Mites, *Tetranychus cinnabarinus*.
- 373-67
INSECTICIDE EXPERIMENTS TO CONTROL GREEN PEACH APHID AND
PEPPER WEEVIL ON PEPPERS.
J C Elmore R D Magor
J Econ Entom SS(3):37S-377
Jun 1962 421 J822
Anthonomus eugenii, *Anthonomus eugenii*, Insecticides,
Myzus persicae, *Myzus persicae*, Redpeppers (vegetable).
- 374-67
A COMPARISON OF THE STEROLS IN RESISTANT AND SUSCEPTIBLE
HOUSE FLIES, *MUSCA DOMESTICA*.
D Enan R Miskus R Graig
J Econ Entom S7(3):364-366
Jun 1964 421 J822
Insecticide resistant insects, *Musca domestica*,
Musca domestica, Sterols.
- 375-67
DESCRIPTION AND LIFE HISTORY OF MELANOLOPHIA IMITATA
(WALKER) (LEPIDOPTERA: GEOMETRIDAE).
D Evans
Can Entom 94(6):S94-605
Jun 1962 421 C16
Geometridae, Green-striped forest looper, Insect morphology,
Lepidoptera, Life cycle, *Melanolophia imitata* (Walker).
- 376-67
FEEDING AND OVIPOSITION REACTION OF BOLL WEEVILS TO COTTON,
ALTHEA, AND OKRA FLOWER BUDS.
T R Everett
J Econ Entom S7(1):165-166
Feb 1964 421 J822
Anthonomus grandis, *Anthonomus grandis*, Cotton,
Insect behavior, Okra.
- 377-67
THE UTILITY OF SEALED PUNCTURES FOR STUDYING FECUNDITY AND
EGG LAYING BY THE BOLL WEEVIL.
T R Everett J O Ray
J Econ Entom S5(5):634-636
Oct 1962 421 J822
Anthonomus grandis, *Anthonomus grandis* Boheman, Fertility,
Oviposition.
- 378-67
PINE SAWFLY LARVAE, NEODIPRION EXCITANS, SURVIVE SUBFREEZ-
ING TEMPERATURES IN FLORIDA.
C W Fatzinger
J Econ Entom S7(3):412-413
Jun 1964 421 J822
Diprionidae, Environment, Florida, Larvae,
Neodiprion excitans.
- 379-67
SEASONAL ACTIVITY OF BURIED OVERWINTERING PINK BOLLWORM
LARVAE IN CENTRAL TEXAS.
L C Fife H M Graham
J Econ Entom S8(4):688-690
Aug 1965 421 J822
Hibernation, *Pectinophora gossypiella*,
Pectinophora gossypiella (Saunders), Texas.
- 380-67
THE FINAL-INSTAR LARVA OF BRACON NUPERUS CRESS. (HYMENOP-
TERA : BRACONIDAE).
T Finlayson
Can Entom 96(11):1470
Nov 1964 421 C16
Bracon nuperus Cress., Braconidae, Hymenoptera, Larvae.
- 381-67
THE EFFECTS OF GAMMA RADIATION ON MATING COMPETITIVENESS
AND FECUNDITY OF HIPPELATES PUSIO LOEW.
H M Flint
J Econ Entom S9(1):96-99
Feb 1966 421 J822
Fertility, Gamma rays, *Hippelates pusio* Loew, Mating habits.
- 382-67
COMPETITION BETWEEN TWO SPECIES OF MITES. I. EXPERIMENTAL
RESULTS.
W H Foott
Can Entom 94(4):365-375
Apr 1962 421 C16
Insect competition, *Panonychus ulmi*,
Panonychus ulmi (Koch), *Tetranychus telarius* (L.),
Tetranychus urticae.
- 383-67
FAILURE OF MYO-INOSITOL TO PREVENT THE GROWTH-INHIBITING EF-
FECTS OF LINDANE IN PERIPLANETA AMERICANA.
A J Forgas
J Econ Entom S5(3):308-312
Jun 1962 421 J822
Diet, Inositol, Lindane, *Periplaneta americana*,
Periplaneta americana.
- 384-67
COLOR PREFERENCE OF THE HORN FLY, HAEMATOBIA IRRITANS, ON
BEEF CATTLE.
R F Franks E C Burns N C England
J Econ Entom S7(3):371-372
Jun 1964 421 J822
Beef cattle, Color preference, *Haematobia irritans*,
Haematobia irritans.
- 386-67
STUDIES IN MOSQUITO REPELLENCY. III. FLIGHT POSTURE.
D E Frizel R H Wright
Can Entom 94(S):493-496
May 1962 421 C16
Culicidae, Insect flight, Insect repellents.
- 387-67
COMPOUNDS CAUSING STERILITY IN ADULT HOUSE FLIES.
R L Fye H K Gouck G C La8recque
J Econ Entom S8(3):446-448
Jun 1965 421 J822
Chemosterilants, *Musca domestica*, *Musca domestica* L.
- 388-67
SEXUAL ACCEPTABILITY OF LABORATORY STRAINS OF MALE HOUSE
FLIES IN COMPETITION WITH WILD STRAINS.
R L Fye G C La8recque
J Econ Entom S9(3):538-540
Jun 1966 421 J822
Competition, Laboratory insects, *Musca domestica*,
Musca domestica, Wild insects.
- 389-67
A SPRAY TECHNIQUE FOR IMPLANTING BOLL WEEVIL EGGS ON
ARTIFICIAL DIETS.
R T Gast
J Econ Entom S9(1):239-240
Feb 1966 421 J822
Anthonomus grandis, *Anthonomus grandis* (Boheman),
Artificial diets, Implantation, Insect eggs, Spraying.
- 390-67
THE EFFECTS OF DIFFERENT PLANT FOODS ON THE FECUNDITY, FER-
TILITY, AND DEVELOPMENT OF A COTTON STAINER, DYSDERCUS
SUPERSTITIOSUS (F.).
Q A Gegering T H Coaker
Bull Entomol R S1(1):61-76
Apr 1960 421 887
Cotton, *Dysdercus supersticiosus* (F), Fertility,
Insect eggs, Insect morphology, Plant foods.
- 391-67
IMMATURE STAGES OF WESTERN CORN ROOTWORM.
B W George A M Hintz
J Econ Entom S9(5):1139-1142

BIBLIOGRAPHY

IO 392-67

- Oct 1966 421 JB22
Diabrotica virgifera, *Diabrotica virgifera* LeConte, Larvae, Pupae.
- 392-67
 FIELD AND LABORATORY REPELLENCY TESTS WITH 2,2,4-TRIMETHYL-1,3-PENTANEDIOL (TMPD).
 E J Gerberg
 J Econ Entom 59(4):B72-B75, TABS.
 Aug 1966 421 JB22
Aedes taeniorhynchus, *Amblyomma americanum*, *Anopheles freeborni*, *Culex* sp., *Eutrombicula alfreddugesi*, *Leptoconops bequaerti*, Repellency tests, Thiram, *Xenopsylla cheopis*, 2,2,4-trimethyl-1,3-pentanediol.
- 393-67
 STUDIES WITH WHITEFLY PARASITES OF SOUTHERN CALIFORNIA.
 I. ENCARSIA PEGANDIELLA HOWARD (HYMENOPTERA: APHELINIDAE).
 D Gerling
 Can Entom 9B(7):707-724, BIBL. TABS.
 Jul 1966 421 C16
 Aphelinidae, *Encarsia pergandiella* Howard, Hymenoptera, Parasitic insects, Southern California, Whitefly.
- 394-67
 N-ALKYL TOLUAMIDES IN CLOTH AS REPELLENTS FOR MOSQUITOES, TICKS, AND CHIGGERS.
 S I Gertler H K Gouck I H Gilbert
 J Econ Entom 55(4):451-452
 Aug 1962 421 JB22
 Culicidae, Culicidae, Insect repellents, Ixodidae, Ixodidae, N-alkyl toluamides, Trombiculidae, Trombiculidae.
- 395-67
 GONIOZUS INDICUS AS A PARASITE OF THE SUGARCANE BORER.
 J R Gifford
 J Econ Entom 5B(4):799-800
 Aug 1965 421 JB22
Diatraea saccharalis, *Goniozus indicus* Muesebeck, Parasitism.
- 396-67
 PRELIMINARY FIELD EVALUATION OF A NONINCLUSION VIRUS FOR CONTROL OF THE CITRUS RED MITE.
 J E Gilmore
 J Econ Entom 5B(6):1136-1140, TABS.
 Dec 1965 421 JB22
Panonychus citri, *Panonychus citri* (McGregor), Viruses.
- 397-67
 SEASONAL VARIATIONS IN THE FAT CONTENT AND SIZE OF GLOSSINA SWYNNERTONI AUSTEN.
 J P Glasgow E Bursell
 Bull Entomol R 51(4):705-713
 Jan 1961 421 BB7
 Fats, *Glossina swynnertoni* Austen, Insect size, Seasonal variation.
- 398-67
 A PRE-DIAPAUSE ARRESTED DEVELOPMENT PERIOD IN THE RED-BANDED LEAF ROLLER, ARGYROTAENIA VELUTINANA.
 E H Glass
 J Econ Entom 56(5):634-635
 Oct 1963 421 JB22
Argyrotaenia velutinana, *Argyrotaenia velutinana* (Walker), Diapause, Insect morphology.
- 399-67
 A FIELD EXPERIMENT WITH APHOLATE AS A CHEMOSTERILANT FOR THE CONTROL OF HOUSE FLIES.
 H K Gouck D W Meifert J B Gahan
 J Econ Entom 56(4):445-446
 Aug 1963 421 JB22
 Apholate, Chemosterilants, *Musca domestica*.
- 400-67
 CHEMOSTERILIZATION OF HOUSE FLIES BY TREATMENT IN THE PUPAL STAGE.
 H K Gouck
 J Econ Entom 57(2):239-241
 Apr 1964 421 JB22
 Chemosterilants, *Musca domestica*, *Musca domestica*, Pupae.
- 401-67
 A COMPARISON OF TECHNIQUES FOR SCREENING CHEMOSTERILANTS OF HOUSE FLIES AND SCREW-WORM FLIES.
 H K Gouck M M Crystal A B Borkovec D W Meifert
 J Econ Entom 56(4):506-509, TABS.
 Aug 1963 421 JB22
- Chemosterilants, *Cochliomyia hominivorax*, *Cochliomyia hominivorax* (Coquerel), *Musca domestica*, *Musca domestica* L..
- 402-67
 CONTROL OF PINK BOLLWORMS BY MALE ANNIHILATION.
 H M Graham D F Martin M T Ouye R M Hardman
 J Econ Entom 59(4):950-953, TABS.
 Aug 1966 421 JB22
 Male annihilation, *Pectinophora gossypiella*.
- 403-67
 THE REPRODUCTIVE CAPACITY OF FEMALE BOOPHILUS ANNULATUS COLLECTED FROM CATTLE DIPPED IN ARSENIC OR COUMAPHOS.
 O H Graham R O Drummond G Diamant
 J Econ Entom 57(3):409-410
 Jun 1964 421 JB22
 Arsenic, *Boophilus annulatus*, Cattle, Coumaphos, Reproduction.
- 404-67
 LABORATORY SCREENING OF INSECTICIDES FOR THE PREVENTION OF REPRODUCTION OF BOOPHILUS TICKS.
 O H Graham R O Drummond
 J Econ Entom 57(3):335-339
 Jun 1964 421 JB22
Boophilus annulatus, *Boophilus annulatus micropius*, Insecticides, Reproduction.
- 405-67
 STATUS OF BOLL WEEVIL RESISTANCE TO INSECTICIDES IN LOUISIANA DURING 1961.
 J B Graves J S Roussel
 J Econ Entom 55(6):93B-940, TABS.
 Dec 1962 421 JB22
Anthonomus grandis, *Anthonomus grandis*, Insecticide resistant insects, Insecticides.
- 406-67
 TOPICAL APPLICATION AND INSECTICIDE RESISTANCE STUDIES ON THE HONEY BEE.
 J B Graves O Mackensen
 J Econ Entom 5B(5):990-993
 Oct 1965 421 JB22
Apis mellifera, Insecticide application.
- 407-67
 LOW WINTER TEMPERATURES AND THE EUROPEAN PINE SHOOT MOTH, RHYACIONIA BUOLIANA (SCHIFF.) IN ONTARIO.
 G W Green
 Can Entom 94(3):314-336
 Mar 1962 421 C16
 Environment, Insect temperature, *Rhyacionia buoliana*, *Rhyacionia buoliana* (Schiff.).
- 408-67
 ON THE BIOLOGY OF THE IMPORTED FIRE ANT.
 H B Green
 J Econ Entom 55(6):1003-1004
 Dec 1962 421 JB22
 Biology, *Solenopsis saevissima richteri*, *Solenopsis saevissima richteri*.
- 409-67
 FIELD POPULATIONS ON THREE GRAIN APHID SPECIES IN WESTERN OREGON.
 G L Greene
 J Econ Entom 59(5):1201-1206
 Oct 1966 421 JB22
Acyrtosiphon dirhodum (Walker), Barley, Insect population, *Macrosiphum avenae* (F.), Oregon, *Rhopalosiphum padi* (L.), *Schizaphis graminum*.
- 410-67
 OVIPOSITIONAL HABITS OF THE RICE WATER WEEVIL CALIFORNIA AS RELATED TO A GREENHOUSE EVALUATION OF SEED TREATMENTS.
 A A Grigarick G W Beards
 J Econ Entom 5B(6):1053-1056, TABS.
 Dec 1965 421 JB22
 California, *Lissorhoptrus oryzophilus*, Oviposition, Seed treatment.
- 411-67
 THE FUNGUS EMPUSA APHIDIS HOFFMAN PARASITIC ON THE WOOLY PINE NEEDLE APHID, SCHIZOLACHNUS PINI-RADIATAE (DAVIDSON).
 J H Grobler D M MacLeod A J DeLyzer
 Can Entom 94(1):46-49
 Jan 1962 421 C16
Empusa aphidis Hoffman, Fungi, Parasitism, *Schizolachnus pini-radiatae* (Davidson),

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- Woolly pine needle aphid.
- 412-67
THE BIOLOGY AND CONTROL OF THE WESTERN BEAN CUTWORM IN DENT CORN IN NEBRASKA.
A F Hagen
J Econ Entom 55(5):62B-631
Oct 1962 421 JB22
Corn, Insect biology, *Loxagrotis albicosta*, *Loxagrotis albicosta* (Smith), Nebraska.
- 413-67
ATTEMPTED PROPAGATION OF *NASONIA VITRIPENNIS* ON THE FACE FLY.
J A Hair E C Turner Jr
J Econ Entom 58(1):159-160
Feb 1965 421 JB22
Musca autumnalis, *Musca autumnalis* DeGeer, *Nasonia vitripennis*, Parasitism.
- 414-67
HESSIAN FLY LARVAL STRAIN RESPONSES TO SIMULATED WEATHER CONDITIONS IN THE GREENHOUSE AND LABORATORY.
E W Hamilton
J Econ Entom 59(3):535-538
Jun 1966 421 JB22
Larvae, *Mayetiola destructor*, *Mayetiola destructor*, Weather.
- 415-67
REDUCTION IN REPRODUCTIVE CAPACITY OF EUROPEAN RED MITE BY NIAGARA 9203.
E D Hamstead
J Econ Entom 59(2):481
Apr 1966 421 JB22
Niagara 9203, *Panonychus ulmi*, *Panonychus ulmi* (Koch), Reproduction.
- 416-67
EFFECTS OF APHOLATE ON RESTRICTED POPULATIONS OF INSECTICIDE-RESISTANT HOUSE FLIES, *MUSCA DOMESTICA*.
E J Hansens
J Econ Entom 58(5):944-946
Oct 1965 421 JB22
Apholate, *Musca domestica*.
- 417-67
PARASITISM OF THE LEAF MINER *LIRIOMYZA MUNDA* IN THE WINTER GARDEN AREA OF TEXAS.
J A Harding
J Econ Entom 58(3):442-443
Jun 1965 421 JB22
Leaf miners, *Liriomyza munda* Frick, Parasitism, Texas.
- 418-67
REARING THE HORN FLY, *HAEMATOBIA IRRITANS*.
L T Hargett R L Goulding
J Econ Entom 55(4):565-566
Aug 1962 421 JB22
Haematobia irritans, *Haematobia irritans* (L.), Insect rearing.
- 419-67
SUGAR-BEET ROOT APHID, *PEMPHIGUS BETAE* DOANE (HOMOPTERA: APHIDIDAE), IN SOUTHERN ALBERTA.
A M Harper
Can Entom 95(8):B63-B73, 81BL. 872-873, TABS.
Aug 1963 421 C16
Alberta, Aphididae, Homoptera, *Pemphigus betae*, *Pemphigus populiavenae*.
- 420-67
INSECTICIDE TESTS ON THE CORN EARWORM AS A PEST OF LETTUCE IN ARIZONA.
F H Harries A C Valcarce
J Econ Entom 55(1):112-115, TABS.
Feb 1962 421 JB22
Heliothis zea, Insecticides, Lettuce, Pest control.
- 421-67
EFFECTS OF SOME ANTIBIOTICS AND OTHER COMPOUNDS ON FERTILITY AND MORTALITY OF ORCHARD MITES.
F H Harries
J Econ Entom 56(4):438-441, TABS
Aug 1963 421 JB22
Antibiotics, Fertility, Mites, Mortality, *Panonychus ulmi* (Koch), *Tetranychus telarius* L..
- 422-67
INSECTICIDE RESISTANCE IN THE PEAR PSYLLA.
F H Harries E C Burts
J Econ Entom 58(1):172-173
Feb 1965 421 JB22
Insecticide resistant insects, *Psylla pyricola*, *Psylla pyricola* Forster.
- 423-67
CONTROL OF A CORN STEM WEEVIL (*HYPERODES HUMILIS*), AND FALL ARMYWORM WITH DDT AND PARATHION IN SOUTH FLORIDA.
E D Harris Jr
J Econ Entom 55(1):B3-B5, TABS.
Feb 1962 421 JB22
Corn stem weevil, DDT, *Hyperodes humilis*, Insect control, Parathion, *Spodoptera frugiperda*, *Spodoptera frugiperda*.
- 424-67
MASS REARING OF THE CABBAGE MAGGOT UNDER CONTROLLED ENVIRONMENTAL CONDITIONS, WITH OBSERVATIONS ON THE BIOLOGY OF CYCLODIENE-SUSCEPTIBLE AND RESISTING STRAINS.
C R Harris H J Svec
J Econ Entom 59(3):569-573
Jun 1966 421 JB22
Controlled environment, Cycloidiene, *Hylemya brassicae*, *Hylemya brassicae*, Insect biology, Insect rearing techniques, Resistance, Susceptibility.
- 425-67
CHEMICAL INDUCTION OF STERILITY IN THE STABLE FLY.
R L Harris
J Econ Entom 55(6):B82-885, TABS.
Dec 1962 421 JB22
Chemosterilants, *Stomoxys calcitrans*, *Stomoxys calcitrans*.
- 426-67
MATING HABITS OF THE STABLE FLY.
R L Harris E D Frazer P D Grossman O H Graham
J Econ Entom 59(3):634-636
Jun 1966 421 JB22
Mating habits, *Stomoxys calcitrans*, *Stomoxys calcitrans*.
- 427-67
LABORATORY TESTS TO DETERMINE SUSCEPTIBILITY OF ADULT HORN FLY AND STABLE FLY TO INSECTICIDES.
R L Harris
J Econ Entom 57(4):492-494
Aug 1964 421 JB22
Haematobia irritans, *Haematobia irritans* (L.), Insecticides, *Stomoxys calcitrans*, *Stomoxys calcitrans* (L.).
- 428-67
RESISTANCE TO RONNEL IN A STRAIN OF HORN FLIES.
R L Harris E D Frazer O H Graham
J Econ Entom 59(2):387-390
Apr 1966 421 JB22
Adults, Backrubbers, *Haematobia irritans*, *Haematobia irritans* (L.), Insecticides, Ronnel.
- 429-67
EFFECTS OF TEPA ON REPRODUCTION OF CODLING MOTHS.
D O Hathaway L V Lydin B A Butt
J Econ Entom 59(4):B51-853
Aug 1966 421 JB22
Carpocapsa pomonella, Reproduction, Tepe.
- 430-67
HEMPA AND APHOLATE AS CHEMOSTERILANTS FOR THE BOLL WEEVIL.
J W Haynes P A Hedlin T B Davich
J Econ Entom 59(4):1014-1015, TABS.
Aug 1966 421 JB22
Anthonomus grandis, *Anthonomus grandis*, Apholate, Chemosterilants, Hempa.
- 431-67
A COMPARATIVE STUDY OF CERTAIN BIOLOGICAL PHENOMENA DETECTED IN A PARATHION-TREATED STRAIN AND A SUSCEPTIBLE STRAIN OF THE PLUM CURCULIO, *CONOTRACHELUS NENUPHAR*.
S B Hays J H Cochran
J Econ Entom 56(6):B10-B13, BIBL. B13, TABS.
Dec 1963 421 JB22
Conotrachelus nenuphar, *Conotrachelus nenuphar* (Herbst), Insect biology, Insecticide resistant insects, Parathion.
- 432-67
EVALUATION OF COMPOUNDS AFFECTING THE REPRODUCTIVE POTENTIAL OF THE PLUM CURCULIO.
S B Hays J H Cochran
J Econ Entom 57(2):217-219, TABS.
Apr 1964 421 JB22

10 433-67

- Chemosterilants, *Conotracheilus nenuphar*,
Conotracheilus nenuphar (Herbst).
- 433-67
ANTIFERTILITY EFFECT OF THE CHEMOSTERILANT APHOLATE ON THE
MALE BOLL WEEVIL.
P A Hedin C P Cody A C Thompson Jr
J Econ Entom 57(2):270-272, TABS.
Apr 1964 421 J822
Anthonomus grandis, *Anthonomus grandis*, Apholate,
Chemosterilants, Fertility.
- 434-67
PUPAL SIZE AND MORTALITY, LONGEVITY, AND REPRODUCTION OF
CABBAGE LOOPERS REARED AT SEVERAL DENSITIES.
T J Henneberry A N Kishaba
J Econ Entom 59(6):1490-1493
Dec 1966 421 J822
Insect rearing, Insect reproduction, Pupae, *Trichoplusia ni*.
- 435-67
EFFECT OF HOST PLANT CONDITION AND FERTILIZATION ON TWO-
SPOTTED SPIDER MITE FECUNDITY.
T J Henneberry
J Econ Entom 56(4):503-505, TABS.
Aug 1963 421 J822
Fertility, Fertilization (plants), Plant hosts,
Tetranychus telarius (L.), *Tetranychus urticae*.
- 436-67
SOME EFFECTS OF GAMMA RADIATION ON FERTILITY OF *DROSOPHILA*
MELANOGASTER AND VIABILITY OF SPERM AFTER MULTIPLE MATINGS
OF MALES.
T J Henneberry W L McGovern
J Econ Entom 56(6):819-822, 81BL. 822, TABS.
Dec 1963 421 J822
Drosophila melanogaster Meigen, Fertility, Gamma rays,
Irradiation, Sex behavior, Spermatozoa.
- 437-67
EFFECTS OF GAMMA RADIATION ON MATING COMPETITIVENESS AND
BEHAVIOR OF *DROSOPHILA MELANOGASTER* MALES.
T J Henneberry W L McGovern
J Econ Entom 56(6):739-741, BIBL. 740-741, TABS.
Dec 1963 421 J822
Drosophila melanogaster Meigen, Gamma rays, Irradiation,
Sex behavior.
- 438-67
EFFECTIVENESS OF INSECTICIDES IN SOIL AGAINST TERMITES AFTER
15 YEARS.
L A Hetrick
J Econ Entom 55(2):270-271
Apr 1962 421 J822
Insect control, Insecticides, Soils, Termites.
- 439-67
TRANSMISSION OF SACBROOD DISEASE TO INDIVIDUAL HONEY
BEE LARVAE.
J D Hitchcock
J Econ Entom 59(5):1154-1156
Oct 1966 421 J822
Apis mellifera, *Apis mellifera* L., Larvae, Sacbrood.
- 440-67
FURTHER STUDIES ON THE FOOD-GATHERING BEHAVIOUR OF BUMBLE
BEES (HYMENOPTERA: APIDAE).
G A Hobbs
Can Entom 94(5):538-541
May 1962 421 C16
Apidae, *Bombus*, Food habits, Hymenoptera, Insect behavior.
- 441-67
PRELIMINARY STUDIES ON MASS REARING OF THE TOBACCO HORNWORM.
J D Hoffman F R Lawson
J Econ Entom 57(3):354-355
Jun 1964 421 J822
Insect rearing, *Manduca quinque maculata*, *Protoparce sexta*.
- 442-67
SPECTRAL RESPONSE CHARACTERISTICS OF THE BOLL WEEVIL.
J P Hollingsworth R L Wright D A Lindquist
J Econ Entom 57(1):38-41
Feb 1964 421 J822
Anthonomus grandis, *Anthonomus grandis*, Spectroscopy.
- 443-67
THE MECHANISM OF DDT RESISTANCE IN THE SPOTTED ROOT MAGGOT
EUXESTA NOTATA.
G H S Hooper
J Econ Entom 58(4):608-611, BIBL. 610-611, TABS.
Aug 1965 421 J822
Euxesta notata (Weidemann), Insecticide resistant insects,
DDT, Spotted root maggot.
- 444-67
EFFECTS OF 300 KV X-RAY RADIATION ON *SITOPHILUS ORYZAE*.
D L Hoover E H Floyd H D Richardson
J Econ Entom 56(5):584-586, TABS.
Oct 1963 421 J822
Irradiation, *Sitophilus oryzae* (L.), X-rays.
- 445-67
ANTICHOLINESTERASES IN BLOOD AND CATTLE GRUBS FROM CATTLE
TREATED WITH RONNEL.
T L Hopkins F W Knapp
J Econ Entom 56(6):B72-B74
Dec 1963 421 J822
Blood, Cattle, Cholinesterases, Hypoderma, Hypoderma,
Ronnel.
- 446-67
IN VIVO OXIDATION OF RONNEL IN THE MADEIRIA COCKROACH.
T L Hopkins
J Econ Entom 55(3):334-336
Jun 1962 421 J822
Leucophaea maderae, *Leucophaea maderae*, Oxidation, Ronnel.
- 447-67
EFFECTS OF GAMMA RADIATION ON CODLING MOTH EGGS.
W S Hough
J Econ Entom 56(5):660-663, TABS.
Oct 1963 421 J822
Carpocapsa pomonella, *Carpocapsa pomonella* (L.), Gamma rays,
Insect eggs, Irradiation.
- 448-67
EGG MORTALITY AFTER GAMMA IRRADIATION OF ADULTS OF THE OMNI-
VOROUS LEAF ROLLER.
S W Jacklin F F Smith A L Boswell
J Econ Entom 58(6):1168-1169
Dec 1965 421 J822
Insect eggs, Irradiation, Omnivorous leaf roller,
Platynota stuitana (Walsingham).
- 449-67
BIOLOGICAL OBSERVATIONS ON THE EUROPEAN CORN BORER IN SOUTH-
EASTERN MISSOURI.
R D Jackson D C Peters
J Econ Entom 56(67):741-747, 81BL. 747, TABS.
Dec 1963 421 J822
Insect biology, Missouri, *Ostrinia nubilalis*,
Ostrinia nubilalis (Huebner).
- 450-67
CHEMICAL CONTROL OF THE PALE WESTERN CUTWORM INFESTING
WHEAT IN ALBERTA, CANADA.
L A Jacobsen S McDonald
J Econ Entom 59(4):965-967 TABS.
Aug 1966 421 J822
Agrotis orthogonia, *Agrotis orthogonia*, Alberta,
Chemical control (insects), Wheat.
- 451-67
DIAPOUSE IN EGGS OF THE PALE WESTERN CUTWORM *AGROTIS ORTHO-*
GONIA MORR. (LEPIDOPTERA: NOCTUIDAE).
L A Jacobson
Can Entom 94(5):515-522
May 1962 421 C16
Agrotis orthogonia, *Agrotis orthogonia* Morr., Diapause,
Insect eggs, Lepidoptera, Noctuidae.
- 452-67
DETERMINATION OF SEX OF THE DOUGLAS-FIR BEETLE *DENDROCTON-*
US PSEUDOTSUGAE HOPKINS (COLEOPTERA: SCOLYTIDAE).
O K Jantz R L Johnsey
Can Entom 96(10):1327-1329
Oct 1964 421 C16
Coleoptera, *Dendroctonus pseudotsugae* Hopkins, Scolytidae,
Sex determination.
- 453-67
EFFECT ON HONEY BEES OF NECTAR FROM SYSTEMIC INSECTICIDE-
TREATED PLANTS.
E R Jaycox
J Econ Entom 57(1):31-35, 81BL. 35, TABS.
Feb 1964 421 J822
Apis mellifera, *Apis mellifera*, Nectar,
Systemic insecticides.

- 454-67
A DESCRIPTION OF TERRITORIAL BEHAVIOR AND A QUANTITATIVE STUDY OF ITS FUNCTION IN MALES OF HETAERINA AMERICANA (FABRICIUS) (ODONATA: AGRIIDAE).
C Johnson
Can Entom 94(2):178-190
Feb 1962 421 C16
Agrilidae, Hetaerina americana (Fabricus), Insect behavior, Odonata, Odonata, Sex behavior, Territoriality.
- 455-67
IMMATURE STAGES AND BIOLOGY OF APATETICUS CYNICUS (SAY) (HEMIPTERA: PENTATOMIDAE).
P A Jones H C Coppel
Can Entom 95(7):770-779, 818L. 778-779
Jul 1963 421 C16
Apateticus cynicus, Hemiptera, Nymphs, Pentatomidae.
- 456-67
COLLECTION OF ADDITIONAL SEX ATTRACTANT FROM THE VIRGIN FEMALE INTRODUCED PINE SAWFLY.
P A Jones H C Coppel J E Casida
J Econ Entom 58(3):465-466
Jun 1965 421 J822
Attractants, Diprion similis, Diprion similis (Hartig), Insect collecting equipment.
- 457-67
AMINO ACID REQUIREMENTS FOR THE WHEAT STEM SAWFLY DETERMINED WITH GLUCOSE-U-C14 AFTER VACUUM-INFILTRATION.
R Kasting A J McGinnis
Can Entom 96(8):1133-1137
Aug 1964 421 C16
Amino acids, Cephus cinctus Nort., Glucose-U-C14, Vacuum-infiltration, Wheat.
- 458-67
QUANTITATIVE RELATIONSHIP BETWEEN CONSUMPTION AND EXCRETION OF DRY MATTER BY LARVAE OF THE PALE WESTERN CUTWORM, AGROTIS ORTHOGONIA MORR. (LEPIDOPTERA: NOCTUIDAE).
R Kasting A J McGinnis
Can Entom 94(4):441-443
Apr 1962 421 C16
Agrotis orthogonia, Agrotis orthogonia Morr., Consumption, Excreta, Larvae, Lepidoptera, Noctuidae.
- 459-67
PARASITES ASSOCIATED WITH THE RED-PINE NEEDLE MIDGE THECODIPLOSI PINIRESINOSAE KEARBY.
W H Kearby D M Benjamin
J Econ Entom 58(1):166-168
Feb 1965 421 J822
Parasitism, Red-pine needle midge, Thecodiplosis piniresinosae Kearby.
- 460-67
COTTON EXTRACTS AS ARRESTANTS AND FEEDING STIMULANTS FOR THE BOLL WEEVIL.
J C Keller F G Maxwell J N Jenkins
J Econ Entom 55(5):800-801
Oct 1962 421 J822
Anthonomus grandis, Anthonomus grandis Boheman, Cotton, Feeding, Plant extracts.
- 461-67
THE ACUTE ORAL TOXICITIES OF SOME INSECTICIDES TO AMERICAN COCKROACHES.
J C Keller T T Llang
J Econ Entom 55(1):144-145
Feb 1962 421 J822
Insecticides, Periplaneta americana, Periplaneta americana, Toxicology.
- 462-67
EXTRACTION OF A BOLL WEEVIL ATTRACTANT FROM THE SURROUNDING GROWING COTTON.
J C Keller T B Davich F G Maxwell J N Jenkins E B Mitchell
J Econ Entom 58(3):588-589
Jun 1965 421 J822
Anthonomus grandis, Anthonomus grandis Boheman, Attractants, Cotton, Plant extracts.
- 463-67
INSECTICIDE TESTS AGAINST GYPSY MOTH LARVAE.
J C Keller E C Paszek A R Hastings V A Johnson
J Econ Entom 55(1):102-105
Feb 1962 421 J822
Insecticides, Larvae, Porthetria dispar, Porthetria dispar.
- 464-67
RESPONSE OF FIVE SPECIES OF INSECTS TO WATER EXTRACTS OF THEIR HOST PLANTS.
J C Keller T B Davich
J Econ Entom 58(1):164-165
Feb 1965 421 J822
Anthonomus grandis Boheman, Feeding, Plant extracts, Plant hosts.
- 465-67
THE OLFACTORY GUIDANCE OF FLYING INSECTS. III. A TECHNIQUE FOR OBSERVING AND RECORDING FLIGHT PATHS.
F E Kellogg R H Wright
Can Entom 94(5):486-
May 1962 421 C16
Insect flight, Insect olfactory sense.
- 466-67
QUANTITATION OF EFFECT OF SEVERAL STIMULI ON LANDING AND PROBING BY AEDES AEGYPTI.
A A Khan H I Maibach
J Econ Entom 59(3):902-905, TA85.
Aug 1966 421 J822
Aedes aegypti, Culicidae, Stimuli.
- 467-67
SOME ENVIRONMENTAL FACTORS INFLUENCING OVIPOSITION BY THE POTATO LEAFHOPPER, EMPOASCA FABAE.
R W Kieckhefer J T Medler
J Econ Entom 57(4):482-484
Aug 1964 421 J822
Empoasca fabae, Empoasca fabae, Environment, Oviposition.
- 468-67
THE EFFECTS OF 5-FLUOROURACIL ON THE VIABILITY OF HOUSE FLY EGGS.
W W Kilgore R B Painter
J Econ Entom 55(5):710-712
Oct 1962 421 J822
Insect eggs, Musca domestica, Musca domestica L, 5-fluorouracil.
- 469-67
INSECT CHEMOSTERILANTS: INCORPORATION OF 5-FLUOROURACIL INTO HOUSE FLY EGGS.
W W Kilgore R R Painter
J Econ Entom 59(3):746-747
Jun 1966 421 J822
Chemosterilants, Eggs, Insects, Musca domestica, Musca domestica, 5-fluorouracil.
- 470-67
MATING AND OVIPOSITION STUDIES OF THE STABLE FLY.
R A Killough D M McKinstry
J Econ Entom 58(3):489-491
Jun 1965 421 J822
Oviposition, Sex behavior, Stomoxys calcitrans, Stomoxys calcitrans (L.).
- 471-67
FACE FLY DISPERSAL, NOCTURNAL RESTING PLACES, AND ACTIVITY DURING SUNSET AS OBSERVED IN 1963.
R A Killough J G Hartsock W W Wolf J W Smith
J Econ Entom 58(4):711-715
Aug 1965 421 J822
Insect behavior, Insect dissemination, Musca autumnalis, Musca autumnalis DeGeer.
- 473-67
INHIBITION OF REPRODUCTION OF INDIAN MEAL-MOTHS, PLODIA INTERPUNCTELLA, BY EXPOSURE TO AMPLIFIED SOUND.
R L Kirkpatrick Phillip K Harein
J Econ Entom 58(5):920-921
Oct 1965 421 J822
Moths, Plodia interpunctella, Reproduction, Sound waves.
- 474-67
SUBSTANCES INHIBITORY TO INSECT FEEDING WITH INSECTICIDAL PROPERTIES FROM FUNGI.
A N Kishaba D L Shankland R W Curtis M C Wilson
J Econ Entom 55(2):211-214
Apr 1962 421 J822
Feeding, Fungi, Insecticides, Insects.
- 475-67
EFFECTS OF COLD STORAGE ON EGG VIABILITY OF THE CARBAGE LOOPER AND SOME ASPECTS OF THE BIOLOGY OF THE PROGENY SURVIVORS.
A N Kishaba T J Henneberry
J Econ Entom 59(5):1161-1171

BIBLIOGRAPHY

10 476-67

- Oct 1966 421 JB22
Biology, Cold storage, Embryogenesis, Insect eggs,
Trichoplusia ni, *Trichoplusia ni* (Hubner).
- 476-67
NON-PREFERENCE AS A MECHANISM OF SWEETCLOVER AND ALFALFA
RESISTANCE TO THE SWEETCLOVER APHID AND THE SPOTTED ALFALFA
APHID.
A N Kishaba G R Manglitz
J Econ Entom SB(3):S66-S69, BIBL., TABS.
Jun 1967 421 JB22
Alfalfa, Insecticide resistant insects, Sweetclover,
Therioaphis maculata, *Therioaphis maculata* (Buckton),
Therioaphis riehmii, *Therioaphis riehmii* (Borner).
- 477-67
MORTALITY AND FERTILITY RESPONSE OF MUSCA DOMESTICA ADULTS
TO CERTAIN KNOWN MUTAGENIC OR ANTI-TUMOR AGENTS.
J B Kissam S B Hays
J Econ Entom S9(3):748-749
Jun 1966 421 JB22
Adults, Anti-tumor agents, Fertility, Mortality,
Musca domestica, Mutagenic agents.
- 478-67
CHOLESTEROL ANALOG UTILIZATION BY GRASSHOPPERS.
J B Kreasky
J Econ Entom SB(5):1015-1016
Oct 1965 421 JB22
Cholesterol, Grasshoppers, *Melanoplus bivittatus*.
- 479-67
A VIRUS DISEASE OF COLEOPTEROUS INSECTS.
A Krieg A Huger
J Invertebrate Path 2(3):274-288
1960 421 JB26
Coleoptera, Moratorvirus iamellcornum, Viruses.
- 480-67
THE FRACTIONATION AND SOLUBILIZATION OF PRODENIA ERIDANIA
CHITIN SYNTHETASE.
H R Krueger E G Jaworski
J Econ Entom 59(1):229-230
Feb 1966 421 JB22
Chitin synthetase, Fractionation,
Prodenia eridania (Cramer), Solubilization.
- 481-67
SEROLOGICAL RELATIONSHIPS BETWEEN INSECT VIRUSES AND THEIR
INCLUSION-BODY PROTEINS.
J Krywienczyk G H Bergoid
J Invertebrate Path 2(2):118-123, TABS.
1960 421 JB26
Granuloses, Inclusion bodies, Polyhedroses,
Serological tests.
- 482-67
A SEROLOGICAL COMPARISON OF THE PARASPORAL BODIES OF THREE
INSECT PATHOGENS.
J Krywienczyk T A Angus
J Invertebrate Path 2(4):411-417
1960 421 JB26
Bacillus entomocidus var. *entomocidus* Helmpel and Angus,
Bacillus thuringiensis var. *sotto* Aoki and Chlgasaki,
Bacillus thuringiensis var. *thuringiensis* Berliner, Spores.
- 483-67
DOSAGES OF NUCLEAR-POLYHEDROSIS VIRUS EFFECTIVE AGAINST MA-
LACOSOMA DISSTRIA WITH NOTES ON INTERSPECIES SUSCEPTIBILITY.
H M Kulman M A Brooks
J Econ Entom SB(5):100B-1010
Oct 1965 421 JB22
Dosage, *Malacosoma disstria*, Polyhedroses,
Virile susceptibility.
- 484-67
THE STATUS OF TIPHIA VERNALIS ROHWER, A PARASITE OF THE
JAPANESE BEETLE, IN SOUTHERN NEW JERSEY AND SOUTH-
EASTERN PENNSYLVANIA IN 1963.
T L Ladd Jr P J McCabe
J Econ Entom 59(2):480, BIBL.
Apr 1966 421 JB22
Insect hosts, Larvae, New Jersey, Parasitism, Pennsylvania,
Popillia japonica, *Popillia japonica* Newman,
Tiphia vernalis Rohwer.
- 485-67
EGG VIABILITY AND LONGEVITY OF JAPANESE BEETLES TREATED WITH
TEPA, APHOLATE, AND METEPA.
T L Ladd Jr
J Econ Entom 59(2):422-425
Apr 1966 421 JB22
Apholate, Metepa, *Popillia japonica*,
Popillia japonica Newman, Tepea.
- 486-67
ULFACATORY AND OVIPOSITION RESPONSES OF THE HOUSE FLY TO
DOMESTIC MANURES, WITH NOTES ON AN AUTOGENOUS STRAIN.
J R Larsen R E Peadt L G Peterson
J Econ Entom 59(3):610-615
Jun 1966 421 JB22
Autogenous strain, Domestic manures, *Musca domestica*,
Musca domestica, Olfactory responses, Oviposition responses.
- 487-67
NATIVE INSECTS AS POLLINATORS OF CAGED ALFALFA CLONES AND
SEEDLING PERFORMANCE OF THE PROGENY.
W E LaBerge D W Isakson W R Kehr
J Econ Entom 58(1):63-66
Feb 1965 421 JB22
Alfalfa, Insects, Plant hardiness, Plant physiology,
Plant propagation, Pollination.
- 488-67
THE DIURNAL FEEDING ACTIVITY OF GLOSSINA PALLIDIPES AUST.
IN RELATION TO TRYPANOSOME CHALLENGE.
B M Leggate R D Pilson
Bull Entomol R 51(4):697-704
Jan 1961 421 887
Diurnal feeding, *Glossina pallidipes* Aust., Trypanosome.
- 489-67
CHANGE IN SEX RATIO OF THE EYE-SPOTTED BUD MOTH, SPILONOTA
OCELLANA, OVER ITS ADULT EMERGENCE PERIOD.
E F Legner
J Econ Entom 55(4):559-560
Aug 1962 421 JB22
Sex, *Spilonota ocellana*, *Spilonota ocellana*.
- 490-67
THE INFLUENCE OF PARATHION AND PARA-OXON ON SENSORY HAIRS OF
FLIES.
R A Leski L K Cutkomp
J Econ Entom 55(3):281-285
Jun 1962 421 JB22
Diptera, Diptera, Hair, Insecticides, Para-oxon, Parathion.
- 491-67
PARASITES OF THE LESSER CORNSTALK BORER.
D B Leuck M Dupree
J Econ Entom 58(4):779-780
Aug 1965 421 JB22
Elasmopalpus lignosellus,
Elasmopalpus lignosellus (Zeller), Parasitism.
- 492-67
SOME EFFECTS OF GAMMA RADIATION ON THE HORN FLY.
L F Lewis G W Eddy
J Econ Entom 57(2):275-277
Apr 1964 421 JB22
Gamma rays, *Haematobia irritans*, *Haematobia irritans*.
- 493-67
DOSAGE-MORTALITY DATA ON THE BOLLWORM, HELIOTHIS ZEA, AND
THE TOBACCO BUDWORM, HELIOTHIS VIRESCENS, IN OKLAHOMA.
P D Lingren D E Bryan
J Econ Entom 58(1):14-18
Feb 1965 421 JB22
Heliothis virescens, *Heliothis virescens*, *Heliothis zea*,
Heliothis zea (Boddie), Mortality, Oklahoma.
- 494-67
NOSEMA PHRYGANIDIAE N. SP., A MICROSPORIDIAN PARASITE OF
PHRYGANIDIA CALIFORNICA PACKARD.
J J Lipa M E Martignoni
J Invertebrate Path 2(4):396-410, TABS.
1960 421 JB26
Microsporidia, *Nosema phryganidae*,
Phryganidia californica Packard.
- 495-67
COMPARISON OF TETRADIFON EMULSIFIABLE CONCENTRATE AND WETT-
ABLE POWDER FORMULATIONS AGAINST THE TWO-SPOTTED SPIDER
MITE.
P C Lippold
J Econ Entom 59(2):303-306
Apr 1966 421 JB22
Tetradifon, *Tetranychus urticae*,
Tetranychus urticae (Koch).

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- 496-67
A FIELD-CAGE STUDY OF POPULATION DYNAMICS OF THE BOLL WEEVIL.
E P Lloyd M E Merki
J Econ Entom 59(3):B3-B6
Feb 1966 421 JB22
Anthonomus grandis, *Anthonomus grandis* Boheman, Insect population.
- 497-67
THE REPRODUCTION-DIAPAUSE APPROACH TO POPULATION CONTROL OF THE BOLL WEEVIL.
E P Lloyd F C Tingie J R McCoy T B Davich
J Econ Entom 59(4):B13-B16, TABS.
Aug 1966 421 JB22
Anthonomus grandis, *Anthonomus grandis*, Diapause, Insect population control, Reproduction.
- 498-67
THE EFFECT OF HEPTACHLOR AND CHLORDANE ON THE FORAGING ACTIVITY OF IMPORTED FIRE ANTS.
C S Lofgren C E Stringer Jr
J Econ Entom 57(27):235-237
Apr 1964 421 JB22
Chlordane, Feeding, Heptachlor, *Solenopsis saevissima richteri*, *Solenopsis saevissima richteri*.
- 499-67
HYDROXY LECITHIN EMULSIONS FOR TREATING INSECTS.
S J Louloudes T J Shortino N L Brown
J Econ Entom 55(5):819
Oct 1962 421 JB22
Emulsions, Hydroxy Lecithin, Insect biology.
- 500-67
RATE OF INCREASE IN RESISTANCE TO DDT IN PINK BOLLWORM ADULTS.
W L Lowry M T Ouye R S Berger
J Econ Entom 58(4):7B1-7B2
Aug 1965 421 JB22
Insecticide resistant insects, DDT, *Pectinophora gossypiella*, *Pectinophora gossypiella* (Saunders).
- 501-67
INVESTIGATIONS OF PINK BOLLWORM RESISTANCE TO DDT IN MEXICO AND THE UNITED STATES.
W L Lowry R S Berger
J Econ Entom 58(3):590-591
Jun 1965 421 JB22
DDT, Insecticide resistant insects, Mexico, *Pectinophora gossypiella*, *Pectinophora gossypiella* (Saunders), Texas.
- 502-67
BOLLWORM AND TOBACCO BUDWORM RESISTANCE TO SOME INSECTICIDES IN LOWER RIO GRANDE VALLEY IN 1964.
W L Lowry
J Econ Entom 59(2):479-480
Apr 1966 421 JB22
Heliothis virescens, *Heliothis virescens* (F.), *Heliothis zea*, *Heliothis zea* (Boddie), Insecticide resistant insects, Larvae, Rio grande valley.
- 503-67
THE EFFECTS OF VARIOUS LARVAL AND ADULT DIETS ON THE FECUNDITY AND LONGEVITY OF THE BOLLWORM, TOBACCO BUDWORM, AND COTTON LEAFWORM.
M J Lukefahr D F Martin
J Econ Entom 57(2):233-235, TABS.
Apr 1964 421 JB22
Alabama argillacea, Alabama argillacea, Diet, Fertility, *Heliothis virescens*, *Heliothis virescens*, *Heliothis zea*, *Heliothis zea*, Larvae, Longevity.
- 504-67
CONTROL OF THE QUEENSLAND FRUIT FLY BY GAMMA IRRADIATION.
J J Macfarlane
J Econ Entom 59(4):884-889, TABS.
Aug 1966 421 JB22
Gamma rays, Queensland fruit fly, *Strumet tryoni*.
- 505-67
RECENT LABORATORY TESTS OF INSECTICIDES AGAINST LOCUSTS.
R D MacCuaig M N D B Yeates
J Sci Food A 12(12):861-864, TABS.
Dec 1961 3B2 S012
Acrididae, Cicadidae, Insecticides.
- 506-67
ADDITIONAL LARVAE OF THE NORTH AMERICAN OLETHREUTINAE (1) (LEPIDOPTERA: TORTRICIDAE).
M R MacKay
Can Entom 94(6):626-643
Jun 1962 421 C16
Insect morphology, Insect morphology, Larvae, Lepidoptera, Olethreutinae, Tortricidae.
- 507-67
NUTRITIONAL STUDIES ON THE GENUS HIRSUTELLA: 111. ACID-HYDROLYZED CASEIN AND AMINO ACID COMBINATIONS AS SOURCES OF NITROGEN.
D M MacLeod
J Invertebrate Path 2(2):139-146, 8IBL. 145-146
1960 421 JB26
Amino acids, Casein hydrolyzates, *Hirsutella gigantea* Petch, Nitrogen.
- 508-67
THE BEHAVIOR OF THE ADULT OF APHODIUS TASMANIAE HOPE (COL., SCARABAEIDAE) IN SOUTH AUSTRALIA.
D A Maeizer
Bull Entomol R 51(4):643-670, TABS.
Jan 1961 421 B87
Aphodius tasmaniae Hope, Australia, Insect behavior.
- 509-67
THE EFFECTS OF ACARICIDES ON THE DEVELOPMENTAL STAGES OF THE TWO-SPOTTED SPIDER MITE, TETRANYCHUS TELARIUS.
M Mailloux F O Morrison
J Econ Entom 55(4):479-483
Aug 1962 421 JB22
Acaricides, Insect morphology, *Tetranychus telarius*, *Tetranychus urticae*.
- 510-67
CORN EARWORM DEVELOPMENT IN RELATION TO TEMPERATURE.
B S Mangat J W Apple
J Econ Entom 59(4):1005-1006
Aug 1966 421 JB22
Heliothis zea, *Heliothis zea*, Temperature.
- 511-67
METABOLISM OF LABELED GLUTAMIC ACID IN ADULT GERMAN COCKROACHES.
A Mansingh
J Econ Entom 59(1):234-235
Feb 1966 421 JB22
Adults, *Blattella germanica* (L.), Glutamic acid, Metabolism, Radioactive tracers.
- 512-67
PRELIMINARY OBSERVATIONS ON THE BIOLOGY OF FOLSOMIA CANDIDA WILLEM, 1902 (COLLEMBOLA: ISOTOMIDAE).
V G Marshall D K M Kevan
Can Entom 94(6):575-586, BIBL. 5B5-5B6
Jun 1962 421 C16
Collembola, *Folsomia candida* Willem, Insect biology, Insect morphology, Insect temperature, Isotomidae, Life cycle.
- 513-67
QUATERNARY AMMONIUM COMPOUNDS FOR THE SURFACE STERILIZATION OF INSECTS.
M E Martignoni J E Milstead
J Invertebrate Path 2(2):124-133, BIBL. 132-133, TABS.
1960 421 JB26
Lepidoptera, Quaternary ammonium compounds, Sterilization (insects).
- 514-67
ATTRACTIVENESS OF INSECTICIDE BAITS TO ADULTS OF DROSOPHILA MELANOGASTER.
H C Mason T J Henneberry H C Gibson
J Econ Entom 56(6):725-727,
Dec 1963 421 JB22
Attractants, *Drosophila melanogaster* Meigen, Insecticide baits.
- 515-67
FIELD TESTS OF DICHLORVOS, GENERAL CHEMICAL 4072, HOOKER COMPOUND, AND SYNERGIZED DDT AGAINST MUSCA DOMESTICA.
W Mathis H F Schoof
J Econ Entom 57(2):256-258
Apr 1964 421 JB22
Dichlorvos, DDT, General Chemical 4072, Hooker Compound, *Musca domestica*.

BIBLIOGRAPHY

10 516-67

- 516-67
THE MATING BEHAVIOR OF THE BOLL WEEVIL, ANTHONOMUS GRANDIS.
M S Mayer J R Brazzel
J Econ Entom 56(5):605-609, TABS.
Oct 1963 421 JB22
Anthonomus grandis, Anthonomus grandis Boheman,
Sex behavior.
- 517-67
STERILIZATION OF ONION MAGGOTS BY IRRADIATION WITH
CESIUM-137.
R J McCianahan H S Simmons
Can Entom 98(9):931-935, TABS.
Sep 1966 421 C16
Cesium-137, Hylemya antiqua, Hylemya antiqua (Meigen),
Irradiation, Sterilization.
- 518-67
LABORATORY TECHNIQUES FOR EVALUATING HEMPA AND OTHER
CHEMOSTERILANTS AGAINST THE MEXICAN FRUIT FLY.
M W McFadden R E P Rubio
J Econ Entom 59(6):1400-1402
Dec 1966 421 JB22
Anastrepha ludens, Anastrepha ludens, Chemosterilants,
Hempa.
- 519-67
VOLATILITY AND ATTRACTIVENESS TO THE MEDITERRANEAN FRUIT
FLY OF TRIMEDLURE AND ITS ISOMERS, AND A COMPARISON OF ITS
VOLATILITY WITH THAT OF SEVEN OTHER INSECT ATTRACTANTS.
T P McGovern M Beroza K Ohinata D Miyashita L F Steiner
J Econ Entom 59(6):1450-1455
Dec 1966 421 JB22
Attractants, Ceratitis capitata, Ceratitis capitata,
Trimedlure.
- 520-67
THE USE OF AGAR MEDIA IN TRANSPORTING AND REARING PHYTOSEIID
MITES.
J A McMurtry G T Scriven
J Econ Entom 55(3):412-414, PL.
Jun 1962 421 JB22
Agar, Culture media, Insect rearing, Phytoseiid mites.
- 521-67
POLYMERIZATION AS A MEANS OF PROLONGING EFFECTIVENESS OF OR-
ALLY ADMINISTERED SYSTEMATIC INSECTICIDES.
J G Medley R O Drummond
J Econ Entom 55(1):118-121, TABS.
Feb 1962 421 JB22
Bayer 37342, Dimethoate, Polymerization, Resins,
Trichlorfon, Trichlorfon.
- 522-67
A LARGE-SCALE FIELD EVALUATION OF BOLL WEEVIL DIAPAUSE CON-
TROL IN MISSISSIPPI.
R A Meeks Jr E P Lloyd R C Robison M E Merki
J Econ Entom 59(4):811-813, TABS.
Aug 1966 421 JB22
Anthonomus grandis, Diapause control, Field evaluation,
Mississippi.
- 523-67
BIOCHEMICAL-RADIOLOGICAL DETERMINATIONS OF PARATHION RESIS-
TANCE IN AEDES MICROMACULIS.
D C Mengie L L Lewallen
J Econ Entom 59(3):743-744
Jun 1966 421 JB22
Aedes micromaculis, Biochemistry, Parathion, RadioIogy.
- 524-67
SEPARATION AND PURIFICATION OF DDT -DEGRADING ENZYMES FROM
THE HUMAN BODY LOUSE.
S Millier A S Perry
J Agr Food Ch 12(2):167-169
Mar 1964 381 JB223
Insect metabolism, DDT, Pediculus humanus humanus,
Pediculus humanus humanus.
- 525-67
BIOLOGY AND ECOLOGY OF THE GARDEN CHAFER, PHYLLOPERTHA
HORTICOLA (L.).VII. THE FLIGHT SEASON: MALE AND FEMALE
BEHAVIOUR, AND CONCLUDING DISCUSSION.
A Milne
Bull Entomol R 51(2):353-378
Jul 1960 421 8B7
Flight season, Insect behavior, Insect biology,
Insect ecology, Phyllopertha horticola (L.).
- 526-67
WINTER MORTALITY OF BOLL WEEVILS IN COTTON BOLLS IN SOUTH
CAROLINA.
E R Mitchell A R Hopkins J T Walker W James
J Econ Entom 59(4):1027-1028
Aug 1966 421 JB22
Anthonomus grandis, Cotton bolls, South Carolina,
Winter mortality.
- 527-67
STUDIES ON REARING HONEY BEE LARVAE IN THE LABORATORY. I.
THE EFFECT OF ROYAL JELLY TAKEN FROM DIFFERENT AGES OF
QUEEN CELLS ON QUEEN DIFFERENTIATION.
T Mitsui T Sagawa H Sano
J Econ Entom 57(4):518-521, TABS.
Aug 1964 421 JB22
Apis mellifera, Apis mellifera L., Insect rearing,
Queen bees, Royal jelly.
- 528-67
ULTRAVIOLET RADIATION AS AN ATTRACTANT FOR ADULT HORN
FLIES.
N O Morgan
J Econ Entom 59(6):1416-1419
Dec 1966 421 JB22
Attractants, Haematobia irritans, Haematobia irritans,
Ultraviolet rays.
- 529-67
THE PH TOLERANCE OF HORSE FLY LARVAE.
N O Morgan C D Schmidt
J Econ Entom 59(1):222-223
Feb 1966 421 JB22
Haematobia irritans, Haematobia irritans,
Hydrogen-ion concentration, Larvae.
- 530-67
VARIATIONS IN THE COLOR OF EGGS OF THE HORN FLY.
N O Morgan C D Schmidt
J Econ Entom 59(4):882-884, TABS.
Aug 1966 421 JB22
Haematobia irritans, Haematobia irritans, Insect eggs.
- 531-67
LABORATORY PROPAGATION OF THE HORN FLY.
N O Morgan
J Econ Entom 59(4):1030
Aug 1966 421 JB22
Haematobia irritans, Haematobia irritans,
Insect rearing equipment.
- 532-67
LABORATORY TECHNIQUE FOR EVALUATING AND DETECTING HORN FLY
POPULATIONS THAT ARE SUSCEPTIBLE OR TOLERANT TO FOUR
INSECTICIDES BY USING A MODIFIED WHO TEST KIT.
N O Morgan R R Blume
J Econ Entom 59(3):749-750
Jun 1966 421 JB22
Haematobia irritans, Haematobia irritans,
Insecticide resistant insects, World Health Organization.
- 533-67
INFLUENCE OF CATTLE DIET ON SURVIVAL OF HORN FLY LARVAE.
N O Morgan O H Graham
J Econ Entom 59(4):835-837, TABS.
Aug 1966 421 JB22
Cattle diet, Cattle manure, Haematobia irritans,
Haematobia irritans (L.).
- 534-67
THE EFFECT OF APHOLATE ON THE OVARIAN DEVELOPMENT OF HOUSE
FLIES.
P B Morgan G C LaBrecque
J Econ Entom 55(5):626-628
Oct 1962 421 JB22
Apholate, Musca domestica, Musca domestica L., Ovaries.
- 535-67
DISPERSION OF INSECTICIDE-RESISTANT POPULATIONS OF THE HOUSE
FLY, MUSCA DOMESTICA L.
A P Morris E J Hansen
J Econ Entom 59(1):45-50
Feb 1966 421 JB22
Insect population, Insecticides, Musca domestica,
Musca domestica.
- 536-67
USE OF WHO TSETSE FLY KIT FOR DETERMINING RESISTANCE IN THE
STABLE FLY.
G A Mount

- J Econ Entom 58(4):794-796
Aug 1965 421 J822
Glossina, Glossina, Stomoxys calcitrans,
Stomoxys calcitrans (L).
- 537-67
RESISTANCE IN THE EYE GNAT HIPPELATES COLLUSOR TO SOIL IN-
SECTICIDES.
M S Mulla
J Econ Entom 55(1):130-133
Feb 1962 421 J822
Chloropidae, Chloropidae, Hippelates collusor,
Insecticide resistant insects, Insecticides.
- 538-67
THE ROLE OF CARRIERS IN THE PERFORMANCE OF GRANULAR FORMU-
LATIONS OF PARATHION FOR MOSQUITO CONTROL.
M S Mulla H Axelrod
J Econ Entom 55(2):227-236
Apr 1962 421 J822
Carriers, Culicidae, Culicidae, Granules, Parathion.
- 539-67
OVIPOSITION AND EMERGENCE PERIOD OF THE EYE GNAT HIPPELATES
COLLUSOR.
M S Mulla
J Econ Entom 59(1):93-96
Feb 1966 421 J822
Hippelates collusor (Townsend), Oviposition.
- 540-67
NEW INSECTICIDES AGAINST ADULTS OF TWO SPECIES OF HIPPE-
LATES EYE GNATS.
M S Mulla T S Adams
J Econ Entom 57(4):505-509, TABS.
Aug 1964 421 J822
Adults, Hippelates collusor (Townsend),
Hippelates pusio (Loew), Insecticides.
- 541-67
TRANSAMINATION IN AEDES AEGYPTI.
M R V Murphy D W Micks
J Econ Entom 57(1):12-14, PL.
Feb 1964 421 J822
Aedes aegypti, Aminotransferases.
- 542-67
EFFECT OF THREE CHEMOSTERILANTS ON HOUSE FLY LONGEVITY AND
STERILITY.
C M Murvosh G C LaBrecque C N Smith
J Econ Entom 57(1):89-93, TABS.
Feb 1966 421 J822
Chemosterilants, Musca domestica, Musca domestica.
- 543-67
AN INBREEDING METHOD OF REARING THE HOUSE FLY.
S Nagasawa S Asano
J Econ Entom 56(5):714
Oct 1963 421 J822
Insect rearing, Musca domestica, Musca domestica L.
- 544-67
ACTIVATION OF GUTHION BY TISSUE PREPARATIONS FROM THE AMERI-
CAN COCKROACH.
T Nakatsugawa P A Dahm
J Econ Entom 55(5):594-599, 818L. 599
Oct 1962 421 J822
Azinphosmethyl, Chemical activation, Periplaneta americana,
Periplaneta americana (L.), Tissues.
- 545-67
EVALUATION OF FIVE ARTIFICIAL DIETS FOR THE LABORATORY REAR-
ING OF ALFALFA WEEVIL LARVAE.
R R Nash A S Tombes
J Econ Entom 59(1):220-221
Feb 1966 421 J822
Anthonomus grandis Boheman, Artificial diets,
Hypera postica, Hypera postica (Gyllenhal), Insect rearing,
Laboratory, Larvae.
- 546-67
METHODS OF EVALUATING THE CHEMOTROPIC RESPONSE OF BOLL
WEEVILS TO EXTRACTS OF THE COTTON PLANT AND VARIOUS OTHER
SUBSTANCES.
D L Neff E S Vanderzant
J Econ Entom 56(6):761-766, TABS.
Dec 1963 421 J822
Anthonomus grandis Boheman, Chemotropism, Cotton,
Plant extracts.
- 547-67
THE EFFECT OF STORAGE ON THE VIRULENCE OF A POLYHEDROSIS
VIRUS.
N M Neilson D E Elgee
J Invertebrate Path 2(2):165-171
1960 421 J826
Diprion hercyniae (Hartig), Polyhedroses, Storage.
- 548-67
ARTIFICIAL DIETS FOR THE APPLE MAGGOT, RHAGOLETIS
POMONELLA. I. MASS REARING ON CERTAIN DIETS.
W T A Neilson J W McAllan
J Econ Entom 57(3):333-335
Jun 1964 421 J822
Diet, Insect rearing, Rhagoletis pomonella,
Rhagoletis pomonella.
- 549-67
SURFACE STERILIZATION OF EGGS OF THE BOLL WEEVIL WITH
CUPRIC SULFATE.
W C Nettles Jr N L Betz
J Econ Entom 59(1):239
Feb 1966 421 J822
Anthonomus grandis, Anthonomus grandis Boheman,
Cupric sulfate, Insect eggs, Sterilization.
- 550-67
THE RESPONSE OF HYLEMYA ANTIQUA ADULTS TO HYDROLIZED PRO-
TEINS AND OTHER MATERIALS: A LABORATORY STUDY.
H D Niemczyk
J Econ Entom 58(3):425-428
Jun 1965 421 J822
Hylemya antiqua, Hylemya antiqua (Meigen), Proteins.
- 551-67
MASS REARING OF THE ONION MAGGOT, HYLEMYA ANTIQUA, UNDER
LABORATORY CONDITIONS.
H D Niemczyk
J Econ Entom 57(1):57-60, PL.
Feb 1964 421 J822
Hylemya antiqua, Hylemya antiqua, Insect rearing.
- 552-67
BEHAVIOR OF CAMPOLETIS PERDISTINCTUS (VIERECK) AS A PAR-
ASITE OF THE TOBACCO BUDWORM.
L W Noble H M Graham
J Econ Entom 59(5):III8-II20
Oct 1966 421 J822
Campoletis perdistinctus (Viereck), Heliothis virescens,
Heliothis virescens (F.), Insect behavior, Parasites.
- 553-67
GROUP EFFECTS ON FEEDING IN ADULT MALES OF THE DESERT LOCUST
SCHISTOCERCA GREGARIA (FORSK.), IN RELATION TO SEXUAL
MATURATION.
M Norris
Bull Entomol R 51(4):751-753
Jan 1961 421 887
Feeding, Insect morphology, Maturation,
Schistocerca gregaria (Forsk.).
- 554-67
A TECHNIQUE FOR REARING THE GYPSY MOTH, PORTHETRIA DISPAR
(L.), ON AN ARTIFICIAL DIET.
T M Odell W D Rollinson
J Econ Entom 59(3):741-742
Jun 1966 421 J822
Artificial diet, Insect rearing techniques,
Porthetria dispar, Porthetria dispar.
- 555-67
8-VITAMIN REQUIREMENTS OF THE PINK BOLLWORM.
M T Duye E S Vanderzant
J Econ Entom 57(4):427-430
Aug 1964 421 J822
Insect nutrition, Pectinophora gossypiella,
Pectinophora gossypiella.
- 556-67
MATING STUDIES OF THE PINK BOLLWORM.
M T Duye H M Graham C A Richmond D F Martin
J Econ Entom 57(2):222-225, PL.
Apr 1964 421 J822
Insect behavior, Pectinophora gossypiella,
Pectinophora gossypiella.
- 557-67
TEMPORARY AND PERMANENT STERILIZATION OF HOUSE FLIES WITH
CHEMOSTERILANTS.
R R Painter W W Kilgore

BIBLIOGRAPHY

10 55B-67

- J Econ Entom 57(1):154-157, TABS.
Feb 1964 421 JB22
Chemosterilants, *Musca domestica*, *Musca domestica*.
- 558-67
THE EFFECT OF TEMPERATURE FECUNDITY AND LONGEVITY OF THE BLACK BLOW FLY, *PHORMIA REGINA*.
D W Parrish W E Slickley
J Econ Entom 59(4):804-808, TABS.
Aug 1966 421 JB22
Fertility, Longevity, *Phormia regina*, *Phormia regina*, Temperature.
- 559-67
CONTROL OF THE MIDGE *GLYPTOTENDIPES PARIDES* WITH LOW-VOLUME AERIAL SPRAYS OF MALATHION.
R S Patterson D L von Windeguth B M Glancy F L Wilson
J Econ Entom 59(4):864-866, TABS.
Aug 1966 421 JB22
Aerial spraying, Cecidomyiidae, *Glyptotendipes paripes*.
- 560-67
THE ENZYMIC IN VITRO DEGRADATION OF DDT BY SUSCEPTIBLE AND DDT - RESISTANT BODY LICE.
A S Perry S Miller A J Buckner
J Agr Food Ch 11(6):457-462, BIBL. 461-462, TABS.
Nov 1963 381 JB223
Insect metabolism, Insecticide resistant insects, DDT, *Pediculus humanus*, *Pediculus humanus humanus*.
- 561-67
DEVELOPMENT OF RESISTANCE TO INSECTICIDES BY THE ONION MAGGOT, *HYLEMMA ANTIQUA*, IN MINNESOTA.
A G Peterson M S Silberman A B Meade
J Econ Entom 56(5):580-584, TABS.
Oct 1963 421 JB22
Hylemya antiqua, *Hylemya antiqua* (Meigen), Insecticide resistant insects, Insecticides, Minnesota.
- 562-67
A QUICK METHOD FOR SEX DETERMINATION OF CODLING MOTH PUPAE.
D Peterson
J Econ Entom 58(3):576,
Jun 1967 421 JB22
Carpocapsa pomonella, *Carpocapsa pomonella* (L.), Pupae, Sex determination.
- 563-67
FIELD INSECTICIDE TESTS AGAINST SEVERAL COTTON PESTS.
T R Pfriemer M E Merkl
J Econ Entom 55(1):121-124, TABS.
Feb 1962 421 JB22
Anthonomus grandis, *Anthonomus grandis* Boheman, Cotton, Insecticides, *Lygus lineolaris*, Thrips.
- 564-67
LIFE HISTORY AND BEHAVIOUR OF *SCELIO CALOPTENI* RILEY (HYMENOPTERA: SCELIONIDAE), A PARASITE OF GRASSHOPPER EGGS.
R Pickford
Can Entom 96(9):1167-1172
Sep 1964 421 C16
Eggs, Grasshoppers, Hymenoptera, *Scelio calopteni* Riley, Scelionidae.
- 565-67
METABOLISM OF METHAPHOSPHOXIDE IN MOSQUITOES, HOUSE FLIES, AND MICE.
F W Plapp Jr W S Bigley G A Chapman G W Eddy
J Econ Entom 55(5):607-613, TABS.
Oct 1962 421 JB22
Culicidae, Culicidae, Insect metabolism, Metapho, Mice, *Musca domestica*, *Musca domestica* L..
- 566-67
FLIGHT HABITS OF THE ALFAFA WEEVIL IN NEW YORK.
G O Polnar Jr G G Gyrisco
J Econ Entom 55(2):265-266
Apr 1962 421 JB22
Hypera postica, *Hypera postica*, Insect behavior, Insect collecting equipment.
- 567-67
THE BIOLOGY AND BEHAVIOUR OF THE EUROPEAN PINE SHOOT MOTH *RHYACIONIA BUOLIANA* (SCHIFF.), IN SOUTHERN ONTARIO. II. EGGS, LARVA, AND PUPA.
P J Pointing
Can Entom 95(8):844-863, 818L. B62-863, TABS.
Aug 1963 421 C16
Eggs, Insect behavior, Insect biology, Larvae, Ontario, Pupae, *Rhyacionia buoliana*.
- 568-67
DAILY RHYTHM OF OVIPOSITION IN THE TWO-SPOTTED SPIDER MITE.
B Polcik J W Nowosielski J A Naegele
J Econ Entom 58(3):467-469
Jun 1965 421 JB22
Diurnal rhythm, Oviposition, *Tetranychus urticae*, *Tetranychus urticae* Koch.
- 569-67
EFFECT OF HEAT ON THE FERTILITY OF THE CODLING MOTH, *CARP-POCAPSA POMONELLA* (L.) (LEPIDOPTERA:OLETHREUTIDAE).
M D Proverbs J R Newton
Can Entom 94(3):225-233
Mar 1962 421 C16
Carpocapsa pomonella, *Carpocapsa pomonella* (L.), Fertility, Insect temperature, Lepidoptera, Olethreutidae.
- 570-67
LIFE-HISTORY AND BEHAVIOUR OF THE PREDACIOUS MITE TYPHLODROMUS (T.) CAUDIGLANS SCHUSTER (ACARINA: PHYTOSEIIDAE) IN ONTARIO, WITH NOTES ON THE PREY OF RELATED SPECIES.
W L Putman
Can Entom 94(2):163-177
Feb 1962 421 C16
Acarina, Insect behavior, Life cycle, Phytoseiidae, Predaceous insects, *Typhlodromus* (T.) *caudiglans* Schuster.
- 571-67
THE PROGRESS OF NYMPHAL DEVELOPMENT IN PEST GRASSHOPPERS (ACRIDIDAE) OF WESTERN CANADA.
L G Putnam
Can Entom 95(11):1210-1216
Nov 1963 421 C16
Acrididae, *Camnula pellucida*, Canada, Grasshoppers, *Melanoplus bifitatus*, *Melanoplus bivittatus*, Nymphs.
- 572-67
NOTES ON TWO PARASITES ATTACKING A LEMMA SP. (COLEOPTERA CHRYSOMELIDAE).
B Puttler
J Econ Entom 59(2):475-476
Apr 1966 421 JB22
Larvae, *Lema* sp., *Paralipse infernalis* (Townsend), Parasitism, *Spilochalcis delumbis* Cresson.
- 573-67
SWARMING, MATING, AND DENSITY OF *ANOPHELES STEPHENSI* MYSORENSIS.
M S Quaraishi
J Econ Entom 58(5):821-824
Oct 1965 421 JB22
Anopheles stephensi mysorensis, Copulation, Swarm formation.
- 574-67
WATER AND FOOD RELATIONSHIP OF THE EGGS AND FIRST INSTAR NYMPH OF *EURYGASTER INTEGRICEPS* WITH THE AID OF P32.
M S Quaraishi
J Econ Entom 56(5):666-668, TABS.
Oct 1963 421 JB22
Eurygaster integriceps Puton, Food, Insect eggs, P32, Water.
- 575-67
UPTAKE, TRANSFER, AND LOSS OF P32 DURING METAMORPHOSIS, MATING, AND OVIPOSITION IN *AEDES VEXANS*.
M S Quaraishi R A Brust L P Lefkovich
J Econ Entom 59(6):1331-1333
Dec 1966 421 JB22
Aedes vexans, Mating, Metamorphosis, Oviposition, P32.
- 576-67
EFFECT OF ULTRASONIC WAVES ON THE HATCHING OF *AEDES AEGYPTI* EGGS AT A FREQUENCY OF 0.5 MEGACYCLES PER SECOND.
M S Quaraishi M H Osmani S H Ahmad
J Econ Entom 56(5):668-670, TABS.
Oct 1963 421 JB22
Aedes aegypti (L.), Hatching, Insect eggs, Ultrasonic waves.
- 577-67
AN IMPROVED METHOD FOR DETERMINING COLONY VIGOR OF WESTERN HARVESTER ANTS, *POGONOMYRMEX OCCIDENTALIS*.
S R Race
J Econ Entom 57(4):558-559
Aug 1964 421 JB22
Colony vigor, *Pogonomyrmex occidentalis*.
- 578-67
THE EFFECTS OF DDT AND SUBLETHAL DOSES OF DICOFOL ON REPRODUCTION OF THE TWO-SPOTTED SPIDER MITE.
S S Rajinder L K Cutkomp
J Econ Entom 59(2):249-253, 818L. 252-253, TABS.

- Apr 1966 421 JB22
Dicofol, DDT, Reproduction, Tetranychus urticae,
Tetranychus urticae.
- S79-67
METHODS OF TESTING HYLEMYA ROOT MAGGOTS FOR INSECTICIDE
RESISTANCE.
D C Read
J Econ Entom 58(4):719-727, TABS.
Aug 1965 421 JB22
Hylemya brassicae, Hylemya brassicae (Bouche),
Hylemya brassicae (Melgen), Insecticide resistant insects.
- S80-67
AN IMPROVED MEDIUM FOR REARING RED-BANDED LEAF ROLLER.
R E Redfern
J Econ Entom 57(2):296-297
Apr 1964 421 JB22
Argyrotaenia velutinana, Argyrotaenia velutinana,
Culture media, Insect rearing.
- S81-67
LABORATORY METHODS FOR REARING RUST MITES (PHYLLOCOPTRUTA
OLEIVORA AND ACULUS PELEKASSI) ON CITRUS.
D K Reed A K Burditt C R Crittenden
J Econ Entom 57(1):130-133
Feb 1964 421 JB22
Aculus pelekassi, Citrus, Insect rearing,
Phyllocoptruta oleivora, Phyllocoptruta oleivora.
- S82-67
BIOLOGY OF MOUNTAIN PINE BEETLE, DENDROCTONUS MONTICULAE
HOPKINS, IN THE EAST KOOTENAY REGION OF BRITISH COL-
UMBIA. I. LIFE CYCLE, BROOD DEVELOPMENT, AND FLIGHT PERIODS.
R W Reid
Can Entom 94(5):S31-S41
May 1962 421 C16
Dendroctonus monticolae Hopkins, Dendroctonus ponderosae,
Insect biology, Insect flight, Insect morphology,
Life cycle.
- S83-67
BIOLOGY OF THE MOUNTAIN PINE BEETLE, DENDROCTONUS MONTIC-
ULAE HOPKINS, IN THE EAST KOOTENAY REGION OF BRITISH
COLUMBIA II. BEHAVIOUR IN THE HOST, FECUNDITY, AND INTER-
NAL CHANGES IN THE FEMALE.
R W Reid
Can Entom 94(6):605-613, BIBL. 612-613
Jun 1962 421 C16
Dendroctonus monticolae Hopkins, Dendroctonus ponderosae,
Fertility, Insect behavior, Insect biology,
Insect temperature, Plant hosts.
- S84-67
TECHNIQUE FOR MASS REARING OF THE PINK BOLLWORM BY IN-
FESTING DIET MEDIUM WITH EGGS.
C A Richmond D F Martin
J Econ Entom 59(3):762-763
Jun 1966 421 JB22
Eggs, Mass rearing, Pectinophora gossypiella,
Pectinophora gossypiella.
- S85-67
MASS REARING PINK BOLLWORMS.
C A Richmond C Ignoffo
J Econ Entom 57(4):S03-S05, TABS.
Aug 1964 421 JB22
Insect rearing, Pectinophora gossypiella,
Pectinophora gossypiella.
- S86-67
LABORATORY STUDIES OF THE EFFECT OF DRI-DIE 67 ON THE
TATUS.
R L Ridgway
J Econ Entom 55(6):1014
Dec 1962 421 JB22
Centruroides vittatus, Dri-die 67, Dusting, Scorpionida.
- S87-67
HYDROGENATION REFINING VS. EFFICIENCIES OF SPRAY OILS
AGAINST CITRUS RED MITE EGGS AND CALIFORNIA RED SCALE.
L A Riehl M J Garber J P LaDue J L Rodriguez E L Wilson
J Econ Entom 57(4):S22-S25
Aug 1964 421 JB22
Aonidella aurantii, Aonidella aurantii (Maskell),
Hydrogenation, Insect eggs, Panonychus citri,
Panonychus citri (McGregor), Spraying.
- SB8-67
DDT SUSCEPTIBILITY OF DROSOPHILA MELANOGASTER IN RELATION
TO DIETARY AMINO NITROGEN.
C T Rivera A L Steinhauer
J Econ Entom 55(3):393-395
Jun 1962 421 JB22
Amino compounds, Diet, DDT, Drosophila melanogaster,
Nitrogen.
- SB9-67
A CAGE TO CONTAIN SMALL INSECTS DURING POLLINATION STUDIES.
R B Roberts
J Econ Entom 55(2):267-268
Apr 1962 421 JB22
Insect cages, Pollination, Spermatophyta, Vegetables.
- S90-67
EFFECT OF SOME OIL INSECTICIDE COMBINATIONS ON COFFEE LEAF
MINER.
J G Rodriguez J M Campbell K G Eveleens
J Econ Entom 59(4):773-779, PL., TABS.
Aug 1966 421 JB22
Coffee leaf miner, Leucoptera coffeella,
Oil insecticide combinations.
- S91-67
COMPARATIVE INSECTICIDAL SUSCEPTIBILITY OF FIELD-COLLECTED
AND LABORATORY-REARED FACE FLIES, MUSCA AUTUMNALIS.
P G Rouseil
J Econ Entom 58(4):674-677
Aug 1965 421 JB22
Insecticide resistant insects, Musca autumnalis,
Musca autumnalis DeGeer.
- S92-67
DELAYED INOCULATIVE FREEZING OF INSECTS.
R W Salt
Can Entom 95(11):1190-1202
Nov 1963 421 C16
Inoculative freezing, Insects.
- S93-67
EGGS AND OVIPOSITION SITES OF SOME PREDACIOUS MIRIDS ON AP-
PLE TREES (MIRIDAE: HEMIPTERA).
K H Sanford
Can Entom 96(9):1185-1189
Sep 1964 421 C16
Hemiptera, Insect eggs, Miridae, Oviposition.
- S94-67
TWO ARTIFICIAL (OLIGIDIC) MEDIA FOR THE DOUGLAS-FIR BEETLE,
DENDROCTONUS PSEUDOTSUGAE HOPKINS (COLEOPTERA: SCOLYTI-
DAE).
F H Schmidt
Can Entom 98(10):1050-1055, BIBL. 1054-1055, TABS.
Oct 1966 421 C16
Coleoptera, Culture media, Dendroctonus pseudotsugae,
Dendroctonus pseudotsugae Hopkins, Scolytidae.
- S95-67
THE RELATION OF WEATHER TO TWO POPULATION DECLINES OF THE
BLACK-HEADED BUDWORM, ACLERIS VARIANA (FERNALD) (LEPIDOP-
TERA:TORTRICIDAE), IN COASTAL ALASKA.
D C Schmiede
Can Entom 98(10):1045-1050, TABS.
Oct 1966 421 C16
Acleris variana, Acleris variana (Fernald), Alaska,
Insect population, Lepidoptera, Tortricidae, Weather.
- S96-67
IMPROVEMENTS IN THE METHODS OF PREPARATION AND STORAGE OF
HOUSE FLY MICROSOMES.
R D Schonbrod L C Terriere
J Econ Entom 59(6):1411-1413
Dec 1966 421 JB22
Microsomes, Musca domestica, Musca domestica.
- S97-67
HYDROXYLATION AS A FACTOR IN RESISTANCE IN HOUSE FLIES AND
BLOW FLIES.
R D Schonbrod W W Philieo L C Terriere
J Econ Entom 58(1):74-75
Feb 1965 421 JB22
Insecticide resistant insects, Musca domestica,
Musca domestica (L.), Phormia regina,
Phormia regina (Melgen).

BIBLIOGRAPHY

10 598-67

- 598-67
ATTRACTANTS FOR JAPANESE BEETLES TESTED IN THE FIELD.
P H Schwartz D N Hamilton C W Jester 8 G Townshend
J Econ Entom 59(6):1516-1517
Dec 1966 421 JB22
Attractants, *Popillia japonica*, *Popillia japonica*.
- 599-67
SEXUAL BEHAVIOR IN BLISTER BEETLE (COLEOPTERA: MEOLOIDAE)
I. THE GENUS PYROTA.
R B Selander
Can Entom 96(8):1037-1083, TABS.
Aug 1964 421 C16
Coleoptera, Insect behavior, Meloidae, Pyrota, Sex behavior.
- 600-67
TECHNIQUES FOR MASS-PRODUCING COCCINELLA SEPTEMPUNCTATA.
W A Shands M K Shands G W Simpson
J Econ Entom 59(4):1022-1023, PL.
Aug 1966 421 JB22
Coccinella septempunctata, Mass reproduction,
Predaceous insects.
- 601-67
FACTORS THAT AFFECT REPRODUCTION OF THE GARDEN SYMPHYLAN,
SCUTIGERELLA IMMACULATA.
C H Shanks Jr
J Econ Entom 59(6):1403-1406
Dec 1966 421 JB22
Reproduction, *Scutigereia immaculata*,
Scutigereia immaculata.
- 602-67
THE ACTIVITY OF SOME INSECTICIDES AGAINST THE GARDEN SYMPHY-
LAN, SCUTIGERELLA IMMACULATA.
C H Shanks Jr G Gans
J Econ Entom 57(3):360-363
Jun 1964 421 JB22
Scutigereia immaculata, *Scutigereia immaculata*.
- 603-67
APPARENT INCREASE IN POPULATIONS OF THE STRAWBERRY APHID
CAUSED BY PHORATE AND DISULFOTON.
C H Shanks Jr
J Econ Entom 59(4):935-937, TABS.
Aug 1966 421 JB22
Chaetosiphon fragaefolii, *Chaetosiphon fragaefolii*,
Disulfoton, Phorate, Population increase.
- 604-67
EFFECT OF CHEMICAL AND MICROBIAL INSECTICIDES ON SEVERAL IN-
SECT PESTS OF LETTUCE IN SOUTHERN CALIFORNIA.
H H Shorey I M Hall
J Econ Entom 55(2):169-174, TABS.
Apr 1962 421 JB22
Chemicals, Insecticides, Lettuce, Microorganisms.
- 605-67
SEX PHEROMONES OF NOCTUID MOTHS. I. A QUANTITATIVE BIO-
ASSAY FOR THE SEX PHEROMONE OF TRICHOPLUSIA NI (LEPIDOP-
TERA: NOCTUIDAE).
H H Shorey L K Gaston I R Fukuto
J Econ Entom 57(2):252-254, PL.
Apr 1964 421 JB22
Attractants, Lepidoptera, Moths, Noctuidae, Pheromones,
Trichoplusia ni.
- 606-67
A SIMPLE ARTIFICIAL REARING MEDIUM FOR THE CABBAGE LOOPER.
H H Shorey
J Econ Entom 56(4):536-537
Aug 1963 421 JB22
Culture media, Insect rearing, *Trichoplusia ni*,
Trichoplusia ni (Huebner).
- 607-67
INSECT PHEROMONE COLLECTION WITH ABSORPTION COLUMNS. 1.
STUDIES ON MODEL ORGANIC COMPOUNDS.
R M Silverstein J O Rodin
J Econ Entom 59(5):1152-1154
Oct 1966 421 JB22
Absorption columns, Model organic compounds, Pheromone.
- 608-67
2-IMIDAZOLIDINONE AS AN INSECT GROWTH INHIBITOR AND CHEMO-
STERILANT.
H G Simkover
J Econ Entom 57(4):574-579, BIBL. 578-579, TABS.
Aug 1964 421 JB22
Chemosterilants, *Drosophila melanogaster* (Meigen),
Insect growth inhibitors, *Musca domestica* (L.),
2-Imidazolidinone.
- 609-67
LIFE-HISTORY AND BEHAVIORAL STUDIES ON MICRUTALIS MALLEIFE-
RA, A VECTOR OF PSEUDO-CURLY TOP VIRUS.
J N Simons
J Econ Entom 55(3):363-365
Jun 1962 421 JB22
Membracidae, *Micrutalis malleifera*, Pseudo-curlly top virus.
- 610-67
EFFECT OF TEMPERATURE AND HOST PLANTS ON PROGENY PRODUCTION
OF FOUR BIOTYPES OF CORN LEAF APHID, RHOPALOSIPHUM MAIDIS.
S R Singh R H Painter
J Econ Entom 57(3):348-350
Jun 1964 421 JB22
Host plants, Reproduction, *Rhopalosiphum maidis*,
Rhopalosiphum maidis, Temperature.
- 611-67
FEEDING AND REPRODUCTION OF SOME STORED-PRODUCT MITES
ON SEED-BORNE FUNGI.
R N Sinha
J Econ Entom 59(5):1227-1232
Oct 1966 421 JB22
Insect feeding, Reproduction, Seed-borne fungi,
Stored-product mites.
- 612-67
PROLONGED LARVAL DEVELOPMENT IN BUPRESTIS AURULENTA L.
(COLEOPTERA: BUPRESTIDAE). A REVIEW WITH NEW CASES.
D N Smith
Can Entom 94(6):586-593, 818L. 593
Jun 1962 421 C16
Buprestidae, *Buprestis aurulenta* L., Coleoptera,
Insect morphology, Larvae.
- 613-67
OVARIOLES AND DEVELOPING EGGS IN GRASSHOPPERS.
D S Smith
Can Entom 96(9):1255-1258
Sep 1964 421 C16
Grasshoppers, Insect eggs, Ovarioles.
- 614-67
A NOTE ON THE LONGEVITY AND BEHAVIOUR OF ADULT GOLDEN BUP-
RESTIDS, BUPRESTIS AURULENTA L. (COLEOPTERA: BUPRESTI-
DAE UNDER ARTIFICIAL CONDITIONS.
D W Smith
Can Entom 94(6):672
Jun 1962 421 C16
Buprestidae, *Buprestis aurulenta*, *Buprestis aurulenta* L.,
Coleoptera, Insect behavior, Longevity.
- 615-67
THE EFFECT OF AIR AND GROUND SURFACE TEMPERATURE ON BOLL
WEEVIL WINTER SURVIVAL.
G L Smith A L Scales
J Econ Entom 58(1):174-175
Feb 1965 421 JB22
Air temperature, *Anthonomus grandis*, Environment,
Soil temperature.
- 616-67
MOTHS OF THE EUROPEAN CORN BORER INFECTED WITH THE FUNGUS,
BEAUVERIA BASSIANA (BALSAMO) VUILLEMIN.
O E Smith G T York
J Invertebrate Path 2(2):196-197
1960 421 JB26
Beauveria bassiana (Balsamo) Vuillemin,
Pyrausta nubilalis (Hubner).
- 617-67
EFFECTS OF TEPA ON THE REPRODUCTIVE ORGANS AND EMBRYOGENY
OF THE GERMAN COCKROACH.
8 J Smittle J 8 Schmitt G S Burden
J Econ Entom 59(6):1419-1423
Dec 1966 421 JB22
Blattella germanica, *Blattella germanica*, Insect embryos,
Reproductive organs, Tepsa.
- 618-67
RESPONSE OF THE EASTERN SUBTERRANEAN TERMITE TO AN ATTRACT-
IVE EXTRACT FROM LENZITES TRABEA-INVADDED WOOD.
R V Smythe T C Allen H C Coppel
J Econ Entom 58(3):420-423
Jun 1965 421 JB22
Attractants, *Lenzites trabea*, *Reticulitermes flavipes*,
Reticulitermes flavipes (Kollar).

- 619-67
INVESTIGATIONS OF THE POSSIBILITY OF HOST SPECIFIC STRAINS OF THE BOLLWORM AND TOBACCO BUDWORM IN MISSISSIPPI.
J W Snow J R Brazzel
J Econ Entom 58(3):525-526
Jun 1965 421 JB22
Heliothis virescens, *Heliothis virescens* (F.), *Heliothis zea*, *Heliothis zea* (Boddie), Mississippi, Plant hosts.
- 620-67
A COMPARISON OF CHEMORECEPTOR AND WHOLE-FLY RESPONSES TO DDT AND PARATHION.
S A Sollman L K Cutcomp
J Econ Entom 56(4):492-494
Aug 1963 421 JB22
Chemoreceptors, DDT, *Musca domestica* L., Parathion.
- 621-67
CHARACTERS FOR DETERMINING SEX IN ELM SPANWORM PUPAE.
J D Solomon
J Econ Entom 55(2):269-270
Apr 1962 421 JB22
Geometridae, Geometridae, Pupae, Sex determination.
- 622-67
TEPA FOR STERILIZING MALE CARPENTERWORMS.
J D Solomon
J Econ Entom 59(6):152B-1529
Dec 1966 421 JB22
Chemosterilants, *Prionoxystus robiniae*, *Prionoxystus robiniae*, Tapa.
- 623-67
LABORATORY REARING OF ANASTREPHA SERPENTINA.
L M Splshakoff
J Econ Entom 59(4):1010-1011
Aug 1966 421 JB22
Anastrepha serpentina, Laboratory rearing.
- 624-67
DISSEMINATION OF NUCLEAR POLYHEDROSIS VIRUS AGAINST THE FOREST TENT CATERPILLAR, MALACOSOMA DISSTRIA (HUBNER) (LEPIDOPTERA : LASICAMPIDAE).
G R Stairs
Can Entom 96(7):1017-1021
Jul 1964 421 C16
Lasiocampidae, Lepidoptera, *Malacosoma disstria* (Hubner), Polyhedroses, Viruses.
- 625-67
MELON FLY ERADICATION BY OVERFLOODING WITH STERILE FLIES.
L F Steiner E J Harris W C Mitchell M S Fujimoto
J Econ Entom 58(3):519-522
Jun 1965 421 JB22
Dacus cucurbitae, *Dacus cucurbitae* Coquillett, Reproduction, Sterility.
- 626-67
THE DURATION OF VIABILITY AND INFECTIVITY OF CERTAIN INSECT PATHOGENS.
E A Steinhaus
J Invertebrate Path 2(3):225-229
1960 421 JB26
Insect diseases, Microorganisms.
- 627-67
GRANULOSIS OF THE GRANULATE CUTWORM.
E A Steinhaus G A Marsh
J Invertebrate Path 2(2):115-117
1960 421 JB26
Agrotis subterranea (Fabricius), Granuloses, Lepidoptera, *Peridroma margaritosa* (Haworth).
- 628-67
NOTES ON POLYHEDROSES IN PERIDROMA, PRODENIA, COLIAS, HELIOTHIS, AND OTHER LEPIDOPTERA.
E A Steinhaus
J Invertebrate Path 2(4):327-333
1960 421 JB26
Collas, *Heliothis*, Lepidoptera, *Peridroma*, Polyhedroses, *Prodenia*.
- 629-67
OBSERVATIONS ON THE ROLE OF STRESS IN A GRANULOSIS OF THE VARIEGATED CUTWORM.
E A Steinhaus J P Dineen
J Invertebrate Path 2(1):55-65, TABS.
1960 421 JB26
Granuloses, *Peridroma margaritosa* (Haworth).
- 630-67
EFFECT OF SPRAY VOLUME AND PRESSURE ON THE CONTROL OF LARVAE OF THE ALFALFA WEEVIL, HYPERA POSTICA, WITH CONVENTIONAL SPRAY EQUIPMENT.
A L Steinhawer C C Bilckenstaff V E Adler
J Econ Entom 59(4):1012
Aug 1966 421 JB22
Hypera postica, *Hypera postica*, Larvae, Spray pressure, Spray volume, Spraying equipment.
- 631-67
DIATOMACEOUS EARTH TESTED AGAINST SPRUCE BUDWORM.
M J Stelzer
J Econ Entom 59(3):744-745
Jun 1966 421 JB22
Choristoneura fumiferana, *Choristoneura fumiferana*, Diatomaceous earth.
- 632-67
EFFECTS OF SOIL MOISTURE ON SURVIVAL OF PREPUPAE OF THE ALKALI BEE.
W P Stephen
J Econ Entom 58(3):472-474
Jun 1965 421 JB22
Nomia melanderi, *Nomia melanderi* Cockerell, Pupae, Soil moisture.
- 633-67
A COTTONSEED-MEAL DIET FOR LABORATORY CULTURES OF THE BOLL WEEVIL.
W L Sterling S G Wellso P L Adkisson H W Dorough
J Econ Entom 58(5):867-869
Oct 1965 421 JB22
Anthonomus grandis, *Anthonomus grandis*, Cottonseed meal, Culture media.
- 634-67
ORIENTAL FRUIT FLY ERADICATION BY MALE ANNIHILATION.
L F Stetner W C Mitchell E J Harris T T Kozuma M S Fujimoto
J Econ Entom 58(5):961-964
Oct 1965 421 JB22
Dacus dorsalis, Insect eradication.
- 635-67
LABORATORY EMERGENCE OF ADULTS FROM OVERWINTERING PUPAE OF THE APPLE MAGGOT, RHAGOLETIS POMONELLA (WALSH) (DIPTERA: TEPHRITIDAE).
A B Stevenson
Can Entom 95(11):1154-1159
Nov 1963 421 C16
Diptera, Hibernation, Insect emergence, Pupae, *Rhagoletis pomonella* (Walsh), Tephritidae.
- 636-67
EXTENSION OF THE INCUBATION PERIOD OF SOUTHWESTERN CORN BORER EGGS BY REFRIGERATION.
K Stewart R R Walton
J Econ Entom 58(3):579-580
Jun 1965 421 JB22
Incubation period, Insect eggs, Refrigeration, *Zea diatraea grandiosella*, *Zea diatraea grandiosella* (Dyar).
- 637-67
CROSSBREEDING STUDIES WITH SEVEN SPECIES OF TROGODERMA.
R G Strong R G Arndt
J Econ Entom 55(4):445-448
Aug 1962 421 JB22
Crossbreeding (Insects), Insect behavior, Reproduction, Trogoderma.
- 638-67
MONITORING ELECTROPHYSIOLOGICAL RESPONSES OF COCKROACHES FOR SPACE RESEARCH.
W N Sullivan M S Schechter S R Dutky J C Keller
J Econ Entom 55(6):985-989
Dec 1962 421 JB22
Blattidae, Blattidae, Electrophysiology, Space biology.
- 639-67
EFFECTS OF TEMPERATURE ON HATCHING AND ON LONGEVITY ON STARVED FIRST-INSTAR LARVAE OF HYLEMYA BRASSICAE (BOUCHE) (DIPTERA: ANTHOMYIIDAE).
G E Swales
Can Entom 95(8):87B-881
Aug 1963 421 C16
Anthomyiidae, Diptera, *Hylemya brassicae*, *Hylemya brassicae*, Temperature.

BIBLIOGRAPHY

10 640-67

- 640-67
STERILIZATION OF THE CABBAGE MAGGOT WITH APHOLATE.
G E Swales
J Econ Entom 59(3):596-598
Jun 1966 421 J822
Apholate, *Hylemya brassicae*, *Hylemya brassicae*,
Sterilization.
- 641-67
A MARKING AND RECOVERY METHOD FOR USE IN BOLL WEEVIL MOVE-
MENT STUDIES.
H M Taft H R Agee
J Econ Entom 55(6):1018-1019
Dec 1962 421 J822
Anthonomus grandis, *Anthonomus grandis*, Insect behavior,
Insect marking.
- 642-67
THE SUSCEPTIBILITY OF BRACON-PARALYZED CORCYRA CEPHALONICA
(STANTON) TO *BACILLUS THURINGIENSIS* VAR. *THURINGIENSIS*
BERLINER.
M Tamashiro
J Invertebrata Path 2(3):209-219, BIBL. 218-219
1960 421 J826
Bacillus thuringiensis var. *thuringiensis* Berliner, Bracon,
Corcyra cephalonica (Stainton).
- 643-67
A CYTOPLASMIC POLYHEDROSIS OF THE ARMYWORM, PSEUDALETIA
UNIPUNCTA (HAWORTH) (LEPIDOPTERA, NOCTUIDAE).
Y Taneda G Y Chang
J Invertebrata Path 2(3):201-208
1960 421 J826
Lepidoptera, Noctuidae, Polyhedroses,
Pseudaletia unipuncta (Haworth).
- 644-67
STUDIES ON ERADICATION OF ANOPHELES PHAROENSIS BY THE
STERILE-MALE TECHNIQUE USING COBALT. II. INDUCED DOMINANT
LETHALS IN THE IMMATURE STAGES.
A D Tantawy A A Abdel-Malek A W Wakid
J Econ Entom 59(6):1392-1394
Dec 1966 421 J822
Anopheles pharoensis, Gamma rays, Sterilization.
- 645-67
IMPROVED LABORATORY TECHNIQUES FOR REARING CALIFORNIA RED
SCALE ON LEMONS.
H Tashiro
J Econ Entom 59(3):604-608
Jun 1966 421 J822
Anonidiella aurantii, *Anonidiella aurantii*, Laboratories,
Lemons, Rearing, *Varmiculita*.
- 646-67
BUTYL SORBATE AS AN ATTRACTANT FOR EUROPEAN CHAFER.
H Tashiro S I Gertler M Baroza N Green
J Econ Entom 57(2):230-233, TABS.
Apr 1964 421 J822
Amphimallon majalis, *Amphimallon majalis*, Attractants,
Butyl sorbate.
- 647-67
REDUCED FECUNDITY OF THE TWO-SPOTTED SPIDER MITE ON METAL-
CHELATE-TREATED LEAVES.
L C Terriere N Rajadhyaksha
J Econ Entom 57(1):95-99, TABS.
Feb 1964 421 J822
Chelation, Fertility, *Tetranychus telarius*,
Tetranychus urticae.
- 648-67
A LIST AND BRIEF DESCRIPTION OF THE MICROSPORIDIA INFECTING
INSECTS.
H M Thomson
J Invertebrata Path 2(4):346-378, BIBL. 378-385
1960 421 J826
Microsporidia.
- 649-67
EFFECT OF GAMMA RADIATION ON TROGODERMA GLABRUM AND ATTA-
GENUS PICEUS.
E W Tilton W E Burkholder R R Cogburn
J Econ Entom 59(4):944-948, TABS.
Aug 1966 421 J822
Attagenus piceus, Gamma rays, *Trogoderma glabrum*.
- 650-67
EFFECTS OF GAMMA RADIATION ON RHYZOPERtha DOMINICA,
SITOPHILUS DRYZAE, TRIBOLIUM CONFUSUM, AND LASIODERMA
SERRICORNE.
E W Tilton W E Burkholder R R Cogburn
J Econ Entom 59(6):1363-1368
Dec 1966 421 J822
Gamma rays, *Lasioderma serricorne*, *Rhyzopertha dominica*,
Sitophilus oryzae, *Tribolium confusum*.
- 651-67
THE EFFECTS OF CONFINING CONFUSED FLOUR BEETLES IN GELATIN
CAPSULES BEFORE, DURING, AND AFTER GAMMA IRRADIATION.
E W Tilton W E Burkholder R R Cogburn
J Econ Entom 58(1):175-176
Feb 1965 421 J822
Irradiation, Stored products,
Tribolium confusum Jacquelin duVal.
- 652-67
LIFE-HISTORY STUDIES OF MYZUS PERSICAE IN HAWAII.
H H Toba
J Econ Entom 57(2):290-291
Apr 1964 421 J822
Hawaii, Life cycle, *Myzus persicae*.
- 653-67
MATING AND REPRODUCTIVE HISTORY OF BLACKLIGHT-TRAPPED CRAN-
BERRY FRUITWORM MOTHS.
W E Tomlinson Jr
J Econ Entom 59(4):849-851, TABS.
Aug 1966 421 J822
Acrobasis vaccinii, Light traps, Mating,
Reproductive history.
- 654-67
EFFECT OF BOVINE DIET ON FACE FLY DEVELOPMENT - A PRELIMI-
NARY REPORT.
R E Treece
J Econ Entom 59(1):153-156
Feb 1966 421 J822
Cattle diet, *Musca autumnalis*, *Musca autumnalis* De Greer.
- 655-67
A QUICK TRAP FOR AREA SAMPLING OF ARTHROPODS IN GRASS-
LAND COMMUNITIES.
A L Turnbull C F Nicholls
J Econ Entom 59(5):1100-1104
Oct 1966 421 J822
Area sampling, Arthropoda, Grassland communities,
Insect traps.
- 656-67
EFFECTS OF TEMPERATURE AND MOISTURE ON SURVIVAL OF EGGS OF
THE TOBACCO WIREWORM.
S G Turnipseed R L Rabb
J Econ Entom 58(6):1155-1156
Dec 1965 421 J822
Conoderus vespertinus, *Conoderus vespertinus* (F),
Insect eggs.
- 657-67
STARVATION METHOD FOR OBTAINING DIAPAUSING BOLL WEEVILS ABLE
TO SURVIVE THE WINTER IN HIBERNATION.
J Econ Entom 59(1):55-57
Feb 1966 421 J822
Anthonomus grandis, *Anthonomus grandis*, Diapause,
Hibernation, Starvation.
- 658-67
THE PENETRATION AND METABOLISM OF H-DIMETHOATE IN INSECTS.
T Uchida H S Rehmati R D O'Brien
J Econ Entom 58(5):831-835
Oct 1965 421 J822
Dimethoate, Insects.
- 659-67
FLORESCENT DYES FOR MATING AND RECOVERY STUDIES WITH
CABBAGE LOOPER MOTHS.
P V Vail A F Howland T J Henneberry
J Econ Entom 59(5):1093-1097
Oct 1966 421 J822
Cabbage looper moth, Fluorescent dyes, Mating,
Recovery study, Rhodamine B., *Trichoplusia ni* (Hubner).
- 660-67
REARING OF THE BOLLWORM ON ARTIFICIAL DIET.
E S Vanderzant C D Richardson S W Fort Jr
J Econ Entom 55(1):140
Feb 1962 421 J822

- Diet, *Heliothis zea*, *Heliothis zea*, Insect rearing.
Feb 1964 421 J822
Arizona, *Chlorochroa aayi*, Cotton,
Euschistus impictiventris, Insect control, Pentatomidae.
- 661-67
FACTORS AFFECTING RESISTANCE OF ALFALFA CLONES TO ADULT FEEDING AND OVIPOSITION OF THE ALFALFA WEEVIL IN THE LABORATORY.
R S VanDenburgh B L Norwood C C Blickenstaff C H Hanson
J Econ Entom 59(5):1193-1198
Oct 1966 421 J822
Alfalfa, Clones, *Hypera postica*,
Hypera postica (Gyllenhal), Insect feeding, Oviposition.
- 662-67
INFLUENCE OF FUMIGATION AND AGE ON CARBON DIOXIDE PRODUCTION OF SOME STORED-PRODUCT INSECTS.
L E Vincent D L Lindgren
J Econ Entom 58(4):660-664, TABS.
Aug 1965 421 J822
Carbon dioxide, Insect respiration, Stored products.
- 663-67
A METHOD OF HOST SELECTION BY *CARDIOCHILES NIGRICEPS*.
S B Vinson W J Lewis
J Econ Entom 58(5):869-871
Oct 1965 421 J822
Cardiochiles nigriceps, *Heliothis virescens*,
Heliothis virescens.
- 664-67
LABORATORY REARING OF THE TOBACCO HORNWORM, *PROTOPARCE SEXTA* (LEPIDOPTERA: SPHINGIDAE).
G P Waldbauer R T Yasamoto W S Bowers
J Econ Entom 57(1):93-95
Feb 1964 421 J822
Laboratory rearing, Lepidoptera, *Manduca quinquemaculata*,
Manduca quinquemaculata, *Protoparce sexta* (Johannson),
Sphingidae.
- 665-67
EMERGENCE PATTERN OF FIRST-GENERATION BOLL WEEVILS IN AN ISOLATED PLOT DURING 1960 AND 1961.
J K Walker Jr
J Econ Entom 55(5):795-796
Oct 1962 421 J822
Anthonomus grandis, *Anthonomus grandis* Boheman,
Insect behavior.
- 666-67
REPRODUCTIVE POTENTIAL OF THE SWEETPOTATO WEEVIL AFTER EXPOSURE TO IONIZING RADIATIONS.
J R Walker
J Econ Entom 59(5):1206-1208
Oct 1966 421 J822
Cylas formicarius elegantulus,
Cylas formicarius elegantulus (Summers), Ionizing radiation,
Reproduction.
- 667-67
SPRING MIGRATION OF THE SIX-SPOTTED LEAFHOPPER IN THE WESTERN GREAT PLAINS.
R L Wallis
J Econ Entom 55(6):871-874
Dec 1962 421 J822
Insect migration, *Macrosteles fascifrons*,
Macrosteles fascifrons.
- 668-67
DEVELOPMENT OF CATTLE GRUBS IN OKLAHOMA CATTLE IMPORTED INTO CANADA.
J Weintraub D E Howell
J Econ Entom 57(4):494-500, TABS.
Aug 1964 421 J822
Canada, Cattle, *Hypoderma*, *Hypoderma bovis* (L.),
Hypoderma lineatum (de Villiers), Oklahoma.
- 669-67
EFFECTS OF PROTOZOAN PARASITES AND COMMENSALS ON LARVAE OF THE MOSQUITO *Aedes communis* (DEGEER) (DIPTERA: CULICIDAE) AT CHURCHILL, MANITOBA.
H E Welch
J Invertebrate Path 2(4):386-395
1960 421 JB26
Aedes communis (DeGeer), Culicidae, Diptera, Larvae,
Manitoba, Parasites, Protozoa, Symbiosis.
- 670-67
NOTES ON AND CONTROL OF STINK BUGS AFFECTING COTTON IN ARIZONA.
G P Wene L W Sheets
J Econ Entom 57(1):60-62
Feb 1964 421 J822
Arizona, *Chlorochroa aayi*, Cotton,
Euschistus impictiventris, Insect control, Pentatomidae.
- 671-67
COMPARISON OF AERIAL SPRAY AND DUST INSECTICIDE APPLICATIONS FOR THE CONTROL OF COTTON INSECTS IN ARIZONA.
G P Wene L W Sheets
J Econ Entom 55(1):147-148
Feb 1962 421 J822
Aerial dusting, Aerial spraying, Cotton, Insect control,
Insecticides.
- 672-67
MIGRATION OF BEET ARMYWORM LARVAE.
G P Wene L W Sheets
J Econ Entom 58(1):165-169
Feb 1965 421 J822
Insect migration, *Spodoptera exigua*,
Spodoptera exigua (Hubner).
- 673-67
THE PAINTED LEAFHOPPER, *ENDRIA INIMICA* (SAY), A VECTOR OF WHEAT STRIATE MOSAIC VIRUS IN MANITOBA.
P H Westdal H P Richardson
Can Entom 98(9):922-931, TABS.
Sep 1966 421 C16
Endria inimica (Say), Insect vectors, Manitoba,
Striate mosaic (wheat).
- 674-67
REARING *PSEUDOTHERAPTUS WAYI* BROWN (COREIDAE) A PEST OF COCONUTS IN EAST AFRICA, EVALUATIONS OF ITS SUSCEPTIBILITY TO VARIOUS INSECTICIDES.
P E Wheatley
Bull Entomol R 51(4):723-729
Jan 1961 421 B87
Coconuts, Coreidae, East africa, Insect rearing,
Insecticides, *Pseudotheraptus wayi* Brown.
- 675-67
THE LIFE HISTORY OF *PLATYNOTA FLAVEDANA*, A LEAF ROLLER OF STRAWBERRY.
G Wilde M Semel
J Econ Entom 59(5):1037-1041
Oct 1966 421 J822
Gonlozys platynotae (Ashmead), Life cycle, New York,
Platynota flavedana Clemens, Tortricidae.
- 676-67
APANTELES RUBECULA MARSH AND OTHER PARASITES OF *PIERIS RAPAE* IN BRITISH COLUMBIA.
A T S Wilkinson
J Econ Entom 59(4):1012-1013
Aug 1966 421 J822
Apanteles rubecula (Marsh), British Columbia,
Parasitic insects, *Pieris rapae*.
- 677-67
DEVELOPMENT IN *NEODIPRION EXCITANS* ROHWER AS RELATED TO OVIPOSITION AND PINE NEEDLE GROWTH.
R C Wilkinson
Can Entom 96(8):1142-1147
Aug 1964 421 C16
Insect morphology, *Neodiprion excitans* Rohwer, Oviposition.
- 678-67
A METHOD FOR CANDLING PINE SAWFLY COCOONS.
R C Wilkinson
J Econ Entom 58(3):587
Jun 1965 421 J822
Argidae, Candling, *Neodiprion excitans*,
Neodiprion virginianus, Pupal cases.
- 679-67
BIOLOGICAL ACTIVITIES OF THE HARVESTER ANT, *POGONOMYRMEX OWYHEELI*, IN CENTRAL OREGON.
J R Willard H H Crowell
J Econ Entom 58(3):484-489, BIBL., TABS.
Jun 1965 421 J822
Insect behavior, Messor, Oregon, *Pogonomyrmex owyheel* Cole.
- 680-67
LIFE HISTORY, HABITS, AND DAMAGE OF THE BOXELDER LEAF GALL MIDGE, *CONTARINIA NEGUNDIFOLIA* FELT (DIPTERA: CECIDOMYIIDAE) IN MICHIGAN.
L F Wilson
Can Entom 98(7):777-784
Jul 1966 421 C16
Acer negundo, *Acer negundo*, Cecidomyiidae,

BIBLIOGRAPHY

10 681-67

- Contarinla negundifolia Felt, Diptera, Insect behavior, Life cycle, Michigan, Plant injuries.
- 681-67
ORIENTATION OF THE MALES OF Aedes Aegypti (L.) (DIPTERA: CULICIDAE) TO SOUND.
G Wishart G R van Sickle D F Riordan
Can Entom 94(6):613-626, BIBL. 625-626
Jun 1962 421 C16
Aedes aegypti (L.), Culicidae, Culicidae, Diptera, Sex behavior, Stridulation.
- 682-67
MICROORGANISMS FROM THE MID-CUT OF THE FOURTH-INSTAR LARVAE OF Culex tarsalis COQUILLETT.
G A Wistreich J Chao
J Invertebrate Path 2(1):30-34, TABS.
1960 421 JB26
Culex tarsalis Coquillett, Larvae, Microorganisms.
- 683-67
FURTHER STUDIES OF THE CYTOPLASMIC POLYHEDROSIS VIRUS OF THE ALFALFA CATERPILLAR.
G Wittig E A Steinhaus J P Dineen
J Invertebrate Path 2(4):334-345
1960 421 JB26
Collas philodolce eurytheme Boisduval, Polyhedroses.
- 684-67
A SEQUENTIAL SAMPLING PLAN FOR DETERMINING THE STATUS OF CORN EARWORM CONTROL IN SWEET CORN.
D A Wolfenbarger J G Darroch
J Econ Entom 58(4):651-654, TABS.
Aug 1965 421 JB22
Heliothis zea, Heliothis zea (Boddie), Sampling, Sweetcorn.
- 685-67
OCCURENCE OF EVE GNATS (HIPPELATES SSP.) IN THE CENTRAL SAN JOAQUIN VALLEY, CALIFORNIA.
D J Womeldorf E W Mortenson
J Econ Entom 55(4):457-459
Aug 1962 421 JB22
Chloropidae, Chloropidae, Hippelates, Insect traps, Pest control.
- 686-67
A COMPARISON OF THE BIOLOGY OF THE SUGARCANE BORER ON ARTIFICIAL AND NATURAL DIETS.
T Wongsiri N M Randolph
J Econ Entom 55(4):472-473
Aug 1962 421 JB22
Culture media, Diatraea saccharalis, Diatraea saccharalis, Diet.
- 687-67
EVALUATION OF CHEMICALS AS HONEY BEE ATTRACTANTS AND REPELLENTS.
A W Woodrow N Green H Tucker M H Schonhorst K C Hamilton
J Econ Entom 58(6):1094-1102
Dec 1965 421 JB22
Apis mellifera, Apis mellifera, Attractants, Insect repellents.
- 688-67
INSECTICIDE RESISTANCE TESTS FOR THE SOUTHERN POTATO WIREWORM.
R B Workman
J Econ Entom 56(3):419
Jun 1963 421 JB22
Conoderu falli Lane, Insecticide resistant insects, Southern potato wireworm.
- 689-67
RESPONSE OF THE NANTUCKET PINE TIP MOTH TO ATTRACTANTS.
C Wray M H Farrier
J Econ Entom 56(5):714-715
Oct 1963 421 JB22
Attractants, Rhyacionia frustrana, Rhyacionia frustrana (Comstock).
- 690-67
PRIMARY ODORS AND INSECT ATTRACTION.
R H Wright
Can Entom 98(10):1083-1093, TABS.
Oct 1966 421 C16
Attractants, Insects, Odors.
- 691-67
SOME QUANTITATIVE ASPECTS OF INSECT ATTRACTION.
R H Wright
Can Entom 98(10):1114-1117
Oct 1966 421 C16
Attractants, Drosophila melanogaster, Insects.
- 692-67
EFFECT OF HOST AGE ON RATE OF DEVELOPMENT OF NASONIA VITRIPENNIS (WALK.) (HYMENOPTERA: PTEROMALIDAE).
H G Wylie
Can Entom 96(7):1023-1027, TABS.
Jul 1964 421 C16
Hymenoptera, Insect morphology, Nasonia vitripennis (Walk.), Pteromalidae.
- 693-67
SUGARCANE BORER RESISTANCE TO INSECTICIDES.
R P Yadav H L Anderson W H Long
J Econ Entom 58(6):1122-1124
Dec 1965 421 JB22
Diatraea saccharalis, Diatraea saccharalis (F), Insecticide resistant insects.
- 694-67
THE EFFECT OF REPEATED INSECTICIDAL APPLICATIONS ON A NATURAL TSETSE POPULATION.
D Yeo H R Simpson
Bull Entomol R 51(3):631-637
Nov 1960 421 B87
Glossina spp., Insect population, Insecticide application.
- 695-67
BACTERIOPHAGE FOR BACILLUS THURINGIENSIS BERLINER AND BACILLUS ANTHRACIS COHN.
P E Yoder E L Neilson
J Invertebrate Path 2(2):198-200
1960 421 JB26
Bacillus anthracis Cohn, Bacillus thuringiensis Berliner, Bacteriophages.
- 696-67
IMPROVED TECHNIQUE FOR REARING THE ALFALFA WEEVIL, HYPERA POSTICA (GYLLENHAL), IN THE LABORATORY.
W H Zlener K D Cashin
J Econ Entom 57(1):161, PL.
Feb 1964 421 JB22
Hypera postica, Hypera postica (Gyllenhal), Insect rearing.

Genetics

- 697-67
EXPLORATORY STUDIES ON GAMMA RADIATION FOR THE STERILIZATION OF THE BOLL WEEVIL.
T B Davich D A Lindquist
J Econ Entom 55(2):164-167, TABS.
Apr 1962 421 JB22
Anthonomus grandis, Anthonomus grandis, Gamma rays, Sterilization.
- 698-67
OVIPOSITION PREFERENCE OF THE CABBAGE MAGGOT, HYLEMYA BRASSICAE (BOUCHE).
J F Doane R K Chapman
J Econ Entom 55(1):137-138
Feb 1962 421 JB22
Hylemya brassicae, Hylemya brassicae, Oviposition.
- 699-67
TWO GENETIC MARKERS FOR LARVAE OF THE SCREW-WORM FLY.
L W Fletcher
J Econ Entom 59(4):877-880, PL.
Aug 1966 421 JB22
Cochilomyia hominivorax, Insect genetics, Larvae.
- 700-67
SUSCEPTIBILITY OF MATURE AND NEWLY EMERGED FACE FLIES TO CHEMOSTERILIZATION WITH APHOLATE.
J A Hair E C Turner Jr
J Econ Entom 59(2):452-454, BIBL.
Apr 1966 421 JB22
Apholate, Insecticide resistant insects, Musca autumnalis,

Musca autumnalis De Geer, Tapa.

- 701-67
THE EFFECT OF PLANT NUTRITION ON THE FECUNDITY OF TWO STRAINS OF TWO-SPOTTED SPIDER MITE.
T J Henneberry
J Econ Entom 55(1):134-137, TABS.
Feb 1962 421 JB22
Fertility, Plant nutrition, *Tetranychus urticae*, *Tetranychus urticae*.
- 702-67
POTENTIALITIES AND PROGRESS IN THE DEVELOPMENT OF CHEMOSTERILANTS FOR INSECT CONTROL.
E F Knippling
J Econ Entom 55(5):7B2-7B6, TABS.
Oct 1962 421 JB22
Chemosterilants, Insect control.
- 703-67
MUTANTS AND LINKAGE GROUPS OF THE SCREW-WORM FLY.
L E LaChance C Dankins D E Hopkins
J Econ Entom 59(6):1493-1499
Dec 1966 421 JB22
Cochliomyia hominivorax, *Cochliomyia hominivorax*, Insect mutation.
- 704-67
OVERWINTERING IN THE EGG STAGE BY THE SPOTTED ALFALFA APHID IN NEBRASKA.
G R Manglitz P W Bergman W L Howe C O Calkins
J Econ Entom 55(3):292-294
Jun 1962 421 JB22
Eggs, Hibernation, *Therioaphis maculata*, *Therioaphis maculata*.
- 705-67
A GENETIC FACTOR CONTROLLING COLOR AND ITS ASSOCIATION WITH DDT SENSITIVITY IN THE CABBAGE LOOPER.
F L McEwen C M Spillstoeser
J Econ Entom 57(2):197-199, TABS.
Apr 1964 421 JB22
DDT, Insect color, Insect genetics, *Trichoplusia ni*, *Trichoplusia ni*.
- 706-67
THE INHERITANCE OF LARVAL COLOR PATTERNS IN NEODIPRION PRATTI DYAR (HYMENOPTERA: DIPRIONIDAE).
P B Moens C E Atwood
Can Entom 95(7):779-782
Jul 1963 421 C16
Color, Diprionidae, Hymenoptera, Larvae, *Neodiprion prattii* Dyar.
- 707-67
CYTOLOGICAL AND GENETIC STUDIES ON THE EFFECT OF RUELENE.
A Nethery G B Wilson R Hooplingarner
J Econ Entom 58(3):511-513
Jun 1965 421 JB22
Cytogenetics, Cytology, Ruelene.
- 708-67
EGG DEPOSITION BY BOLL WEEVILS ISOLATED FROM MALES DURING HIBERNATION PERIOD AND AFTER SPRING EMERGENCE.
L G Pickens
J Econ Entom 55(2):268-269
Apr 1962 421 JB22
Anthonomus grandis, *Anthonomus grandis*, Eggs, Hibernation.
- 709-67
SUPPRESSION OF THE REPRODUCTIVE POTENTIAL OF THE CODLING MOTH BY GAMMA IRRADIATED MALES IN CAGED ORCHARD TREES.
M D Proverbs J R Newton
55(6):934-936
Dec 1962
Carpocapsa pomonella, *Carpocapsa pomonella*, Gamma rays, Irradiation, Reproduction, Trees.
- 710-67
MATING COMPETITION OF GAMMA-IRRADIATED AND NONIRRADIATED MALE TROGODERMA GLABRUM HERBST.
E W Tilton W E Burkholder R R Cogburn
J Econ Entom 59(1):16B-169
Feb 1966 421 JB22
Gamma rays, Reproduction, *Trogoderma glabrum*.
- 711-67
A QUANTITATIVE METHOD FOR ASSESSING THE NUISANCE CAUSED BY NON-BITING AQUATIC INSECTS.
P S Corbet
Can Entom 9B(7):6B3-6B7, TABS.
Jul 1966 421 C16
Aquatic insects, Chironomidae, Ephemeroptera, Insect pests, Trichoptera.
- 712-67
AEDES AEGYPTI FEEDS ON LIZARDS IN PUERTO RICO.
I Fox I G Bayona
J Econ Entom 57(3):417-41B
Jun 1964 421 JB22
Aedes aegypti, Insect vectors, Lizards, Puerto Rico.
- 713-67
A TRIAL USE OF GRASS-MAT PASSAGES IN PROTECTING HUMANS FROM ATTACKS BY TSETSE FLIES.
E A S La Croix
Bull Entomol R 51(4):639-642
Jan 1961 421 BB7
Glossina, Grass-mat passages, Trypanosomiasis.
- 714-67
AN ECOLOGICAL BASIS FOR THE SUPPRESSION OF HIPPELATES EYE GNATS.
M S Mulla
J Econ Entom 56(6):768-770, BIBL. 770
Dec 1963 421 JB22
Hippelates collusor, Insect ecology.
- 715-67
RECENT DEVELOPMENTS IN PUBLIC HEALTH ENTOMOLOGY AND THEIR POSSIBLE APPLICATION TO AGRICULTURE.
K D Quarterman
J Econ Entom 57(2):277-2B1, BIBL. 2B0-2B1
Apr 1964 421 JB22
Agriculture, Public health entomology.

Medical Entomology

20 CROP PROTECTION

- 716-67
BIBLIOGRAPHY OF REVIEWS, 1949-1959.
Phytopatholo 50(B), PT. 2, 116PP.
Aug 1960 464.B PS6
Bibliography, Phytopathology, Reviews.
- 717-67
REPORT AND ABSTRACTS OF THE 1959 MEETING OF THE NORTHEASTERN
DIVISION OF THE AMERICAN PHYTOPATHOLOGICAL SOCIETY.
Phytopatholo 50(4):239-257
Apr 1960 464.B PS6
Abstracting, Agricultural finance, Agriculture, Biology,
Chemical control (pests), Crop reports, Food storage, Fungi,
Nematodes, Pest control, Plant disease control, Viruses.
- 718-67
FARMERS EXPENDITURES FOR PESTICIDES IN 1964.
P Adrilenas T Elcher A Fox
1-10, TABS.
1964
Agricultural economics, Pesticides.
Agricultural Economic Report No. 106
- 719-67
RELATION OF STRUCTURE TO PHYTOTOXICITY OF α -TRIAZINE HERB-
ICIDES ON COTTON AND WEEDS.
J T Holston Jr C G McWhorter
J Agr Food Ch 11(S):441-443
Sep 1963 381 JB223
Cotton, Herbicides, Phytotoxicity, Weeds.
- 720-67
PECTIC SUBSTANCES IN FORAGES AND THEIR RELATIONSHIP TO
BLOAT.
R Pressey S H Synhorst R S Allen N L Jacobson C P Wilsie
J Agr Food Ch 11(S):396-399
Sep 1963 381 JB223
Bloat, Cattle, Forage plants, Pectins.
- 721-67
TOLERANCE OF SOME IMPORTED VEGETABLES TO METHYL BROMIDE
FUMIGATION AND HOT WATER TREATMENTS.
H Roth H H Richardson
J Econ Entom 58(6):1086-1089
Dec 1965 421 JB22
Paris lepld11 Germer, Fumigation, Imported produce,
Methyl bromide, Water treatment.
- 722-67
A FUSARIUM WILT OF TAGETES.
OLSEN, CARL M.
Phytopatholo 50(1):B5
Jan 1960 464.B PS6
Fusarium, Tagetes, Wilt.
- 723-67
STUDIES ON THE PHYTOPHTHORA ROT OF SUGARCANE SEED PIECES IN
LOUISIANA.
T van der Zwet I L Forbes R J Steib
Plant Dis R 44(7):S19-S23
15 Jul 1960 1.9 P69P
Phytophthora, Rot (sugarcane), Seeds, Sugarcane.
- 724-67
RACES OF HEAD SMUT OF SORGHUM.
I A Al-isohaily C J Manlin
Phytopatholo 50(9):627
Sep 1960 464.8 PS6
Head smut (sorghum), Sorghum.
- 725-67
INACTIVATION OF TMV FROM TOMATO SEED.
L J Alexander
Phytopatholo 50(9):627
Sep 1960 464.8 PS6
Mosaic (tobacco), Tomatoes.
- 726-67
ALFALFA MOSAIC VIRUS IN SOYBEAN.
W B Allington E L Moorhead R Staples
Phytopatholo 50(9):627
Sep 1960 464.8 PS6
Alfalfa, Macrosiphum pisi, Mosaic (alfalfa), Soybeans.
- 727-67
HALF-LIFE OF EFFECTIVENESS AGAINST STEM RUST OF SYSTEMIC
CHEMICALS IN WHEAT SEEDLINGS.
A S Andersen J B Rowell
Phytopatholo 50(9):627
Sep 1960 464.8 PS6
Chemical control (plant diseases), Half-life,
Puccinia graminis var. tritici, Seedlings,
Stem rust (wheat), Wheat.
- 728-67
PATHOGENIC SPECIALIZATION OF HELMINTHOSPORIUM SATIVUM.
L J Ashworth Jr K A Lahr R J Collins
Phytopatholo 50(9):627
Sep 1960 464.8 PS6
Helminthosporium sativum.
- 729-67
VIRULENCE OF PSEUDOMONAS SOLANACEARUM AS INFLUENCED BY PRO-
PORTION OF VIRULENT TO AVIRULENT CELLS.
C W Averre III a Kelman
Phytopatholo 50(9):627-628
Sep 1960 464.8 PS6
Pseudomonas solanacearum, Virulence.
- 730-67
FIELD OCCURRENCE OF TOBACCO MOSAIC VIRUS IN TOMATO AND
CHENOPODIUM MURALE.
J G Bald A D Paulus
Phytopatholo 50(9):628
Sep 1960 464.8 PS6
Chenopodium murale, Mosaic (tobacco), Tomatoes.
- 731-67
THE ANTIGENIC CHARACTERISTICS AND THE RELATIONSHIP AMONG
STRAINS OF ALFALFA MOSAIC VIRUS.
J B Bancroft E L Moorhead J Tuite H P Liu
Phytopatholo 50(1):34-39
Jan 1960 464.8 PS6
Antigens, Mosaic (alfalfa).
- 732-67
LOPHODERMUM NEEDLE CAST OF THE EASTERN WHITE PINE.
W M Banfield
Phytopatholo 50(9):628
Sep 1960 464.8 PS6
Lophodermium apothecia, Needle cast (pinus), Pinus strobus.
- 733-67
A BIOCHEMICAL RESPONSE OF APPLE TISSUES TO FUNGUS INFECTION.
E H Barnes E B Williams
Phytopatholo 50(11):844-B46
Nov 1960 464.8 PS6
Apples, Fungi, Tissues.
- 734-67
ISOLATION OF OLPIIDIUM BRASSICAE FROM ROOTS OF LETTUCE
SHOWING BIG-VEIN SYMPTOMS.
J T Barr
Plant Dis R 44(8):617
15 Aug 1960 1.9 P69P
Big vein (lettuce), Lettuce, Microorganism isolation,
Olpidium brassicae, Roots.
- 735-67
SUSCEPTIBILITY OF VARIOUS APPLE VARIETIES TO THE OAK WILT
FUNGUS.
G J Bart
Phytopatholo 50(2):177-178
Feb 1963 464.B PS6
Apples, Wilt (oak).
- 736-67
THE INFLUENCE OF PH ON GROWTH OF THIELAVIOPSIS BASICOLA IN
CULTURE AND THE DEVELOPMENT OF THIELAVIOPSIS ROOT ROTTS OF
POINSETTA AND BEAN IN SOIL.

Diseases

- D P Bateman
Phytopatholo 50(9):62B
Sep 1960 464.B P56
Beans, Culture media, Euphorbia pulcherrima,
Hydrogen-ion concentration, Thielaviopsis basicola.
- 737-67
OCCURRENCE OF THE SCLEROTIAL STATE OF CIBORINIA CANDOLLEANA
(LEV.) WHET IN THE UNITED STATES OF AMERICA.
L R Batra J M Staley
Plant Dis R 44(6):430-431
15 Jun 1960 1.9 P69P
Ciborinia candolleana (Lev., Whet, Quercus, Quercus,
Sclerotia.
- 738-67
THE EFFECTS OF TEMPERATURE AND MOISTURE ON DEVELOPMENT OF
BLACK STEM OF ALFALFA.
G A Bean B L Renfro
Phytopatholo 50(9):62B
Sep 1960 464.B P56
Alfalfa, Black stem (alfaifa), Humidity, Temperature.
- 739-67
PHYSICAL BARRIERS IN RELATION TO FUSARIUM WILT RESISTANCE
IN BANANAS.
C H Beckman M E Mace S Halmos
Phytopatholo 50(9):62B
Sep 1960 464.B P56
Bananas, Fusarium, Physical barriers, Wilt (bananas).
- 740-67
THE EFFECT OF ENVIRONMENT ON GERMINATION OF SPORIDIA IN
CRONARTIUM RIBICOLA.
R V Bega
Phytopatholo 50(1):61-69
Jan 1960 464.B P56
Cronartium ribicola, Environment, Seed germination,
Sporidia.
- 741-67
THERMAL DEATH RANGE OF SCLEROTIA OF MACROPHOMINA PHASEOLI.
R V Bega R S Smith
Phytopatholo 50(9):62B-629
Sep 1960 464.B P56
Macrophomina phaseoli, Pinus lambertiana,
Pseudotsuga menziesii, Sclerotia, Sequoia gigantea,
Thermal death range.
- 742-67
CARBOHYDRATE RESERVES IN GRAFTED PLANTS OF POTATO VARIETIES
RESISTANT TO VIRUS X.
A P Benson W J Hooker
Phytopatholo 50(9):629
Sep 1960 464.B P56
Carbohydrates, Plant grafting, Potatoes.
- 743-67
COMPARISON OF CULTURAL VARIANTS OF ALTERNARIA SESAME.
S Z Berry
Phytopatholo 50(4):29B-304, BIBL. 303-304
Apr 1960 464.B P56
Alternaria, Culture media, Pathogenicity, Sesame.
- 744-67
GREEN PEACH APHID DISTRIBUTION AND POTATO LEAFROLL VIRUS
OCCURRENCE IN THE SEED-POTATO PRODUCING AREAS OF IDAHO.
G W Bishop
J Econ Entom 58(1):150-153
Feb 1965 421 JB22
Idaho, Myzus persicae, Myzus persicae (Sulzer),
Potato leafroll virus, Seed potatoes.
- 745-67
LOCAL LESIONS IN PSOROSIS.
A A Bitancourt
Int Organ Citrus Virol Pr 3:14B-149
1963 464.06 INB2
Lesions (plants), Psorosis.
- 746-67
BEHAVIOR OF SOME BARTLETT PEAR TREES ON THEIR OWN ROOTS.
E C Blodgett M D Aichele
Plant Dis R 44(6):438-440
15 Jun 1960 1.9 P69P
Bartlett pears, Pears, Roots.
- 747-67
A SOIL INFESTATION METHOD FOR STUDYING SPORES OF HELMINTHO-
SPORIUM SATIVUM.
M A Boosalis
Phytopatholo 50(11):B60-B65
Nov 1960 464.B P56
Fungi, Helminthosporium sativum.
- 748-67
CROSS-INOCULATION OF TOMATO AND CORN WITH GIBBERELLA.
C W Boothroyd
Phytopatholo 50(4):239
Apr 1960 464.B P56
Corn, Gibberellins, Immunization, Tomatoes.
- 749-67
DISTRIBUTION OF CERATOCYSTIS FAGACEARUM IN ROOTS OF WILT-
INFECTED OAKS IN NORTH CAROLINA.
J S Boyce Jr
Phytopatholo 50(10):775-776
Oct 1960 464.B P56
Ceratocystis fagacearum, North Carolina, Wilt (oak).
- 750-67
EFFECTS OF SALTS, DETERGENT, AND A BARLEY-JUICE FACTOR ON
STABILITY OF BARLEY STRIPE MOSAIC VIRUS.
M K Brakke
Phytopatholo 50(9):629-630
Sep 1960 464.B P56
Barley-juice, Detergents, Salts, Stripe mosaic (barley).
- 751-67
THE HELMINTHOSPORIUM GRAMINEUM COMPLEX AND RELATED SPECIES
ON CEREALS AND FORAGE GRASSES.
S W Braverman
Phytopatholo 50(10):6BB-691
Oct 1960 464.B P56
Forage plants, Grain, Helminthosporium gramineum.
- 752-67
HELMINTHOSPORIUM DICTYOIDES AND RELATED SPECIES ON FORAGE
GRASSES.
S W Braverman J H Graham
Phytopatholo 50(10):691-695, TABS.
Oct 1960 464.B P56
Forage plants, Fungus diseases (plants),
Helminthosporium dictyoides.
- 753-67
INDUCED SUSCEPTIBILITY OF WHEAT AND BARLEY TO OAT CROWN AND
STEM RUST FUNGI.
J A Browning
Phytopatholo 50(9):630
Sep 1960 464.B P56
Barley, Crown rust (oats), Stem rust (oats), Wheat.
- 754-67
STRAINS OF PSEUDOMONAS SOLANACEARUM IN INDIGENOUS HOSTS IN
BANANA PLANTATIONS OF COSTA RICA, AND THEIR RELATIONSHIP TO
BACTERIAL WILT OF BANANAS.
I W Buddenhagen
Phytopatholo 50(9):660-664
Sep 1960 464.B P56
Bacterial wilt (bananas), Bananas, Costa rica, Plantations,
Pseudomonas solanacearum.
- 755-67
SOME OBSERVATIONS ON ERWINIA TRACHEIPHILA, THE CAUSAL AGENT
OF THE CUCURBIT WILT.
W H Burkholder
Phytopatholo 50(2):179-180
Feb 1960 464.B P56
Erwinia tracheiphila, Wilt (cucurbit).
- 756-67
A BACTERIAL BROWN ROT OF PARSNIP ROOTS.
W H Burkholder
Phytopatholo 50(4):2B0-2B2
Apr 1960 464.B P56
Brown rot (parsnips), Parsnips, Roots.
- 757-67
CERCOSPORA BUNCHOSIAE, A NEW LEAFSPOT DISEASE OF BARBADOS
CHERRY.
H C Burnett J R McMarlin
Plant Dis R 44(7):505
15 Jul 1960 1.9 P69P
Barbados cherry, Cercospora bunchosiae,
Leaf spot (cherries).

BIBLIOGRAPHY

20 758-67

- 758-67
PATHOGENICITY AND TAXONOMY OF *GEOTRICHUM CANDIDUM*.
E E Butler
Phytopatholo 50(9):665-672, 818L, 672
Sep 1960 464.8 P56
Geotrichum candidum, Rot (tomatoes), Tomatoes.
- 759-67
VARIABILITY OF CACHEXIA REACTIONS AMONG VARIETIES OF ROOT-STOCKS AND WITHIN CLONAL PROPAGATIONS OF CITRUS.
E C Calavan D W Christiansen
Int Organ Citrus Virol Pr 3:76-85
1963 464.06 IN82
Cachexia (citrus), Citrus, Roostock.
- 760-67
LOSSES TO WINTER WHEAT FROM INFECTION BY SEPTORIA TRITICI.
R M Caldwell I Narvaes
Phytopatholo 50(9):630
Sep 1960 464.8 P56
Crop losses, Septoria tritici, Wheat.
- 761-67
GROWTH AND SPORULATION OF *GUIGNARDIA BIDWELLII* IN PURE CULTURE AND IN THE FIELD.
P G Caltrider
Phytopatholo 50(9):630
Sep 1960 464.8 P56
Culture media, *Guignardia bidwellii*, Land.
- 762-67
FROZEN-LIMA-BEAN AGAR FOR CULTURE AND STORAGE OF PHYTOPHTHORA SOJAE.
O H Calvert L F Williams M D Whitehead
Phytopatholo 50(27):136-137
Feb 1960 464.8 P56
Agar, Culture media, Lima-bean agar, *Phytophthora sojae*, Soybeans, Storage.
- 763-67
INFECTION OF PEAR ROOTS WITH PHYTOPHTHORA CINNAMOMI.
H R Cameron
Phytopatholo 50(9):630
Sep 1960 464.8 P56
Pears, *Phytophthora cinnamomi*.
- 764-67
SUSCEPTIBILITY OF MAZZARD SEEDLINGS TO *PSEUDOMONAS SYRINGAE*.
R H Cameron
Phytopatholo 50(1):82
Jan 1960 464.8 P56
Mazzard seedlings, *Pseudomonas syringae*.
- 765-67
SOME SAP-STAIN FUNGI FOUND IN MINNESOTA.
R N Campbell
Plant Dis R 44(8):625-628, 818L. 627-628
15 Aug 1960 1.9 P69P
Fungi, Minnesota, Sap stain (wood), Sapwood.
- 766-67
PRESENCE OF SEEDLING YELLOWS COMPLEX IN THE CITRUS OF SOUTH INDIA.
S P Capoor
Int Organ Citrus Virol Pr 3:30-35
1963 464.06 IN82
Citrus, India, Seedling yellows (citrus), *Tristeza* (citrus).
- 767-67
EVALUATION OF SOIL FUNGICIDES AGAINST *FUSARIUM SOLANI* ISOLATED FROM FEEDER ROOTS OF CITRUS TREES.
R C Cetas R Whidden
Plant Dis R 44(7):465-469
15 Jul 1960 1.9 P69P
Citrus, Fungicides, *Fusarium solani*, Roots.
- 768-67
STUDIES OF *ALTERNARIA* SPP. PATHOGENIC ON CRUCIFERAE.
W Changsri G F Weber
Phytopatholo 50(9):631
Sep 1960 464.8 P56
Alternaria brassicae, *Alternaria brassicicola*, *Alternaria raphani*, Cruciferae.
- 769-67
THE MECHANISM OF WILTING INCITED BY *FUSARIUM* IN RED CLOVER.
C C Chi E W Hanson
Phytopatholo 50(9):631
Sep 1960 464.8 P56
Fusarium oxysporum, *Fusarium solani*, Red clover, Wilt (red clover).
- 770-67
EFFECTS OF STREPTOMYCES AND TRICHODERMA ON *FUSARIUM*.
C C Chi
Phytopatholo 50(9):631
Sep 1960 464.8 P56
Fusarium, *Streptomyces*, *Trichoderma*.
- 771-67
EXPERIMENTAL EVIDENCE THAT CACHEXIA AND XYLOPOROSIS ARE CAUSED BY THE SAME VIRUS.
J F L Childs J L Elchhorn L E Kopp R E Johnson
Int Organ Citrus Virol Pr 3:61-69, TABS.
1963 464.06 IN82
Cachexia (citrus), Xyloporosis (citrus).
- 772-67
THE QUESTION OF SEED TRANSMISSION OF CACHEXIA-XYLOPOROSIS VIRUS.
J F L Childs R E Johnson J L Gichhorn
Int Organ Citrus Virol Pr 3:90-94
1963 464.06 IN82
Cachexia (citrus), Plant disease transmission, Seed analysis, Xyloporosis (citrus).
- 773-67
DATURA STRAMONIUM AND CHENOPODIUM HYBRIDUM AS SEMIQUANTITATIVE ASSAY HOSTS FOR BROMEGRASS MOSAIC VIRUS.
R Chiu W H Sill Jr.
Phytopatholo 50(9):632
Sep 1960 464.8 P56
Bromus, *Chenopodium hybridum*, *Datura stramonium*, Mosaic (bromus).
- 774-67
WINTER OUTBREAKS OF CITRUS BROWN ROT IN FLORIDA.
M Cohen L C Knorr
Plant Dis R 44(7):578-579
15 Jul 1960 1.9 P69P
Brown rot (citrus), Citrus.
- 775-67
THE BLACK VINE WEEVIL *BRACHYRHINUS SULCATUS*, AS A PEST OF GRAPES IN SOUTH CENTRAL WASHINGTON.
W W Cone
J Econ Entom 56(5):677-680, TABS.
Oct 1963 421 J822
Brachyrhinus sulcatus, *Brachyrhinus sulcatus* (F.), Grapes, Washington.
- 776-67
LESION TYPE AS A MEANS OF EVALUATING BARLEY LINES FOR RESISTANCE TO *HELMINTHOSPORIUM SATIVUM*.
R J Cook
Phytopatholo 50(9):632
Sep 1960 464.8 P56
Barley, *Helminthosporium sativum*, Plant disease resistance.
- 777-67
PURIFICATION BY DENSITY-GRADIENT CENTRIFUGATION, ELECTRON MICROSCOPY, AND PROPERTIES OF CYMBIDIUM MOSAIC VIRUS.
M K Corbett
Phytopatholo 50(5):346-351, 818L. 350-351
May 1960 464.8 P56
Centrifugation, Electron microscopy, Mosaic (cymbidium).
- 778-67
SUITABILITY OF ORYZA AND OTHER GRASSES AS HOSTS OF *SOGATA ORIZICOLA* MUIR.
A D Cordero L D Newson
J Econ Entom 55(6):868-871
Dec 1962 421 J822
Grasses, *Oryza*, *Sogata orizicola* Muir.
- 779-67
BROAD SPECTRUM FUNGICIDES TESTED FOR CONTROL OF MELTING-OUT OF KENTUCKY BLUEGRASS AND SCLEROTINIA DOLLAR SPOT OF SEASIDE BENTGRASS.
H B Couch L D Moore
Plant Dis R 44(7):506-509
15 Jul 1960 1.9 P69P
Agrostis palustris, Dollar spot (grasses), Fungicides, Melting out (Kentucky bluegrass), *Poa pratensis*, *Poa pratensis*, *Sclerotinia*.

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- 780-67
HISTOLOGICAL STUDIES ON PENETRATION OF PEA ROOTS BY ZOO-
SPORES OF APHANOMYCES EUTEICHES.
J L Cunningham D J Hagedorn
Phytopatholo 50(9):632
Sep 1960 464.8 P56
Aphanomyces euteiches, Peas, Plant histology, Zoospores.
- 781-67
RUSTY SPOT OF PEACH AND ITS CONTROL IN NEW JERSEY.
R H Daines C M Haenseler E Brennan I A Leone
Phytopatholo 50(4):239
Apr 1960 464.8 P56
Peaches, Rusty spot (peaches).
- 782-67
SEVERAL SPECIES OF PHOLIOTA ASSOCIATED WITH ROOT AND BUTT
ROTS OF ROCKY MOUNTAIN CONIFERS.
R W Davidson
Phytopatholo 50(9):633
Sep 1960 464.8 P56
Bud rot (coniferae), Coniferae, Phollota adiposa,
Phollota ainicola, Phollota squarrosa, Rocky mountains,
Root rot (coniferae).
- 783-67
CHEMOTHERAPY OF CEREAL RUSTS WITH A NEW ANTI18IOTIC.
D Davis L Chalet J W Rothrock J Deak S Halmos J D Garber
Phytopatholo 50(11):841-843
Nov 1960 464.8 P56
Antibiotics, Cereal rusts, Plant chemotherapy.
- 784-67
CLONES OF RED CLOVER RESISTANT TO FOUR ISOLATES OF BEAN
YELLOW MOSAIC VIRUS.
S Dlachun L Henson
Phytopatholo 50(4):323-324
Apr 1960 464.8 P56
Clones, Mosaic (bean yellow), Red clover.
- 785-67
A POPULATION OF SELF-FERTILE RED CLOVER NECROTIC-SPOTTING
WITH A STRAIN OF BEAN YELLOW MOSAIC VIRUS.
S Dlachun L Henson
Phytopatholo 50(9):633
Sep 1960 464.8 P56
Necrotic-spottling (red clover), Population, Red clover,
Yellow mosaic (beans).
- 786-67
INSECTICIDE TREATMENTS FOR APHID CONTROL IN RELATION TO
SPREAD OF BARLEY YELLOW DWARF VIRUS.
E A Dickason W B Raymer W H Foote
Plant Dis R 44(7):501-504
15 Jun 1960 1.9 P69P
Aphididae, Barley, Insecticides, Yellow dwarf (barley).
- 787-67
THE EFFECTS OF ENVIRONMENTAL CONDITIONS ON THE GROWTH OF
MERULIUS LACRYMANS.
J D Diller E J Koch
Phytopatholo 50(9):633-634
Sep 1960 464.8 P56
Environment, Merulius lacrymans.
- 788-67
EFFECT OF STEM GIRDLING OF CITRUS SEEDLINGS ON SIZE OF
PHYTOPHTHORA GUMMOSIS LESIONS.
J E Dimitman L J Klotz
Phytopatholo 50(1):83
Jan 1960 464.8 P56
Citrus, Phytophthora gummosis, Seedlings, Tree control.
- 789-67
VEGETATIVE GROWTH OF PHYTOPHTHORA SPP. ON DIFFERENTIAL
SYNTHETIC MEDIA AS AN AID IN SEPARATING ISOLATES PATHOGENIC
TO CITRUS.
J E Dimitman G A Zentmyer
Phytopatholo 50(1):83
Jan 1960 464.8 P56
Citrus, Culture media, Phytophthora spp..
- 790-67
MECHANICS OF WATER TRANSPORT IN HEALTHY AND FUSARIUM-WILTED
TOMATO PLANTS.
A E Dimond L V Edgington
Phytopatholo 50(9):634
Sep 1960 464.8 P56
Fusarium, Tomatoes, Water consumptive use, Wilt (tomatoes).
- 791-67
BACTERIAL PATHOGENS OF SCOLYTUS MULTISTRIATUS MARSHAM AS
RELATED TO CROWDING.
C C Doane
J Invertebrate Path 2(1):24-29
1960 421 J826
Bacterial diseases (plants),
Scolytus multistriatus Marsham.
- 792-67
TWO VIRUSES THAT INDUCE SYMPTOMS TYPICAL OF JUNE YELLOWS
IN LETTUCE.
J E Duffus
Plant Dis R 44(6):406-408
15 Jun 1960 1.9 P69P
June yellows (lettuce), Lettuce, Viruses.
- 793-67
RADISH YELLOWS, A DISEASE OF RADISH, SUGAR BEET AND OTHER
CROPS.
J E Duffus
Phytopatholo 50(5):389-394
May 1960 464.8 P56
Aphididae, Lettuce, Radish yellows virus, Radishes, Spinach,
Sugarbeets.
- 794-67
QUARANTINE PROBLEMS ASSOCIATED WITH THE IMPORTATION OF
BANANAS FROM MEXICO.
R B Eads E G Campos H A Trevino
J Econ Entom 59(4):896-899
Aug 1966 421 J822
Bananas, Foreign trade, Mexico, Quarantine.
- 795-67
EVALUATION OF AMMONIA-GENERATING FORMULATIONS FOR CONTROL OF
CITRUS FRUIT DECAY.
J W Eckert M J Kolbezen
Phytopatholo 50(9):634
Sep 1960 464.8 P56
Ammonium, Citrus, Fruit decay.
- 796-67
HOST RANGE, PATHOGENICITY, AND TAXONOMY OF ASCOCHYTA IM-
PERFECTA.
L K Edmunds I W Hanson
Phytopatholo 50(2):105-108
Feb 1960 464.8 P56
Alfalfa, Ascochyta imperfecta, Host range, Pathogenicity,
Red clover, Taxonomy.
- 797-67
A VIRUS DISEASE OF HIBBERTIA SCANDENS.
R M Endo
Phytopatholo 50(9):634
Sep 1960 464.8 P56
Hibbertia scandens, Virus diseases (plants).
- 798-67
VARIATION IN ISOLATES OF PSEUDOMONAS ASSOCIATED WITH BLAST
AND CANKER OF FRUIT TREES IN CALIFORNIA.
H English J R Davis
Phytopatholo 50(1):84
Jan 1960 464.8 P56
Blast, California, Canker (fruit), Pseudomonas.
- 799-67
THE SOURCE OF INOCULUM FOR BACTERIAL CANKER AND BLAST OF
STONE FRUIT TREES.
H English J R Davis
Phytopatholo 50(9):634
Sep 1960 464.8 P56
Bacterial canker (fruit), Blast (fruit), Fruit, Inoculum,
Pseudomonas syringae.
- 800-67
LOSS CAUSED BY LATE INFECTION OF CANTALOUPE BY THE CURLY
TOP VIRUS.
R A Flock E F Laird Jr R C Dickson
Phytopatholo 50(4):326-327
Apr 1960 464.8 P56
Cantaloupes, Curly top (cantaloupes).
- 801-67
ASEXUAL VARIANTS OF MELAMPSORA LINI.
H H Flor
Phytopatholo 50(3):223-226
Mar 1960 464.8 P56
Asexual reproduction, Melampsora lini, Plant genetics,
Uredinales, Uredinales.

BIBLIOGRAPHY

20 802-67

- 802-67
THE RESPONSE OF CORN TO INOCULATION WITH DIPLODIA ZEAЕ AND GIBBERELLA ZEAЕ.
D C Foley
Phytopatholo 50(2):146-150 TABS.
Feb 1960 464.8 P56
Corn, Diplodia zeaе, Gibberella zeaе, Immunization.
- 803-67
VIRUSLIKE PARTICLES ASSOCIATED WITH THE RATOON STUNTING DISEASE OF SUGARCANE.
I L Forbes K C Ling
Phytopatholo 50(9):635
Sep 1960 464.8 P56
Ratoon stunt (sugarcane), Sugarcane.
- 804-67
STUDIES OF THE HOST SPECIFICITY OF VERTICILLIUM ALBO-ATRUM VAR. MENTHAE.
C Fordyce R J Green
Phytopatholo 50(9):635
Sep 1960 464.8 P56
Host specificity, Verticillium albo-atrum var. menthae.
- 805-67
DIFFERENTIAL TRANSMISSION OF FOUR STRAINS OF STRAWBERRY VEIN BANDING VIRUS BY FOUR APHID VECTORS.
N W Frazier
Plant Dis R 44(6):436-437
15 Jun 1960 1.9 P69P
Aphididae, Insect vectors, Plant disease transmission, Strawberries, Vein banding (strawberries).
- 806-67
EFFECT OF SOFT ROT BACTERIA AND PECTOLYTIC ENZYMES ON ELECTRICAL CONDUCTANCE OF WITLOOF CHICORY TISSUE.
B A Friedman M J Jaffe
Phytopatholo 50(4):272-274
Apr 1960 464.8 P56
Electric conductivity, Endive, Pectolytic enzymes, Soft rot (chicory), Witloof chicory.
- 807-67
BOTRYOSPHAERIA RIBIS AND ITS RELATION TO A ROT OF APPLES.
J F Fulkerson
Phytopatholo 50(5):394-398
May 1960 464.8 P56
Botryosphaeria ribis, Rot (apples).
- 808-67
PATHOGENICITY AND STABILITY OF STRAINS OF CORYNEBACTERIUM INSIDIOSUM.
J F Fulkerson
Phytopatholo 50(5):377-380, BIBL. 379-380
May 1960 464.8 P56
Corynebacterium insidiosum.
- 809-67
SEROLOGICAL DIFFERENTIATION OF PRUNE DWARF AND SOUR CHERRY NECROTIC RINGSPOT VIRUSES.
R W Fulton R I Hamilton
Phytopatholo 50(9):635-636
Sep 1960 464.8 P56
Necrotic ring spot (cherries), Prune dwarf (cherries), Serological tests, Sour cherries.
- 810-67
PRODUCTION OF NEW RACES OF PUCCINIA GRAMINIS VAR. TRITICI BY TISSUE TRANSPLANTS.
W N Garrett
Phytopatholo 50(9):636
Sep 1960 464.8 P56
Inoculum, Puccinia graminis var. tritici, Tissue transplants.
- 811-67
INFLUENCE OF NITROGEN AND POTASSIUM NUTRITION LEVELS ON THE DEVELOPMENT OF FUSARIUM SYSTEMIC WILT OF CARNATIONS.
E C Gastorkiewicz
Phytopatholo 50(9):636
Sep 1960 464.8 P56
Dianthus caryophyllus, Fusarium, Nitrogen, Plant nutrition, Potassium, Wilt (carnations).
- 812-67
SOME METABOLIC CHANGES IN WHEAT DUE TO STEM RUST INFECTION AND DIFFERENT TEMPERATURES.
D L Gerwitz R D Durbin
Phytopatholo 50(9):636
Sep 1960 464.8 P56
Plant metabolism, Puccinia graminis var. tritici, Stem rust (wheat), Temperature, Wheat.
- 813-67
RELATIVE INFECTION POTENTIALS OF ROOTSTOCK AND SCION IN INCREASING VIRUS INCIDENCE IN THE DECIDUOUS TREE FRUIT NURSERY.
R M Gilmer K D Brase
Phytopatholo 50(4):1240
Apr 1960 464.8 P56
Deciduous tree fruits, Viruses.
- 814-67
RECOVERY OF X-DISEASE VIRUS FROM NATURALLY INFECTED MILKWEEDS.
R M Gilmer
Phytopatholo 50(9):636
Sep 1960 464.8 P56
Asclepias, Virus diseases (plants).
- 815-67
A TOBACCO-NECROSIS-LIKE VIRUS ISOLATED FROM POTATO-TUBER LESIONS AND CALIFORNIA SOILS.
A H Gold
Phytopatholo 50(1):84
Jan 1960 464.8 P56
California soil, Potato-tuber, Tobacco, Viruses.
- 816-67
MORPHOLOGY AND HOST RANGE OF A SUBTERRANEAN MEMBER OF THE MELIOLACEAE.
C C Gordon C G Shaw J D Menzies
Phytopatholo 50(1):84
Jan 1960 464.8 P56
Host range, Meliolaceae, Plant morphology, Subterranean.
- 817-67
FORMATION OF LOCAL LESIONS ON GOMPHRENA GLOBOSA BY VIRUSES FROM RED CLOVER.
R W Goth R D Wilcoxson
Phytopatholo 50(9):636-637
Sep 1960 464.8 P56
Gomphrena globosa, Red clover, Viruses.
- 818-67
PATHOGENICITY AND MORPHOLOGY OF SOME LEGUMINICOLOUS AND RELATED SPECIES OF STEMPHYLIUM.
J H Graham K E Zeiders
Phytopatholo 50(10):757-760
Oct 1960 464.8 P56
Plant hosts, Stemphylium.
- 819-67
RAPID SCREENING OF ALFALFA FOR RESISTANCE TO CORYNEBACTERIUM INSIDIOSUM BY INOCULATING PETIOLES.
J H Graham
Phytopatholo 50(9):637
Sep 1960 464.8 P56
Alfalfa, Corynebacterium insidiosum, Immunization, Petioles, Plant disease resistance.
- 820-67
RELATIONSHIP BETWEEN INJURY BY THE CLOVER ROOT CURCULIO AND INCIDENCE OF FUSARIUM ROOT ROT IN LADINO WHITE CLOVER.
J H Graham R C Newton
Plant Dis R 44(7):S34-S35
15 Jul 1960 1.9 P69P
Fusarium, Ladino clover, Plant injuries, Root rot (clover), Sitona hispidula, Sitona hispidula, White clover.
- 821-67
ON THE RESISTANCE OF TOMATO VARIETIES TO CLADOSPORIUM FULVIUM.
B R Grant J Kuc
Phytopatholo 50(9):637
Sep 1960 464.8 P56
Cladosporium fulvium, Plant disease resistance, Tomatoes.
- 822-67
INFECTIOUS VARIEGATION OF CITRUS FOUND IN FLORIDA.
T J Grant P F Smith
Plant Dis R 44(6):426-429
15 Jun 1960 1.9 P69P
Citrus, Grapefruit, Variegation.
- 823-67
THE AMOUNT OF VERTICILLIUM ALBO-ATRUM IN IDAHO CERTIFIED POTATO SEED.
J W Guthrie
Phytopatholo 50(1):84

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BIBLIOGRAPHY

20 B45-67

- Jan 1960 464.8 P56
Idaho, Potato seeds, *Verticillium albo-atrum*.
- 824-67
NATURE OF PARTIAL RESISTANCE OF THREE SPECIES OF POTATOES TO
PHYTOPHTHORA INFESTANS.
J Guzman N H D Thurston L E Heidrick
Phytopatholo 50(9):637
Sep 1960 464.8 P56
Phytophthora infestans, Plant disease resistance, Potatoes.
- 825-67
AN ANGULAR LEAF SPOT OF MAGNOLIA GRANDIFLORA CAUSED BY
ISARIOPSIS SP.
F A Haasis C S Hodges
Phytopatholo 50(9):637
Sep 1960 464.8 P56
Angular leafspot (magnolia), Isariopsis,
Magnolia grandiflora.
- 826-67
THE EFFECT OF TEMPERATURE ON SOME ENTOMOPHTHORACEOUS FUNGI.
I M Hall J V Bell
J Invertebrate Path 2(3):247-253
1960 421 JB26
Entomophthoraceae, Fungi, Temperature.
- 827-67
SEROLOGICAL AND BIOLOGICAL PROPERTIES OF BROME MOSAIC VIRUS
ANTIGENS.
R I Hamilton
Phytopatholo 50(9):638
Sep 1960 464.8 P56
Antigens, Mosaic (bromus), Serological tests.
- 828-67
THE SELECTIVE EFFECT OF THE ANTIBIOTIC PIMARICINE UPON
GROWTH OF SEVERAL CACAO FUNGI IN VITRO.
A J Hansen
Phytopatholo 50(9):638
Sep 1960 464.8 P56
Antibiotics, Cacao, Pimaricine.
- 829-67
SOME EFFECTS OF PH AND MILK ON TOBACCO MOSAIC VIRUS.
W W Hare G B Lucas
Phytopatholo 50(9):638
Sep 1960 464.8 P56
Hydrogen-ion concentration, Milk, Mosaic (tobacco).
- 830-67
A GENETIC ABNORMALITY IN AN IDAHO CLONE OF FRAGARIA VESCA.
A W Helton
Plant Dis R 44(7):546-549, PL.
15 Jul 1960 1.9 P69P
Abnormalities, Clones, Fragaria vesca, Genetics,
Strawberries.
- 831-67
AN IMPROVED METHOD OF SELECTING AND BREEDING FOR ACTIVE
VECTORS OF HOJA BLANCA VIRUS.
R D Hendrick T R Everett H A Lamey W B Showers
J Econ Entom 58(3):539-542
Jun 1965 421 J822
Hoja blanca (rice), Insect vectors, Sogata orizicola Muir.
- 832-67
SCLEROTINA BLIGHT OF GLOXINIA.
F F Hendrix Jr R D Raabe
Phytopatholo 50(9):638
Sep 1960 464.8 P56
Gloxinia, Sclerotinia sclerotiorum, Sinningia speciosa.
- 833-67
A TECHNIQUE FOR DETERMINING THE REACTION OF SEEDLING PLANTS
TO THIELAVIOPSIS BASICOLA.
L Henson G W Stokes
Phytopatholo 50(9):638
Sep 1960 464.8 P56
Seedlings, Thielaviopsis basicola.
- 834-67
THE FEATHERY MOTTLE VIRUS COMPLEX OF SWEETPOTATO.
E M Hildebrand
Phytopatholo 50(10):751-756, BIBL.756-757, TABS.
Oct 1960 464.8 P56
Leaf spot (sweetpotatoes), Sweetpotato feathery mottle,
Yellow dwarf (sweetpotatoes).
- 835-67
FACTORS AFFECTING GERMINABILITY OF UREDIOSPORES OF PUCCINIA
CORONATA.
E L Hobbs
Phytopatholo 50(9):639
Sep 1960 464.8 P56
Crown rust (oats), Puccinia coronata, Seed germination,
Urediospores.
- 836-67
DOMINANCE OF AVIRULENCE AND MONOGENIC CONTROL OF VIRULENCE
IN RACE HYBRIDS OF USTILAGO AVENAE.
C S Holton P M Halisky
Phytopatholo 50(10):766-770, TABS.
Oct 1960 464.8 P56
Fungi genetics, Fungus diseases (plants), Ustilaginales,
Ustilaginales.
- 837-67
THE EFFECTS OF TEMPERATURE AND MOISTURE ON OAK WILT DEVELOP-
MENT.
D R Houston J E Kuntz
Phytopatholo 50(9):640
Sep 1960 464.8 P56
Humidity, Quercus, Temperature, Wilt (oak).
- 838-67
SUPERFICIAL SCALD, A FUNCTIONAL DISORDER OF STORED APPLES.
II. PROMOTERS AND INHIBITORS.
F E Huelin
J Sci Food A 15(4):227-236
Apr 1964 3B2 S012
Scald (apples), Storage.
- 839-67
SCOPOLIN PRODUCTION IN POTATO TUBERS INFECTED WITH
PHYTOPHTHORA INFESTANS.
J C Hughes T Swain
Phytopatholo 50(5):398-400
May 1960 464.8 P56
Phytophthora infestans, Potatoes, Scopolin.
- 840-67
WILD SOURCES OF BLUEBERRY STUNT VIRUS IN NEW JERSEY.
M T Hutchinson A C Goheen E H Varney
Phytopatholo 50(4):308-312, BIB. 311-312
Apr 1960 464.8 P56
Blueberries, New Jersey, Stunt (blueberries).
- 841-67
TYPES OF INJURIES ON CANTALOUPE LEAVES ASSOCIATED WITH
GUTTATION.
S S Ivanoff
Phytopatholo 50(9):640
Sep 1960 464.8 P56
Cantaloupes, Guttation, Plant injuries.
- 842-67
DIFFERENTIATION OF OAT HELMINTHOSPORIA BY THE RAGDOLL
METHOD.
S S Ivanoff
Plant Dis R 44(7):538-542
15 Jul 1960 1.9 P69P
Helmintosporia, Oats, Ragdoll method.
- 843-67
CERCOSPORA BLIGHT OF SNAPDRAGON.
C R Jackson
Phytopatholo 50(3):190-192
Mar 1960 464.8 P56
Antirrhinum, Cercospora antirrhini.
- 844-67
THE INFLUENCE OF STICKERS ON THE EFFECTIVENESS OF SPRAYS OF
BACILLUS THURINGIENSIS VAR. THURINGIENSIS BERLINER AND
BACILLUS ENTOMOCIDUS VAR. ENTOMOCIDUS HEIMPEL AND ANGUS.
R P Jaques C J S Fox
J Invertebrate Path 2(1):17-23
421 J826
Bacillus entomocidus var. entomocidus Heimpel and Angus,
Bacillus thuringiensis var. thuringiensis Berliner,
Spraying, Stickers.
- 845-67
PHYTOPHTHORA ROOT AND STEM ROT OF LUPINES.
J P Jones H W Johnson
Phytopatholo 50(9):641
Sep 1960 464.8 P56
Lupine, Phytophthora, Root rot (lupines),
Stem rot (lupines).

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BIBLIOGRAPHY

20 846-67

- 846-67
CHARACTERISTICS OF PLANT-VIRUS INHIBITORS IN RICE, *ORYZA SATIVA*.
R P Kahn T C Allen W J Zanmeyer
Phytopatholo 50(11):847-851
Nov 1960 464.8 P56
Oryza sativa L., Rice, Virus diseases (plants).
- 847-67
EXPERIMENTAL CONTROL OF PHONY PEACH VIRUS VECTORS WITH DI-SYSTON.
G H Kafoostian H N Pollard
J Econ Entom 55(4):566-567
Aug 1962 421 J822
Disulfoton, Insect vectors, Phony disease (peaches), Viruses.
- 848-67
TRANSMISSIBLE CORKY PIT OF FLEMISH BEAUTY PEAR.
F W L Keane M F Welsh
Plant Dis R 44(8):636-638
15 Aug 1960 1.9 P69P
Corky pit (pears), Pears, Plant disease transmission.
- 849-67
PEACH SHOT HOLE IN ARIZONA.
P D Keener
Plant Dis R 44(8):629, PL.
15 Aug 1960 1.9 P69P
Arizona, Peaches, Shot-hole (peaches).
- 850-67
NEEDLE BLIGHT OF REDCEDAR, *JUNIPERUS VIRGINIANA* L.
A Keiman C S Hodges H R Garriss
Plant Dis R 44(7):527-531
15 Jul 1960 1.9 P69P
Juniperus, *Juniperus virginiana*,
Needle blight (*Juniperus virginiana*).
- 851-67
A SOLOPATHOGENIC LINE OF *TILLETIA CARIES*.
E L Kendrick
Phytopatholo 50(9):641
Sep 1960 464.8 P56
Solopathogenicity, *Tilletia caries*.
- 852-67
COMPATIBILITY RELATIONSHIPS BETWEEN MONOSPORIDIAL ISOLATES OF *TILLETIA CARIES* AND *T. CONTRAVERSA*.
E L Kendrick C S Holton
Phytopatholo 50(9):641
Sep 1960 464.8 P56
Tilletia caries, *Tilletia contraversa*.
- 853-67
ANGULAR LEAFSPOT, A NEW DISEASE OF STRAWBERRY.
B W Kennedy T H King
Phytopatholo 50(9):641-642
Sep 1960 464.8 P56
Angular leafspot (strawberries), Strawberries.
- 854-67
PRODUCTION OF HEAT DURING FERMENTATION OF CACAO BEANS.
R H Kenten B D Powell
J Sci Food A 11(7):396-400
Jul 1960 382 S012
Cacao, Cacao beans, Fermentation, Heat.
- 855-67
HEAT-INDUCED STOLON ROT OF LADINO WHITE CLOVER IN THE GREENHOUSE.
R A Kilpatrick
Plant Dis R 44(8):653-654
15 Aug 1960 1.9 P69P
Greenhouse heating, Ladino clover,
Stolon rot (ladino clover), White clover.
- 856-67
RESISTANCE TO PHYTOPHTHORA ROOT ROT IN PEPPER.
K A Kimble R G Grogan
Phytopatholo 50(9):642
Sep 1960 464.8 P56
Bush redpeppers (vegetable), *Phytophthora capsici*,
Plant disease resistance, Root rot (pepper).
- 857-67
VARIATION IN MAIZE SEEDLING BLIGHT SYMPTOMS WITH CHANGES IN PATHOGEN SPECIES, ISOLATE AND HOST GENOTYPE.
G C Kingsland C C Wernham
Plant Dis R 44(7):496-497
15 Jul 1960 1.9 P69P
Blight (corn), Corn, Corn, Genotypes, Host plants, Isolates,
Microorganisms, Seedlings.
- 858-67
VARIATION IN PATHOGENICITY IN *RHYNCHOSPORIUM SECALIS*.
D M Kiine
Phytopatholo 50(9):642
Sep 1960 464.8 P56
Pathogenicity, *Rhynchosporium secalis*.
- 859-67
STUDIES ON CONTROL OF BLACK ROT OF CRUCIFERS WITH ANTI-BIOTICS.
J M Kilsiewicz G S Pound
Phytopatholo 50(9):642
Sep 1960 464.8 P56
Antibiotics, Black rot (cruciferae), Cruciferae,
Xanthomonas lampestris.
- 860-67
THE PRODUCTION AND USE OF ZOOSPORE SUSPENSIONS OF PHYTOPHTHORA SPP. FOR INVESTIGATIONS OF DISEASES OF CITRUS.
L J Klotz T A DeWolfe
Plant Dis R 44(7):572-573
15 Jul 1960 1.9 P69P
Citrus, *Phytophthora* spp., Zoospores.
- 861-67
DETERIORATION OF IMMATURE JACK AND RED PINE PLANTATIONS IN WISCONSIN.
R G Krebill R F Patton
Phytopatholo 50(9):642-643
Sep 1960 464.8 P56
Pinus banksiana, *Pinus banksiana*, *Pinus resinosa*,
Pinus resinosa, Plantations, Wisconsin.
- 862-67
SPECIFIC INFECTIVITY CHANGES WITH ALFALFA MOSAIC VIRUS.
C W Kuhn J B Bancroft
Phytopatholo 50(9):643
Sep 1960 464.8 P56
Alfalfa, Mosaic (alfalfa).
- 863-67
THE CRIBRATE WEEVIL, A NEW PEST OF THE GLOBE ARTICHOKE IN CALIFORNIA.
W H Lange N F McCalley
J Econ Entom 55(1):14-17, PL.
Feb 1962 421 J822
Artichokes, Artichokes, Cribrate weevil, Insecticides,
Pest control.
- 864-67
SELECTIVE PROTECTION AFFORDED BY CERTAIN SEED AND SOIL FUNGICIDES.
L D Leach R H Garber W J Tolmsoff
Phytopatholo 50(9):643-644
Sep 1960 464.8 P56
Fungicides, Seed treatment, Soil fumigation.
- 865-67
TRANSMISSION OF A DISEASE OF *HELMINTHOSPORIUM VICTORIAE*.
G D Lindberg
Phytopatholo 50(9):644
Sep 1960 464.8 P56
Helminthosporium victoriae, Plant disease transmission.
- 866-67
FURTHER CYTOLOGICAL AND CYTOCHEMICAL STUDIES ON THE INSECT VECTOR OF ASTER YELLOWS VIRUS.
V C Littau K Maramorosch
Phytopatholo 50(4):240
Apr 1960 464.8 P56
Aster yellows (*callistephus chinensis*),
Aster yellows (carrots), Insect cytology, Insect vectors,
Macrosteles fascifrons.
- 867-67
IDENTIFYING TWO SWEET POTATO VIRUSES WITH PAPER CHROMATOGRAPHY.
G Loebenstein
Phytopatholo 50(2):98-99
Feb 1960 464.8 P56
Chromatography, Sweetpotatoes, Viruses.
- 868-67
VIRUS DISEASES OF SWEET POTATOES IN ISRAEL.
G Loebenstein I Harpaz
Phytopatholo 50(2):100-104

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- Feb 1960 464.8 PS6
Sweetpotatoes, Virus diseases (plants).
- 869-67
LEAF ENATIONS IN APPLE INOCULATED FROM CHERRY.
T B Lott F W L Keane
Plant Dis R 44(8):634-635, PL.
15 Aug 1960 1.9 P69P
Apples, Cherries, Immunization, Leaf enation (cherries),
Rasp leaf (cherries).
- 870-67
THE VIRUS CONTENT OF FLOWERING CHERRIES AT SUMMERLAND,
BRITISH COLUMBIA.
T B Lott F W L Keane
Plant Dis R 44(8):632-633
15 Aug 1960 1.9 P69P
British Columbia, Cherries.
- 871-67
VIRUS INFECTION NOT THE CAUSE OF EARLINESS IN THREE STRAINS
OF ITALIAN PRUNE.
T B Lott A J Mann F W L Keane
Plant Dis R 44(8):633
15 Aug 1960 1.9 P69P
Earliness (prunes), Prunes.
- 872-67
HOSTS FOR DIFFERENTIATING OAT LOOSE-SMUT RACES OF THE
SOUTHEASTERN UNITED STATES.
H H Luke D D Morey S J Hadden
Phytopatholo 50(3):209-212
Mar 1960 464.8 PS6
Loose smut (oats), Oats.
- 873-67
INHERITANCE AND LINKAGE STUDIES OF A DERIVED VICTORIA-TYPE
CROWN RUST RESISTANCE AND VICTORIA BLIGHT.
H H Luke P L Pfahler
Phytopatholo 50(9):644
Sep 1960 464.8 PS6
Crown rust (oats), Inheritance, Oats,
Victoria blight (oats).
- 874-67
VICTORIA-TYPE RESISTANCE TO CROWN RUST SEPARATED FROM
SUSCEPTIBILITY TO HELMINTHOSPORIUM BLIGHT IN OATS.
H H Luke H E Wheeler A T Wallace
Phytopatholo 50(3):205-209
Mar 1960 464.8 PS6
Crown rust (oats), Helminthosporium blight, Oats,
Victoria blight (oats).
- 875-67
CONIDIAL PRODUCTION FROM FILTER PAPER CULTURES OF HELMIN-
THOSPORIUM VAGANS AND ALTERNARIA SOLANI.
R J Lukens
Phytopatholo 50(11):867-868
Nov 1960 464.8 PS6
Alternaria solani, Culture media, Helminthosporium vagans.
- 876-67
OCCURRENCE OF CYTOSPORA CANCKER IN STONE FRUIT TREES IN
CALIFORNIA.
F L Lukezic J E DeVay H English
Phytopatholo 50(1):84-85
Jan 1960 464.8 PS6
California, Canker (fruit), Cytospora, Fruit, Trees.
- 877-67
LEAF SPOT OF PEANUT IN GEORGIA CAUSED BY LEPTOSPHAERULINA
ARCHIDICOLA.
E S Luttrell L W Boyle
Plant Dis R 44(8):609-611
15 Aug 1960 1.9 P69P
Georgia, Leaf spot (peanuts), Leptosphaerulina archidicola,
Peanuts.
- 878-67
CHANGES IN THE OXIDATION RATES OF POLYPHENOLS AND ASCORBIC
ACID IN TOBACCO STEM TISSUES INVADDED BY PSEUDOMONAS
SOLANACEARUM.
E C Maine A Kelman
Phytopatholo 50(9):645
Sep 1960 464.8 PS6
Ascorbic acid, Phenols, Pseudomonas solanacearum, Tissues,
Tobacco.
- 879-67
AN INCIDENCE ON LONG ISLAND, N.Y. OF MICRUTALIS CALVA,
A CLOSE RELATIVE OF THE VECTOR OF PSEUDO-CURLYTOP VIRUS.
K Maramorosch
Phytopatholo 50(4):241
Aug 1960 464.8 PS6
Microtalis calva (Say) sensu lato, Pseudo-curlytop virus,
Ruga verrucosans.
- 880-67
CONTROL OF INTERNAL CORK OF SWEET POTATO BY ISOLATION.
W J Martin E J Kantack
Phytopatholo 50(2):150-152
Feb 1960 464.8 PS6
Internal cork (sweetpotatoes), Plant disease control.
- 881-67
ANALYSIS FOR INTERNAL CORK VIRUS (ICV) IN SERIAL NODES OF
SWEET POTATO STEMS.
W J Martin
Phytopatholo 50(9):645
Sep 1960 464.8 PS6
Internal cork (sweetpotatoes), Ipomoea tricolor,
Sweetpotatoes.
- 882-67
ROOT AND SHOOT DEVELOPMENT OF WHEAT INFECTED WITH LOOSE
SMUT, USTILAGO TRITICI.
S C Mather E D Hansing
Phytopatholo 50(9):645
Sep 1960 464.8 PS6
Loose smut (wheat), Ustilago tritici, Wheat.
- 883-67
THE OCCURRENCE OF A VARIETY OF ENZYMES HYDROLYZING CELL WALL
POLYSACCHARIDES IN APPLES ROTTED BY BOTRYOSPHERA RIBIS.
J H McClendon G F Somers J W Heuberger
Phytopatholo 50(4):258-261, BIEL. 261
Apr 1960 464.8 PS6
Apples, Botryosphaeria ribis Gross and Dug., Cell wall,
Enzymes, Hydrolysis, Polysaccharides, White rot (apples).
- 884-67
BARK PATCH GRAFTS AS A MEANS OF INDEXING FOR THE STEM-PIT-
TING VIRUS.
R C McCrum
Phytopatholo 50(4):241
Apr 1960 464.8 PS6
Stem pitting virus.
- 885-67
RECENT OCCURENCE OF BACTERIAL BLIGHT OF POINSETTIA IN FLOR-
IDA.
L A McFadden D B Creager
Plant Dis R 44(7):568-571
15 Jul 1960 1.9 P69P
Bacterial blight (poinsettia), Euphorbia pulcherrima,
Euphorbia pulcherrima, Florida.
- 886-67
TRANSMISSION OF LETTUCE MOSAIC VIRUS BY A NEW VECTOR, PEM-
PHIGUS BURSARIUS.
D L McLean
J Econ Entom 55(5):580-583, TABS.
Oct 1962 421 J822
Insect vectors, Mosaic (lettuce), Pemphigus bursarius (L.),
Plant disease transmission.
- 887-67
THE APOTHECIAL STAGE OF BOTRYTIS SQUAMOSA, CAUSE OF TIP AND
LEAF BLIGHT OF ONIONS.
D M McLean
Plant Dis R 44(7):585-586
15 Jul 1960 1.9 P69P
Apothecium, Botrytis squamosa, Leaf blight (onions), Onions,
Tip blight (onions).
- 888-67
THE ROLE OF THE OOSPORES OF PERONOSPORA PARASITICA IN DOWNY
MILDEW OF CRUCIFERS.
D McMeekin
Phytopatholo 50(2):93-97
Feb 1960 464.8 PS6
Brassica oleraceae, Crucifers, Downy mildew (broccoli),
Downy mildew (cabbage), Downy mildew (cauliflower),
Oospores, Peronospora parasitica.

BIBLIOGRAPHY

20 BB9-67

- BB9-67
HOJA BLANCA TRANSMISSION STUDIES ON RICE.
W W McMillian J U McGuire H A Lamey
J Econ Entom SS(5):796-797
Oct 1962 421 J822
Hoja blanca (rice), Plant disease transmission, Rice,
Viruses.
- B90-67
FOUR PATHOGENIC STRAINS OF TMV ON TOMATO.
J J McRitchie
Phytopatholo S0(9):64S
Sep 1960 464.B P56
Lycopersicon, Mosaic (tobacco), Tomatoes.
- B91-67
BANANA FRUIT-SPOT CAUSED BY DEIGHTONIELLA TORULOSA (SYD.)
ELL.
D S Meredith
Plant Dis R 44(8):61B-621, PL.
15 Aug 1960 1.9 P69P
Bananas, Deightoniella torulosa (Syd.) Ell.,
Fruit spot (bananas).
- B92-67
VARIABILITY IN STEM RUST REACTIONS OF KUBANKA WHEAT WITH
LIGHT INTENSITY AND TEMPERATURE.
C W Miller H Hart
Phytopatholo S0(9):645-646
Sep 1960 464.8 P56
Kubanka wheat, Light, Stem rust (wheat), Temperature.
- B93-67
SPY 227, A SENSITIVE INDICATOR FOR APPLE VIRUSES.
D F Millikan H W Guengerich
Phytopatholo S0(9):646
Sep 1960 464.8 P56
Apples, Spy 227.
- B94-67
THE ROLE OF FUMARIC ACID, A FUNGAL TOXIN, INVOLVED IN THE
HULL ROT DISEASE OF ALMOND.
C J Mirocha E E Wilson J E DeVay
Phytopatholo S0(9):646
Sep 1960 464.8 P56
Almonds, Fumaric acid, Hull rot (prunus amygdalus),
Prunus amygdalus, Rhizopus, Toxins.
- B95-67
A QUANTITATIVE METHOD FOR DETERMINING FUMARIC ACID, A TOXIN
INVOLVED IN THE HULL ROT DISEASE OF ALMOND.
C J Mirocha J E DeVay E E Wilson
Phytopatholo S0(9):646
Sep 1960 464.8 P56
Almonds, Fumaric acid, Hull rot (prunus amygdalus),
Prunus amygdalus, Quantitative analysis, Toxins.
- B96-67
CACHEXIA AND XYLOPOROSIS-ARE THEY CAUSED BY THE SAME VIRUS.
S Moreira
Int Organ Citrus Virol Pr 3:56-60
1963 464.06 INB2
Cachexia (citrus), Xyloporosis (citrus).
- B97-67
TRISTEZA TOLERANT ROOTSTOCKS - THEIR BEHAVIOR AFTER TWELVE
YEARS IN ORCHARD.
S Moreira T J Grant A A Salibe C Roessing
Int Organ Citrus Virol Pr 3:1B-24
1963 464.06 INB2
Rootstocks, Tristeza (citrus).
- B98-67
A QUICK METHOD OF PREPARING BARLEY EMBRYOS FOR LOOSE SMUT
EXAMINATION.
D J Morton
Phytopatholo S0(4):270-272
Apr 1960 464.8 P56
Barley, Plant embryos, Smut (barley).
- B99-67
A SEEDLING TEST FOR DETECTING VIABLE USTILAGO NUDA MYCELIUM
FOLLOWING BARLEY SEED TREATMENTS.
D J Morton
Phytopatholo S0(9):647
Sep 1960 464.8 P56
Barley, Mycelia, Seed treatment, Seedlings, Ustilago nuda.
- 900-67
GENETICS OF THE ALLELIC SERIES AT THE MIJA LOCUS IN BARLEY
AND CULTURES OF ERYSIPIHE GRAMINIS F. SP. HORDEI THAT
DIFFERENTIATE THESE ALLELES.
J G Moseman C W Schaller
Phytopatholo S0(10):736-740 BI8L. 740-741, TA8S.
Oct 1960 464.B P56
Alleles, Erysiphe graminis f. sp. hordei, Pathogenesis,
Plant genetics.
- 901-67
INHERITANCE OF S GENES CONDITIONING PATHOGENICITY IN
ERYSIPIHE GRAMINIS F. SP. HORDEI ON BARLEY.
J G Moseman
Phytopatholo S0(9):647
Sep 1960 464.8 P56
Barley, Erysiphe graminis f. sp. hordei, Genes, Inheritance.
- 902-67
GENES CONDITIONING PATHOGENICITY IN ERYSIPIHE GRAMINIS F.
SP. HORDEI ON BARLEY VARIETY ATLAS 46.
J G Moseman
Phytopatholo S0(9):647
Sep 1960 464.8 P56
Atlas 46, Barley, Erysiphe graminis f. sp. hordei, Genes,
Powdery mildew (barley).
- 903-67
INCREASE IN THE INCIDENCE OF VERTICILLIUM WILT OF EGGPLANT
IN THE PRESENCE OF PRATYLENCHUS PENETRANS.
W B Mountain C D McKeen
Phytopatholo S0(9):647
Sep 1960 464.B P56
Eggplant, Pratylenchus penetrans,
Verticillium wilt (eggplant).
- 904-67
SYMPTOMS OF VERTICILLIUM WILT OF CASTOR BEAN.
K E Mueller B R Houston
Phytopatholo S0(1):BS
Jan 1960 464.8 P56
Castor bean, Verticillium albo-atrum, Wilt.
- 905-67
TRANSMISSION OF BARLEY YELLOW DWARF VIRUS TO OATS BY APHIDS
MADE VIRULIFEROUS BY NEEDLE INJECTION.
W C Mueller W F Rochow A F Ross
Phytopatholo S0(9):647
Sep 1960 464.8 P56
Aphididae, Barley, Injections, Oats,
Plant disease transmission, Yellow dwarf (barley).
- 906-67
EFFECT OF SOIL FUNGICIDES UPON SOIL-BORNE PLANT PATHOGENIC
BACTERIA AND SOIL NITROGEN.
D E Munnecke J Ferguson
Plant Dis R 44(7):SS2-SSS
1S Jul 1960 1.9 P69P
Fungicides, Nitrogen, Pathogenic bacteria,
Soil-borne plant diseases, Soils.
- 907-67
HAIRY ROOT OF FIELD ROSES.
D E Munnecke
Phytopatholo S0(9):647-64B
Sep 1960 464.8 P56
Hairy root (rosa), Rosa.
- 908-67
DIAGNOSTIC AIDS IN DISTINGUISHING INTERNAL BROWNING AND
GRAYWALL OF TOMATO.
H H Murakishi
Phytopatholo S0(9):64B
Sep 1960 464.B P56
Graywall (tomatoes), Internal browning (tomatoes), Tomatoes.
- 909-67
TRANSMISSION OF PAPAYA MOSAIC VIRUS BY THE GREEN PEACH
APHID.
R Namba C Y Kawanashi
J Econ Entom S9(3):669-671
Jun 1966 421 J822
Myzus persicae, Myzus persicae, Papaya mosaic virus.
- 910-67
STIMULATION OF BROOMRAPE SEED GERMINATION.
S M Nash S Wilhelm
Phytopatholo S0(10):772-774
Oct 1960 464.B P56
Gibberellic acid, Orobanche, Orobanche, Parasitism.

- 911-67
STEM ROT OF DRACAENA SANDERIANA.
R M Natour H N Miller
Phytopatholo 50(9):648
Sep 1960 464.8 P56
Aspergillus niger, Dracaena sanderiana,
Stem rot (dracaena sanderiana).
- 912-67
BACTERIAL SPOT OF TOMATO AS INFLUENCED BY TEMPERATURE AND
BY AGE AND NUTRITION OF THE HOST.
M V Nayudu J C Walker
Phytopatholo 50(5):360-364
May 1960 464.8 P56
Bacterial spot (tomatoes), Plant nutrition,
Plant senescence, Plant temperature, Tomatoes.
- 913-67
PHYSIOLOGY OF BACTERIAL SPOT OF TOMATO.
M V Nayudu J C Walker
Phytopatholo 50(9):648
Sep 1960 464.8 P56
Bacterial spot (tomatoes), Plant physiology, Tomatoes.
- 914-67
NITROGEN SUPPLEMENT IN THE LOUISIANA-MISSISSIPPI RIVER
DELTA AS A POSSIBLE CONTROL FOR VERTICILLIUM WILT OF COTTON.
D C Neal J B Sinclair
Plant Dis R 44(7):478
15 Jul 1960 1.9 P69P
Chemical control (plant diseases), Nitrogen, Verticillium,
Wilt (cotton).
- 915-67
THE EARLY LEAF AND TWIG BLIGHT STAGE OF SYCAMORE ANTHRAC-
NOSE.
D Neely E B Himelick
Phytopatholo 50(9):648
Sep 1960 464.8 P56
Anthracnose (platanus), Gnomonia veneta,
Leaf blight (platanus), Platanus, Platanus,
Twig blight (platanus).
- 916-67
CONTROL OF VASCULAR WILT DISEASES OF CARNATION BY CULTURE-
INDEXING.
P E Nelson J Tammen R Baker
Phytopatholo 50(5):356-360, 818L. 359-360
May 1960 464.8 P56
Culture-indexing, Dianthus caryophyllus, Wilt (carnation).
- 917-67
COCHLIOBOLUS VICTORIAE, THE PERFECT STAGE OF HELMINTHO-
SPORIUM VICTORIAE.
R R Nelson
Phytopatholo 50(10):774-775
Oct 1960 464.8 P56
Fungus diseases (plants), Helminthosporium victoriae,
Rot (oats), Seedling blight.
- 918-67
EVOLUTION OF SEXUALITY AND PATHOGENICITY. I. INTERSPECIFIC
CROSSES IN THE GENUS HELMINTHOSPORIUM.
R R Nelson
Phytopatholo 50(5):375-377
May 1960 464.8 P56
Helminthosporium spp., Pathogenesis, Sex.
- 919-67
THE GENETICS OF COMPATIBILITY IN COCHLIOBOLUS CARBONUM.
R R Nelson
Phytopatholo 50(2):158-160
Feb 1960 464.8 P56
Cochliobolus carbonum, Genetics.
- 920-67
THE INHERITANCE OF PATHOGENICITY AND MATING TYPE IN CROSSES
OF HELMINTHOSPORIUM CARBONUM AND HELMINTHOSPORIUM
VICTORIAE.
R R Nelson T T Hebert
Phytopatholo 50(9):649
Sep 1960 464.8 P56
Helminthosporium carbonum, Helminthosporium victoriae.
- 921-67
RUST FUNGI ON NATIVE AND CULTIVATED RHODODENDRONS IN
CALIFORNIA.
C W Nichols D J Bingham W M Brown Jr D Y Rosenberg
Phytopatholo 50(9):649
Sep 1960 464.8 P56
California, Chrysomyxa ledi var. rhododendri, Rhododendrons,
Rust (rhododendrons), Uredinales.
- 922-67
HEAT INACTIVATION OF STONE FRUIT RINGSPOT VIRUS.
G Nyland
Phytopatholo 50(5):380-382
May 1960 464.8 P56
Heat, Ring spot (fruit).
- 923-67
JUICE TRANSMISSION OF CUCUMBER MOSAIC VIRUS TO MAZZARD AND
MAHALEB CHERRY.
G Nyland
Phytopatholo 50(1):85
Jan 1960 464.8 P56
Mazzard cherries, Mosaic (cucumbers), Prunus mahaleb.
- 924-67
EFFECTS OF THE COMBINATION OF SODIUM PENTACHLOROPHENOXIDE
AND LIQUID LIME-SULFUR ON THE BROWN-ROT FUNGI.
J M Ogawa E E Wilson
Phytopatholo 50(9):649
Sep 1960 464.8 P56
Brown rot, Lime-sulfur, Sodium pentachlorophenoxide.
- 925-67
EVIDENCE THAT XYLOPOROSIS VIRUS DOES NOT PASS THROUGH SEEDS
OF PALESTINE SWEET LIME.
E O Olson
Int Organ Citrus Virol Pr 3:86-89
1963 464.06 IN82
Citrus, Palestine sweet lime, Seed analysis, Seeds,
Xyloporosis (citrus).
- 926-67
DOES THE CABBAGE APHID CARRY CABBAGE VIRUS BOTH ON ITS
MOUTHPARTS AND AT SOME OTHER SITE.
G B Orlob R H E Bradley
Phytopatholo 50(9):649
Sep 1960 464.8 P56
Brevicoryne brassicae, Cabbage.
- 927-67
KANSAS AEROMYCOLOGY, VII. SMUTS.
S M Pady C L Kramer
Phytopatholo 50(5):332-334, 818L. 333-334
May 1960 464.8 P56
Kansas, Mycology, Ustilaginales.
- 928-67
NATURE OF RESISTANCE TO DIPLODIA STALK ROT OF CORN.
A J Pappelis F G Smith
Phytopatholo 50(9):650
Sep 1960 464.8 P56
Corn, Diplodia zeae, Stalk rot (corn).
- 929-67
HOST SPECIALIZATION OF DWARF MISTLETOE ON RED AND WHITE FIR
IN CALIFORNIA.
J R Parmeter Jr R F Scharpf J R Hood
Phytopatholo 50(9):650
Sep 1960 464.8 P56
Abies concolor, Abies magnifica, Arceuthobium campylopodum,
California, Host indexing (plants).
- 930-67
ABSENCE OF YOUNG-LEAF SYMPTOMS OF PSOROSIS IN THE STATE OF
BAHIA, BRAZIL.
O S Passos
Int Organ Citrus Virol Pr 3:167-169
1963 464.06 IN82
Brazil, Leaves, Psorosis.
- 931-67
A ROOT DISEASE OF FUCHSIA CAUSED BY PHYTOPHTHORA PARASITI-
CA.
S S Patil R A Young
Phytopatholo 50(1):85-86
Jan 1960 464.8 P56
Fuchsia, Phytophthora parasitica, Root disease.
- 932-67
THE INFLUENCE OF TEMPERATURE ON DEVELOPMENT OF PHYTOPHTHORA
PARASITICA ROOT ROT OF FUCHSIA.
S S Patil R A Young
Phytopatholo 50(5):386-388
May 1960 464.8 P56
Fuchsia, Phytophthora parasitica, Plant temperature,
Root rot (fuchsia).

BIBLIOGRAPHY

20 933-67

- 933-67
NATURAL OCCURRENCE OF POTATO VIRUS X IN FIELD-GROWN PEPPERS IN CALIFORNIA.
A O Paulus J B Kendrick Jr P K Desjardins
Phytopatholo 50(9):650
Sep 1960 464.B P56
Bush redpeppers (vegetable), California.
- 934-67
CURLY TOP PREVENTION BY VECTOR CONTROL ON SNAP BEANS GROWN FOR SEED.
W E Peay W N Olliver
J Econ Entom 57(1):3-5, BIBL., TABS.
Feb 1964 421 JB22
Beans, Chemical control (plant diseases), Curly top (beets), Insect vectors.
- 935-67
RELATIONS BETWEEN INOCULUM DENSITY AND INFECTION OF WHEAT BY UREDOSPORES OF PUCCINIA GRAMINIS VAR. TRITICI.
L J Petersen
Phytopatholo 50(1):B6
Jan 1960 464.B P56
Puccinia graminis var. tritici, Wheat.
- 936-67
PURIFICATION AND PROPERTIES OF CAULIFLOWER MOSAIC VIRUS.
T P Pirone G S Pound
Phytopatholo 50(9):651
Sep 1960 464.B P56
Cauliflower, Mosaic (cauliflower).
- 937-67
BIOCHEMICAL STUDIES OF THE CLOVER ROOT TUMORS INDUCED BY WOUND-TUMOR VIRUS.
C A Porter L H Weinstein
Phytopatholo 50(9):651
Sep 1960 464.B P56
Clover, Plant biochemistry, Plant galls, Wound-tumor (clover), Yellow sweetclover.
- 938-67
TRANSMISSION OF PSOROSIS VIRUS BY DODDER.
W C Price
Int Organ Citrus Virol Pr 3:162-166
1963 464.06 INB2
Cuscuta, Plant disease transmission, Psorosis.
- 939-67
EXOCORTIS AND OTHER PROBLEMS WITH TRIFOLIATE ORANGE ROOT-STOCK.
A R Pujol
Int Organ Citrus Virol Pr 3:128-133
1963 464.06 INB2
Exocortis (citrus), Rootstock, Trifoliolate oranges.
- 940-67
STUDY OF PSOROSIS IN CONCORDIA, ARGENTINA.
A R Pujol H N Benatena
Int Organ Citrus Virol Pr 3:170-174
1963 464.06 INB2
Argentina, Psorosis.
- 941-67
WHEAT BUNT DEVELOPMENT IN RELATION TO POSTINFECTION ENVIRONMENT.
L H Purdy
Phytopatholo 50(9):651
Sep 1960 464.B P56
Environment, Stinking smut (wheat), Tilletia caries, Wheat.
- 942-67
FUSARIUM WILT OF SEDUM.
R D Raabe
Phytopatholo 50(9):651
Sep 1960 464.B P56
Fusarium oxysporum, Sedum amecamecanum, Wilt (Sedum).
- 943-67
SOIL INDEXING FOR PEA ROOT ROT AND THE EFFECT OF ROOT ROT ON YIELD.
T P Reiling T H King R W Fields
Phytopatholo 50(4):287-290
Apr 1960 464.B P56
Crop yields, Root rot (peas), Soil indexing.
- 944-67
A METHOD OF EVALUATING FUNGICIDES IN THE SOIL UNDER CONTROLLED CONDITIONS.
J H Reinhart
Plant Dis R 44(B):64B-652
15 Aug 1960 1.9 P69P
Chemicals, Fungicide evaluation, Fungicides, Soil fungi, Soils.
- 945-67
SURVIVAL OF PHYSIOLOGIC RACES OF PUCCINIA GRAMINIS VAR. TRITICI ON WHEAT NEAR BARBERRY BUSHES.
C W Roane E C Stakman W Q Loegering D M Stewart W M Watson
Phytopatholo 50(1):40-44
Jan 1960 464.B P56
Barberry bush, Puccinia graminis var. tritici, Wheat.
- 946-67
ADAPTATION OF THE CORN LEAF BLIGHT FUNGUS TO A RESISTANT AND A SUSCEPTIBLE CORN HOST.
A L Robert G F Sprague
Phytopatholo 50(4):261-263
Apr 1960 464.B P56
Corn, Leaf blight (corn), Plant disease resistance, Plant hosts, Trichometasphaeria turcica.
- 947-67
PHYSIOLOGIC SPECIALIZATION IN HELMINTHOSPORIUM TURCICUM.
A L Robert
Phytopatholo 50(3):217-220
Mar 1960 464.B P56
Corn, Helminthosporium turcicum, Pathogenicity.
- 948-67
THE ROLE OF ALTERNATE PLANT HOSTS IN THE APHID TRANSMISSION OF BEAN MOSAICS IN CENTRAL WASHINGTON.
R S Robertson Jr E C Klostermeyer
J Econ Entom 55(4):460-462
Aug 1962 421 JB22
Aphididae, Epidemiology, Mosaic (beans), Plant hosts.
- 949-67
VIRUSES IN SWEET LIME ROOTSTOCK IN BELLA VISTA, CORRIENTES.
D Rodriguez
Int Organ Citrus Virol Pr 3:99-101
1963 464.06 INB2
Bella vista, Rootstock, Sweet lime, Virus diseases (plants).
- 950-67
STEM PITTING PROBLEM IN A PERA SWEET ORANGE FERTILIZATION EXPERIMENT.
O Rodriguez S Moreira
Int Organ Citrus Virol Pr 3:49-51
1963 464.06 INB2
Fertilization (plants), Pera orange, Stem pitting (citrus), Tristeza (citrus).
- 951-67
STUDIES ON THE PENETRATION AND NUTRITION OF STRIGA ASIATICA.
W E Rogers R R Nelson
Phytopatholo 50(9):652
Sep 1960 464.B P56
Plant nutrition, Striga asiatica.
- 952-67
CROSS-PROTECTION STUDIES WITH STRAINS OF CONCAVE GUM AND PSOROSIS VIRUSES.
C N Roistacher E C Calanan
Int Organ Citrus Virol Pr 3:154-161
1963 464.06 INB2
Concave gum (oranges), Plant protection, Psorosis.
- 953-67
RESISTANCE INDUCED IN ONE PLANT PART AS A RESULT OF VIRUS INFECTION IN ANOTHER PART.
A F Ross R F Bozarth
Phytopatholo 50(9):652
Sep 1960 464.B P56
Plant disease resistance.
- 954-67
INCIDENCE OF DIFFERENT TYPES OF PSOROSIS IN CITRUS VARIETIES IN THE STATE OF SAO PAULO.
V Rossetti A A Salibe
Int Organ Citrus Virol Pr 3:150-153
1963 464.06 INB2
Citrus, Psorosis, Sao Paulo, Virus incidence.
- 955-67
THE SUSCEPTIBILITY OF TWENTY-THREE TREE SPECIES TO BLACK ROOT ROT.
S J Rowan

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- Plant Dis R 44(8):646-647
15 Aug 1960 1.9 P69P
Black root rot (pinus), Pinus, Pinus,
Tree disease resistance.
- 956-67
SUSCEPTIBILITY OF TWENTY-THREE TREE SPECIES TO BLACK ROOT
ROT.
S J Rowan
Phytopatholo 50(9):653
Sep 1960 464.8 P56
Black root rot.
- 957-67
ON THE IMPIETRATURA OF GRAPEFRUIT.
G Ruggieri
Int Organ Citrus Virol Pr 3:179-181
1963 464.06 INB2
Grapefruit, Impletatura.
- 958-67
INHERITANCE OF STEM RUST RESISTANCE OF C.I.7232, A DERIVED
TETRAPLOID OAT.
K Sadanaga H C Murphy R Grindeland
Phytopatholo 50(11):779-781
Nov 1960 464.B P56
Oats, Plant genetics, Stem rust (oats).
- 959-67
TRANSMISSION OF BARLEY YELLOW-DWARF VIRUS BY FOUR BIOTYPES
OF THE CORN LEAF APHID, RHOPALOSIPHUM MAIDIS.
K N Saksena S R Singh W H Sill Jr
J Econ Entom 57(4):569-571, TABS.
Aug 1964 421 J822
Insect vectors, Rhopalosiphum maidis (Fitch),
Yellow dwarf (barley).
- 960-67
STEM PITTING AND DECLINE OF PERA SWEET ORANGES IN THE STATE
OF SAO PAULO.
A A Salibe V Rossettl
Int Organ Citrus Virol Pr 3:52-55
1963 464.06 INB2
Pera orange, Sao paulo, Stem pitting (citrus),
Tristeza (citrus).
- 961-67
STUDIES ON BUD-UNION CREASE OF CITRUS TREES.
A A Salibe
Int Organ Citrus Virol Pr 3:187-191
1963 464.06 INB2
Buo-union crease, Citrus.
- 962-67
SUSCEPTIBILITY OF CITRUS VARIETIES TO LEAF-CURL VIRUS.
A A Salibe
Int Organ Citrus Virol Pr 3:175-178
1963 464.06 INB2
Citrus, Leaf curl (citrus).
- 963-67
OCCURRENCE OF STEM PITTING IN CITRUS TYPES IN BRAZIL.
A A Salibe
Int Organ Citrus Virol Pr 3:40-45
464.06 INB2
Brazil, Citrus, Stem pitting (citrus).
- 964-67
NEW TEST VARIETIES FOR EXOCORTIS VIRUS.
A A Salibe S Morelra
Int Organ Citrus Virol Pr 3:119-123
1963 464.06 INB2
Exocortis (citrus), Tree diseases, Virus incidence.
- 965-67
STRAINS OF EXOCORTIS VIRUS.
A A Salibe S Morelra
Int Organ Citrus Virol Pr 3:108-112
1963 464.06 INB2
Exocortis (citrus).
- 966-67
SEED TRANSMISSION OF EXOCORTIS VIRUS.
A A Salibe S Morelra
Int Organ Citrus Virol Pr 3:139-142
1963 464.06 INB2
Exocortis (citrus), Plant disease transmission,
Seed-borne plant diseases.
- 967-67
TAHITI LIME BARK DISEASE IS CAUSED BY EXOCORTIS VIRUS.
A A Salibe S Morelra
Int Organ Citrus Virol Pr 3:143-147
1963 464.06 INB2
Bark disease, Exocortis (citrus), Limes.
- 968-67
REACTION OF TYPES OF CITRUS AS SCION AND AS ROOTSTOCK TO
XYLOPOROSIS VIRUS.
A A Salibe S Morelra
Int Organ Citrus Virol Pr 3:70-75
1963 464.06 INB2
Citrus, Rootstock, Scion, Xyloporosis (citrus).
- 969-67
A SURVEY OF THE WORLD BARLEY COLLECTION FOR RESISTANCE TO
BARLEY YELLOW DWARF.
C W Schaller
Phytopatholo 50(9):653
Sep 1960 464.B P56
Barley, Plant disease resistance, Yellow dwarf (barley).
- 970-67
GERMINATION OF OOSPORES OF APHANOMYCES EUTEICHES EMBEDDED
IN PLANT DEBRIS.
A L Scharen
Phytopatholo 50(4):274-277
Apr 1960 464.B P56
Aphanomyces eutelches, Oospores, Plant decay,
Seed germination, Soil-borne plant diseases.
- 971-67
VARIATIONS IN RESPIRATORY RESPONSES IN FUSARIUM-INFECTED
TOMATO PLANTS.
R P Scheffer
Phytopatholo 50(3):192-195
Mar 1960 464.8 P56
Fusarium, Plant respiration, Tomatoes.
- 972-67
EFFECTS OF POSTINOCULATION TEMPERATURES ON RATE OF BEAN RUST
SYMPTOM DEVELOPMENT.
R D Schein
Phytopatholo 50(9):653
Sep 1960 464.B P56
Rust (beans), Temperature.
- 973-67
A HIGH-TEMPERATURE-INDUCED LOCAL NECROSIS ASSOCIATED WITH
THE BEAN RUST DISEASE.
R D Schein
Phytopatholo 50(9):653
Sep 1960 464.8 P56
Beans, Necrosis, Rust (beans), Temperature.
- 974-67
WATERMELON DISEASE INCIDENCE IN CENTRAL FLORIDA, 1931-1959.
N C Schenck
Plant Dis R 44(7):556-558
15 Jul 1960 1.9 P69P
Florida, Leaf diseases, Vascular diseases, Watermelons,
Weather.
- 975-67
EFFECTS OF TEMPERATURE AND MOISTURE STRESS ON THE LETTUCE
POWDERY MILDEW FUNGUS.
W C Schnathorst
Phytopatholo 50(4):304-308
Apr 1960 464.B P56
Humidity, Lettuce, Powdery mildew (lettuce), Temperature.
- 976-67
SEVERITY, PREVALENCE, AND ECOLOGY OF COTTON BOLL ROT AS
RELATED TO TEMPERATURE.
W C Schnathorst P M Hallisky
Phytopatholo 50(9):653-654
Sep 1960 464.B P56
Boll rot (cotton), Cotton, Temperature.
- 977-67
TEMPERATURE EFFECTING A REVERSAL OF DOMINANCE IN THE
RESISTANCE OF PISUM SATIVUM TO BEAN VIRUS 2.
W T Schroeder R Provvidenti D W Barton W Mishanec
Phytopatholo 50(9):654
Sep 1960 464.8 P56
Dominance, Pisum sativum, Plant disease resistance,
Temperature, Virus 2 (beans).

BIBLIOGRAPHY

20 978-67

- 978-67
AN UNUSUAL VIRUS ISOLATED FROM PISUM SATIVUM AFFECTED BY STREAK.
W T Schroeder R Provvidenti F L McEwen
Phytopatholo 50(9):654
Sep 1960 464.8 P56
Peas, *Pisum sativum*, Streak (peas).
- 979-67
ONION BLAST OR LEAF SPOTTING CAUSED BY SPECIES OF BOTRYTIS.
R H Segall A G Newhall
Phytopatholo 50(1):76-82
Jan 1960 464.8 P56
Blast (onion), Botrytis, Leaf spot (onion).
- 980-67
OCCURRENCE OF PSEUDOMONAS SOLANACEARUM IN VIRGIN SOILS IN COSTA RICA.
L Sequeira C W Averre III
Phytopatholo 50(9):654
Sep 1960 464.8 P56
Bacterial wilt, Costa Rica, *Pseudomonas solanacearum*, Soil microorganisms.
- 981-67
USE OF BENZIMIDAZOLE AND EXCISED WHEAT SEEDLING LEAVES IN TESTING RESISTANCE TO SEPTORIA TRITICI.
W D Sewell R M Caldwell
Phytopatholo 50(9):654
Sep 1960 464.8 P56
Benzimidazole, Plant disease resistance, Seedlings, *Septoria tritici*, Wheat.
- 982-67
SOURCES OF CROWN RUST RESISTANCE OF OATS.
H L Shands
Phytopatholo 50(9):654
Sep 1960 464.8 P56
Crown rust (oats), Oats, Plant disease resistance.
- 983-67
ENTOMOPHTHORACEOUS FUNGI ATTACKING THE POTATO APHID IN NORTHEASTERN MAINE IN 1960.
W A Shands I M Hall G W Simpson
J Econ Entom 55(2):174-179, TABS.
Apr 1962 421 J822
Entomophthoraceous fungi, *Macrosiphum euphorbiae*, *Macrosiphum euphorbiae*, Plant diseases.
- 984-67
INFLUENCE OF BORON NUTRITION OF NICOTIANA TABACUM ON THE MULTIPLICATION OF TOBACCO MOSAIC VIRUS.
R J Shepherd G S Pound
Phytopatholo 50(1):26-29
Jan 1960 464.8 P56
Boron compounds, Mosaic (tobacco), Plant nutrition, Tobacco.
- 985-67
MUTUAL EXCLUSION OF STRAINS OF TOBACCO MOSAIC VIRUS.
A Siegel
Phytopatholo 50(1):86
Jan 1960 464.8 P56
Mosaic (tobacco).
- 986-67
ON THE INFECTIVITY DILUTION CURVE OF PLANT VIRUSES.
A Siegel
Phytopatholo 50(1):89-90
Jan 1960 464.8 P56
Infectivity dilution curve, Virus diseases (plants).
- 987-67
ADDITIONAL CHARACTERISTICS OF PANICUM MOSAIC VIRUS.
W H Sill Jr M K Desai
Plant Dis R 44(7):487
15 Jul 1960 1.9 P69P
Mosaic (switchgrass), Panicum.
- 988-67
ADDITIONAL EVIDENCE THAT SWEETPOTATO MOSAIC VIRUS IS A STRAIN OF TOBACCO MOSAIC VIRUS.
W H Sill Jr S B Lai M S E del Rosaria
Phytopatholo 50(10):709-711
Oct 1960 464.8 P56
Mosaic (sweetpotatoes), Mosaic (tobacco), Tobacco, Virus diseases (plants).
- 990-67
THE DEVELOPMENT OF STEM RUST ON WHEAT LEAVES TREATED WITH SOME SUGARS AND SUGAR ALCOHOLS.
W Silverman
Phytopatholo 50(2):114-119
Feb 1960 464.8 P56
Alcohols, Stem rust (wheat), Sugars.
- 991-67
A TOXIN EXTRACTED FROM MARQUIS WHEAT INFECTED BY RACE 38 OF THE STEM RUST FUNGUS.
W Silverman
Phytopatholo 50(2):130-136
Feb 1960 464.8 P56
Marquis wheat, *Puccinia graminis* var. *tritici*, Race 38, Stem rust (wheat).
- 992-67
THE PSEUDO-CURLY TOP DISEASE IN SOUTH FLORIDA.
J N Simons
J Econ Entom 55(3):358-363, TABS., PL.
Jun 1962 421 J822
Ambrosia, *Datura stramonium*, Membracidae, Nightshade, Pseudo-curly top disease, *Stellaria media*, Tobacco, Tomatoes, Viruses.
- 993-67
EFFECT OF CULTURE SUBSTRATE ON THE VIRULENCE OF SINGLE-BASIDIOSPORE ISOLATES OF PELLICULARIA FILAMENTOSA.
A C Sims Jr
Phytopatholo 50(2):282-286
Apr 1960 464.8 P56
Basidiospores, Cultural control (plant diseases), Isolates, *Pellicularia filamentosa* (Pat), Virulence.
- 994-67
PHYSALOSPOORA OBTUSA (CKE.) WINTER ON SOUTH CAROLINA LIVE OAKS.
W R Sitterly
Plant Dis R 44(7):533
15 Jul 1960 1.9 P69P
Physalospora obtusa (Cke.) Winter, *Quercus*, *Quercus*.
- 995-67
A VIRUS OF WIDE HOST RANGE SEED-BORNE IN PHASEOLUS VULGARIS.
C B Skotland D W Burke
Phytopatholo 50(9):655
Sep 1960 464.8 P56
Host indexing (plants), Kidney beans, Seed-borne plant diseases, Viruses.
- 996-67
A VIRUS DISEASE OF HOPS, HUMULUS LUPULUS, IN WASHINGTON.
C B Skotland
Phytopatholo 50(9):655
Sep 1960 464.8 P56
Hops, Virus diseases (plants), Washington.
- 997-67
POPULATION STUDIES OF PSEUDOMONAS TABACI IN DIPLOID, TRIPLOID, AND TETRAPLOID NICOTIANA TABACUM PLANTS WITH DIFFERENT DOSES OF THE NICOTIANA LONGIFLORA GENE FOR RESISTANCE.
J H Smiley G W Stokes
Phytopatholo 50(9):655
Sep 1960 464.8 P56
Nicotiana longiflora gene, Plant disease resistance, Polyploidy, Population, *Pseudomonas tabaci*, Tobacco.
- 998-67
OCCURRENCE OF VERTICILLIUM WILT ON PEANUTS.
T E Smith
Plant Dis R 44(6):435
15 Jun 1960 1.9 P69P
Immunization, Soil moisture, *Verticillium*, Wilt (peanuts).
- 999-67
TRUNK AND BRANCH CANKER OF COFFEE TREES IN GUATEMALA.
W C Snyder E E Trujillo K C McOnie C A Berger
Plant Dis R 44(7):566-567
15 Jul 1960 1.9 P69P
Branches, Canker (coffee), Coffee, Trunks.
- 1000-67
CHANGES IN POTATO PROTEINS INDUCED BY FUNGUS INFECTIONS.
M A Stahmann I Uritani K Tomiyama
Phytopatholo 50(9):P655
Sep 1960 464.8 P56
Fungi, Potatoes, Proteins.

BIBLIOGRAPHY

20 1022-67

- 1001-67
ALTERATION OF THE INCIDENCE OF BOTRYTIS CINEREA ON TOMATO BY LIMING THE SOIL.
R E Stall
Phytopatholo 50(9):655-656
Sep 1960 464.8 P56
Botrytis cinerea, Liming, Soils, Tomatoes.
- 1002-67
PROTEIN SYNTHESIS BY NONGERMINATED FUNGAL SPORES INCLUDING UREDOSPORES OF THE BEAN RUST FUNGUS.
R C Staples H P Burchfield
Phytopatholo 50(9):656
Sep 1960 464.8 P56
Fungi, Protein synthesis, Rust (beans), Spores, Uredospores.
- 1003-67
SILVER TOP OF BLUEGRASS.
K J Starks R Thurston
J Econ Entom 55(6):865-867
Dec 1962 421 JB22
Poa, Silver top.
- 1004-67
MORPHOLOGICAL DIFFERENTIATION OF SPHERICAL VIRUSES BY ELECTRON MICROSCOPY.
R L Steere
Phytopatholo 50(9):656
Sep 1960 464.8 P56
Electron microscopy, Morphology, Spherical viruses, Viruses.
- 1005-67
DIFFERENCE IN THE BEHAVIOR OF THE NICOTIANA LONGIFLORA WILDFIRE RESISTANCE LOCUS IN TOBACCO VARIETIES BURLEY 21 AND KY 61.
G W Stokes
Phytopatholo 50(10):770-772, TABS.
Oct 1960 464.8 P56
Nicotiana longiflora, Plant genetics, Tobacco, Wildfire (tobacco).
- 1006-67
CORYNESPORA BLIGHT OF SESAME.
W J Stone J P Jones
Phytopatholo 50(4):263-266
Apr 1960 464.8 P56
Blight (sesame), Corynespora, Sesame.
- 1007-67
ETIOLOGY OF WILT IN FUSARIUM-INFECTED COTTON.
N S Subba-Rao
Phytopatholo 50(10):763-765, TABS.
Oct 1960 464.8 P56
Cotton, Fusaria, Wilt (cotton).
- 1008-67
SOME EFFECTS OF TEMPERATURE ON THE TRANSMISSION OF CABBAGE MOSAIC VIRUS BY MYZUS PERSICAE.
E S Sylvester
J Econ Entom 57(4):538-544, BIBL. 543-544, TABS.
Aug 1964 421 JB22
Insect vectors, Mosaic (cabbage), Myzus persica, Temperature.
- 1009-67
SOME EFFECTS OF TEMPERATURE ON THE TRANSMISSION OF PEA ENATION MOSAIC VIRUS AND ON THE BIOLOGY OF THE PEA APHID VECTOR.
E S Sylvester J Richardson
J Econ Entom 59(2):255-261, 818L. 260-261, TABS.
Apr 1966 421 JB22
Acyrtosiphon pisum, Acyrthosiphon pisum, Enation mosaic (peas), Insect vectors, Lathyrus odoratus, Lathyrus odoratus, Plant temperature.
- 1010-67
A STRAIN OF PSEUDOMONAS FLUORESCENS ANTAGONISTIC TO PSEUDOMONAS PHASEOLICOLA AND OTHER BACTERIAL PLANT PATHOGENS.
M Telliz-Ortiz W H Burkholder
Phytopatholo 50(2):119-123
Feb 1960 464.8 P56
Bacterial diseases (plants), Pseudomonas fluorescens, Pseudomonas phaseolicola.
- 1011-67
VARIABILITY OF XANTHOMONAS VESICATORIA IN THE EVERGLADES AND LOWER EAST COAST OF FLORIDA.
P Thayer R E Stall
Phytopatholo 50(9):657
Sep 1960 464.8 P56
Everglades, Florida, Peppers, Xanthomonas vesicatoria.
- 1012-67
OAT VARIETIES WITH ADULT PLANT FIELD RESISTANCE TO RACE 264 OF CROWN RUST.
T Theis H C Murphy M D Simons L Calpouzos D McVey
Phytopatholo 50(9):657
Sep 1960 464.8 P56
Crown rust (oats), Oats, Plant disease resistance, Race 264.
- 1013-67
DEVELOPMENT OF SAFFLOWER VARIETIES RESISTANT TO PHYTO-PHTHORA ROOT ROT.
C A Thomas D D Rubis D S Black
Phytopatholo 50(2):129-130
Feb 1960 464.8 P56
Carthamus tinctorius L., Phytophthora drechsleri, Root rot (safflower), Safflower.
- 1014-67
INFLUENCE OF SOIL TEMPERATURE ON SEEDLING BLIGHT OF SMOOTH 8ROMEGRASS.
I J Thomason J G Dickson
Phytopatholo 50(1):1-7
Jan 1960 464.8 P56
Bromus, Bromus inermis, Seedling blight, Soil temperature.
- 1015-67
EUROPEAN ELM SCALE CONTROL INVESTIGATIONS.
H E Thompson
J Econ Entom 55(4):430-434, TABS.
Aug 1962 421 JB22
Gossyparia spuria, Gossyparia spuria, Insecticides, Pest control, Tree diseases.
- 1016-67
RELATION OF AGE OF POTATO PLANTS TO INFECTION BY VERTICILLIUM ALBO-ATRUM.
W J Tolmsoff
Phytopatholo 50(1):B6
Jan 1960 464.8 P56
Potatoes, Verticillium albo-atrum.
- 1017-67
PATHOGENIC VARIATION OF CYTOSPORA RUBESCENS ISOLATES ON STONE FRUIT VARIETIES.
M Treshow J F Scholes W S Gardner
Phytopatholo 50(1):B6
Jan 1960 464.8 P56
Cytospora rubescens, Fruit.
- 1018-67
THE PARTIAL PURIFICATION AND BIOLOGICAL ACTIVITY OF AN ANTI-FUNGAL ANTIBIOTIC PRODUCED BY A STRAIN OF STREPTOMYCES GRISEUS.
P Tsao C Leben G W Keltt
Phytopatholo 50(2):169-174
Feb 1960 464.8 P56
Antibiotics, Fungicides, Streptomyces griseus.
- 1019-67
PATHOGENICITY ON CITRUS OF THIELAVIOPSIS BASICOLA AND ITS ISOLATION FROM FIELD ROOTS.
P H Tsao S D Van Gundy
Phytopatholo 50(1):86-87
Jan 1960 464.8 P56
Citrus, Thielaviopsis basicola.
- 1020-67
EFFECT OF SOIL TEMPERATURE ON PATHOGENESIS OF THIELAVIOPSIS BASICOLA ON SWEET ORANGE ROOTS.
P H Tsao S D Van Gunoy
Phytopatholo 50(9):657
Sep 1960 464.8 P56
Roots, Soil temperature, Sweet orange, Thielaviopsis basicola.
- 1021-67
PATHOGENICITY ON CITRUS OF THIELAVIOPSIS BASICOLA AND ITS ISOLATION FROM FIELD ROOTS.
P H Tsao S D Van Gundy
Phytopatholo 50(1):86-87
Jan 1960 464.8 P56
Citrus, Thielaviopsis basicola.
- 1022-67
THE NATURAL OCCURRENCE OF TOBACCO RINGSPOT VIRUS.
J Tulte
Phytopatholo 50(4):296-298
Apr 1960 464.8 P56

BIBLIOGRAPHY

20 1023-67

- Ring spot (tobacco), Virus diseases (plants).
15 Jul 1960 1.9 P69P
Peaches, Stunt (peaches).
- 1023-67
INCIDENCE OF BUD-UNION CREASE IN CITRUS TREES GRAFTED ON TRIFOLIATE ROOTSTOCK IN THE DELTA DEL PARANA AND SAN PEDRO AREAS OF ARGENTINA.
M V F Valiela C Fortugno F Corizzi
Int Organ Citrus Virol Pr 3:182-186
1963 464.06 IN82
Argentina, Bud-union crease, Citrus, Rootstock, Trifoliolate oranges.
- 1024-67
BLISTER RUST FUNGUS INOCULATIONS ON WHITE PINES IN MIST CHAMBERS.
E P Van tarsdel A J Riker
Phytopatholo 50(9):657
Sep 1960 464.B P56
Blister rust (pinus strobus), Blister rust (pinus), Immunization, Pinus strobus.
- 1025-67
NECROTIC RINGSPOT, A NEW VIRUS DISEASE OF CULTIVATED BLUE-BERRY.
E H Varney L C Ranjere
Phytopatholo 50(4):241
Apr 1960 464.B P56
Blueberries, Necrotic ring spot (blueberries), Viruses.
- 1026-67
INFLUENCE OF FUNGICIDES ON MICROORGANISMS ASSOCIATED WITH APPARENTLY HEALTHY STRAWBERRIES.
E K Vaughn
Phytopatholo 50(9):657-658
Sep 1960 464.B P56
Fungicides, Microorganisms, Strawberries.
- 1027-67
INFLUENCE OF GROWING, CURING AND STORAGE PRACTICES ON DEVELOPMENT OF NECK ROT IN ONIONS.
E K Vaughn
Phytopatholo 50(1):B7
Jan 1960 464.8 P56
Neck rot (onions), Plant curing, Plant physiology, Plant storage.
- 1028-67
EXOCORTIS IN CORSICA.
R Vogel C Bove J M Bove
Int Organ Citrus Virol Pr 3:134-138
1963 464.06 IN82
Corsica, Exocortis (citrus).
- 1029-67
PSEUDOMONAS SOLANACEARUM IN ISRAEL.
Z Volcani J Palti
Plant Dis R 44(6):448-449
15 Jun 1960 1.9 P69P
Bacterial wilt (potatoes), Israel, Potatoes, Pseudomonas solanacearum, Tomatoes.
- 1030-67
DEAD BUTTON, A NON-TRANSMISSIBLE DISORDER OF LATE MONTMORENCY CHERRY.
B N Wadley
Phytopatholo 50(1):87
Jan 1960 464.8 P56
Cherries, Dead button, Late Montmorency cherry.
- 1031-67
SPRING DEAD SPOT OF BERMUDAGRASS.
D F Wadsworth H C Young Jr
Plant Dis R 44(7):516-518
15 Jul 1960 1.9 P69P
Cynodon dactylon, Cynodon dactylon, Spring dead spot (bermudagrass).
- 1032-67
A VIRUS-CAUSED STUNT OF APRICOT AND ITS RELATIONSHIP TO CERTAIN OTHER STONEFRUIT VIRUS DISEASES.
H K Wagnon C W Nichols D Y Rosenberg
Phytopatholo 50(9):658
Sep 1960 464.B P56
Apricots, Fruit, Stunt (apricots), Virus diseases (plants).
- 1033-67
OBSERVATIONS ON THE NATURAL SPREAD OF THE SO-CALLED PEACH STUNT VIRUS IN A CALIFORNIA PEACH ORCHARD.
H K Wagnon J R Breece H E Williams D Y Rosenberg
Plant Dis R 44(7):488-490
- 1034-67
FURTHER STUDIES ON CITRUS SEEDLING YELLOWS.
J M Wallace A L Martinez R J Drake
Int Organ Citrus Virol Pr 3:36-39
1963 464.06 IN82
Seedling yellows (citrus).
- 1035-67
THE EFFECT OF HOST NUTRITION ON THE DEVELOPMENT OF EXOCORTIS IN PONCIRUS TRIFOLIATA.
L G Weathers
Phytopatholo 50(1):87
Jan 1960 464.B P56
Host nutrition, Poncirus trifoliata.
- 1036-67
A NEW SOURCE OF RESISTANCE TO SPINACH BLIGHT.
R E Webb Bruce A Perry Henry A Jones D M McLean
Phytopatholo 50(1):54-56
Jan 1960 464.8 P56
Blight (spinach), Spinach.
- 1037-67
THE EFFECT OF TOBACCO MOSAIC VIRUS ON TOMATO YIELD.
P V V Weber
Phytopatholo 50(3):235-237
Mar 1960 464.B P56
Crop yields, Mosaic (tobacco), Tomatoes.
- 1038-67
MAIZE SYNTHETICS FOR DISEASE RESISTANCE.
C C Wernham
Plant Dis R 44(7):498-500
15 Jul 1960 1.9 P69P
Corn, Corn, Plant disease resistance, Plant synthetics.
- 1039-67
PATHOLOGICAL HISTOLOGY OF TABASCO PEPPER PLANTS INFECTED WITH TOBACCO ETCH VIRUS.
J C White N L Horn
Phytopatholo 50(9):658
Sep 1960 464.8 P56
Etch (tobacco), Plant histology, Tabasco pepper, Virus diseases (plants).
- 1040-67
TIME OF APPEARANCE AND SIZE OF LOCAL LESIONS PRODUCED BY TWO STRAINS OF TOBACCO MOSAIC VIRUS.
S G Wildman C V Ford
Phytopatholo 50(9):677-680, TABS.
Sep 1960 464.B P56
Mosaic (tobacco), Nicotiana glutinosa, Tobacco.
- 1041-67
SEED DETERIORATION AS A FACTOR IN NUB-ROOT PRODUCTION IN COTTON.
A B Wiles J T Presley
Plant Dis R 44(7):472-473
15 Jul 1960 1.9 P69P
Cotton, Nub-root (cotton), Seed deterioration, Seedlings.
- 1042-67
EVALUATION OF COTTON STRAINS AND PROGENIES FOR RESISTANCE TO VERTICILLIUM WILT.
A B Wiles
Plant Dis R 44(6):419
15 Jun 1960 1.9 P69P
Cotton, Plant disease resistance, Verticillium, Wilt (cotton).
- 1043-67
FLOWERING CHERRY, A RESERVOIR OF THE LITTLE CHERRY VIRUS.
J M Wilks E L Reeves
Phytopatholo 50(3):188-190
Mar 1960 464.8 P56
Cherries, Little cherry (cherries), Prunus serrulata.
- 1044-67
DETERMINATION OF SOIL FUNGI ANTAGONISTIC TO FUSARIUM ROSEUM.
L E Williams
Phytopatholo 50(9):658-659
Sep 1960 464.B P56
Fusarium roseum, Soil fungi.

1045-67
EFFECT OF GROWING CROPS AND CROP RESIDUES ON SOIL FUNGI AND SEEDLING BLIGHTS.
L E Williams A F Schmitthenner
Phytopatholo 50(1):22-25
Jan 1960 464.B P56
Plant residues, Seedling blight, Soil fungi.

1046-67
VEGETABLE DISEASES IN NORTH CAROLINA DURING 1958 AND 1959.
N N Winstead D L Strider L H Person
Plant Dis R 44(7):491-495
15 Jul 1960 I.9 P69P
Cucurbits, Vegetables.

1047-67
RESISTANCE TO BACTERIAL WILT IN EGGPLANT IN NORTH CAROLINA.
N N Winstead A Kelman
Plant Dis R 44(6):432-434
15 Jun 1960 I.9 P69P
Bacterial wilt (eggplant), Eggplant,
Plant disease resistance.

1048-67
BACTERIA IN THE PERITHECIA OF HYPOXYLON PRUINATUM AND THEIR EFFECT ON ASCOSPORE GERMINATION AND COLONY DEVELOPMENT.
F A Wood D W French
Phytopatholo 50(9):659
Sep 1960 464.B P56
Ascospores, Bacteria, Hypoxylon pruinatum, Perithecia.

1049-67
COMPETITION BETWEEN TWO STRAINS OF TOBACCO MOSAIC VIRUS (TMV) ON LEAVES OF NICOTIANA GLUTINOSA.
J Wu I Rappaport
Phytopatholo 50(9):659
Sep 1960 464.8 P56
Mosaic (tobacco), Nicotiana glutinosa.

1050-67
SOIL INHIBITS INFECTION WITH TOBACCO NECROSIS VIRUS.
C E Yarwood
Plant Dis R 44(B):639-642
15 Aug 1960 I.9 P69P
Necrosis, Plant virus infection, Soils, Tobacco, Viruses.

1051-67
UREDOSPORE PRODUCTION BY UROMYCES PHASEOLI.
C E Yarwood
Phytopatholo 50(9):659-660
Sep 1960 464.B P56
Uredospores, Uromyces phaseoli.

1052-67
TOPICAL SUSCEPTIBILITY TO VIRUSES.
C E Yarwood
Phytopatholo 50(9):659
Sep 1960 464.B P56
Topical susceptibility, Virus diseases (plants).

1053-67
VEIN NECROSIS, ANOTHER SYSTEMICALLY INFECTIOUS STRAIN OF ALFALFA MOSAIC VIRUS IN BEAN.
W J Zaumeyer G Patino
Phytopatholo 50(3):226-231, BIBL., 230-231
Mar 1960 464.B P56
Beans, Mosaic (alfalfa), Vein necrosis (alfalfa).

1054-67
A NEW RACE OF BEAN RUST IN MARYLAND.
W J Zaumeyer
Plant Dis R 44(7):459-462
15 Jul 1960 I.9 P69P
Beans, Plant disease resistance, Rust (beans).

1055-67
CHEMOTAXIS OF ZOOSPORES FOR ROOT EXUDATES IN RELATION TO INFECTION BY PHYTOPHTHORA CINNAMOMI.
G A Zentmyer
Phytopatholo 50(9):660
Sep 1960 464.8 P56
Chemotaxis, Exudates, Phytophthora cinnamomi, Roots, Zoospores.

1056-67
STUDIES OF TWO BLUEBERRY STEM DISEASES RECENTLY FOUND IN EASTERN MASSACHUSETTS.
B M Zuckerman
Plant Dis R 44(6):409-415
15 Jun 1960 I.9 P69P

Blueberries, Canker (fruit).

Arthropods

1057-67
INITIAL FIELD OBSERVATIONS IN CALIFORNIA ON TRIOXYSPALLIDUS (HALIDAY), A RECENTLY INTRODUCED PARASITE OF THE WALNUT APHID.
R van den Bosch E I Schilinger K S Hagen
J Econ Entom 55(6):B57-B62
Dec 1962 421 J822
Aphidine braconid, Chromaphis jugiandicola, Chromaphis jugiandicola, Parasitic insects, Trioxy spallidus.

1058-67
EFFECT OF THE BOLLWORM, HELIOTHIS ZEA, ON YIELD AND QUALITY OF COTTON.
P L Adkisson C F Bailey R L Hanna
J Econ Entom 57(4):44B-450
Aug 1964 421 J822
Cotton, Crop yields, Heliothis zea, Heliothis zea (Boddie).

1059-67
TIMING OF DEFOLIANTS AND DESICCANTS TO REDUCE POPULATIONS OF THE PINK BOLLWORM IN DIAPAUSE.
P L Adkisson
J Econ Entom 55(6):949-951
Dec 1962 421 J822
Cotton, Defoliants, Defoliants, Diapause, Pectinophora gossypiella, Pectinophora gossypiella.

1060-67
SEED TREATMENT WITH PHORATE, DISULFOTON, AND OTHER INSECTICIDES TO CONTROL PEA INSECTS IN IRAQ.
A F Al-Azawi
J Econ Entom 59(4):859-B64, PL., TABS.
Aug 1966 421 J822
Carbaryl, Carbophenothion, Dichlorvos, Disulfoton, DDT, Endosulfan, Insecticides, Iraq, Pea insects, Phorate, Phosphamidon, Phytomyza atricornis, Seed treatment, Thrips tabaci, Trichlorfon.

1061-67
INTEGRATION OF THE HELIOTHIS NUCLEAR POLYHEDROSIS VIRUS INTO A BIOLOGICAL CONTROL PROGRAM ON COTTON.
G E Allen B G Gregory J R Brazzel
J Econ Entom 59(6):1333-1336
Dec 1966 421 J822
Biological control (insects), Cotton, Heliothis, Heliothis virescens (F.), Heliothis zea (Boddie), Polyhedroses.

1062-67
THE RELATIONSHIP OF LYGUS BUGS AND THRIPS TO FRUIT DEFORMITY IN STRAWBERRIES.
W W Allen S E Gaede
J Econ Entom 56(6):B23-B25, TABS.
Dec 1963 421 J822
Frankliniella occidentalis (Pergande), Fruit deformity, Lygus hesperus Knight, Strawberries.

1063-67
SOME NEW INFESTATIONS OF THE BALSAM WOOLLY APHID IN NORTH CAROLINA, WITH POSSIBLE MODES OF DISPERSAL.
G D Amman
J Econ Entom 59(3):508-511
Jun 1966 421 J822
Chermes piceae, Chermes piceae, Dispersion agents, Infestation.

1064-67
CONTROL OF THE ALFALFA WEEVIL, HYPERA POSTICA, IN N.Y.
E J Armbrust G G Gyrisco
J Econ Entom 58(5):940-942
Oct 1965 421 J822
Azinphosmethyl, Hypera postica, Igepal, Methoxychlor, New York, Stubble sprays.

BIBLIOGRAPHY

20 1065-67

- 1065-67
EFFECTS OF SPIDER MITE INFESTATIONS ON DENT CORN IN CALIFORNIA.
O G Bacon T Lyons R S Baskett
J Econ Entom 55(6):823-825, TABS.
Dec 1962 421 JB22
Corn, Plant injuries, Tetranychidae, Tetranychidae.
- 1066-67
THE EFFECTS OF PERCUSSION ON INSECT PESTS OF GRAIN.
S W Bailey
J Econ Entom 55(3):301-304, TABS.
Jun 1962 421 JB22
Grain, Insects, Percussion, Sitophilus granarius, Sitophilus granarius.
- 1067-67
THE GREEN RICE LEAFHOPPER, NEPHOTETIX BIPUNCTATUS CINCTICEPS, AND ITS CONTROL IN KOREA.
Y H Bang B M Kae
J Econ Entom 56(6):773-776, 818L. 775-776, TABS.
Dec 1963 421 JB22
Green rice leafhopper, Korea, Nephotetix bipunctatus cincticeps (Uhler).
- 1068-67
SPRING APPLICATIONS OF INSECTICIDES FOR CONTROL OF ALFALFA WEEVIL IN ALABAMA.
M H Bass G H Blake Jr
J Econ Entom 58(3):527-529
Jun 1965 421 JB22
Alabama, Alfalfa, Hypera postica, Hypera postica (Gyllenhal), Insecticide application.
- 1069-67
OBSERVATIONS ON THE BIOLOGY AND CULTURAL-INSECTICIDAL CONTROL OF PROSAPIA BICINCTA, A SPITTLEBUG, ON COASTAL BERMUDAGRASS.
E W Beck
J Econ Entom 56(6):747-752, TABS.
Dec 1963 421 JB22
Cercopidae, Chemical control (insects), Cultural control (insects), Cynodon dactylon, Insect biology, Prosapia bicincta (Say).
- 1070-67
TWIG FEEDING BY THE SMALLER EUROPEAN ELM BARK BEETLE ON DIFFERENT KINDS OF TREES.
W B Becker R A Mankowsky
J Econ Entom 58(1):132-134
Feb 1965 421 JB22
Hylurgopinus rufipes, Scolytus multistriatus (Marsham), Trees, Ulmus americana, Ulmus americana L.
- 1071-67
METHODS OF ARTIFICIAL INFESTATION OF CORN WITH THE EARWORM, HELIOTHIS ZEA.
S E Bennett L M Josephson
J Econ Entom 55(5):797-798
Oct 1962 421 JB22
Corn, Heliothis zea, Heliothis zea (Boddie).
- 1072-67
CONTROLLING HESSIAN FLY WITH PHORATE AND DISULFOTON.
J H Bigger P E Johnson R O Weibel
J Econ Entom 58(6):1083-1085
Dec 1965 421 JB22
Disulfoton, Mayetiola destructor, Mayetiola destructor Say, Wheat.
- 1073-67
TESTS TO DETERMINE VARIETAL REACTION TO RICE WATER WEEVIL.
C C Bowling
J Econ Entom 56(6):893-894
Dec 1963 421 JB22
Lissorhoptrus oryzophilus, Lissorhoptrus oryzophilus (Kuschel).
- 1074-67
THE INFESTABILITY OF STORED PADDY BY SITOPHILUS SASAKII (TAK.) AND RHYZOPERtha DOMINICA (F.).
M H Breese
Bull Entomol Res 51(3):599-630
Nov 1960 421 887
Rhyzopertha dominica (F.), Rice, Sitophilus sasakii (Tak.).
- 1075-67
RESISTANCE OF 30 COMMERCIAL CRUCIFEROUS VARIETIES TO THE STRIPED FLEA BEETLE, PHYLLOTRETA STRIOLATA.
C H Brett J D Rudder
J Econ Entom 59(3):769, TABS.
Jun 1966 421 JB22
Cruciferae, Phyllotreta striolata, Phyllotreta striolata.
- 1076-67
CONTROL OF BLACK SCALE IN FLORIDA.
R F Brooks W L Thompson
J Econ Entom 55(5):813-814
Oct 1962 421 JB22
Saissetia oleae.
- 1077-67
EFFECT OF TRICHOGRAMMA RELEASES ON PARASITISM OF SUGARCANE BORER EGGS.
R W Burrell W J McCormick
J Econ Entom 55(6):880-882
Dec 1961 421 JB22
Diatraea saccharalis, Diatraea saccharalis, Insect eggs, Parasitic insects, Trichogramma.
- 1078-67
VARIETAL RESISTANCE OF BEANS TO THE MEXICAN BEAN BEETLE.
W Campbell C H Brett
J Econ Entom 59(4):899-902, PL., TABS.
Aug 1966 421 JB22
Beans, Epilachna varivestis, Epilachna varivestis, Resistance.
- 1079-67
THE EFFECT OF SPIDER MITE POPULATIONS ON YIELD AND QUALITY OF COTTON.
T D Canerday F S Arant
J Econ Entom 57(4):553-556, TABS.
Aug 1964 421 JB22
Cotton, Crop yields, Tetranychus cinnabarius (Bolsduval).
- 1080-67
FURTHER STUDIES OF DAMAGE TO SAFFLOWER PLANTS BY THRIPS AND LYGUS BUGS.
C A Carlson
J Econ Entom 59(1):138-141
Feb 1966 421 JB22
Crop yields, Frankliniella occidentalis (Pergande), Lygus bugs, Lygus hesperus Knight, Safflower, Thrips.
- 1081-67
DAMAGE TO SAFFLOWER PLANTS BY THRIPS AND LYGUS BUGS AND A STUDY OF THEIR CONTROL.
E C Carlson
J Econ Entom 57(1):140-145, TABS.
Feb 1964 421 JB22
Frankliniella occidentalis, Insect control, Lygus bugs, Safflower, Western flower thrips.
- 1082-67
EARLY-SEASON APPLICATION OF DDT FOR PINK BOLLWORM CONTROL.
A J Chapman L W Noble O T Robertson G L Smith
J Econ Entom 56(6):900-901
Dec 1963 421 JB22
DDT, Insecticide application, Pectinophora gossypiella, Pectinophora gossypiella (Saunders), Seasonal applications.
- 1083-67
FIELD SELECTION OF DIFFERENT LOG ODORS BY SCOLYTID BEETLES.
J A Chapman
Can Entom 95(7):673-676
Jul 1963 421 C16
Air, Logs, Odors, Scolytidae.
- 1084-67
RELATIONSHIPS BETWEEN PLANT HEIGHT AND YIELD OF FIELD CORN AS AFFECTED BY THE EUROPEAN CORN BORER.
H C Chiang F G Hoidanay
J Econ Entom 58(5):932-938
Oct 1965 421 JB22
Corn, Crop yields, Ostrinia nubilalis.
- 1085-67
THE ABSORPTION OF 1,2-DIBROMOETHANE BY ORANGES AND BY MATERIALS USED IN THEIR FUMIGATION.
I M Coggiola F E Huelin
J Agr Food Ch 12(2):192-196, TABS.
Mar 1964 381 JB223
Ethylene dibromide, Oranges.
- 1086-67
CONTROL OF THE BLACK VINE WEEVIL ON CONCORD GRAPES IN CENTRAL WASHINGTON.
W W Cone
J Econ Entom 58(1):115-119, 818L.118-119, TABS.

- Feb 1965 421 JB22
Brachyrhinus sulcatus, *Brachyrhinus sulcatus* (F), Grapes,
 Insect control, Washington.
- 1087-67
 CEREAL APHID CAPTURE IN YELLOW BAFFLE TRAYS.
 B F Coon H B Rinick Jr
 J Econ Entom 55(3):407-40B
 Jun 1962 421 JB22
 Aphididae, Grain, Grain, Insect traps, Water.
- 1088-67
 BARK PENETRATION AND UPTAKE OF SYSTEMIC INSECTICIDES FROM
 SEVERAL TREATMENT FORMULATIONS IN WHITE PINES.
 H C Coppe D M Norris Jr
 J Econ Entom 59(4):92B-931, TABS.
 Aug 1966 421 JB22
 Bark, *Diprion similis*, Systemic insecticides.
- 1089-67
 CONTROL OF SEVERAL LATE-SEASON COTTON PESTS IN FIELD
 EXPERIMENTS IN 1962.
 C B Cowan Jr J W Davis
 J Econ Entom 56(6):790-793, TABS.
 Dec 1963 421 JB22
Anthonomus grandis Boheman, Cotton, *Heliothis zea* (Boddie),
 Insect pests, Insecticides, *Tetranychus desertorum* Banks.
- 1090-67
 MEXICO-UNITED STATES COOPERATIVE PLANT PEST CONTROL PRO-
 GRAMS.
 L F Curl
 J Econ Entom 57(4):450-452
 Aug 1964 421 JB22
 Mexico, Plant pest control, United States.
- 1091-67
 FOUR LITTLE-KNOWN PESTS OF SWEETPOTATO ROOTS.
 F P Cuthbert Jr W J Reid Jr
 J Econ Entom 58(3):5B1-5B3
 Jun 1965 421 JB22
Chaetocnema confinis Crotch, *Notoxus calcaratus* Horn,
Plectris allena Chaplin, Sweetpotatoes,
Systema frontalis (F.).
- 1092-67
 PRELIMINARY STUDIES ON THE EFFECT OF LYGUS BUGS ON THE SET
 AND YIELD OF TOMATOES.
 A C Davis F L McEwen R W Robinson
 J Econ Entom 56(4):532-533, TABS.
 Aug 1963 421 JB22
 Crop yields, Fruit setting,
Lygus lineolaris (Paisot de Beauvois), Tomatoes.
- 1093-67
 CONTROL OF SEVERAL COTTON PESTS WITH SYSTEMIC INSECTICIDES.
 J W Davis W C Watkins Jr C B Cowan Jr R L Ridgway
 J Econ Entom 59(1):159-162
 Feb 1966 421 JB22
Aphis gossypii Glover, Cotton, *Frankliniella* sp.,
Liriomyza brassicae, *Psallus seriatu*s (Reuter),
 Systemic insecticides, *Tetranychus desertorum* Banks.
- 1094-67
 CONTROL OF THE SOUTHERN POTATO WIREWORM, *CANODERUS FALLI*,
 ON EARLY-CROP POTATOES.
 A Day F P Cuthbert Jr W J Reid Jr
 J Econ Entom 57(4):46B-470, TABS.
 Aug 1964 421 JB22
Canoderus falli Lane, Potatoes, Southern potato wireworm.
- 1095-67
 SUPPRESSION OF EUROPEAN RED MITE BY MILDEW FUNGICIDE PRO-
 GRAMS.
 R W Dean D H Paimiter K D Hickey
 J Econ Entom 59(3):742
 Jun 1966 421 JB22
Panonychus ulmi, *Panonychus ulmi*, *Podosphaera leucotricha*.
- 1096-67
 A METHOD AND MACHINE FOR DETECTING LIVING INTERNAL INSECT
 INFESTATION IN WHEAT.
 M M Dennis R W Decker
 J Econ Entom 55(2):199-203
 Apr 1962 421 JB22
 Chemistry, Equipment, Feed grains, Insect control, Wheat.
- 1097-67
 EVALUATION OF BROWN WHEAT MITE CONTROL ON YIELD OF WINTER
 WHEAT IN KANSAS.
 L J DePew
 J Econ Entom 55(6):1010-1011
 Oct 1962 421 JB22
 Crop yields, *Petrobia latens*, *Petrobia latens*, Wheat.
- 1098-67
 EVALUATION OF INSECTICIDES FOR CONTROL OF THE SMALLER EURO-
 PEAN ELM BARK BEETLE.
 C C Doane
 J Econ Entom 55(3):414-415
 Jun 1962 421 JB22
Hylurgopinus rufipes, *Hylurgopinus rufipes*, Insect control,
 Insecticides.
- 1099-67
 CONTROL OF ROOT MAGGOTS ON RADISH, TURNIP, AND RUTABAGA IN
 WISCONSIN.
 J F Doane R K Chapman
 J Econ Entom 55(2):160-164, TABS.
 Apr 1962 421 JB22
 Maggots, Radishes, Roots, Rutabagas, Turnips, Wisconsin.
- 1100-67
 GRANULAR PHORATE AND DI-SYSTON FOR CONTROL OF APHIDS ON
 FIELD-GROWN EASTER LILY.
 C F Doucette
 J Econ Entom 55(5):B12-B13
 Oct 1962 421 JB22
 Aphididae, Disulfoton, *Lilium longiflorum*, Phorate.
- 1101-67
 THE LEWIS MITE, *OTETRANYCHUS LEWISI*, ON GREENHOUSE POIN-
 SETTIA.
 C F Doucette
 J Econ Entom 55(1):139-140
 Feb 1962 421 JB22
Eotetranychus lewisi, *Euphorbia pulcherrima*,
Euphorbia pulcherrima, Greenhouse culture, Lewis mite.
- 1102-67
 SELECTION IN COTTON FOR ANTIBIOSIS TO THE BOLL WEEVIL, AN-
 THONOMUS GRANDIS.
 G A Douglas
 J Econ Entom 59(1):32-34
 Feb 1966 421 JB22
Anthonomus grandis, *Anthonomus grandis*, *Anthonomus grandis*,
 Antibiosis, Cotton.
- 1103-67
 BIOLOGY OF THE PINK SCAVENGER CATERPILLAR AND ITS CONTROL
 IN CORN.
 W A Douglas C A Henderson J M Langston
 J Econ Entom 55(5):651-65E, TABS.
 Oct 1962 421 JB22
 Corn, Insect biology, Insect control,
Pyroderces rileyi Walsingham, *Sathrobrotia rileyi*.
- 1104-67
 SMALL-SCALE FIELD TESTS IN TEXAS WITH SIX SYSTEMIC
 INSECTICIDES FOR THE CONTROL OF CATTLE GRUBS.
 R O Drummond
 J Econ Entom 56(5):632-634
 Oct 1963 421 JB22
 Hypoderma, Hypoderma, Systemic insecticides, Texas.
- 1105-67
 CONTENTS OF CORN SILKS IN RELATION TO CORN EARWORM INJURY.
 W G Eden F S McCain B W Arthur
 J Econ Entom 55(5):B02
 Oct 1962 421 JB22
 Corn silks, *Heliothis zea*, *Heliothis zea* Boddie,
 Plant pest resistance.
- 1106-67
 PROTECTION OF DATES FROM INJURY CAUSED BY THE APACHE CICADA
 IN CALIFORNIA.
 H S Elmer
 J Econ Entom 56(6):B75-B76
 Dec 1963 421 JB22
 Apache cicada, California, Dates,
Diceroprocta apache (Davis).
- 1107-67
 EXPERIMENTS FOR THE CONTROL OF A JUNIPER TIP MIDGE.
 L L English
 J Econ Entom 56(6):BB0-BB3
 Dec 1963 421 JB22

BIBLIOGRAPHY

20 1109-67

- Insecticides, Juniper tip midge,
Juniperus virginiana canker, Senecio, Oligotrophus.
- 1109-67
INSECTS DESTRUCTIVE TO BITTERBRUSH FLOWERS AND SEEDS IN
SOUTHWESTERN IDAHO.
R B Ferguson M M Furniss J Y Basile
J Econ Entom 56(4):459-462, TABS.
Aug 1963 421 JB22
Idaho, Insect pests, Purshia.
- 1110-67
CULTURAL CONTROL OF OVERWINTERING BOLLWORM AND TOBACCO
BUDWORM.
L C Fife H M Graham
J Econ Entom 59(5):1123-1125
Oct 1966 421 JB22
Heliothis virescens, Heliothis virescens (F.),
Heliothis zea, Heliothis zea (Boddie), Hibernation.
- 1111-67
INTEGRATED CONTROL OF CYCLODIENE-RESISTANT CARROT RUST
FLY.
D G Finlayson H G Fulton M D Noble
J Econ Entom 59(5):1082-1085
Oct 1966 421 JB22
Cyclodiene, Psila rosae, Psila rosae (F.).
- 1112-67
CONTROL OF THE PINE ROOT COLLAR WEEVIL, HYLOBIUS RADICIS.
R J Finnegan K E Stewart
J Econ Entom 55(4):4B3-4B6, TABS.
Aug 1962 421 JB22
Hylobius radialis, Hylobius radialis, Insect control.
- 1113-67
PRESENT STATUS IN CONTROL OF THE EUROPEAN RED MITE IN OHIO
WITH SUMMER ACARICIDES.
H Y Forsythe Jr.
J Econ Entom 58(5):B11-B14
Oct 1965 421 JB22
Acaricides, Mites, Ohio, Panonychus ulmi, Panonychus ulmi.
- 1114-67
EVALUATING THE CONTROL OF THE CLOVER ROOT CURCULIO LARVA ON
ALFALFA.
H Y Forsythe Jr G G Grylisco
J Econ Entom 55(6):906-908
Dec 1962 421 JB22
Alfalfa, Insecticides, Larvae, Sitona hispidula,
Sitona hispidula.
- 1115-67
FIELD TESTS FOR THE CONTROL OF CERTAIN ALFALFA INSECT PESTS
IN NEW YORK.
H Y Forsythe Jr D D Hardee G G Grylisco
J Econ Entom 55(6):B2B-B30, TABS.
Dec 1962 421 JB22
Alfalfa, Insecticides, Insects, New York, Toxicology.
- 1116-67
A RELATIONSHIP OF THE PLANT TO PARASITISM OF EUROPEAN CORN
BORER BY THE TACHINID PARASITE LYDELLA GRISESCENS.
R T Franklin F G Holdaway
J Econ Entom 59(2):440-441
Apr 1966 421 JB22
Lydella grisescens, Ostrinia nubilalis,
Ostrinia nubilalis (Hubner), Parasitism.
- 1117-67
AN INSTANCE OF DELAYED EMERGENCE OF THE DOUGLAS-FIR BEETLE
AND ITS EFFECT ON AN INFESTATION IN SOUTHERN UTAH.
M M Furniss
J Econ Entom 58(3):440-442
Jun 1965 421 JB22
Dendroctonus pseudotsugae,
Dendroctonus pseudotsugae Hopkins, Utah.
- 1118-67
RESISTANCE OF SMALL GRAINS TO THE CEREAL LEAF BEETLE.
R L Galun R Ruppel E H Everson
J Econ Entom 59(4):827-829, TABS.
Aug 1966 421 JB22
Cereal leaf beetle, Insect resistant plants,
Oulema melanopus, Small grains.
- 1119-67
A NEW RECORD OF A WHITEFLY, ALEURODES SPIRAEQUIDES QUAIN-
TANCE, INFESTING COTTON, WITH A NOTE ON ITS PARASITES.
D Gerling
J Econ Entom 59(2):482-483
Apr 1966 421 JB22
Aleurodes spiraeoides Quaintance, Cotton, Parasitism,
Whitefly.
- 1120-67
SEASONAL LIGHT-TRAP COLLECTIONS OF LEPIDOPTEROUS COTTON IN-
SECTS IN SOUTH TEXAS.
P A Glick
J Econ Entom 58(5):BB0-BB2
Oct 1965 421 JB22
Cotton, Lepidoptera, Light traps, Texas.
- 1121-67
JAPANESE BEETLE DAMAGE TO SOYBEANS AND CORN.
G E Gould
J Econ Entom 56(6):776-7B1
Dec 1963 421 JB22
Corn, Popillia japonica, Popillia japonica Newman, Soybeans.
- 1122-67
SEASONAL DISTRIBUTION OF HELIOTHIS VIRESCENS AND H. ZEA
ON TOBACCO IN KENTUCKY.
G L Greene R Thurston
J Econ Entom 59(5):1054-1056
Oct 1966 421 JB22
Heliothis virescens (F.), Heliothis zea (Boddie), Kentucky,
Tobacco.
- 1123-67
SYSTEMIC INSECTICIDES FOR THE CONTROL OF WESTERN FLOWER
THRIPS ON BULB ONIONS.
K L Hale H H Shorey
J Econ Entom 58(4):793-794
Aug 1965 421 JB22
Insecticides, Onions, Systemic insecticides, Thrips tabaci,
Western flower thrips.
- 1124-67
SEQUENTIAL SAMPLING FOR USE IN CONTROL OF THE CABBAGE
LOOPER ON CAULIFLOWER.
D G Harcourt
J Econ Entom 59(5):1190-1192
Oct 1966 421 JB22
Cauliflower, Sequential sampling, Trichoplusia ni,
Trichoplusia ni (Hubner).
- 1125-67
TESTS WITH SYSTEMIC
INSECTICIDES FOR CONTROL OF INSECTS AND CERTAIN DISEASES ON
POTATOES.
J A Harding
J Econ Entom 55(1):62-6S, TABS.
Feb 1962 421 JB22
Aphididae, Insecticides, Plant disease control,
Plant insect control, Potatoes, Psyllidae, Whiteflies.
- 1126-67
GRANULATED SYSTEMIC INSECTICIDES FOR VEGETABLE INSECT
CONTROL IN SOUTH TEXAS.
J A Harding D A Wolfenbarger
J Econ Entom 56(5):687-689, TABS.
Oct 1963 421 JB22
Insects, Systemic insecticides, Texas, Vegetables.
- 1127-67
PARASITES OF THE EUROPEAN PINE SHOOT MOTH, RHYACIONIA BUO-
LIANA.
D M Harman H M Kulman
J Econ Entom 55(6):1007-100B
Dec 1962 421 JB22
Larvae, Parasitic Insects, Pupae, Rhyacionia buoliana,
Rhyacionia buoliana.
- 1128-67
EFFECT OF THE PEA APHID ON ALFALFA IN SOUTHERN ALBERTA.
A M Harper C E Lilly
J Econ Entom 59(6):1426-1427
Dec 1966 421 JB22
Acyrtosiphon pisum, Acyrthosiphon pisum, Alberta, Alfalfa.
- 1129-67
GRANULATED INSECTICIDES FOR CONTROL OF SOME CORN PESTS.
E P Harrison
J Econ Entom 58(1):137-139
Feb 1965 421 JB22
Corn, Insect control, Insecticides, Ostrinia nubilalis,
Ostrinia nubilalis.

- 1130-67
INSECTICIDAL FIELD SCREENING TESTS AGAINST THE FALL ARMYWORM IN SORGHUM AND CORN.
C F Henderson H G Kinzer J H Hatchett
J Econ Entom 55(6):1005-1006
Dec 1962 421 JB22
Corn, Insecticides, *Laphygma frugiperda*, Sorghum, Spodoptera frugiperda.
- 1131-67
FIELD INSECTICIDE SCREENING TESTS AGAINST THE CORN FLEA BEETLE.
C F Henderson H G Kinzer J H Hatchett E G Thompson
J Econ Entom 55(6):1008-1009
Dec 1962 421 JB22
Chaetocnema pulicaria, *Chaetocnema pulicaria*, Insect control, Insecticides, Sorghum.
- 1132-67
GROWTH AND YIELD OF GRAIN SORGHUM INFESTED IN THE WHORL WITH FALL ARMYWORM.
C F Henderson H G Kinzer E G Thompson
J Econ Entom 59(4):1001-1003, PL.
Aug 1966 421 JB22
Plant physiology, Sorghum, Spodoptera frugiperda, Spodoptera frugiperda, Whorl.
- 1133-67
FLOWER THRIPS IN OUTDOOR ROSE FIELDS AND AN IMPROVED METHOD OF EXTRACTING THRIPS FROM ROSE FLOWERS.
T J Henneberry F F Smith D Shriver
J Econ Entom 57(3):410-412
Jun 1964 421 JB22
Frankliniella tritici, *Frankliniella tritici*, *Rosa*, *Rosa*.
- 1134-67
RELATIVE SEASONAL ABUNDANCE OF BOLLWORM AND TOBACCO BUDWORM LARVAE ON COTTON IN GEORGIA.
J W Hodges R J Beshear C M Beckham
J Econ Entom 59(1):128-131
Feb 1966 421 JB22
Cotton, Georgia, *Heliothis virescens*, *Heliothis virescens* (F.), *Heliothis zea*, *Heliothis zea* (Boddie), Larvae.
- 1135-67
HEPTACHLOR AS A SYSTEMIC INSECTICIDE AGAINST THE WHEAT STEM SAWFLY, *CEPHUS CINCTUS* NORT.
N D Holmes L K Peterson
Can Entom 95(8):792-796
Aug 1963 421 C16
Cephus cinctus Nort., Heptachlor, Systemic insecticide.
- 1136-67
RESISTANCE OF SPRING WHEATS TO THE WHEAT STEM SAWFLY, *CEPHUS CINCTUS* NORT. (HYMENOPTERA: CEPHIDAE II. RESISTANCE TO THE LARVA.
N D Holmes L K Peterson
Can Entom 94(4):348-365
Apr 1962 421 C16
Cephidae, *Cephus cinctus*, *Cephus cinctus* Nort., Hymenoptera, Larvae, Plant pest resistance, Wheat.
- 1137-67
FIELD EXPERIMENTS FOR CONTROL OF THE BOLL WEEVIL, BOLLWORM SPP., AND THE COTTON APHID ON COTTON IN 1960-62.
A R Hopkins H M Taft
J Econ Entom 57(4):509-511
Aug 1964 421 JB22
Anthonomus grandis, *Anthonomus grandis* Boheman, *Aphis gossypii*, *Aphis gossypii* Glover, Cotton, *Heliothis* spp..
- 1138-67
NEW MATERIALS FOR THE CONTROL OF THE APPLE RUST MITE.
S C Hoyt
J Econ Entom 55(5):639-641, TABS.
Oct 1962 421 JB22
Vasates schlechtendalii, *Vasates schlechtendalii* (Nalepa).
- 1139-67
FURTHER FIELD EXPERIMENTS ON THE USE OF BACILLUS THURINGIENSIS AND CHEMICAL INSECTICIDES FOR THE CONTROL OF THE EUROPEAN CORN BORER, *OSTRINIA NUBILALIS*, ON SWEET CORN IN SOUTHWESTERN QUEBEC.
M Hudon
J Econ Entom 56(6):804-808, BIBL. B07-B08
Dec 1963 421 JB22
Bacillus thuringiensis var. *thuringiensis* Berlinger, Insecticides, *Ostrinia nubilalis*,
Ostrinia nubilalis (Hubner), Quebec, Sweetcorn.
- 1140-67
THE INFESTATION OF CANADIAN PRODUCE INSPECTED IN UNITED KINGDOM PORTS BETWEEN 1953 AND 1959.
E T Hurlock
Can Entom 95(12):1263-1284, BIBL. 1283-1284
Dec 1963 421 C16
Canada, Grain, Insect infestation, Oilseeds, United Kingdom.
- 1141-67
THE CONTROL OF YELLOW TEA MITE, *HEMITARSONEMUS LATUS* (BANKS), WITH DDT ON COTTON IN UGANDA.
W R Ingram
Bull Entomol R 51(3):557-582
Nov 1960 421 BB7
Cotton, *Hemitarsonemus latus* (Banks), DDT, Tea, Uganda.
- 1142-67
STABILITY OF RESISTANCE TO PEA APHID AND SPOTTED ALFALFA APHID IN SEVERAL ALFALFA CLONES UNDER VARIOUS TEMPERATURE REGIMES.
A Isaac E L Sorensen R H Painter
J Econ Entom 58(1):140-143, BIBL. 142-143, TABS.
Feb 1965 421 JB22
Acyrtosiphon pisum, *Acyrtosiphon pisum* (Harris), Alfalfa, Plant temperature, *Therioaphis maculata*, *Therioaphis maculata* (Buckton).
- 1143-67
GAMMA-BHC LIQUID SEED DRESSING FOR THE CONTROL OF TURNIP FLEA BEETLE.
H R Jameson
J Sci Food A 11(9):528-534, TABS.
Sep 1960 382 S012
Benzene hexachloride, Chrysomelidae, Seed dressing, Seed treatment.
- 1144-67
THE INFLUENCE OF A VIRUS DISEASE AND PARASITES ON SPILONOTA OCELLANA IN APPLE ORCHARDS.
R P Jaques H T Stultz
Can Entom 98(10):1035-1045, BIBL. 1044-1045, TABS.
Oct 1966 421 C16
Agathis lactinctus (Cresson), Apples, Parasitism, *Spilonota ocellana*, *Spilonota ocellana*, Virus diseases (plants).
- 1145-67
POPULATION COUNTS VS. NYMPHS PER GRAM OF PLANT MATERIAL IN DETERMINING DEGREE OF ALFALFA RESISTANCE ON THE POTATO LEAF-HOPPER.
J L Jarvis W R Kehr
J Econ Entom 59(2):427-430
Apr 1966 421 JB22
Alfalfa, *Empoasca fabae*, *Empoasca fabae* (Harris), Nymphs, Plant hardiness.
- 1146-67
CONTROL OF THE STEM BORER *BACTRA VERUTANA* ON *CYPERUS PAPYRUS*.
R N Jefferson W A Humphrey
J Econ Entom 57(3):385-386
Jun 1964 421 JB22
Bactra verutana, *Cyperus papyrus*.
- 1147-67
CONTROL OF LAWN MOTHS IN SOUTHERN CALIFORNIA.
R N Jefferson I M Hall F S Morishita
J Econ Entom 57(1):150-152
Feb 1964 421 JB22
California, *Crambus bonifatellus*, *Crambus sperryellus*, Insect control, Lawn moths.
- 1148-67
THE COMPARATIVE PREFERENCE OF INSECTS FOR GLANDED AND GLANDLESS COTTONS.
J N Jenkins F G Maxwell H N Lafever
J Econ Entom 59(2):352-356, BIBL. 355-356
Apr 1966 421 JB22
Alabama argillacea (Hubner), Chrysomelidae, Cotton, *Gastrophysa cyanea* (Melisheimer), Glands (plants), *Heliothis zea* (Boddie), Larvae, *Maecolaspis flavida* (Say).
- 1149-67
DEVELOPMENTS IN CONTROL OF THE GRAPE MEALYBUG.
F Jensen D Fiaherly E M Stafford H Kido
J Econ Entom 57(3):372-374
Jun 1964 421 JB22

BIBLIOGRAPHY

20 1150-67

- Insect control, *Pseudococcus maritimus*,
Pseudococcus maritimus.
- 1150-67
HELICOPTER APPLICATION OF GUTHION FOR THE CONTROL OF THE
DOUGLAS-FIR CONE MIDGE.
N E Johnson
J Econ Entom 56(5):600-603, BIBL. 602-603, TABS.
Oct 1963 421 JB22
Aircraft disinfection, Azlnphosmethyl,
Contarinia oregonensis Foota, Douglas-fir cone midge.
- 1151-67
METHODS OF ARTIFICIALLY INFESTING CORN WITH THE CORN
EARWORM AND FACTORS INFLUENCING RESISTANCE.
L M Josephson S E Bennett E E Burgess
J Econ Entom 59(6):1322-1324
Dec 1966 421 JB22
Artificial infestation, Crop resistances, *Heliothis zea*,
Heliothis zea.
- 1152-67
LYGUS HESPERUS AS AN ECONOMIC INSECT ON MAGNOLIA NURSERY
STOCK.
C S Koehler
J Econ Entom 56(3):421-422
Jun 1963 421 JB22
Lygus hesperus Knight, Magnolia,
Nursery stock (horticulture).
- 1153-67
TWO WILD HOST PLANTS FOR THE BOLLWORM IN HONDURAS.
P Kraemer
J Econ Entom 59(6):1531
Dec 1966 421 JB22
Heliothis zea, *Heliothis zea*, Honduras, Host plants.
- 1154-67
GRANULAR APPLICATION OF SYSTEMICS FOR CONTROL OF EUROPEAN
PINE SHOOT MOTH.
H M Kulman C K Dorsey
J Econ Entom 55(3):304-305
Jun 1962 421 JB22
Granules, Insecticides, *Rhyacionia buoliana*,
Rhyacionia buoliana.
- 1155-67
EFFECTS OF DISBUDDING ON THE SHOOT MORTALITY, GROWTH, AND
BUD PRODUCTION IN RED AND SUGAR MAPLES.
H M Kulman
J Econ Entom 58(1):23-26
Feb 1965 421 JB22
Acer rubrum, *Acer rubrum*, *Acer saccharum*, *Acer saccharum*,
Plant budding, Plant growth inhibitors, Plant physiology.
- 1156-67
A SAMPLING UNIT FOR THE JACK-PINE BUDWORM, CHORISTONEURA
PINUS.
H M Kulman A C Hodson
J Econ Entom 55(5):801-802
Oct 1962 421 JB22
Choristoneura pinus, *Choristoneura pinus*, Larvae,
Sampling (statistics).
- 1157-67
NATURAL CONTROL OF THE EASTERN TENT CATERPILLAR AND NOTES ON
ITS STATUS AS A FOREST PEST.
H M Kulman
J Econ Entom 58(1):66-70
Feb 1965 421 JB22
Forest insects, Insect control, *Malacosoma americanum*,
Malacosoma americanum (F), *Prunus sarotina* Ehrh.
- 1158-67
CONTROL OF THE NATIVE HOLLY LEAF MINER, PHYTOMYZA ILICICOLA
(DIPTERA: AGROMYZIDAE).
L A Kulp
J Econ Entom 56(6):736-739, BIBL. 738-739, TABS.
Dec 1963 421 JB22
Agromyzidae, Diptera, *Ilex opaca*, Native holly leaf miner,
Phytomyza ilicicola.
- 1159-67
CHEMICAL FACTORS INFLUENCING HOST SELECTION BY THE MEXICAN
BEAN BEETLE EPILACHNA VARIVESTIS MULS.
J B LaPidus R W Cleary R H Davidson F W Flsk M G Augustina O
J Agr Food Ch 11(6):462-463, BIBL. 463
Nov 1963 381 JB223
Epilachne varivestis, *Epilachne varivestis* Muls,
Plant hosts, Plant pest resistance.
- 1160-67
A SIMPLE TECHNIQUE FOR RECOVERING INSECTS FROM SORGHUM HEADS
IN INSECTICIDE TESTS.
M L Laster R E Furr
J Econ Entom 55(5):798
Oct 1962 421 JB22
Insect removal, Insecticides, Insects, Sorghum.
- 1161-67
FOILAGE-FEEDING LEPIDOPTERA ON YOUNG NONBEARING APPLE TREES
IN WISCONSIN.
E F Legner E R Datman
J Econ Entom 55(4):552-554
Aug 1962 421 JB22
Apple traas, Insect control, Larvae, Lepidoptera, Wisconsin.
- 1162-67
NATURAL BIOTIC CONTROL FACTORS OF THE EYE-SPOTTED BUD MOTH,
SPILONOTA OCELLANA ON APPLE IN WISCONSIN.
E F Legner E R Datman
J Econ Entom 56(6):730-732
Dec 1963 421 JB22
Apples, Natural control (insects), *Spilonota ocellana*,
Spilonota ocellana, Wisconsin.
- 1163-67
ATRACTOTOMUS MALI AND CAMPYLOMMA VERBASCI (HETEROPTERA: MI
RIDAE) ON APPLES IN CONN.
David E Leonard
J Econ Entom 58(5):1031
Oct 1965 421 JB22
Apples, *Atractotomus mali*, *Campylomma verbasci*, Connecticut,
Heteroptera, Miridae.
- 1164-67
MYRISTICIN, AN INSECTICIDE AND SYNERGIST OCCURRING NATURALLY
IN THE EDIBLE PARTS OF PARSNIPS.
E P Lichtanstein J E Casida
J Agr Food Ch 11(5):410-415, TABS.
Sep 1963 381 JB223
Insecticidal plants, Insecticide synergists, Myristicin,
Parsnips.
- 1165-67
EFFECT OF LIGHT AND HUMIDITY ON THE ABSORPTION AND TRANS-
LOCATION OF DIMETHOATE IN THE COTTON PLANT.
D A Lindquist J Hacsakaylo T B Davich
J Econ Entom 58(3):415-418
Jun 1965 421 JB22
Absorption, Cotton, Dimethoate, Humidity, Light,
Plant translocation.
- 1166-67
THE EFFECT OF BOLL WEEVIL INFESTATIONS ON YIELD AND QUALITY
OF COTTON.
E P Lloyd M E Merkl G B Crowe
J Econ Entom 55(2):225-227, TABS.
Apr 1962 421 JB22
Anthonomus grandis, *Anthonomus grandis*, Cotton, Crop yields.
- 1167-67
CRITICAL PERIOD FOR CONTROLLING THE SUGARCANE BORER IN
SUGARCANE IN LOUISIANA.
W H Long E J Conciene
J Econ Entom 57(3):350-353
Jun 1964 421 JB22
Diatraea saccharalis, *Diatraea saccharalis*, Louisiana,
Sugarcane.
- 1168-67
THE INFLUENCE OF SPRAY PROGRAMS ON THE FAUNA OF APPLE ORCH-
ARDS IN NOVA SCOTIA. XI. EFFECTS OF LOW DOSAGES OF DDT
ON PREDATOR POPULATIONS.
F T Lord
Can Entom 94(2):204-216, BIBL. 215-216
Feb 1962 421 C16
Apples, DDT, Insect populations, Pradaceous insects,
Spraying.
- 1169-67
EVALUATION OF DAMAGE TO LINT AND SEED OF COTTON CAUSED BY
THE PINK BOLLWORM.
M J Lukefahr D F Martin
J Econ Entom 56(5):710-713
Oct 1963 421 JB22
Cotton, Crop losses, *Pectinophora gossypiella*,
Pectinophora gossypiella (Saunders).

- 1170-67**
RESISTANCE OF EXPERIMENTAL COTTON STRAIN IS14 TO THE BOLL-WORM AND COTTON FLEAHOPPER.
M J Lukefahr C B Cowan T R Perimner L W Norla
J Econ Entom 59(2):393-395
Apr 1966 42I J822
Cotton, *Haliotis zea*, *Haliotis zea* (Boddia), Insecticides, Parasitic insects, Plant hardness, *Psallus variatus*, *Psallus variatus* (Reuter).
- 1171-67**
ADDITIONAL NONCOTTON HOSTS OF THE BOLL WEEVIL AND COTTON LEAFWORM.
M J Lukefahr D F Martln
J Econ Entom 58(4):7B4
Aug 1965 42I JB22
Alabama argillacea, Alabama argillacea (Hubnar), *Anthonomus grandis*, *Anthonomus grandis* Boheman, Plant hosts.
- 1172-67**
THE YELLOW ROSE APHID, RHODOBIUM POROSUM (SANDERSON) (HOMOPTERA: APHIDIDAE), ON STRAWBERRY.
M E MacGillivray
Can Entom 95(B):B92-B96
Aug 1963 42I C16
Aphididae, Homoptera, *Rhodobium porosum*, Strawberries, Yellow rose aphid.
- 1173-67**
BEHAVIOR AND CONTROL OF THE GRAPE MEALYBUG ON PEAR.
H F Madsen P H Westgard
J Econ Entom 55(6):849-850
Dec 1962 42I J822
Insect behavior, Pears, *Pseudococcus maritimus*, *Pseudococcus maritimus*.
- 1174-67**
THE RELATION OF THRIPS TO PANSY SPOT ON APPLES.
H F Madsen I D Jack
Can Entom 98(9):903-90B
Sep 1966 42I C16
Apples, *Frankliniella occidentalis* (Pergande), Pansy spot, Thrips.
- 1175-67**
PLOWING FOR SWEETCLOVER WEEVIL CONTROL.
G R Manglitz C O Calkins
J Econ Entom 56(5):716-717
Oct 1963 42I JB22
Cultural control (Insects), Plowing, *Sitona cylindricollis*, *Sitona cylindricollis* Fahraeus, Sweetclover.
- 1176-67**
DAMAGE TO SWEETCLOVER VARIETIES BY POTATO LEAFHOPPER.
G R Manglitz J L Jarvis
J Econ Entom 59(3):750-751
Jun 1966 42I JB22
Empoasca fabae, *Empoasca fabae*, Sweetclover.
- 1178-67**
CARBAMATE-INDUCED SYSTEMIC REPELLENCY TO THE BOLL WEEVIL ON COTTON.
J W Matteson H M Taft
J Econ Entom 56(6):892-893
Dec 1963 42I JB22
Anthonomus grandis, *Anthonomus grandis* Boheman, Carbamates, Cotton, Insect repellents.
- 1179-67**
COMPARISON OF SOIL SURFACE TREATMENTS OF SOME FUMIGANTS AND SOIL INSECTICIDES FOR APPLE MAGGOT CONTROL.
C W Maxwell E C Parsons
J Econ Entom 55(6):1022-1023
Dec 1962 42I J822
Apples, Fumigation, Insect control, Insecticides, Maggots, Soils.
- 1180-67**
AN ARRESTANT AND FEEDING STIMULANT FOR THE BOLL WEEVIL IN WATER EXTRACTS OF COTTON-PLANT PARTS.
F G Maxwell J N Jenkins J C Kellar W L Parrott
J Econ Entom 56(4):449-454, TABS.
Aug 1963 42I J822
Anthonomus grandis, *Anthonomus grandis* Boheman, Cotton, Extracts, Feeding stimulant.
- 1181-67**
AUXIN CONTENT OF EXTRACTS OF CERTAIN TOLERANT AND SUSCEPTIBLE HOST PLANTS OF TOXOPTERA GRAMINUM, MACROSIPHUM PISI, AND THERIOAPHIS MACULATA AND RELATION TO HOST PLANT RESISTANCE.
F G Maxwell R H Painter
J Econ Entom 55(1):46-56, TABS.
Feb 1962 42I J822
Biological assay, Extracts, *Macrosiphum pisi*, Plant hormones, Plant hormones, Plant insect resistance, *Therioaphis maculata*, *Toxoptera graminum*.
- 1182-67**
A BOLL WEEVIL REPELLENT FROM THE VOLATILE SUBSTANCE OF COTTON.
F G Maxwell J N Jenkins J C Kellar
J Econ Entom 56(6):B94-B95
Dec 1963 42I JB22
Anthonomus grandis, *Anthonomus grandis* Boheman, Cotton, Insect repellents, Plant extracts.
- 1183-67**
INFLUENCE OF THE GLANDLESS GENES ON FEEDING, OVIPOSITION, AND DEVELOPMENT OF THE BOLL WEEVIL IN THE LABORATORY.
F G Maxwell H M Lafever J N Jenkins
J Econ Entom 59(3):585-588
Jun 1966 42I J822
Anthonomus grandis, *Anthonomus grandis*, Cotton, Development, Feeding, Glandless genes, Laboratories, Oviposition.
- 1184-67**
BLISTER BEETLES ON GLANDLESS COTTON.
H G Maxwell H M Lafever J N Jenkins
J Econ Entom 58(4):792-793
Aug 1965 42I J822
Cotton, *Epicauta*, *Maloidae*, *Maloidae*.
- 1185-67**
HONEY BEE VISITORS AND FRUIT SET OF CANTALOUPE.
S E Mcgragor M D Levin R E Foster
J Econ Entom 58(5):968-970
Oct 1965 42I J822
Apis mellifera, Cantaloupes, *Cucumis melo*, Fruit setting.
- 1186-67**
AMINO ACID CONTENT OF CORN SILKS IN RELATION TO RESISTANCE TO CORN EARWORM.
F S McCall W G Edan B W Arthur M C Cartar
J Econ Entom 56(6):902
Dec 1963 42I JB22
Amino acids, Corn silks, *Haliotis zea*, *Haliotis zea* (Boddia), Plant pest resistance.
- 1187-67**
FIELD TESTS WITH *BACILLUS THURINGIENSIS* BERLINER FOR CONTROL OF FOUR LEPIDOPTEROUS PESTS.
F L McEwan E H Glass A C Davis C M Splittstoesser
J Invertebrata Path 2(2):152-164, TABS.
1960 42I JB26
Argyrotaenia valutinana (Walker), *Bacillus thuringiensis* Berliner, *Carpocapsa pomonella* Linnaeus, Lepidoptera, *Plaris rapae* Linnaeus, *Trichoplusia ni* (Hubner).
- 1188-67**
CONTROL OF THREE IMPORTANT COTTON INSECTS IN THE LOWER RIO GRANDE VALLEY IN 1960.
R L McGarr A J Chapman
J Econ Entom 56(6):902-903
Dec 1963 42I J822
Anthonomus grandis Boheman, Cotton, *Haliotis zea* (Boddia), *Pactinophora gossypiella* (Saunders), Rio Grande Valley.
- 1189-67**
STUDIES OF RESISTANCE OF COTTON STRAINS TO THE BOLL WEEVIL.
M E Markl J R Mayer
J Econ Entom 56(6):860-862, B18L 861-862
Dec 1963 42I J822
Anthonomus grandis, *Anthonomus grandis* Boheman, Cotton, Plant pest resistance.
- 1190-67**
ATTRACTIVENESS OF ISOLATED GROUPS OF COTTON PLANTS TO MIGRATING BOLL WEEVILS.
W J Mistic Jr E R Mitchell
J Econ Entom 59(11):39-41
Feb 1966 42I J822
Anthonomus grandis, Cotton.
- 1191-67**
LOSSES CAUSED BY THE ANGIUMIS GRAMINUM IN DENT CORN.
S Moore III h B Patty W H Luckmann J H Byers
J Econ Entom 59(4):880-882, TABS.
Aug 1966 42I J822

BIBLIOGRAPHY

20 1192-67

- Dent corn, *Sitotroga cerealella*.
- 1192-67
ARGENTINE ANT CONTROL ON CITRUS IN CALIFORNIA WITH GRANULAR FORMULATIONS OF CERTAIN CHLORINATED HYDROCARBONS.
C H Musgrove G E Carman
J Econ Entom 58(3):428-434, TABS.
Jun 1965 421 JB22
California, Citrus, *Iridomyrmex humilis*, *Iridomyrmex humilis* (Mayr).
- 1193-67
TWO VARIETIES OF *SESBANIA GRANDIFLORA* AS FRUIT FLY HOSTS.
S Nakagawa T Yamada
J Econ Entom 58(4):796
Aug 1965 421 JB22
Plant hosts, *Sesbania grandiflora* (L), Tephritidae.
- 1194-67
FACTORS AFFECTING RESISTANCE OF SELECTED ALFALFA CLONES TO THE POTATO LEAFHOPPER.
R C Newton D K Barnes
J Econ Entom 58(3):435-439
Jun 1965 421 JB22
Alfalfa, Clones, *Empoasca fabae*, *Empoasca fabae* (Harris), Plant pest resistance.
- 1195-67
LEAFHOPPERS ATTACKING ALFALFA IN THE SALT RIVER VALLEY OF ARIZONA.
M W Nielson W E Currie
J Econ Entom 55(5):803-804
Oct 1962 421 JB22
Alfalfa, Arizona, Cicadellidae, Cicadellidae, Viruses.
- 1196-67
SCREENING ALFALFAS FOR RESISTANCE TO SOME COMMON INSECT PESTS IN ARIZONA.
M W Nielson M H Schonhorst
J Econ Entom 58(1):147-150
Feb 1965 421 JB22
Aceratagallia curvata Beamer, *Aceratagallia curvata* Oman, *Acyrtosiphon pisum* (Harris), Alfalfa, Arizona, *Frankliniella* spp, *Lygus hesperus* Knight, *Spissitillus festinus* (Say).
- 1197-67
WALKINSTICKS: AN UNUSUAL PEST ON SOUR CHERRY.
E R Datman
J Econ Entom 58(3):587-588
Jun 1965 421 JB22
Diapheromera femorata (Say), Phasmatidae, Sour cherries.
- 1198-67
PARASITIZATION OF CORN EARWORM EGGS ON SWEET CORN SILK IN SOUTHERN CALIFORNIA, WITH NOTES ON LARVAL INFESTATIONS AND PREDATORS.
E R Datman
J Econ Entom 59(4):830-835
Aug 1966 421 JB22
California, *Chrysopa* sp., Coccinellids, *Geocoris* sp., *Heliothis zea*, *Heliothis zea*, Insect eggs, Larvae, *Orius* sp., Parasitism, Predaceous insects, Sweetcorn silk, *Trichogramma pretiosum*.
- 1199-67
PROGRESS ON INSECTICIDAL CONTROL OF APPLE INSECTS.
E R Datman J L Libby
J Econ Entom 58(4):766-770, TABS.
Aug 1965 421 JB22
Apples, *Argyrotaenia velutinana*, *Argyrotaenia velutinana* (Walker), *Conotrachelus nenuphar*, *Conotrachelus nenuphar* (Herbst), Insecticides.
- 1200-67
RELATIONSHIP OF LEPIDOPTERA LIGHT-TRAP COLLECTIONS TO COTTON FIELD INFESTATIONS.
C R Parencia Jr C B Cowan Jr J W Davis
J Econ Entom 55(5):692-695
Oct 1962 421 JB22
Cotton, Insect collecting equipment, Insecticides, Lepidoptera, Light traps.
- 1201-67
INSECTICIDE TESTS AGAINST THRIPS ON COTTON.
T R Pfrimmer M E Merkl
J Econ Entom 55(4):516-518
Aug 1962 421 JB22
Cotton, Insect control, Insecticides, Thrips.
- 1202-67
SOME EFFECTS OF DDT ON *PULVINARIA VITIS* (L.) (HOMOPTERA: COCCIDAE) INFESTING PEACH IN ONTARIO.
J H H Phillips W L Putman D C Herne
Can Entom 94(5):449-458
May 1962 421 C16
Coccidae, DDT, *Grapholliha molesta*, *Grapholliha molesta* Busck, Homoptera, Peaches, *Pulvinaria vitis* (L.).
- 1203-67
WHEAT CROPS AND NATIVE PRAIRIE IN RELATION TO THE NUTRITIONAL ECOLOGY OF *CAMNULA PELLUCIDA* (SCUDDER) (ORTHOPTERA: ACRIDIDAE) IN SASKATEWAN.
R Pickford
Can Entom 95(7):764-770, BI8L. 769-770
Jul 1963 421 C16
Acrididae, *Camnula pellucida*, Orthoptera, Prairies, Saskatchewan, Wheat.
- 1204-67
NONINFECTIOUS CRINKLE LEAF ON SANTA ROSA PLUM.
T S Pine L C Cochran
Phytopatholo 50(10):701-703
Oct 1960 464.B P56
Crinkle (plums), Plant genetics, Plums.
- 1205-67
BIOLOGY OF THE BANDED CUCUMBER BEETLE, *DIABROTICA BALTEATA*, IN LOUISIANA.
H N Pitre Jr E J Kantack
J Econ Entom 55(6):904-906, TABS.
Dec 1962 421 JB22
Diabrotica balteata, *Diabrotica balteata*, Insect biology, Insect eggs, Larvae, Sweetpotatoes.
- 1206-67
INSECTICIDAL FIELD TRIALS FOR THE CONTROL OF POTATO APHIDS IN NEW BRUNSWICK, 1948-60.
D D Pond
J Econ Entom 55(3):306-308
Jun 1962 421 JB22
Insecticides, *Macrosiphum euphorbiae*, *Macrosiphum euphorbiae*, Toxicology.
- 1207-67
ENDOSULFAN, OXYDEMETONMETHYL, AND ENDRIN IN CONTROL OF THE GREEN PEACH APHID AND SUPPRESSION OF LEAF ROLL IN POTATOES IN EASTERN WASHINGTON.
D M Powell
J Econ Entom 59(6):1354-1357
Dec 1966 421 JB22
Endosulfan, Leaf roll (potatoes), *Myzus persicae*, *Oxydemetonmethyl*, Washington.
- 1208-67
OCCURRENCE AND FOOD OF SOME COCCINELLIDS (COLEOPTERA) IN ONTARIO PEACH ORCHARDS.
W L Putman
Can Entom 96(9):1149-1155
Sep 1964 421 C16
Coccinellids, Coleoptera, Ontario.
- 1209-67
RELATIONS BETWEEN *TYPHLODROMUS CAUDIGLANS* SCHUSTER (ACARINA: PHYTOSEIIDAE) AND PHYTOPHAGOUS MITES IN ONTARIO PEACH ORCHARDS.
W L Putman D H C Herne
Can Entom 96(7):925-943, BI8L. 942-943, TABS.
Jul 1964 421 C16
Acarina, Mites, Peaches, *Phytoseiidae*, *Typhlodromus caudiglans* Schuster.
- 1210-67
BACILLUS THURINGIENSIS AGAINST THE FALL CANKERWORM, *ALSO-PHILA POMETARIA*.
R J Quinton C C Doane
J Econ Entom 55(4):567-568
Aug 1962 421 JB22
Aisophila pometaria, *Aisophila pometaria* (Harris), *Bacillus thuringiensis*.
- 1211-67
SOD WEBWORM CONTROL ON NEWLYSET TOBACCO.
R L Rabb F E Guthrie
J Econ Entom 55(4):561-562
Aug 1962 421 JB22
Crambus caliginosellus (Clemens), Sod webworm, Tobacco.

- 1212-67
PREDICTING THRIPS POPULATIONS ON SEEDLING COTTON.
S R Race
J Econ Entom 58(5):1013-1014
Oct 1965 421 JB22
Cotton, Frankliniella occidentalis, Seedlings.
- 1213-67
VARIETAL RESISTANCE TO INSECT ATTACK IN VARIOUS CRUCIFEROUS CROPS.
E B Radcliffe R K Chapman
J Econ Entom 59(1):120-125
Feb 1966 421 JB22
Cruciferae, Hylemya brassicae (Bouche),
Insect resistant plants, Pieris rapae (L.),
Plutella maculipennis (Curtis), Triplusia ni (Hubner).
- 1214-67
PLANT RESISTANCE TO INSECT ATTACK IN COMMERCIAL CABBAGE VARIETIES.
E B Radcliffe R K Chapman
J Econ Entom 59(1):116-120
Feb 1966 421 JB22
Brevicoryne brassicae (L.), Cabbage,
Hylemya brassicae (Bouche), Insect resistant plants,
Pieris rapae (L.), Trichoplusia ni (Hubner).
- 1215-67
THE CONTROL OF THE PEAR LEAF BLISTER MITE WITH ENDOSULFAN.
I A Rammer R O Arlas E A Kurtz
J Econ Entom 56(5):664-666, TABS.
Oct 1963 421 JB22
Endosulfan, Eriophyes pyri, Eriophyes pyri (Pagenstecher),
Pears.
- 1216-67
EVALUATION OF THE EFFECTIVENESS OF CERTAIN INSECTICIDES FOR CONTROL OF THE VETCH BRUCHID.
N M Randolph
J Econ Entom 55(5):802
Oct 1962 421 JB22
Bruchus brachialis, Bruchus brachialis Fahraeus,
Insect control, Insecticides.
- 1217-67
INCIDENCE OF ASTER YELLOWS IN LETTUCE AS AFFECTED BY PLACEMENT OF SYSTEMIC INSECTICIDES.
W A Rawlins D Gonzalez
J Econ Entom 59(1):226-227
Feb 1966 421 JB22
Chlorogenus callistephi Holmes, Lettuce,
Systemic insecticides.
- 1218-67
EFFECT OF WATER SOLUBILITY AND SOIL MOISTURE UPON PLANT UPTAKE OF GRANULATED SYSTEMIC INSECTICIDES.
H T Reynolds R L Metcalf
J Econ Entom 55(1):2-5 TABS.
Feb 1962 421 JB22
Absorption (biological), Humidity, Insecticides, Solvents,
Water.
- 1219-67
EVALUATION OF SYSTEMIC INSECTICIDES FOR COTTON INSECT CONTROL.
R L Ridgway L J Gorzycki D A Lindquist
J Econ Entom 58(4):666-669, TABS.
Aug 1965 421 JB22
Cotton, Insect control, Insecticides.
- 1220-67
SESAME: A NEW HOST FOR TOBACCO BUDWORM AND BOLLWORM.
G W Rivers M V Melsch P J Hamman
J Econ Entom 58(5):1003-1004
Oct 1965 421 JB22
Heliothis virescens, Heliothis zea, Insect hosts, Sesame,
Sesame.
- 1221-67
EFFECT OF COMMON VARIABLES IN RICE PRODUCTION ON RICE WATER WEEVIL CONTROL.
L H Rolston P Rouse
J Econ Entom 57(3):395-397
Jun 1964 421 JB22
Lissorhoptrus oryzophilus, Lissorhoptrus oryzophilus, Rice,
Seed treatment.
- 1222-67
GERMINATION OF ALFAFA SEED TREATED WITH DRY AND LIQUID FORMULATIONS OF DI-SYSTON AND PHORATE.
Vincent D Roth
J Econ Entom 55(1):1-2
Feb 1962 421 JB22
Alfalfa, Di-Syston, Phorate, Seed germination.
- 1223-67
FIELD INFESTATION OF CORN IN INDIANA BY THE ANGOUMOIS GRAIN MOTH AND A RICE WEEVIL.
M P Russell
J Econ Entom 55(5):814-815
Oct 1962 421 JB22
Corn, Indiana, Sitophilus oryzae,
Sitophilus zea-mais Motschulsky, Sitotroga cerealella,
Sitotroga cerealella (Oliver).
- 1224-67
FUMIGATION OF APPLES TO CONTROL THE APPLE MAGGOT, RHAGOLETIS POMONELLA.
K H Sanford
J Econ Entom 55(5):724-727, TABS.
Oct 1962 421 JB22
Apples, Fumigation, Rhagoletis pomonella,
Rhagoletis pomonella (Walsh).
- 1225-67
BULK FUMIGATION OF APPLES WITH ETHYLENE DIBROMIDE UNDER PLASTIC TARPULINS FOR APPLE MAGGOT.
K H Sanford
J Econ Entom 55(5):659-661, TABS.
Oct 1962 421 JB22
Apples, Ethylene dibromide, Fumigation,
Rhagoletis pomonella, Rhagoletis pomonella (Walsh).
- 1226-67
THE REDUCTION OF INSECT-CAUSED APICAL SEEDINESS IN STRAWBERRIES.
G A Schaefers
J Econ Entom 59(3):698-706
Jun 1966 421 JB22
Apical seediness, Azinphosmethyl, Azodrin, Carbophenothion,
Dimethoate, Endosulfan, Ligus lineolaris, Methyl trithion,
Mevinphos, NAD, Parathion, Strawberries, Trichlorfon.
- 1227-67
CONTROL TESTS AGAINST THE TWO-SPOTTED SPIDER MITE, TETRANYCHUS TELARIUS (L.), ON STRAWBERRIES.
G A Schaefers
J Econ Entom 58(6):1089-1094, TABS.
Dec 1965 421 JB22
Strawberries, Tetranychus telarius (L.).
- 1228-67
LARVAL GROWTH AS A METHOD OF SCREENING TRITICUM SP. FOR RESISTANCE TO THE CEREAL LEAF BEETLE.
J A Schillinger
J Econ Entom 59(5):1163-1166
Oct 1966 421 JB22
Cereal leaf beetle, Insect resistant plants, Larvae,
Oulema melanopus (L.), Triticum sp..
- 1229-67
TESTS OF SYSTEMICS FOR CONTROL OF BIRCH LEAF MINER.
J C Schread
J Econ Entom 55(4):562-563
Aug 1962 421 JB22
Fenusa pusilla, Fenusa pusilla (Lepletier), Insect control,
Systemic insecticides, Trees.
- 1230-67
THE INFLUENCE OF FERTILIZERS ON SUGAR BEETS WHICH RECEIVED INSECTICIDE-FUNGICIDE SEED TREATMENTS.
J T Schulz
J Econ Entom 55(1):44-46, TABS.
Feb 1962 421 JB22
Fertilizers, Fungicides, Insecticides, Seed treatment,
Sugar beets.
- 1231-67
INSECTICIDE AND MICROBIAL DUSTS AND APPLICATION INTERVALS FOR CONTROL OF LETTUCE INSECTS.
M F Schuster
J Econ Entom 59(2):469-471, TABS.
Apr 1966 421 JB22
Aphididae, Dusting, Insect control, Insecticides, Lettuce,
Microorganisms.

BIBLIOGRAPHY

20 1232-67

- 1232-67
THE ROLE OF NEW INSECTICIDES FOR CONTROL OF RICE STEM BORER IN ORISSA.
G C Sengupta
J Econ Entom 56(6):B02-B04, TABS.
Dec 1963 421 JB22
India, Insecticides, Rice stem borer, Schoenobius incertulas Walker.
- 1233-67
THE RELATIONSHIP BETWEEN SPROUT INHIBITORS AND OVERWINTERING OF APHIDS ON OUTDOOR PILES OF CULL POTATOES.
W A Shands G W Simpson
J Econ Entom 56(6):B99-900
Dec 1963 421 JB22
Apididae, Hibernation, Plant growth inhibitors, Potatoes.
- 1234-67
DURATION OF CONTROL OF THE STRAWBERRY APHID BY SEVERAL CHEMICALS.
C H Shanks Jr
J Econ Entom 56(4):535-536
Aug 1963 421 JB22
Chaetosiphon fragaefolii, Insecticides, Pentatrichopus fragaefolii (Cockerell), Strawberries.
- 1235-67
HOSTS PLANTS OF THE PINK BOLLWORM.
I Shiller L W Noble L C Fife
J Econ Entom 55(1):67-70
Feb 1962 421 JB22
Cotton, Okra, Okra, Pectinophora gossypiella.
- 1236-67
BIOLOGICAL CONTROL OF THE COCONUT SCALE, ASPIDIOTUS DESTRUCTOR SIGN., IN PRINCIPE, PORTUGUESE WEST AFRICA.
F J Simmonds
Bull Entomol R 51(2):223-237
Jul 1960 421 BB7
Aspidiotus destructor Sign., Biological control (insects), Coconuts, Cryptognatha nodiceps, Portuguese West Africa, Principe.
- 1237-67
THE ADSORPTION AND RETENTION OF ETHYLENE DIBROMIDE BY FUMIGATED CITRUS AND AVOCADO FRUITS.
W B Sinclair D E Lindgren R Forbes
J Econ Entom 55(2):236-240
Apr 1962 421 JB22
Adsorption, Avocados, Citrus, Ethylene dibromide, Fumigation.
- 1238-67
APPLICATION OF SYSTEMIC INSECTICIDES AS SEED TREATMENT TO PROTECT WHEAT PLANTS AGAINST GRASSHOPPERS AND WHEAT STEM SAWFLY.
F E Skoog L E Wallace
J Econ Entom 57(2):199-205, TABS.
Feb 1964 421 JB22
Cephus cinctus, Cephus cinctus, Grasshoppers, Insecticide application, Systemic insecticides, Wheat.
- 1239-67
CONTROL OF THE PEACH TREE BORER ON YOUNG PEACH TREES BY A TREATMENT BEFORE PLANTING.
E H Smith
J Econ Entom 55(3):294-298, PL.
Jun 1962 421 JB22
Insecticides, Peaches, Sanninoidea exitiosa, Sanninoidea exitiosa, Tree planting.
- 1240-67
PEACH TREE BORER EXPERIMENTS IN PEACH ORCHARDS.
O I Snapp
J Econ Entom 55(3):418-419
Jun 1962 421 JB22
Peaches, Sanninoidea exitiosa, Sanninoidea exitiosa, Spraying.
- 1241-67
SECONDARY BAGWORM INJURY.
L J Stannard Jr
J Econ Entom 57(1):176, PL.
Feb 1964 421 JB22
Girdling (insects), Thyridopteryx ephemeraeformis, Thyridopteryx ephemeraeformis.
- 1242-67
A FIELD TEST OF LINDANE FOR PREVENTION AND CONTROL OF ATTACK BY IPS CONFUSUS (LECONTE) (COLEOPTERA:SCOLYTIDE) IN SLASH.
R W Stark J H Borden
J Econ Entom 58(5):994-996
Oct 1965 421 JB22
Field test, Ips confusus, Lindane, Pinus.
- 1243-67
DAMAGE TO CORN BY THE PINK SCAVENGER CATERPILLAR AND ITS RELATIONSHIP TO CORN EARWORM AND RICE WEEVIL DAMAGE.
K J Starks H C Cox W W McMillan R L Burton
J Econ Entom 59(4):931-934, TABS.
Aug 1966 421 JB22
Corn, Heliothis zea, Heliothis zea, Sathrobrotia rileyi, Sathrobrotia rileyi, Sitophilus oryzae, Sitophilus oryzae.
- 1244-67
CONTROL OF PLANT BUGS AND OTHER INSECTS ON KENTUCKY BLUEGRASS GROWN FOR SEED.
K J. Starks R Thurston
J Econ Entom 55(6):993-997, TABS.
Dec 1962 421 JB22
Insects, Miridae, Miridae, Poa, Poa, Seeds.
- 1245-67
EXPERIMENT ON ALFALFA INSECT CONTROL IN MARYLAND.
A L Steinhauer C C Blickenstaff V E Adier
J Econ Entom 55(5):718-722, TABS.
Oct 1962 421 JB22
Alfalfa, Insect control, Insecticides.
- 1246-67
EFFECT OF INFESTATION BY THE RICE STINK BUG, OEBALUS PUGNAX ON YIELD AND QUALITY IN RICE.
M C Swanson L D Newsom
J Econ Entom 55(6):877-879
Dec 1962 421 JB22
Crop yields, Oebalus pugnax, Rice.
- 1247-67
INSECTICIDES FOR TOBACCO FLEA BEETLE CONTROL ON CIGAR-WRAPPER TOBACCO.
W B Tappan
J Econ Entom 58(4):730-732
Aug 1965 421 JB22
Cigar-wrapper tobacco, Epitrix hirtipennis, Epitrix hirtipennis (Melshelmer), Insecticides.
- 1248-67
ASTER YELLOW CONTROL IN HEAD LETTUCE AND CARROTS IN PRINCE EDWARD ISLAND.
L S Thompson
J Econ Entom 58(1):135-137
Feb 1965 421 JB22
Aster yellows (carrots), Carrots, Lettuce, Macrosteles fascifrons (Stal), Prince Edward Island, Viruses, Yellows (lettuce).
- 1249-67
EFFECT OF INSECTICIDES ON THE GREEN PEACH APHID, MYZUS PERSICAE (SULZER), INFESTING BURLEY TOBACCO.
R Thurston
J Econ Entom 58(6):1127-1130, TABS.
Dec 1965 421 JB22
Air-cured tobacco, Insecticides, Myzus persicae, Myzus persicae (Sulzer).
- 1250-67
THE SAWFLY ATOMACERA DECEPTA, A PEST OF HIBISCUS.
H H Tippins
J Econ Entom 58(1):161
Feb 1965 421 JB22
Argidae, Hibiscus, Plant pest resistance.
- 1251-67
THE RESPONSE OF CRANBERRY FRUITWORM TO BLACK LIGHT.
W E Tomlinson Jr
J Econ Entom 55(4):573
Aug 1962 421 JB22
Acrobasis vaccinii, Light traps.
- 1252-67
CONTROL OF LICHTNANTHE VULPINA IN CRANBERRY BOGS.
W E Tomlinson Jr
J Econ Entom 55(4):572-573
Aug 1962 421 JB22
Cranberry bogs, Larvae, Lichtnanthe vulpina (Hentz).

- 1253-67
CONTROLLING THE CORN LEAF APHID, RHOPALOSIPHUM MAIDIS, IN GREENHOUSES.
C A Triplehorn
J Econ Entom 55(4):570
Aug 1962 421 J822
Greenhouses, Rhopalosiphum maidis,
Rhopalosiphum maidis (Fitch).
- 1254-67
APHIDECTA OBLITERATA (COLEOPTERA: COCCINELLIDAE), AN INTRODUCED PREDATOR OF THE BALSAM WOOLLY APHID, CHERMES PICEAE (HOMOPTERA: CHERMIDAE), ESTABLISHED IN NORTH CAROLINA.
J Econ Entom 59(3):506-508
Jun 1966 421 J822
Aphidecta obliterata, Chermes piceae, Chermes piceae, Chermidae, Coccinellidae, Coleoptera, Homoptera, Predaceous insects.
- 1255-67
EFFECTS OF THE BOLL WEEVIL AND BOLLWORM ON COTTON QUALITY.
J K Walker R L Hanna
J Econ Entom 59(2):265-267, TABS
Apr 1966 421 J822
Anthonomus grandis, Anthonomus grandis Boheman, Cotton, Crop yields, Heliothis zea, Heliothis zea (Boddie).
- 1256-67
FIELD-PLOT TESTS OF CHEMICALS FOR WHEAT STEM SAWFLY CONTROL.
L W Wallace
J Econ Entom 55(6):908-912
Dec 1962 421 J822
Cephus cinctus, Cephus cinctus, Chemicals, Insect control, Wheat.
- 1257-67
HOST PLANT PREFERENCE OF THE SIX-SPOTTED LEAFHOPPER.
R L Wallis
J Econ Entom 55(6):998-999
Dec 1962 421 J822
Host plants, Macrosteles fascifrons, Macrosteles fascifrons, Ornamental plants, Vegetables.
- 1258-67
A FIELD TEST WITH INSECTICIDES TO CONTROL THE SCALE FLORINIA EXTERNA ON CANADIAN HEMLOCK.
W E Wallner
J Econ Entom 55(5):798-799
Oct 1962 421 J822
Florinia externa (Ferris), Insecticides, Scales (insects), Tsuga.
- 1259-67
NORTHERN CORN ROOTWORM RESISTANCE IN SWEET CORN.
E V Walter
J Econ Entom 58(6):1076-1078
Dec 1965 421 J822
Diabrotica longicornis, Diabrotica longicornis (Say), Plant hardiness, Sweetcorn.
- 1260-67
INFLUENCE OF THRIPS ON COTTON YIELDS IN ALABAMA.
T F Watson
J Econ Entom 58(6):1118-1122, TABS.
Dec 1965 421 J822
Alabama, Cotton, Frankliniella fusca, Frankliniella fusca (Hinds), Frankliniella tritici, Frankliniella tritici (Fitch), Thrips tabaci, Thrips tabaci.
- 1261-67
COMPARISON OF INSECTICIDE APPLICATION SCHEDULES FOR CONTROL OF COTTON INSECTS.
T F Watson M C Sconyers
J Econ Entom 58(6):1124-1127, TABS.
Dec 1965 421 J822
Anthonomus grandis, Anthonomus grandis Boheman, Cotton, Heliothis virescens, Heliothis zea, Heliothis zea (Boddie), Insecticide application.
- 1262-67
SEASONAL DISTRIBUTION OF DROSOPHILID FLIES IN BELTSVILLE, MARYLAND, TOMATO FIELDS.
H E Wave
J Econ Entom 55(3):409-411
Jun 1962 421 J822
Diptera, Diptera, Drosophilidae, Insect control, Tomatoes.
- 1263-67
COMPARATIVE SUSCEPTIBILITY OF LONG- AND SHORT-STAPLE COTTON VARIETIES TO BOLLWORM INJURY IN ARIZONA.
G P Wene L W Sheets
J Econ Entom 59(6):538-539
Dec 1966 421 J822
Arizona, Cotton, Heliothis zea, Heliothis zea.
- 1264-67
WHITE SPRUCE SEED LOSS CAUSED BY INSECTS IN INTERIOR ALASKA.
R A Werner
Can Entom 96(11):1462-1464
Nov 1964 421 C16
Alaska, Picea glauca.
- 1265-67
PSYLLA PYRICOLA FOERSTER SUPPRESSES PEAR TREE ROOT DEVELOPMENT.
W H A Wilde D L McIntosh
Can Entom 96(8):1083-1087
Aug 1964 421 C16
Psylla pyricola Foerster.
- 1266-67
THE SPINED STINK BUG: CAUSE OF COTTONY SPOT IN PEAR IN BRITISH COLUMBIA.
J M Wiiks
Can Entom 96(9):1198-1201
Sep 1964 421 C16
British Columbia, Cottony spot (pears), Euschistus variolarius (Beauv.).
- 1267-67
LOW-VOLUME CONCENTRATE SPRAYS APPLIED BY AIRCRAFT FOR CONTROL OF THE CEREAL LEAF BEETLE.
M Wilson R F Ruppel R E Treece
J Econ Entom 58(1):11-14
Feb 1965 421 J822
Aircraft disinfection, Cereal leaf beetle, Insect control, Oulema melanopa (L), Spraying.
- 1268-67
DETECTING CORN SEEDLING DIFFERENCES IN THE GREENHOUSE BY VISUAL CLASSIFICATION OF DAMAGE BY THE FALL ARMYWORM.
R R Wiseman R H Painter C E Wasson
J Econ Entom 59(5):1211-1214
Oct 1966 421 J822
Corn, Greenhouse culture, Seedlings, Spodoptera frugiperda, Spodoptera frugiperda (J. E. Smith), Visual classification.
- 1269-67
TOMATO YIELDS AND LEAF MINER INFESTATIONS AND A SEQUENTIAL SAMPLING PLAN FOR DETERMINING NEED FOR CONTROL TREATMENTS.
D A Wolfenbarger D O Wolfenbarger
J Econ Entom 59(2):279-283, TABS.
Apr 1966 421 J822
Chemical control (insects), Crop yields, Leaf miners, Liriomyza sp., Tomatoes.
- 1270-67
TOMATO, LYCOPERSICON ESCULENTUM, AND LYCOPERSICON SPECIES AND GENETIC MARKERS IN RELATION TO MITE, TETRANYCHUS MARIANAE, INFESTATIONS.
D A Wolfenbarger
J Econ Entom 58(5):891-893
Oct 1965 421 J822
Lycopersicon peruvianum, Mites, Tetranychus marianae, Tomatoes, Tomatoes.
- 1271-67
VARIATION IN SUSCEPTIBILITY OF SOYBEAN PUBESCENT TYPES, BROAD BEAN, AND RUNNER BEAN VARIETIES AND PLANT INTRODUCTIONS TO THE POTATO LEAFHOPPER.
D A Wolfenbarger J P Slesman
J Econ Entom 56(6):895-897
Dec 1963 421 J822
Broadbeans, Emposca fabae, Emposca fabae (Harris), Plant pest resistance, Runner beans, Soybeans.
- 1272-67
THE BANDED CUCUMBER BEETLE AND ITS CONTROL.
D O Wolfenbarger
J Econ Entom 56(6):770-773, TABS.
Dec 1963 421 J822
Cucumbers, Diabrotica balteata, Diabrotica balteata (LeConte).

BIBLIOGRAPHY

20 1273-67

- 1273-67
TOLERANCE OF AVOCADOS TO ETHYLENE CHLOROBROMIDE AND ETHYLENE
DIBROMIDE DIPPING AND FUMIGATION.
D O Wolfenbarger
J Econ Entom 55(4):556-557
Aug 1962 421 J822
Avocados, Bromochloroethane, Ethylene dibromide, Fumigation,
Insect control.
- 1274-67
VARIATIONS IN LEAF MINER AND FLEA BEETLE INJURIES IN TOMATO
VARIETIES.
Da Wolfenbarger
J Econ Entom 59(1):65-68
Feb 1966 421 JB22
Chrysomelidae, Epitrix hertipennis (Meisheimer), Injuries,
Tomatoes.
- 1275-67
EFFECT OF FOLIAGE INFESTATION OF THE ENGLISH GRAIN APHID ON
YIELD OF TRIUMPH WHEAT.
E A Wood Jr
J Econ Entom 58(4):778-779
Aug 1965 421 J822
Crop yields, Macrosiphum avenae, Macrosiphum avenae (F),
Schizaphis graminum, Schizaphis graminum (Rondani), Wheat.
- 1276-67
EXPERIMENTS ON THE INTERRELATIONSHIP BETWEEN OLEORESIN
EXUDATION PRESSURE IN PINUS PONDEROSA AND ATTACK BY IPS
CONFUSUS (LEC.) (COLEOPTERA: SCOLYTIDAE).
D L Wood
Can Entom 94(5):473-477
May 1962 421 C16
Coleoptera, Ips confusus, Ips confusus (LeConte),
Oleoresins, Pinus ponderosa, Scolytidae.
- 1277-67
THE DAMAGE CONTROL OF CLIMBING CUTWORMS IN COMMERCIAL FIELDS
OF LOWBUSH BLUEBERRY.
G W Wood
J Econ Entom 57(3):384-385
Jun 1964 421 J822
Blueberries, Insect behavior, Noctuidae, Noctuidae.
- 1278-67
USE OF HERBICIDES TO BREAK THE LIFE CYCLE OF THE BENTGRASS
NEMATODE, ANGUINA AGROSTIS (STEINBUCK 1799) FILIPJEV 1936.
W J Apt H M Austenson W D Courtney
Plant Dis R 44(7):524-526
15 Jun 1960 1.9 P69P
Agrostis, Agrostis, Anguina agrostis, Bentgrass nematode,
Herbicides.
- 1279-67
GROWTH STUDIES OF A CATENARIA SP. INFECTING NEMATODES.
W Birchfield
Phytopatholo 50(9):629
Sep 1960 464.8 P56
Catenaria, Plant nematodes, Plant physiology.
- 1280-67
RESISTANCE TO THE ROOT-KNOT NEMATODE, MELOIDOGYNE INCOGNITA
ACRITA, IN UPLAND COTTON SEEDLINGS.
B B Brodie L A Brinkerhoff F B Struble
Phytopatholo 50(9):673-677, TABS
Sep 1960 464.8 P56
Cotton, Meloidogyne incognita acrita, Root knot (cotton),
Seedlings.
- 1281-67
POPULATION DEVELOPMENT OF MELOIDOGYNE ARENARIA IN RED CLO-
VER.
R A Chapman
Phytopatholo 50(9):631
Sep 1960 464.8 P56
Meloidogyne arenaria, Population, Red clover.
- 1282-67
NEMIC PARASITES OF COFFEE IN GUATEMALA.
B G Chitwood C Berger
Phytopatholo 50(9):631
Sep 1960 464.8 P56
Coffee, Guatemala, Parasitism, Plant nematodes.
- 1283-67
MELOIDOGYNE FROM TAIWAN AND NEW DELHI.
B G Chitwood M Toung
Phytopatholo 50(9):631-632
Sep 1960 464.8 P56
Citrus reticulata austera, Meloidogyne, New Delhi, Taiwan.
- 1284-67
RECENT DEVELOPMENTS IN STING NEMATODE CONTROL ON PEANUTS.
W E Cooper J N Sasser
Phytopatholo 50(9):632
Sep 1960 464.8 P56
Peanuts.
- 1285-67
AN ASSAY FOR THE DETECTION OF NEMATODE REPELLENTS.
D Davis J E Deak
Plant Dis R 44(8):622-624
15 Aug 1960 1.9 P69P
Assay, Nematode repellents.
- 1286-67
POPULATION VARIATION OF PRATYLENCHUS PENETRANS AND OTHER
NEMATODES ASSOCIATED WITH ROOTS.
A A Di Edwardo
Phytopatholo 50(9):633
Sep 1960 464.8 P56
Plant nematodes, Population statistics,
Pratylenchus penetrans, Roots.
- 1287-67
RELATIONSHIPS OF POPULATION INCREASE OF PRATYLENCHUS PENE-
TRANS TO VEGETATIVE GROWTH OF WANDO PEAS.
J S Doiliver D G Clark W F Mai
Phytopatholo 50(4):239
Apr 1960 464.8 P56
Pratylenchus penetrans, Wando peas.
- 1288-67
RECOVERY OF NEMATODES FROM INFECTED ROOTS BY ENZYME PREPARA-
TIONS.
V H Dropkin W L Smith Jr
Phytopatholo 50(9):634
Sep 1960 464.8 P56
Enzymes, Erwinia carotovora, Plant nematodes, Roots.
- 1289-67
EVALUATION OF CROPS ROTATION AND SOIL FUMIGATION FOR CON-
TROLLING THE SOYBEAN CYST NEMATODE.
J M Epps
Phytopatholo 50(9):635
Sep 1960 464.8 P56
Crop rotation, Heterodera glycines, Soil fumigation,
Soybeans.
- 1290-67
MOVEMENT OF RADOPHOLUS SIMILIS INTO ROUGH LEMON FEEDER
ROOTS AND IN SOIL, AND ITS RELATION TO FUSARIUM IN THE
ROOTS.
J Feldmesser R C Cetas G R Grimm R V Rebois R Whidden
Phytopatholo 50(9):635
Sep 1960 464.8 P56
Fusarium, Lemons, Radopholus similis, Roots.
- 1291-67
EFFECT OF STORAGE TEMPERATURES ON SURVIVAL OF PLANT PARASIT-
IC NEMATODES IN SOIL.
J M Ferris
Phytopatholo 50(9):635
Sep 1960 464.8 P56
Parasitism, Plant nematodes, Soil sampling, Storage,
Temperature.
- 1292-67
CITRUS VARIETIES, HYBRIDS, SPECIES AND RELATIVES EVALUATED
FOR RESISTANCE TO THE BURROWING NEMATODE, RADOPHUS SIMILIS.
H W Ford W A Feder P C Hutchins
Plant Dis R 44(6):405
15 Jun 1960 1.9 P69P
Citrus, Hybrids, Nematodes, Plant nematode resistance,
Radopholus similis, Radopholus similis.

Nematodes

BIBLIOGRAPHY

20 1313-67

- 1293-67
COMPARISON OF BACILLUS THURINGIENSIS BERLINER VAR. THURINGIENSIS AND CHEMICAL INSECTICIDES FOR CONTROL OF THE ALFALFA CATERPILLAR.
I M Hall V M Stern
J Econ Entom 55(6):862-865
Dec 1962 421 JB22
Bacillus thuringiensis Berliner, Chemicals, Colias eurytheme, Colias eurytheme, Insecticides.
- 1294-67
THE REACTIONS OF THREE GOLDEN NEMATODE POPULATIONS TO RESISTANT AND SUSCEPTIBLE POTATO SELECTIONS.
M B Harrison
Phytopatholo 50(9):63B
Sep 1960 464.8 P56
Heterodera rostochiensis, Population, Potatoes.
- 1295-67
MECHANISM OF SWARMING IN TYLENCHLORHYNCHUS SPECIES (NEMATODA, TYLENCHIDA).
J P Hollis
Phytopatholo 50(9):639
Sep 1960 464.8 P56
Nematoda, Swarming, Tylenchida, Tylenchorhynchus.
- 1296-67
GREENHOUSE PATHOGENICITY TRIALS WITH NEMATODE-INFESTED SOIL.
J P Hollis W J Martin
Phytopatholo 50(9):639-640
Sep 1963 464.8 P56
Greenhouse culture, Nematodes, Soil microorganisms, Trichoderma.
- 1297-67
CHEMICAL CONTROL OF SLUGS AFFECTING VEGETABLES AND STRAWBERRIES IN THE PACIFIC NORTHWEST.
A J Howitt S G Cole
J Econ Entom 55(3):320-325, TABS.
Jun 1962 421 JB22
Chemicals, Plant pest control, Slugs, Strawberries, Vegetables.
- 1298-67
EFFECTS OF CERTAIN PHOSPHORODITHIOATE COMPOUNDS UPON POPULATIONS OF PRATYLENCHUS PENETRANS.
H J Jensen D E Konicek
Phytopatholo 50(9):640
Sep 1960 464.8 P56
Lilium longiflorum, Phosphorodithioate compounds, Population, Pratylenchus penetrans.
- 1299-67
HYDROLYTIC AND RESPIRATORY ENZYMES OF SPECIES OF DITYLENCHUS AND PRATYLENCHUS.
L R Krusberg
Phytopatholo 50(1):9-21
Jan 1960 464.8 P56
Ditylenchus dipsaci, Ditylenchus trifolii, Enzymes, Pratylenchus zeae.
- 1300-67
CULTURING, HISTOPATHOLOGY, AND BIOCHEMISTRY OF DITYLENCHUS DIPSACI AND APHELENCHOIDES RITZEMA-BOSI ON ALFALFA TISSUES.
L R Krusberg
Phytopatholo 50(9):643
Sep 1960 464.8 P56
Alfalfa, Aphelenchoides ritzema-bosi, Culture media, Ditylenchus dipsaci, Plant biochemistry, Plant diseases.
- 1301-67
NEMATODES ASSOCIATED WITH RED CLOVER IN ITS SECOND GROWTH YEAR.
N E Lau J P Reed
Plant Dis R 44(6):402
15 Jun 1960 1.9 P69P
Nematodes, Parasitic nematodes, Red clover.
- 1302-67
EXTRACTION OF DITYLENCHUS DIPSACI FROM ORGANIC SOIL AND DRIED ONION SCALES.
G D Lewis
Phytopatholo 50(4):240
Apr 1960 464.8 P56
Ditylenchus dipsaci, Onions.
- 1303-67
GROWTH OF APPLE SEEDLINGS IN RELATION TO SOIL TEMPERATURE AND INOCULATION WITH PRATYLENCHUS PENETRANS.
W F Mai
Phytopatholo 50(3):237-238
Mar 1960 464.8 P56
Apples, Immunization, Pratylenchus penetrans, Seedlings, Soil temperature.
- 1304-67
THE USE OF NEMATODE-TRAPPING FUNGI TO CONTROL ROOT-KNOT NEMATODES.
R Mankau
Phytopatholo 50(9):645
Sep 1960 464.8 P56
Fungi, Root-knot nematodes.
- 1305-67
EFFECTS OF SOIL FUMIGANTS ON THE OCCURRENCE OF NEMATODES IN FIELD BINS.
E B Minton E J Cairns A L Smith
Plant Dis R 44(7):479-483
15 Jul 1960 1.9 P69P
Field bins, Nematodes, Plant nematodes, Soil fumigation.
- 1306-67
NEMATODES ASSOCIATED WITH ROOTLETS OF WESTERN WHITE PINE IN NORTHERN IDAHO.
W R Nickle
Plant Dis R 44(7):470-471
15 Jul 1960 1.9 P69P
Nematodes, Parasitic nematodes, Pinus monticola, Pinus monticola, Roots.
- 1307-67
PRELIMINARY STUDIES WITH DBCP COTTON SEED TREATMENT FOR CONTROLLING THE ROOT-KNOT NEMATODE.
J H O Bannon H W Reynolds
Plant Dis R 44(7):484-487
15 Jul 1960 1.9 P69P
Cotton, DBCP, Plant nematodes, Root knot nematode, Seed treatment.
- 1308-67
PHYSIOLOGICAL AND BIOCHEMICAL STUDIES ON NEMATODE GALLS.
R G Owens H M Novotny
Phytopatholo 50(9):650
Sep 1960 464.8 P56
Meloidogyne incognita incognita, Nematodes, Plant biochemistry, Plant galls, Plant physiology.
- 1309-67
REACTION OF SIXTEEN VARIETIES OF ALFALFA TO TWO SPECIES OF ROOT-KNOT NEMATODES.
H W Reynolds J H O Bannon
Plant Dis R 44(6):441
15 Jun 1960 1.9 P69P
Alfalfa, Plant nematodes.
- 1310-67
HETERODERA TRIFOLII, A FOLIAGE PATHOGEN OF WHITE CLOVER.
J P Ross
Phytopatholo 50(II):866-867
Nov 1960 464.8 P56
Heterodera trifolii, White clover.
- 1311-67
THE EFFECT OF SOIL TEMPERATURES ON DEVELOPMENT OF HETERODERA GLYCINES IN SOYBEANS.
J P Ross
Phytopatholo 50(9):652
Sep 1960 464.8 P56
Heterodera glycines, Soil temperature, Soybeans.
- 1312-67
CHEMICAL CONTROL OF PLANT-PARASITIC NEMATODES IN PLANT ROOTS.
S A Sher
Phytopatholo 50(9):654
Sep 1960 464.8 P56
Chemical control (nematodes), Parasitism, Plant nematodes, Roots.
- 1313-67
DIKETICUS KIRBYI (LEPIDOPTERA: PSYCHIDAE) A PEST OF BANANAS IN COSTA RICA.
C S Stephens
J Econ Entom 55(3):381-386, TABS.
Jun 1962 421 JB22
Bananas, Larvae, Lepidoptera: Psychidae, Diketeticus kirbyi, Thyrldopteryx ephemeraeformis.

20 1314-67

1314-67
OXYGEN TOLERANCES OF FOUR PLANT-PARASITIC NEMATODES.
L H Stolzy S D Van Gundy J Letey Jr
Phytopatholo 50(9):656
Sep 1960 464.B P56
Oxygen, Parasitism, Plant nematodes.

1315-67
A MODIFICATION OF THE BUCHNER FUNNEL METHOD FOR TRANSFER-
RING AND CONCENTRATING NEMATODES.
L W Storm N S Storm D A Dahlgren
Plant Dis R 44(6):450
15 Jun 1960 1.9 P69P
Buchner funnel method, Larvae, Nematode extraction,
Nematodes.

1316-67
EFFECT OF DELAYED SPRAYING ON CANKERWORM CONTROL.
H E Thompson
J Econ Entom 55(4):55B-559
Aug 1962 421 J822
Aisophila pometaria, Palearcitra vernata, Pest control,
Spraying, Trees.

1317-67
THE EFFECT OF HOT WATER AT DIFFERENT TEMPERATURES ON LARVAE
OF VARIOUS SPECIES OF MELOIDOGYNE.
J T Walker
Phytopatholo 50(9):658
Sep 1960 464.8 PS6
Hot water treatment (nematodes), Larvae, Meloidogyne,
Temperature.

1318-67
DAGGER NEMATODES ASSOCIATED WITH FORAGE CROPS IN NEW YORK.
C H Ward
Phytopatholo 50(9):6S8
Sep 1960 464.8 PS6
Crops, Forage plants, New York, Xiphinema americanum.

1319-67
NEMATODE CONTROL ON ROSES WITH ROOT DIP TREATMENTS.
C E Williamson M C Harrison
Phytopatholo 50(9):659
Sep 1960 464.B PS6
Plant nematodes, Root dip treatment, Rosa.

Weeds

1320-67
SOME CONCEPTS ON THE ECOLOGICAL BASIS OF BIOLOGICAL CONTROL
OF WEEDS.
C B Huffaker
Can Entom 94(S):S07-S14, B18L. S14
May 1964 421 C16
Biological control (weeds), Plant ecology, Weed control.

Other

1321-67
A LABORATORY METHOD FOR EVALUATING CHEMICALS AS BIRD
REPELLENTS.
R I Starr J F Besser R B Brunton
J Agr Food Ch I2(4):342-344
Jul 1964 381 J8223
Bird pests, Bird repellents, Red-winged blackbird.

30 LIVESTOCK PROTECTION

Diseases

1322-67
CONTROL OF MINK MYIASIS CAUSED BY THE LARVAE OF WOHLFAHRTIA
VIGIL.
J L Eschle G R DeFoliart
J Econ Entom 58(3):S29-S31
Jun 1965 421 J822
Diptera, Insect vectors, Minks, Myiasis, Sarcophagidae,
Wohlfahrtia vigil (Walker).

1323-67
SUPPLEMENTATION OF CHICK DIETS WITH VITAMIN E TO IMPROVE
MEAT QUALITY.
B Laksesveia
J Sci Food A 11(3):128-133, TABS.
Mar 1960 382 S012
Chicks, Diet, Poultry meat.

1324-67
STUDY OF SOME MINERAL MIXTURES DESIGNED FOR DAIRY COWS.
R C Noble B Thomas
J Sci Food A 11(9):485-497
Sep 1960 382 S012
Dairy cattle, Minerals.

1325-67
BONE-TAINT IN BEEF.- II. BACTERIA IN ISCHIATIC LYMPH
NODES.
P M Nottingham
J Sci Food A 11(8):436-441, TABS.
Aug 1960 382 S012
Bacteria, Beef, Bone-taint, Bones, Lymph nodes.

1326-67
CONTROL OF THE HACKBERRY-NIPPLE GALL MAKER WITH NEW ORGANIC
INSECTICIDES.
H E Thompson
J Econ Entom 55(4):SS5-SS6, TABS.
Aug 1962 421 J822
Insecticides, Organic compounds, Pachypsylla celtidismamma,
Pachypsylla celtidismamma, Pest control.

Arthropods

1327-67
LARVICIDES FOR THE CONTROL OF HOUSE FLIES IN POULTRY
HOUSES.
U E Brady Jr G C LaBrecque
J Econ Entom 59(6) IS2I
Dec 1966 421 J822
Larvicides, Musca domestica, Musca domestica,
Poultry manure.

1328-67
EFFECTS OF CERTAIN SYSTEMIC INSECTICIDES IN BACKRUBBERS FOR
CATTLE GRUB CONTROL.
J R Brethour T L Harvey
J Econ Entom 55(5):811-812
Oct 1962 421 J822
Backrubbers, Hypoderma, Hypoderma spp., Insecticides.

1329-67
THE METABOLISM OF P32-LABELED CIODRIN IN A LACTATING GOAT.
W F Chamberlain
J Econ Entom 57(3):329-331
Jun 1964 421 J822
Clodrin, Goats, Metabolism.

1330-67
OIL-BASED AND WATER-BASED CIODRIN SPRAYS FOR FLY CONTROL ON
DAIRY CATTLE.
Tien-Hsi Cheng A A Hower R K Sprenkel

- J Econ Entom 58(5):910-913
Oct 1965 421 JB22
Clodrin, Dairy cattle, Diptera, Haematobia irritans, Musca autumnalis, Spraying, Stomoxys calcitrans.
- 1331-67
TESTS WITH SYSTEMIC INSECTICIDES IN RABBITS AS TOXICANTS FOR BODY LICE.
M M Cole D L Van Natta
J Econ Entom 57(1):67-70, B1BL. 70
Feb 1964 421 JB22
Pediculus humanus humanus, Pediculus humanus humanus, Rabbits, Systemic insecticides, Toxicology.
- 1332-67
DIMENSIONS OF THE CLEAR AREAS IN THE SKIN OF CHICKS THAT RESULTED FROM THE FEEDING BY LARVAE OF TWO STRAINS OF TROMBICULA SPLENDENS AT DIFFERENT PERIODS.
H F Cross
J Econ Entom 55(1):27-33
Feb 1962 421 JB22
Chicks, Feeding, Larvae, Trombicula splendens, Trombiculidae.
- 1333-67
EXPERIMENTS WITH HOMOGENATES OF LARVAE OF TROMBICULA SPLENDENS.
H F Cross
J Econ Entom 55(3):403-404
Jun 1962 421 JB22
Animals, Homogenization, Larvae, Trombicula splendens, Trombiculidae.
- 1334-67
IN VIVO STUDIES OF TISSUE REACTION IN CHICKS RESULTING FROM THE FEEDING BY LARVAE OF TROMBICULA SPLENDENS.
H F Cross
J Econ Entom 55(1):22-26, TABS.
Feb 1962 421 JB22
Chicks, Feeding, Larvae, Tissues, Trombicula splendens, Trombiculidae.
- 1335-67
PREVENTIVE SPRAYING SCHEDULES FOR DAIRY FARM FLY CONTROL.
G R DeFoliart
J Econ Entom 56(5):649-654, TABS.
Oct 1963 421 JB22
Dairy farms, Haematobia irritans (L.), Musca autumnalis DeGeer, Musca domestica L., Spraying, Stomoxys calcitrans (L.).
- 1336-67
CATTLE GRUB CONTROL BY THE ADDITION OF A SYSTEMIC INSECTICIDE TO DRINKING WATER.
R C Dobson D P Sanders
J Econ Entom 56(5):717-718
Oct 1963 421 JB22
Hypoderma, Hypoderma bovis (L.), Hypoderma lineatum (de Villers), Systemic insecticides, Water treatment.
- 1337-67
FACE FLY AND HORN FLY CONTROL ON CATTLE - 1962-1964.
C K Dorsey J O Heishmann C J Cunningham
J Econ Entom 59(3):726-732
Jun 1966 421 JB22
Cattle, Haematobia irritans, Haematobia irritans, Insecticides, Musca autumnalis, Musca autumnalis.
- 1338-67
LOW-VOLUME DERMAL APPLICATIONS AND INJECTIONS OF CO-RAL FOR SYSTEMIC CONTROL OF CATTLE GRUBS.
R O Drummond O H Graham
J Econ Entom 55(2):255-258
Apr 1962 421 JB22
Co-Ral, Hypoderma, Hypoderma, Insect control, Skin.
- 1339-67
CONTROL OF CATTLE GRUBS WITH COUMAPHOS APPLIED BY SPRAYER AND SPRAY-DIP MACHINE.
R O Drummond T M Whetstone S E Ernst
J Econ Entom 58(5):1017-1018
Oct 1965 421 JB22
Coumaphos, Hypoderma, Spraying equipment.
- 1340-67
INSECTICIDE TESTS AGAINST THE TROPICAL HORSE TICK, DERMACENTOR NITENS, ON HORSES.
R O Drummond O H Graham
J Econ Entom 57(4):549-553
Aug 1964 421 JB22
Anocentor nitens, Dermacentor nitens Neumann, Horses, Insecticides.
- 1341-67
FIELD TESTS WITH INSECTICIDES FOR THE CONTROL OF TICKS ON LIVESTOCK.
R O Drummond J G Medley
J Econ Entom 58(6):1131-1136, TABS.
Dec 1965 421 JB22
Amblyomma americanum (L), Cattle, Horses, Insecticides, Ixodides.
- 1342-67
CONTROL OF HOUSE FLIES IN BOVINE FECES BY A FEED ADDITIVE CONTAINING BACILLUS THURINGIENSIS VAR. THURINGIENSIS BERLINER.
P H Dunn
J Invertebrate Path 2(1):13-16
1960 421 JB26
Bacillus thuringiensis var. thuringiensis Berliner, Beef cattle, Feces, Feed additives, Musca domestica.
- 1343-67
CONTROL OF NORTHERN FOWL MITES, ORNITHONYSSUS SYLVARIUM, WITH SULFAQUINOXALINE.
D P Furman V S Stratton
J Econ Entom 56(6):904-905
Dec 1963 421 JB22
Coccidiosis, Northern fowl mites, Ornithonyssus sylviarum, Sulfaquinoxaline.
- 1344-67
TESTS AGAINST FACE FLIES ON CATTLE IN NEW JERSEY DURING 1961.
P Granett E J Hansens A J Forgash
J Econ Entom 55(5):655-659, TABS.
Oct 1962 421 JB22
Cattle, Musca autumnalis, Musca autumnalis De Geer.
- 1345-67
CONTROL OF FLIES ON CATTLE BY FREQUENT, LOW-VOLUME MIST SPRAY APPLICATION OF CIODRIN.
R A Hoffman I L Berry O H Graham
J Econ Entom 58(5):B15-B17
Oct 1965 421 JB22
Cattle, Clodrin, Diptera.
- 1346-67
SPECIES OF HIPPELATES (DIPTERA: CHLORPIDAE) GNATS COLLECTED FROM MAMMALS.
E G Jay Jr
J Econ Entom 55(6):1011-1012
Dec 1962 421 JB22
Chloripidae, Diptera, Hippelates, Mammals.
- 1347-67
FREE CHOICE FEEDING OF RONNEL MINERAL BLOCK AND GRANULES FOR FACE FLY, HORN FLY, AND CATTLE GRUB CONTROL.
F W Knapp
J Econ Entom 58(5):B36-B38
Oct 1965 421 JB22
Cattle grub, Diptera, Haematobia irritans, Haematobia irritans, Hypoderma, Musca autumnalis, Musca autumnalis, Ronnel mineral block, Ronnel mineral granules.
- 1348-67
CO-RAL AS A LITTER AND NEST DUST TO CONTROL THE CHICKEN BODY LOUSE.
F W Knapp
J Econ Entom 55(4):571-572
Aug 1962 421 JB22
Coumaphos, Dusting, Menacanthus stramineus, Menacanthus stramineus (Nitzsch).
- 1349-67
STUDIES ON THE REMOVAL OF EMBEDDED LONE STAR TICKS AMBLYOMMA AMERICANUM.
K L Knight D E Bryan C W Taylor
J Econ Entom 55(3):273-276, TABS.
Jun 1962 421 JB22
Amblyomma americanum, Animals, Chemicals, Insect removal, Lone star ticks.
- 1350-67
METABOLISM OF AND RESIDUES ASSOCIATED WITH DERMAL AND INTRAMUSCULAR APPLICATION OF RADIOLABELED FENTHION TO DAIRY COWS.
C O Knowles B W Arthur

BIBLIOGRAPHY

30 1351-67

- J Econ Entom 59(6):1346-1353
Dec 1966 421 J822
Dairy cattle, Fenthion, Insecticide residues, Metabolism, *Musca domestica* L., Radioactive tracers, *Stomoxys calcitrans* (L.).
- 1351-67
CONTROL OF CATTLE GRUBS BY POUR-ON, INJECTION, AND SPRAY.
P H Kohler W M Rogoff
J Econ Entom 55(4):539-544, TABS.
Aug 1962 421 J822
Hypoderma, Hypoderma, Injections, Insect control, Spraying.
- 1352-67
INDUCED BUILDUP OF POPULATIONS OF *BOVICOLA BOVIS* ON CATTLE IN OREGON.
L F Lewis D M Christenson
J Econ Entom 55(6):947-949
Dec 1962 421 J822
Animal protective devices, *Bovicola bovis*, Cattle, Cattle louse.
- 1353-67
FURTHER TESTS WITH POWER DUSTING TO CONTROL THE SHEEP KED.
R E Pfadt R J Lavigne
J Econ Entom 58(1):37-38
Feb 1965 421 J822
Dusting, Insect control, Insecticide application, Insecticides, *Melophagus ovinus*, *Melophagus ovinus* (L.).
- 1354-67
FAMILY DIFFERENCES IN ATTRACTIVENESS OF POULTRY TO THE CHICKEN BODY LOUSE, *MENACANTHUS STRAMINEUS* (MALLOPHAGA).
G D Quigley
J Econ Entom 58(1):8-10
Feb 1965 421 J822
Attractants, *Menacanthus stramineus*, *Menacanthus stramineus* (Mallophaga), Poultry.
- 1355-67
AREA POPULATION CONTROL OF HEEL FLIES BY RUELENE POUR-ON APPLICATION ANNUALLY TO CATTLE.
L A Riehl H W Lembright P D Ludwig
J Econ Entom 58(1):1-4
Feb 1965 421 J822
Cattle, *Hypoderma bovis* (L), *Hypoderma lineata*, *Hypoderma lineatum* (deVilliers), Insect control, Population, Ruelene.
- 1356-67
THE EFFECT OF RADIATION TO PYRETHRINS APPLIED TO CATTLE.
R H Roberts
J Econ Entom 55(6):851-853
Dec 1962 421 J822
Cattle, Pyrethrum, Radiation, Ultraviolet rays.
- 1357-67
CATTLE GRUB CONTROL WITH RUELENE AS A DIP AND A POUR-ON TREATMENT.
D K Scharff P D Ludwig
J Econ Entom 55(2):191-192
Apr 1962 421 J822
Hypoderma, Hypoderma, Ruelene.
- 1358-67
AN INVESTIGATION OF THE CATTLE LOUSE PROBLEM.
D K Scharff
J Econ Entom 55(5):684-688, TABS.
Oct 1962 421 J822
Cattle louse, *Haematopinus eurysternus* (Nitzsch), Insecticides.
- 1359-67
DIFFERENTIAL SUSCEPTIBILITY OF MAGGOTS OF SEVERAL SPECIES TO DROPPINGS FROM CHICKENS FED INSECTICIDE-TREATED RATIONS.
M Sherman E Ross G H Komatsu
J Econ Entom 55(6):990-993, TABS.
Dec 1962 421 J822
Chicks, Excreta, Food, Insecticides, Larvae, Maggots.
- 1360-67
FLY CONTROL IN FECES FROM CATTLE FED CO-RAL.
J S Skaptason C W Pitts
J Econ Entom 55(3):404-405
Jun 1962 421 J822
Cattle, Coumaphos, Diptera, Diptera, Feces, Insect control.
- 1361-67
THE EAR MITE, *OTODECTES CYNOTIS*, IN DOGS: A REPORT OF TWO SURVEYS.
R J Tonn
J Econ Entom 56(6):892
Dec 1963 421 J822
Dogs, Ear mite, *Otodectes cynotis* (Hering).
- 1362-67
LOW LEVEL FEEDING OF RONNEL IN A MINERAL SALT MIXTURE FOR AREA CONTROL OF THE FACE FLY, *MUSCA AUTUMNALIS*.
J B Wallace E C Turner Jr
J Econ Entom 57(2):264-267, PL.
Apr 1964 421 J822
Feeding, *Musca autumnalis*, *Musca autumnalis*, Ronnel.
- 1363-67
EXPERIMENTS FOR CONTROL OF THE FACE FLY IN VIRGINIA.
J B Wallace E C Turner Jr
J Econ Entom 55(3):415-416
Jun 1962 421 J822
Cattle, Insect control, *Musca autumnalis*, *Musca autumnalis*.
- 1364-67
LINDANE AND BHC IN EGG YOLKS FOLLOWING RECOMMENDED USES FOR LOUSE AND MITE CONTROL.
G W Ware E C Naber
J Econ Entom 55(4):568-570
Aug 1962 421 J822
Anoplura, Benzene hexachloride, Egg yolks, Insecticide residues, Lindane, Mites.
- 1365-67
THE EFFECT OF HORSE FLY CONTROL ON RATE OF INFECTION OF BOVINE ANAPLASMOSIS UNDER FIELD CONDITIONS IN LOUISIANA.
B H Wilson E C Burns W T Oglesby R B Myers T E Rogers
J Econ Entom 56(5):578-579, TABS.
Oct 1963 421 J822
Anaplasmosis, Louisiana, Tabanidae, Tabanidae.
- 1366-67
IRRITATION OF NALED MIST SPRAYS TO CATTLE.
R L Younger B W Wunderlich
J Econ Entom 57(1):172-173
Feb 1964 421 J822
Cattle, Naled.
- 1367-67
TOXICOLOGICAL STUDIES OF COMPOUND VC 1-13 IN LIVESTOCK.
R L Younger R D Radeleff C P Weidenbach
J Econ Entom 55(2):249-252
Apr 1962 421 J822
Chemicals, Compound VC 1-13, Livestock, Toxicology.

Parasites

- 1368-67
THE COMMON CATTLE GRUB IN CATTLE IN SOUTHWESTERN TEXAS.
R O Drummond
J Econ Entom 59(5):1105-1108
Oct 1966 421 J822
Cattle, Cattle grub, *Hypoderma lineatum* (De Villiers), Texas.
- 1369-67
CONTROL OF TICKS ON CATTLE WITH TOXAPHENE APPLIED BY POWER SPRAYER AND SPRAY RACE.
O Drummond T M Whetstone S E Ernst
J Econ Entom 59(2):471-472
Apr 1966 421 J822
Amblyomma americanum (L.), Cattle, *Dermacentor albipictus* (Packard), Ixodidae, Spraying, Toxaphene.

Peaches, Pustular spot (peaches), Storage diseases.

40 COMMODITY PROTECTION

Arthropods

- 1370-67
A STUDY OF THE POSSIBLE CARCINOGENICITY OF IRRADIATED FOODS.
J L Radomski W B Deichmann B S Austin W E MacDonald
Toxicol Appl Pharmac 7(1):122-125
Jan 1965 391.8 T662
Carcinogens, Irradiated food.
- 1371-67
EFFECT OF MOISTURE CONTENT ON THE STORAGE OF BRAZIL NUTS.
G Ayerst D Budd
J Sci Food A II(7):390-396
Jul 1960 382 S012
Bertholletia excelsa, Brazilnuts, Food moisture,
Food storage.
- 1372-67
COOLING BULK GRAIN IN THE BRITISH CLIMATE TO CONTROL STORAGE INSECTS AND TO IMPROVE KEEPING QUALITY.
H D Burges N J Burrell
J Sci Food A I5(1):32
Jan 1964 382 S012
Cooling, Grain, Storage.
- 1373-67
BIOCHEMICAL CHANGES ASSOCIATED WITH THE DEVELOPMENT OF LOW-TEMPERATURE BREAKDOWN IN APPLES.
A C Hulme W H Smith L S C Wooltorton
J Sci Food A I5(5):303-307
May 1964 382 S012
Apples, Cold storage, Oxalacetic acid, Temperature.
- 1374-67
DECAY OF FRESHLY HARVESTED POTATOES IN AIR-TIGHT CONTAINERS.
L W Nielsen
Phytopatholo 50(9):649
Sep 1960 464.B P56
Containers, Plant decay, Potatoes, Soft rot (potatoes).
- 1375-67
INFLUENCE OF VARIOUS FACTORS ON THE DETERIORATION OF STORED CORN BY FUNGI.
S A Qasem C M Christensen
Phytopatholo 50(10):703-709, TABS.
Oct 1960 464.8 P56
Corn, Fungi, Stored products.
- 1376-67
EFFECT OF TEMPERATURE ON POST-HARVEST DECAY OF BLUEBERRY VARIETIES.
A W Stretch B H Davis
Phytopatholo 50(4):241
Apr 1960 464.B P56
Blueberries, Molds, Temperature.
- 1377-67
DETERIORATION OF STORED FEEDSTUFFS: RELATION OF INTERSPACE RELATIVE HUMIDITY TO GROWTH OF MOLDS AND HEATING OF FEED INGREDIENTS AND FEED MIXTURES.
B D Webb M E Bayliss L R Richardson
J Agr Food Ch B(5):371-374, TABS.
Sep 1960 381 J8223
Feed, Heating, Humidity, Molds, Storage injuries,
Stored products.
- 1378-67
OBSERVATIONS ON PUSTULAR SPOT ON PEACHES.
W R Wright M A Smith G B Ramsey L Beraha
Plant Dis R 44(6):424
15 Jun 1960 I.9 P69P
- 1379-67
LABORATORY EVALUATION OF SEVERAL CHEMICAL PROTECTANTS AGAINST THE SOUTHERN COWPEA WEEVIL, CALLOSOBROCHUS CHINENSIS, ON STORED DRIED BEANS IN KOREA.
Y H Sang
J Econ Entom 56(5):588-591, TABS.
Oct 1963 421 J822
Beans, Callosobruchus chinensis, Grain protectants, Korea,
Southern cowpea weevil.
- 1380-67
TESTS WITH ENDOSULFAN TO PREVENT BORER DAMAGE TO UNSEASONED PINE LOGS.
W B Becker
J Econ Entom 57(1):166-167
Feb 1964 421 J822
Endosulfan, Gnathotrichus materlarius, Monochamus spp.,
Pine logs, Plissodes approximatus.
- 1381-67
STUDIES OF PHOSPHINE AS A FUMIGANT FOR SACKED RICE UNDER GAS-TIGHT TARPAULINS.
R R Cogburn E W Tilton
J Econ Entom 56(5):706-708, TABS.
Oct 1963 421 J822
Fumigants, Phosphine, Rice, Sitophilus oryzae (L.),
Tarpaulins, Tribolium confusum (Jacqueline du Val).
- 1382-67
SYSTEMIC INSECTICIDES TO CONTROL GREENBUGS ON SPRING PLANTED BARLEY.
L J DePew
J Econ Entom 57(2):250-252, PL.
Apr 1964 421 J822
Barley, Insect control, Schizaphis graminum,
Schizaphis graminum, Systemic insecticides.
- 1383-67
PHORATE AND DEMETON FOR CONTROL OF THE PEA LEAF MINER ON SUGARBEETS.
J E Duffus N F McCalley
J Econ Entom 57(2):221-222
Apr 1964 421 J822
Demeton, Insect control, Liriomyza langel, Pea leaf miner,
Phorate, Sugarbeets.
- 1384-67
CONTROL OF THE SCALE PULVINARIA PSIDII ON IXORA.
W G Eden
J Econ Entom 57(3):416-417
Jun 1964 421 J822
Coccoidea, Ixora, Pulvinaria psidii.
- 1385-67
RELATIONSHIPS OF INSECTS TO HOT SPOTS IN STORED WHEAT.
L E Elghme
J Econ Entom 59(3):564-569
Jun 1966 421 J822
Hot spots, Oryzaephilus surinamensis, Rhyzopertha dominica,
Sitophilus granarius, Storage, Tribolium castaneum, Wheat.
- 1386-67
THE INCIDENCE, IMPORTANCE, AND CONTROL OF INSECTS FOUND IN STORED FOOD AND FOOD-HANDLING AREAS OF SHIPS.
B R Evans J E Porter
J Econ Entom 58(3):479-481, 818L.
Jun 1965 421 J822
Food handling, Food storage, Sanitation control (Insects).
- 1387-67
VAPORIZED DI8ROM FOR CONTROL OF DROSOPHILA IN LEMON STORAGE HOUSES.
W L Golmerac L F Fox
J Econ Entom 55(2):220-221
Apr 1962 421 J822
Drosophila, Greenhouses, Insects, Lemons, Naled, Naled,
Toxicology, Vapors.

BIBLIOGRAPHY

40 1388-67

- 1388-67
EXPLORATORY TESTS WITH BROMODAN AS A PROTECTANT FOR WHEAT AGAINST STORED-PRODUCT INSECTS.
P K Harein H B Gillenwater
J Econ Entom 59(2):413-414
Apr 1966 421 JB22
Bromodan, *Sitophilus oryzae* (L.), Stored products, *Tribolium confusum* Jacquelin duVal, Wheat.
- 1389-67
DOSAGE-TIME RELATIONSHIPS BETWEEN B0:20 (CCL4: CS2) AND ADULT RICE WEEVILS, *SITOPHILUS ORYZAE*.
P K Harein G F Krause
J Econ Entom 57(4):S21-S22, TABS.
Aug 1964 421 JB22
Carbon disulfide, Carbon tetrachloride, Dosage, Fumigation, *Sitophilus oryzae*, *Sitophilus oryzae*.
- 1390-67
DOSAGE APPLIED AND CONCENTRATION OBTAINED IN THE FUNIGATION OF VARIOUS COMMODITIES WITH METHYL BROMIDE.
D L Lindgren L E Vincent
J Econ Entom 55(5):674-676
Oct 1962 421 JB22
Adsorption, Fumigation, Methyl bromide.
- 1391-67
INSECT AND MITE INFESTATION IN EMPTY GRANARIES IN THE PRAIRIE PROVINCES.
E A R Lilscombe F L Watters
Can Entom 94(4):433-441
Apr 1962 421 C16
Grain, Granary, Stored product insects.
- 1392-67
WITHIN-PACKAGE ETHYLENE DIBROMIDE FUMIGATION OF MANGOES AND GRAPEFRUIT IN FIBERBOARD CARTONS TO DESTROY MEXICAN FRUIT FLY INFESTATIONS.
M Mc Phalc D, F Lopez J F Murcio Velasco
J Econ Entom 56(4):496-498, TABS.
Aug 1963 421 JB22
Anastrepha ludens, *Anastrepha ludens* (Loew), Cartons, Ethylene dibromide, Fiberboard, Fumigation, Grapefruit, Mangoes.
- 1393-67
PREFERENCE OF *TRIBOLIUM CASTANEUM* FOR WHEAT CONTAINING VARIOUS PERCENTAGES OF DOCKAGE.
H E McGregor
J Econ Entom 57(4):S11-S13, TABS.
Aug 1964 421 JB22
Dockage, *Tribolium castaneum*, Wheat.
- 1394-67
FIELD TESTS WITH LOW-LEVEL FEEDING OF RONNEL FOR CONTROL OF CATTLE GRUBS AND HORN FLIES.
J G Medley R O Drummond O H Graham
J Econ Entom 56(4):S00-S03, TABS.
Aug 1963 421 JB22
Haematobia irritans, *Haematobia irritans* (L.), Hypoderma, *Hypoderma lineatum* (De Villiers), Ronnel, Systemic insecticides.
- 1395-67
CONTROL OF THE TOBACCO MOTH WITH DICHLORVOS.
A F Press Jr D P Childs
J Econ Entom 59(2):264-265
Apr 1966 421 JB22
Dichlorvos, *Ephestia elutella*, *Ephestia elutella*, Stored products.
- 1396-67
TOLERANCE OF IMPORTED GARLIC BULBS TO METHYL BROMIDE FUMIGATION AND HOT-WATER DIPS.
H Roth H H Richardson
J Econ Entom 56(6):B39-B42, TABS.
Dec 1963 421 JB22
Brachyercus, Dipping, *Dyspessa ulala*, Fumigation, Garlic, Hot water treatment (plants), Methyl bromide.
- 1397-67
AN OUTLINE OF RECENT PROGRESS IN STORED-PRODUCTS ENTOMOLOGY.
P Simmons
J Econ Entom 57(1):29-31
Feb 1964 421 JB22
Stored-products insect research.
- 1398-67
EFFECTS OF TEMPERATURE, REDUCED PRESSURE, AND MOISTURE CONTENT ON SORPTION AND RETENTION OF ETHYLENE DIBROMIDE BY WHEAT AND CORN.
W B Sinclair D L Lindgren R Forbes
J Econ Entom 57(4):470-475, TABS.
Aug 1964 421 JB22
Absorption, Corn, Ethylene dibromide, Grain moisture, Pressure, Temperature, Wheat.
- 1399-67
INSECTS FOUND IN OHIO GRAIN ELEVATORS AND FEED MILLS.
C A Triplehorn
J Econ Entom 58(3):S78-S79
Jun 1965 421 JB22
Feed milling, Grain elevators, Ohio, Stored-product insects.
- 1400-67
WHEAT FRACTURING AS AFFECTING INFESTATION BY *CRYPTOLESTES FERRUGINEUS*.
D W Tuff H S Telford
J Econ Entom 57(4):S13-S16, TABS.
Aug 1964 421 JB22
Cryptolestes ferrugineus, Wheat.
- 1401-67
CHEMICAL CONTROL OF PERIODICAL CICADA, *MAGICICADA SEPTENDECIM*, ON APPLES IN NORTH CAROLINA.
G F Turnipseed
J Econ Entom 57(2):295
Apr 1964 421 JB22
Apples, Insect control, *Magicicada septendecim*, *Magicicada septendecim*, North Carolina.
- 1402-67
ETHYLENE OXIDE FUMIGANTS TO ELIMINATE QUARANTINABLE SNAILS *COCHLICELLA* OR *THEBA* IN CARGO.
H H Richardson H Roth
J Econ Entom 56(6):B36-B39
Dec 1963 421 JB22
Ethylene oxide, Freight, Fumigants, Snails.

Rodents & Other Pests

50 ENVIRONMENTAL CONTAMINATION

- 1403-67
THE MYCOFLORA OF PEANUTS IN STORAGE.
U L Diener
Phytopatholo 50(3):220-223
Mar 1960 464.B P56
Mycoflora, Peanuts, Storage.
- 1404-67
REVIEW OF ADSORPTION AND DESORPTION OF ORGANIC PESTICIDES BY SOIL COLLOIDS, WITH IMPLICATIONS CONCERNING PESTICIDE BIO-ACTIVITY.
G W Bailey J L White
J Agr Food Ch 12(4):324-332, BIBL., 331-332
Jul 1964 381 JB223
Pesticides, Soil adsorption, Soil colloids.
- 1405-67
SUSCEPTIBILITY AND RESISTANCE OF MOSQUITO FISH TO SEVERAL INSECTICIDES.
C E Boyd D E Ferguson
J Econ Entom 57(4):430-431
Aug 1964 421 JB22
Insecticides, Mosquito fish.
- 1406-67
TOXICITY OF DIBROM VAPORS TO GREENHOUSE INSECTS.
C H Condron R B Neiswander R D Wessel
J Econ Entom 55(2):221-244, TABS.
Apr 1962 421 JB22
Greenhouses, Insects, Naled, Naled, Toxicology, Vapors.
- 1407-67
EFFECT OF SOIL APPLICATIONS OF NEMATOCIDES ON EMERGENCE OF PERIODICAL CICADA.
R W Dean D H Palmitter
J Econ Entom 56(4):540
Aug 1963 421 JB22
Maglicicada septendecim, Maglicicada septendecim (L.), Nematocides, Soil treatment.
- 1408-67
DETERMINATION OF PHOSPHINE IN AIR BY GAS CHROMATOGRAPHY.
T Dumas
J Agr Food Ch 12(3):257-258
May 1964 381 JB223
Air, Chromatography, Phosphine.
- 1409-67
HERBICIDE UPTAKE FROM SOILS: UPTAKE OF RADIOACTIVE ETHYL-N,N-DI-N-PROPYLTHIO CARBAMATE (EPTC-S35) AND TRANSLOCATION OF SULFUR-35 IN VARIOUS CROPS.
S C Fang P Thelsen
J Agr Food Ch 8(4):295-298
Jul 1960 381 JB223
Crops, EPTC, Radioactive substances, Soil contamination, Sulfur isotopes, Sulfur-35.
- 1410-67
A NOTE ON THE EFFECTS OF SOME SOIL STERILANTS ON THE MINERALISATION AND NITRIFICATION OF SOIL-NITROGEN.
J K R Gasser J E Peachey
J Sci Food A 15(3):142-146
Mar 1964 382 S012
Mineralization (nutrients), Nitrification, Nitrogen, Soil sterilization.
- 1411-67
THE SURVIVAL OF VERTICILLIUM ALBO-ATRUM IN MUCK SOILS.
R J Green Jr
Phytopatholo 50(9):637
Sep 1960 464.8 P56
Inoculum, Muck soils, Verticillium albo-atrum.
- 1412-67
SOIL EFFECTS ON PESTICIDES: DETERMINATION OF CARBON IN ORGANIC SOILS BY OXYGEN FLASK COMBUSTION.
N H Gutenmann D J Lisk
J Agr Food Ch 9(6):489-490
Nov 1961 381 JB223
Carbon, Flask combustion, Pesticides, Soil analysis.
- 1413-67
INFLUENCE OF SOIL TYPE ON THE ACTIVITY OF INSECTICIDES IN SOIL.
C R Harris
J Econ Entom 59(5):1221-1225

50 1414-67

Oct 1966 42I J822
Acheta (>Gryllus) pennsylvanicus (Burmeister),
Soil insecticides, Soil series.

1414-67

ADSORPTION OF SEVERAL PRE-EMERGENCE HERBICIDES BY HAWAIIAN
SUGAR CANE SOILS.
H W Hilton Q H Yuen
J Agr Food Ch 11(3):230-234, TABS.
May 1963 381 J8223
Hawaii, Herbicides, Soil adsorption, Sugar cane.

1415-67

THE CONCENTRATION OF DIMEFOX IN AIR RESULTING FROM ITS USE
ON HOPS.
G A Lloyd J C Tweedie
J Sci Food A 15(3):169-172
Mar 1964 382 S012
Air, Air pollution, Dimefox, Hops.

1416-67

TWO NEW COMPOUNDS AS SEED AND SOIL TREATMENTS.
E N Pelletier H C Palmer
Phytopatholo 50(9):650-651
Sep 1960 464.8 P56
Seed treatment, Soil analysis.

1417-67

PERSISTENCE OF INSECTICIDES IN SOIL AND THEIR EFFECTS ON
COTTON IN GEORGIA.
J E Roberts R D Chisholm L Koblitsky
J Econ Entom 55(2):153-155, TABS
Apr 1962 421 J822
Cotton, Georgia, Insecticide residues.

1418-67

AVAILABILITY OF DIELDRIN TO ADULT BLISSUS LEUCOPTERUS AND
LARVAL CYCLOCEPHALA IMMACULATA IN TREATED SAND, LOAM, AND
MUCK SOILS.
R J Roberts
J Econ Entom 56(6):781-785, TABS.
Dec 1963 421 J822
Blissus leucopterus (Say),
Cyclocephala immaculata (Olivier), Insect adults,
Insecticide sorption (soils), Larvae, Loam, Muck soils,
Sand.

1419-67

REVIEW OF DISAPPEARANCE OF SUBSTITUTED UREA HERBICIDES FROM
SOIL.
T J Sheets
J Agr Food Ch 12(1):30-33, 818L. 33
Jan 1964 381 J8223
Herbicides, Soil contamination, Urea.

1420-67

THIOCYANATE SCORCH ON GRASSLAND.
H Tod
J Sci Food A 15(6):362-364
Jun 1967 382 S012
Pastures, Scorch, Thiocyanates.

55 RESIDUES

1421-67

GAS CHROMATOGRAPHIC AND COLORIMETRIC MEASUREMENT OF DIMETHO-
ATE RESIDUES.
C H van Middeltem R E Waites
J Agr Food Ch 12(2):178-182
Mar 1964 381 J8223
Chromatography, Colorimetry, Dimethoate,
Insecticide residues.

1422-67

RESIDUES IN CATTLE TISSUES FOLLOWING BACK-LINE AND SPRAY
APPLICATIONS OF TRICHLORFON.
T R Adkins Jr
J Econ Entom 59(6):1423-1425
Dec 1966 421 J822
Cattle, Insecticide application, Insecticide residues,
Trichlorfon.

1423-67

RESIDUE DEPOSITION OF CO-RAL IN THE TISSUES OF BACK-LINE-
TREATED CATTLE.
Jr, T R Adkins D H Kropf S G Woods
J Econ Entom 56(6):759-761
Dec 1963 421 J822
Cattle, Co-Ral, Insecticide application,
Insecticide residues.

1424-67

COLORIMETRIC DETERMINATION OF DEXON RESIDUES IN CROPS.
C A Anderson J M Adams
J Agr Food Ch 11(6):474-477
Nov 1963 381 J8223
Colorimetry, Fungicide residues,
Para-dimethylaminobenzene diazo sodium sulfonate,
Plant residues.

1425-67

INSECTICIDE RESIDUES: PROCEDURE FOR CLEAN UP OF PLANT
EXTRACTS PRIOR TO ANALYSES FOR DDT AND RELATED PESTICIDES.
C Anglin W P McKinley
J Agr Food Ch 8(3):186-189, TABS.
May 1960 381 J8223
DDT, Pesticides, Plant extracts.

1426-67

METHOD FOR PHOSPHAMIDON RESIDUE ANALYSIS.
R Anliker R E Menzer
J Agr Food Ch 11(4):291-293
Jul 1963 381 J8223
Chromatography, Insecticide residues, Phosphamidon.

1427-67

DETERMINATION OF AMIBEN IN TOMATO BY GAS-LIQUID AFFINITY GAS
CHROMATOGRAPHY.
C A Bache W H Gutenmann D J Lisk
J Agr Food Ch 12(2):185-187
Mar 1964 381 J8223
Amiben, Chromatography, Herbicide residues, Tomatoes.

1428-67

INSECTICIDE RESIDUE STUDIES: THE FATE OF HEPTACHLOR IN THE
SOIL FOLLOWING GRANULAR APPLICATION TO THE SURFACE.
W F Barthel R T Murphy W G Mitchell C Corley
J Agr Food Ch 8(6):445-447, TABS.
Nov 1960 381 J8223
Heptachlor, Insecticide application, Insecticide residues.

1429-67

THE CONTACT TOXICITY OF SOME PESTICIDE RESIDUES TO
HYMENOPTEROUS PARASITES AND COCCINELLID PREDATORS.
B R Bartlett
J Econ Entom 56(5):694-698
Oct 1963 42I J822
Coccinellidae, Hymenoptera, Parasitic insects,
Pesticide residues, Predaceous insects.

- 1430-67
HERBICIDE RESIDUES: A COLORIMETRIC METHOD FOR THE DETERMINATION OF EPTC RESIDUES IN CROPS AND SOILS.
G H Batchelder G G Patchett
J Agr Food Ch 8(3):214-216, TABS.
May 1960 381 J8223
Colorimetry, Crops, Herbicide residues, EPTC, Soils.
- 1431-67
DIMETHOATE RESIDUES ON SOYBEAN, CORN, AND GRASS FORAGE.
E W Beck L H Dawsey D W Woodham D B Leuck
J Econ Entom 59(1):78-82
Feb 1966 421 J822
Corn, Dimethoate, Forage plants, Insecticide residues, Soybeans.
- 1432-67
RESIDUES OF ENDOSULFAN IN MEAT AND MILK OF CATTLE FED TREATED FORAGES.
E W Beck J C Johnson Jr D W Woodham D B Leuck L H Dawsey
J E Robbins M C Bowman
J Econ Entom 59(6):1444-1450
Dec 1966 421 J822
Beef, Cattle, Endosulfan, Forage plants, Insecticide residues, Milk.
- 1433-67
MICROCOULOMETRIC GAS CHROMATOGRAPHIC ANALYSIS OF GRAPES AND COTTONSEED FOR CHLOROBENZILATE RESIDUES.
H Beckman A Bevenue
J Agr Food Ch 12(2):183-185
Mar 1964 381 J8223
Acaricide residues, Chlorobenzilate, Chromatography, Cottonseed, Grapes.
- 1434-67
FUMIGANT RESIDUES: RETENTION OF ACRYLONITRILE AND CARBON TETRACHLORIDE BY SHELLED WALNUTS FUMIGATED WITH ACRYLON.
B Berck
J Agr Food Ch 8(2):128-131
Mar 1960 381 J8223
Acrylon, Acrylonitrile, Carbon tetrachloride, Fumigant residues, Walnuts.
- 1435-67
A TOTAL PHOSPHORUS TECHNIQUE FOR DETERMINING ORGANOPHOSPHORUS PESTICIDE RESIDUES USING SCHOENIGER FLASK COMBUSTION.
R C Blinn
J Agr Food Ch 12(4):337-338
Jul 1964 381 J8223
Combustion, Organophosphorus, Pesticide residues.
- 1436-67
A CARCINOGENICITY EVALUATION OF POTASSIUM ARSENITE AND ARSANILIC ACID.
R K Boutwell
J Agr Food Ch 11(5):381-385
Sep 1963 381 J8223
Arsanilic acid, Carcinogens, Potassium arsenite.
- 1437-67
DETERMINATION OF INSECTICIDE RESIDUES ON GREEN AND FLUE-CURED TOBACCO AND IN MAIN-STREAM CIGARETTE SMOKE.
T G Bowery F E Guthrie
J Agr Food Ch 9(3):193-197
May 1961 381 J8223
Cigarette smoke, Insecticide residues, Tobacco.
- 1438-67
THE COLORIMETRIC DETERMINATION OF O-ISOPROPOXYPHENYL-N-METHYLCARBAMATE.
P Bracha
J Agr Food Ch 12(5):461-463, TABS.
Sep 1964 381 J8223
o-Isopropoxyphenyl-N-methylcarbamate, Bayer, Colorimetry, Insecticide residues.
- 1439-67
RESIDUAL SPRAYS FOR THE CONTROL OF HOUSE FLIES IN FIELD TESTS.
U E Brady Jr D W Melfert G C LaBrecque
J Econ Entom 59(6):1522-1523
Dec 1966 421 J822
Insecticide residues, Musca domestica, Musca domestica, Spraying.
- 1440-67
ARE ANIMAL FEED ADDITIVES HAZARDOUS TO HUMAN HEALTH.
J Brueggemann J Schole J Tiews
J Agr Food Ch 11(5):367-371
Sep 1963 381 J8223
Feed additives, Feed toxicity, Tissue residues.
- 1441-67
DETERMINATION OF NN-DIPHENYL-P-PHENYLENEDIAMINE (DPPD) IN FAT AND OTHER BIOLOGICAL MATERIALS.
P Budowski I Ascarelli A Bondi
J Sci Food A 11(9):503-509
Sep 1960 382 S012
Egg yolks, Fats, Feed, DPPD, Serum.
- 1442-67
MECHANISMS OF CONTAMINATION OF ALFALFA WITH HEPTACHLOR AND HEPTACHLOR EPOXIDE.
H D Byrne A L Steinhauer
J Econ Entom 59(2):338-341
Apr 1966 421 J822
Alfalfa, Heptachlor, Heptachlor epoxide, Soil contamination.
- 1443-67
CHEMICAL AND MICROBIOLOGICAL SURVEYS ON THE EFFECTS OF DITHIOCARBAMATE FUNGICIDES ON WINE-MAKING.
C Cantrelli F Tafuri A Martini
J Sci Food A 15(3):186-196, TABS.
Mar 1964 382 S012
Fungicides, Thiols, Wine manufacture.
- 1444-67
DETERMINATION OF TEPA RESIDUES ON CHEMOSTERILIZED MEXICAN FRUIT FLIES.
S C Chang A B Borkovec
J Econ Entom 59(1):102-104
Feb 1966 421 J822
Anastrepha ludens (Loew), Chemosterilized, Insecticide residues, Tepsa.
- 1445-67
RESIDUES OF OO-DIMETHYL S-(N-METHYLCARBAMOYL METHYL) PHOSPHOROTHIOLOTHIONATE (DIMETHOATE) IN SPRAYED CROPS.
E D Chilwell P T Beecham
J Sci Food A 11(7):400-407, TABS.
Jul 1960 382 S012
Crops, Dimethoate, Insecticide residues, Spraying.
- 1447-67
INSECTICIDE RESIDUES: MEAT AND MILK RESIDUES FROM LIVESTOCK SPRAYS.
H V Claborn R C Bushland H D Mann M C Ivey R D Radeleff
J Agr Food Ch 8(6):439-442, 818L. 441-442, TABS.
Nov 1960 381 J8223
Insecticide residues, Livestock, Meat, Milk, Spraying.
- 1448-67
INSECTICIDE RESIDUES IN MILK: DETERMINATION OF METHOXYCHLOR AND OR METABOLITES IN MILK FOLLOWING TOPICAL APPLICATION TO DAIRY COWS.
M L Cluett W K Lowen H L Pease C A Woodhouse
J Agr Food Ch 8(4):277-281, TABS.
Jul 1960 381 J8223
Dairy cattle, Insecticide application, Insecticide residues, Metabolites, Methoxychlor, Milk, Milk analysis.
- 1449-67
DETERMINATION OF FURALTADONE IN MILK.
P L Cox J P Heotis
J Agr Food Ch 11(6):499-501
Nov 1963 381 J8223
Drug residues, Furmethoniol, Furmethanol, Milk.
- 1450-67
INSECTICIDE RESIDUES: DETERMINATION OF RESIDUES OF PHORATE AND ITS INSECTICIDALLY ACTIVE METABOLITES BY CHOLINESTERASE INHIBITION PART I. BASIC METHOD PART II. ALTERNATIVE SAMPLE PREPARATION AND RECOVERY DATA.
A N Curry L M Kress R A L Paylor
J Agr Food Ch 9(6):469-477
Nov 1961 381 J8223
Cholinesterases, Insecticide residues, Metabolites, Phorate.
- 1451-67
INSECTICIDE RESIDUES: PERSISTANCE OF DIMETHOATE AND METABOLITES FOLLOWING FOLIAR APPLICATION TO PLANTS.
W C Dauterman G B Viadu J E Casida R D O'Brien
J Agr Food Ch 8(2):115-119
Mar 1960 381 J8223
Dimethoate, Foliar application, Metabolites.

BIBLIOGRAPHY

55 1452-67

- 1452-67
A FIELD TECHNIQUE FOR OIL DEPOSIT DETERMINATION ON CITRUS THROUGH COLORIMETRIC ANALYSIS.
H A Dean E L Wilson J C Bailey R W White L A Riehl
J Econ Entom 57(4):458-461
Aug 1964 421 J822
Citrus, Colorimetry, Oil deposits.
- 1453-67
TRANSLOCATION OF DDT AND HEPTACHLOR IN SOYBEANS.
W G Eden B W Arthur
J Econ Entom 58(1):161-162
Feb 1965 421 J822
Heptachlor, Insecticide translocation, DDT, Soybeans.
- 1454-67
DETERMINATION OF ORGANIC FLUORINE RESIDUES IN BLACKCURRANTS.
H Egan R Wood
J Sci Food A 11(10):582-584
Oct 1960 382 S012
Currants, Fluorine compounds, Insecticide residues.
- 1455-67
RESIDUES OF SEVIN IN WHOLE MILK FROM SPRAYED AND DUSTED COWS.
J F Eheart E C Turner J Dickinson
J Econ Entom 55(4):504-505
Aug 1962 421 J822
Carbaryl, Cattle, Dusting, Milk, Residues, Spraying.
- 1456-67
COMBINATION OF THERAPEUTIC AGENTS.
R F Elliott
J Agr Food Ch 11(5):391-393, TA8S.
Sep 1963 381 J8223
Feed additives, Therapeutics, Tissue residues.
- 1457-67
THE ADDITIVES AMENDMENT IN PRACTICE.
R W Engel
J Agr Food Ch 11(5):371-373
Sep 1963 381 J8223
Feed additives, Legislation, Nutrition.
- 1458-67
CHEMICAL EVALUATION OF PESTICIDE RESIDUES ON STRAWBERRIES.
J E Fahey J G Rodriguez H W Rusk C E Chaplin
J Econ Entom 55(2):179-184, TA8S.
Apr 1962 421 J822
Chemical control (insects), Chemistry, Pesticide residues, Strawberries.
- 1459-67
CHLORINATED HYDROCARBON INSECTICIDE RESIDUES IN SOILS OF URBAN AREAS, BATTLE CREEK, MICHIGAN.
J F Fahey J W Butcher R T Murphy
J Econ Entom 58(5):1026-1027
Oct 1965 421 J822
Insecticide residues, Michigan, Soil analysis.
- 1460-67
A SIMULATED-FIELD METHOD OF TESTING RESIDUAL INSECTICIDE DEPOSITS AGAINST COCKROACHES.
A D Flynn H F Schoof
J Econ Entom 59(1):110-113
Feb 1966 421 J822
Blattidae, Blattidae, Insecticide residues.
- 1462-67
ACARICIDE RESIDUES: A MODIFICATION OF THE ROSENTHAL METHOD FOR RAPID DETERMINATION OF KETHANE RESIDUES.
D A George J E Fahey K C Walker
J Agr Food Ch 9(4):264-266
Jul 1961 381 J8223
Acaricides, Dicofol, Insecticide residues, Rosenthal's test.
- 1463-67
COLORIMETRIC METHOD FOR THE ESTIMATION OF DIMETHOATE RESIDUES.
P A Giang M S Schechter
J Agr Food Ch 11(1):63-66
Jan 1963 381 J8223
Colorimetry, Dimethoate, Insecticide residues.
- 1464-67
INSECTICIDE RESIDUES: COLORIMETRIC DETERMINATION OF RESIDUES OF PHORATE AND ITS INSECTICIDALLY ACTIVE METABOLITES.
P A Giang M S Schechter
J Agr Food Ch 8(1):51-54
Jan 1960 381 J8223
Colorimetry, Insecticide residues, Metabolites, Phorate.
- 1465-67
INSECTICIDE RESIDUES: A PROCEDURE FOR THE MICRODETERMINATION OF 1-BUTOXY-2-(2-THIOCYANOETHOXY)-ETHANE (LETHANE 384) WITH APPLICATIONS FOR DETERMINATION OF RESIDUES IN MILK AND ANIMAL TISSUES.
C F Gordon L D Haines A L Wolfe
J Agr Food Ch 9(6):478-481
Nov 1961 381 J8223
Insecticide residues, Lethane 384.
- 1466-67
COLORIMETRIC METHOD FOR THE DETERMINATION OF ETHION OF RESIDUES.
J R Graham E F Orwoll
J Agr Food Ch 11(1):67-69
Jan 1963 381 J8223
Colorimetry, Ethion, Insecticide residues, Spectrophotometry.
- 1467-67
HERBICIDE RESIDUES: IMPROVED EXTRACTION PROCEDURE FOR THE DETERMINATION OF EPTC RESIDUES IN POTATOES.
W H Gutenmann D J Lisk
J Agr Food Ch 8(3):216-217
May 1960 381 J8223
Herbicide residues, EPTC, Potatoes.
- 1468-67
THE ELECTRON AFFINITY DETECTOR IN PESTICIDE RESIDUE ANALYSIS.
W H Gutenmann D J Lisk
J Agr Food Ch 11(4):301-303, TA8S.
Jul 1963 381 J8223
Chromatography, Electron affinity, Pesticide residues.
- 1469-67
RAPID DETERMINATION OF DIPHENYLAMINE IN APPLES BY DIRECT BROMINATION AND GAS CHROMATOGRAPHY.
W H Gutenmann D J Lisk
J Agr Food Ch 11(6):468-470
Nov 1963 381 J8223
Apples, Bromination, Chromatography, Diphenylamine, Pesticide residues.
- 1470-67
THIODAN AND TELODRIN RESIDUES ON TOBACCO.
F E Guthrie T G Bowery
J Econ Entom 55(6):1017-1018
Dec 1962 421 J822
Endosulfan, Endosulfan, Insecticide residues, Telodrin, Tobacco.
- 1471-67
INSECTICIDE RESIDUES IN MILK: THE EFFECTS OF FEEDING HIGH LEVELS OF SEVIN ON RESIDUE, FLAVOR, AND ODOR OF THE MILK OF DAIRY CATTLE.
G G Gyrisco D J Lisk S N Fertig E W Huddleston F H Fox
R F Holland C W Trimmerger
J Agr Food Ch 8(5):409-410
Sep 1960 381 J8223
Carbaryl, Dairy cattle, Insecticide residues, Milk.
- 1472-67
THE RATIONALE FOR MEDICATED FEEDS.
L E Hanson
J Agr Food Ch 11(5):365-367
Sep 1963 381 J8223
Drugs, Feed additives, Livestock diseases.
- 1473-67
RESIDUES OF HEPTACHLOR EPOXIDE AND TELODRIN IN MILK FROM COWS FED AT PART PER BILLION INSECTICIDE LEVELS.
D D Hardee W H Gutenmann G I Keenan G G Gyrisco D J Lisk
F H Fox G W Trimmerger R F Holland
J Econ Entom 57(3):404-407
Jun 1964 421 J822
Heptachlor epoxide, Insecticide residues, Milk, Telodrin.
- 1474-67
FUMIGATION EFFICIENCY AS AFFECTED BY EXPOSURES, FORMULATIONS AND BY INSECT SPECIES AND STAGES.
P K Harein
J Econ Entom 55(4):527-533, TA8S.
Aug 1962 421 J822
Fumigation, Grain, Stored products, Toxicology.

- 1475-67**
DDT RESIDUES ON SWEET CORN EAR TIPS AND SILKS AFTER TREATMENT WITH DUST, SPRAY, OR GRANULAR FORMULATIONS.
E A Harrell M C Bowman W W Hare
J Econ Entom 58(1):55-58, 818L.
Feb 1965 421 J822
Dusting, *Heliothis zea* (Boddie), Insecticide application, Insecticide residues, DDT, Sprayling, Sweetcorn.
- 1476-67**
COLORIMETRIC DETERMINATION OF 6-METHYL-2,3-QUINOXALINEDITHIOL CYCLIC CARBONATE (MORESTAN) RESIDUES IN APPLES AND PEARS.
R Havens J M Adams C A Anderson
J Agr Food Ch 12(3):247-248
May 1964 381 J8223
Apples, Colorimetry, Morestan, Pears, Pesticide residues.
- 1477-67**
THE MIGRATION OF PIPERONYL BUTOXIDE FROM TREATED MULTIWALL KRAFT BAGS INTO FOUR COMMODITIES.
H A Highland E G Jay M Phillips D F Davis
J Econ Entom 59(3):543-545
Jun 1966 421 J822
Bags, Piperonyl butoxide, Stored products contamination.
- 1478-67**
HERBICIDE RESIDUES: THE DETERMINATION OF ETHYL N,N-DI-N-PROPYLTHIOLCARBAMATE (EPTC) IN SOIL BY GAS CHROMATOGRAPHY.
R E Hughes Jr. V H Freed
J Agr Food Ch 9(5):381-382
Sep 1961 381 J8223
Chromatography, Herbicides, Insecticide residues, EPTC.
- 1479-67**
CHEMICAL STUDIES ON THE HERRING (*CLUPEA HARENGUS*). XI PRELIMINARY GAS-CHROMATOGRAPHIC STUDY OF VOLATILE SULPHUR COMPOUNDS PRODUCED DURING THE COOKING OF HERRING.
R B Hughes
J Sci Food A 15(5):290-292
May 1964 382 S012
Chromatography, *Clupea harengus*, Herrings, Sulphur compounds, Volatile substances.
- 1480-67**
A TECHNIQUE FOR TESTING ACARICIDE RESIDUES AGAINST TWO-SPOTTED SPIDER MITES ON FIELD-GROWN ROSES.
S W Jacklin F F Smith
J Econ Entom 59(1):244
Feb 1966 421 J822
Acaricides, Insecticide residues, Rosa, *Tetranychus telarius* (L.), *Tetranychus urticae*.
- 1481-67**
ACUTE TOXICITY OF DELNAV AND ITS RESIDUES IN TISSUES OF LIVESTOCK.
J B Jackson R D Radeleff R H Roberts L M Hunt W B Suck
J Econ Entom 55(5):699-702, TABS.
Oct 1962 421 J822
Dioxathion, Insecticide residues, Livestock, Tissues, Toxicology.
- 1482-67**
DETERMINATION OF SEVIN INSECTICIDE AND ITS METABOLITES IN POULTRY TISSUES AND EGGS.
D P Johnson F E Critchfield B W Arthur
J Agr Food Ch 11(1):77-80, TABS.
Jan 1963 381 J8223
Carbaryl, Eggs, Insecticide residues, Poultry meat.
- 1483-67**
THE IMPACT ON THE ANALYTICAL CHEMIST OF GOVERNMENT REGULATIONS PERTAINING TO TISSUE RESIDUES.
E E Kennedy
J Agr Food Ch 11(5):393-395
Sep 1963 381 J8223
Agricultural regulation, Feed additives, Tissue residues.
- 1484-67**
THE SPECTROPHOTOFUOROMETRIC DETERMINATION OF O,O-DIETHYL O-2-PYRAZINYL PHOSPHOROTHIOATE (ZINOPHOS) AND ITS OXYGEN ANALOG IN SOIL AND PLANT TISSUES.
U Klugemag L C Terriere
J Agr Food Ch 11(4):293-297, TABS.
Jul 1963 381 J8223
Nematocides, O,O-diethyl O-2-pyrazinyl phosphorothioate, Pesticide residues, Spectrophotometry, Zinophos.
- 1485-67**
A MODIFIED ANALYTICAL METHOD FOR MICROGRAM AMOUNTS OF METALDEHYDE IN PLANT MATERIAL.
Y Kimura V L Miller
J Agr Food Ch 12(3):249-250
May 1964 381 J8223
Metaldehyde, Pesticide residues, Plant extracts.
- 1486-67**
A BROAD VIEW OF THE PROBLEM OF ADDITIVES IN FEEDS AND FOODS.
C G King
J Agr Food Ch 11(5):363-364
Sep 1963 381 J8223
Feed additives, Food, Nutrition.
- 1487-67**
DETERMINATION OF POLYCHLORINATED BENZOIC ACID HERBICIDE RESIDUES BY GAS CHROMATOGRAPHY.
J J Kirkland A L Pease
J Agr Food Ch 12(5):468-472
Sep 1964 381 J8223
Benzoic acid, Chromatography, Herbicide residues.
- 1488-67**
PESTICIDES AND FOOD FLAVOR: STUDIES IN TASTE PANEL METHODOLOGY.
A Kramer E F Murphy A M Briant M Wang
J Agr Food Ch 9(3):224-228
May 1961 381 J8223
Food flavor, Pesticides, Taste testing.
- 1489-67**
HERBICIDE RESIDUES IN MILK: FORM AND MAGNITUDE OF 2,2-DICHLOROPROPIONIC ACID (DALAPON) RESIDUES IN MILK.
A H Kutschinski
J Agr Food Ch 9(5):365-368
Sep 1961 381 J8223
Dalapon, Herbicides, Insecticide residues, Milk.
- 1490-67**
RAPID CLEANUP OF DAIRY PRODUCTS FOR ANALYSIS OF CHLORINATED INSECTICIDE RESIDUE BY ELECTRON CAPTURE GAS CHROMATOGRAPHY.
B E Langlois A R Stemp B J Liska
J Agr Food Ch 12(3):243-245
May 1964 381 J8223
Chromatography, Dairy products, Insecticide residues.
- 1491-67**
FUNGICIDE RESIDUES: A MODIFIED GI88S METHOD FOR THE DETERMINATION OF 1 P.P.M. OR LESS OF O-PHENYLPHENOL IN FRUITS.
L R Leinbach J E Brekke
J Agr Food Ch 9(3):205-206
May 1961 381 J8223
Distillation, Fruit, Fungicides, Insecticide residues, Phenylphenol.
- 1492-67**
VERTICAL DISTRIBUTION AND PERSISTENCE OF INSECTICIDAL RESIDUES IN SOILS AS INFLUENCED BY MODE OF APPLICATION AND A COVER CROP.
E P Lichtenstein C H Mueller G R Myrdal K R Schulz
J Econ Entom 55(2):215-219, TABS.
Apr 1962 421 J822
Cover crops, Insecticide application, Insecticide residues, Soils.
- 1493-67**
HERBICIDE RESIDUES: DETERMINATIONS OF SMALL AMOUNTS OF ARSENIC IN POTATOES. EXTRACTION AND REDUCTION OF MOLYBDOARSENIC ACID.
D J Lisk
J Agr Food Ch 8(2):121-123
Mar 1960 381 J8223
Arsenic, Molybdoarsenic acid, Potatoes.
- 1494-67**
THE EFFECT OF HUMIDITY ON THE VOLATIZATION OF CERTAIN INSECTICIDES.
W F Lyon R W Davidson
J Econ Entom 58(5):1037
Oct 1965 421 J822
Humidity, Insecticides, Volatization.
- 1495-67**
AN IMPROVED COLORIMETRIC METHOD FOR DETERMINING ENDOSULFAN (THIODAN) RESIDUES IN VEGETABLES AND BEEF FAT.
J C Maitlen K Walker W E Westlake
J Agr Food Ch 11(5):416-418
Sep 1963 381 J8223
Colorimetry, Endosulfan, Insecticide residues.

BIBLIOGRAPHY

55 1496-67

- 1496-67
HERBICIDE DETERMINATION: A NEW BASIC PROCEDURE FOR DETERMINING PHENOXY ACID HERBICIDES IN AGRICULTURAL PRODUCTS.
R P Marquardt E N Luce
J Agr Food Ch 9(4):266-270
Jul 1961 3B1 JB223
Agricultural products, Herbicides, Phenoxy acid.
- 1497-67
DETERMINATION OF RESIDUAL 4-DIMETHYLAMINO-3,5-XYLYL METHYL-CARBAMATE AND 4-DIMETHYLAMINO-3,5-XYLENOL BY USE OF LUTEO-ARSENOTUNGSTIC ACID.
R P Marquardt E N Luce
J Agr Food Ch II(5):41B-422, TABS.
Sep 1963 3B1 JB223
Insecticide residues, Luteoarsenotungstic acid, 4-dimethyl-amino-3,5-xylyl methylcarbamate, 4-dimethylamino-3,5-xyleneol.
- 1498-67
PESTICIDES AND FOOD FLAVOR: INFLUENCE OF HERBICIDES ON FLAVOR OF PROCESSED FRUITS AND VEGETABLES.
F J McArdie A N Mareztki R C Wiley M G Modrey
J Agr Food Ch 9(3):22B-230
May 1961 3B1 JB223
Food flavor, Fruit, Vegetables.
- 1499-67
SEVIN RESIDUES IN POULTRY PRODUCTS.
C F McCay B W Arthur
J Econ Entom 55(6):936-93B, TABS.
Dec 1962 42I JB22
Carbaryl, Insecticides, Poultry, Residues.
- 1500-67
EFFECT OF ENVIRONMENTAL FACTORS ON PHOSPHAMIDON DEGRADATION.
R E Menzer L P Ditman
J Agr Food Ch II(2):170-173
Mar 1963 3B1 JB223
Environment, Insecticide residues, Phosphamidon.
- 1501-67
INSECTICIDE RESIDUES IN MEAT AND MILK: DETERMINATION OF HEPTACHLOR EPOXIDE IN FAT AND MILK.
C F Meyer M A Maina P B Polen
J Agr Food Ch 8(3):1B3-1B6, FIGS
May 1960 3B1 JB223
Fats, Heptachlor epoxide, Insecticide residues, Meat, Milk.
- 1502-67
A COLORIMETRIC PROCEDURE FOR THE MICRODETERMINATION OF SULFONAMIDES IN ANIMAL TISSUES.
R P Mooney N R Pasarella
J Agr Food Ch 12(2):123-127, TABS.
Mar 1964 3B1 JB223
Colorimetry, Drug residues, Feed additives, Sulfonamides.
- 1503-67
METABOLISM OF TWO FORMS OF DIETARY ARSENIC BY THE RAT.
K Morgareidge
J Agr Food Ch II(5):377-37B
Sep 1963 3B1 JB223
Arsenic, Feed additives, Metabolism, Rats.
- 1504-67
IDENTIFICATION OF HALOGENATED PESTICIDES BY MASS SPECTROSCOPY.
R O Mumma T R Kantner
J Econ Entom 59(2):49I-492, BIBL.
Apr 1966 42I JB22
Halogenated, Pesticide residues, Pesticides, Spectroscopy.
- 1505-67
PESTICIDES AND FOOD FLAVOR: EFFECT OF INSECTICIDES AND FUNGICIDES ON THE FLAVOR QUALITY OF FRUITS AND VEGETABLES.
E F Murphy A M Briant M L Dodds I S Fagerson
M E Kirkpatrick R C Wiley
J Agr Food Ch 9(3):214-223, TABS.
May 1961 3B1 JB223
Food flavor, Fruit, Fungicides, Insecticides, Vegetables.
- 1506-67
INSECTICIDE RESIDUE STUDIES: DETERMINATION OF HEPTACHLOR AND HEPTACHLOR EPOXIDE IN SOILS.
R T Murphy W F Barthel
J Agr Food Ch 8(6):442-445
Nov 1960 3B1 JB223
Heptachlor, Heptachlor epoxide, Insecticide residues.
- 1507-67
DIMETHOATE RESIDUES IN LEAFY CROPS.
K A Neilson R E Menzer L P Ditman
J Econ Entom 59(2):404-407, BIBL. 406
Apr 1966 42I JB22
Dimethoate, Insecticide residues, Vegetables.
- 150B-67
METHOXYCHLOR IN EGGS AND CHICKEN TISSUES.
C E Diney W E Donaldson T W Kerr
J Econ Entom 55(4):477-479, TABS.
Aug 1962 42I JB22
Chicks, Eggs, Insecticide residues, Methoxychlor, Tissues.
- 1509-67
FORCED VOLATILIZATION CLEANUP OF BUTTERFAT FOR GAS CHROMATOGRAPHIC EVALUATION OF ORGANOCHLORINE INSECTICIDE RESIDUES.
D E Ott F A Gunther
J Agr Food Ch 12(3):239-243, BIBL. 243
May 1964 3B1 JB223
Chromatography, Insecticide residues, Milk fat.
- 1510-67
METABOLIC STABILITY OF RADIOACTIVE ARSANILIC ACID IN CHICKENS.
L R Overby R L Fredrickson
J Agr Food Ch II(5):37B-3B1
Sep 1963 3B1 JB223
Arsanilic acid, Chicks, Feed additives, Metabolism.
- 1511-67
INSECTICIDE-MITICIDE RESIDUES: DETERMINATION OF TRITHION CROP RESIDUES BY CHOLINESTERASE INHIBITION MEASUREMENT.
G G Patchett G H Batchelder
J Agr Food Ch 8(1):54-57, TABS.
Jan 1960 3B1 JB223
Carbophenothion, Cholinesterases.
- 1512-67
DETERMINATION OF STRONTIUM-90 IN MILK BY AN ION EXCHANGE METHOD.
C Porter D Cahill R Schneider P Robbins W Perry B Kahn
Anal Ch 33(10):1306-130B
Sep 1961 3B1 JB25A
Ion exchange, Milk, Strontium-90.
- 1513-67
INSECTICIDE RESIDUES IN MILK: EXCRETION OF CO-RAL IN THE MILK OF DAIRY CATTLE.
R D Radeleff H V Ciaborn
J Agr Food Ch 8(6):437-439
Nov 1960 3B1 JB223
Co-Ral, Dairy cattle, Insecticide residues, Milk.
- 1514-67
THE SIGNIFICANCE FOR THE PROCESSOR OF FEED ADDITIVE RESIDUES IN FOODS.
E E Rice
J Agr Food Ch II(5):375-376
Sep 1963 3B1 JB223
Feed additives, Food processing, Food residues.
- 1515-67
DISSIPATION OF DIAZINON RESIDUES IN WHEAT.
C C Roan B P Srivastava
J Econ Entom 58(5):996-99B
Oct 1965 42I JB22
Wheat.
- 1516-67
FACTORS CONTRIBUTING TO THE LOSS OF INSECTICIDE DEPOSITS ON CATTLE.
R H Roberts W F Chamberlain
J Econ Entom 56(5):614-61B, TABS.
Oct 1963 42I JB22
Cattle, Insecticide deposits.
- 1517-67
COLORIMETRIC DETERMINATION OF 2,6-DICHLORO-4-NITROANILINE IN PLANTS AND SOIL.
J Roburn
J Sci Food A 12(II):766-772
Nov 1961 3B2 5012
Colorimetry, Soil analysis, 2,6-dichloro-4-nitroaniline.
- 151B-67
RATES OF DISAPPEARANCE OF ZOLONE AND IMIDAN FROM ALFALFA.
F R Shan R A Callahan M C Miller
J Econ Entom 59(6):1524-1525
Dec 1966 42I JB22

BIBLIOGRAPHY

55 1538-67

- Aifaifa, Imidan, Insecticide residues, Zoione.
- 1519-67
DISAPPEARANCE OF GUTHION FROM FORAGE CROPS IN MASSACHUSETTS.
F R Shaw C T Smith W J Fischang
J Econ Entom 55(5):793-794, TABS.
Oct 1962 42I J822
Azinphosmethyl, Azinphosmethyl, Forage plants,
Insecticide residues, Massachusetts.
- 1520-67
THE DISAPPEARANCE OF RESIDUES OF 8IDRIN FROM ALFALFA.
F R Shaw R A Callahan F R Hoibrook
J Econ Entom 59(2):4B7
Apr 1966 42I J822
Alfaifa, 8idrin, Insecticide residues.
- 1521-67
DYLOX RESIDUES ON VEGETABLE CROPS.
H H Shorey L D Anderson T R Fukuto
J Econ Entom 56(4):532
Aug 1963 42I J822
Crops, Insecticide residues, Trichlorfon, Vegetables.
- 1522-67
RECOVERY OF ETHYLENE DIBROMIDE RESIDUES FROM FUMIGATED WHOLE
KERNEL AND MILLED WHEAT FRACTIONS.
W B Sinclair D L Lindgren R Forbes
J Econ Entom 55(6):836-842, TABS.
Dec 1962 42I J822
Ethylene dibromide, Fumigation, Insecticide residues,
Milled wheat, Wheat, Whole kernel wheat.
- 1523-67
FEED ADDITIVE RESIDUES: DETERMINATION OF 3,5-DINITRO-O-TOLU-
AMIDE (ZOALENE) IN CHICKEN TISSUES.
G N Smith B J Theigs M G Swank
J Agr Food Ch 9(3):197-201
May 1961 38I J8223
Chickens, Feed additives, Zoalene.
- 1524-67
PESTICIDE RESIDUES: MODIFIED AND IMPROVED PROCEDURE FOR
SCHONIGER TOTAL CHLORINE RESIDUE ANALYSIS.
L E St. John Jr D J Lisk
J Agr Food Ch 9(6):468
Nov 1961 38I J8223
Insecticide residues, Pesticides, Quantitative analysis,
Schoniger total chlorine residue analysis.
- 1525-67
PERSISTENCE OF DIMETHOATE RESIDUES IN HEMLOCK TREATED FOR
HEMLOCK FLORINIA SCALE AS DETERMINED BY OXYGEN FLASK COMBUS-
TION.
L E St. John Jr W E Wallner J A Weidhaas Jr D J Lisk
J Econ Entom 57(1):103-105
Feb 1964 42I J822
Dimethoate, Florinia externa, Insecticide residues, Tsuga.
- 1527-67
FUNGICIDE RESIDUES: COLORIMETRIC ESTIMATION OF
DODECYLGUANIDINE ACETATE RESIDUES.
W A Steiler K Kiotsas E J Kuchar M V Norris
J Agr Food Ch 8(6):460-464, TABS.
Nov 1960 38I J8223
Colorimetry, Dodecylguanidine acetate, Fungicide residues.
- 1528-67
BIOLOGICAL ASSAY OF INSECTICIDES USING THE BRINE SHRIMP,
ARTEMIA SALINA (L).
J H Stevenson
J Sci Food A 12(9):650-652
Sep 1961 382 S012
Artemia salina (L), Biological assay, Brine shrimp,
Insecticides.
- 1529-67
DETERMINATION OF TRACE AMOUNTS OF NITROFURAZONE IN MILK.
L R Stone
J Agr Food Ch 12(2):121-123
Mar 1964 38I J8223
Drug residues, Feed additives, Milk, Nitrofurazone.
- 1530-67
FEED ADDITIVE RESIDUES: DETERMINATION OF 3-AMINO-5-NITRO-O-
TOLUAMIDE (ANOT) IN CHICKEN TISSUES.
B J Theigs G N Smith J L Sevirt
J Agr Food Ch 9(3):201-204
May 1961 38I J8223
Chickens, Feed additives, ANOT.
- 1531-67
DETERMINATION OF RESIDUAL BROMIDE IN CACAO SHELL AND NIB.
A Turner
J Sci Food A 15(4):265-268
Apr 1964 382 S012
Bromides, Cacao.
- 1532-67
PHORATE RESIDUES IN TOMATO FRUIT AND FOLIAGE.
C H Van Middlelem R M Baranowski
J Econ Entom 55(5):600-603, TABS.
Oct 1962 42I J822
Insecticide residues, Phorate, Tomatoes.
- 1533-67
INSECTICIDE RESIDUES: TOXAPHENE RESIDUES ON PANGOLAGRASS.
C H Van Middlelem W G Genung E G Keisheimer L C Kuitert
J Agr Food Ch 8(4):289-292, TABS.
Jul 1960 38I J8223
Digitaria decumbens, Insecticide residues, Toxaphene.
- 1535-67
MORTALITY OF BUMBLE BEES IN COMMERCIAL LOW-BUSH BLUEBERRY
FIELDS DUSTED WITH CALCIUM ARSENATE.
G A Wood F A Wood
J Econ Entom 55(4):537-539
Aug 1962 42I J822
Blueberries, Bombus, Bombus, Calcium arsenate, Mortality.
- 1536-67
HERBICIDE RESIDUES: COLORIMETRIC MICRODETERMINATION OF I-
CHLORO-2-NITROBENZENE IN PINEAPPLE.
H Y Young
J Agr Food Ch 8(3):213-214, TABS.
May 1960 38I J8223
Colorimetry, Herbicide residues, Microanalysis, Pineapples,
I-chloro-2-nitrobenzene.
- 1537-67
RESIDUE DETERMINATION OF NAPHTHALENEACETIC ACID IN OLIVES.
G Zweig D L Gutnick R Guili T E Archer H T Hartmann
J Agr Food Ch 12(1):59-61
Jan 1964 38I J8223
Naphthaleneacetic acid, Olives, Olives,
Plant growth regulator, Thinning (fruit).
- 1538-67
INSECTIDE RESIDUES: RESIDUE ANALYSIS OF A CHLORINATED
INSECTICIDE (THIODAN) BY COMBINATION OF GAS CHROMATOGRAPHY
AND INFRARED SPECTROPHOTOMETRY.
G Zweig T E Archer D. Rubenstein
J Agr Food Ch 8(5):403-405
Sep 1960 38I J8223
Chromatography, Endosulfan, Insecticide residues,
Spectrophotometry.

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- 1539-67
LOW CALORIC VALUE OF CAROBS AS THE POSSIBLE CAUSE OF GROWTH DEPRESSION IN CHICKS.
E Alimot E Wachtomi S Bornstein
J Sci Food A 15(4):259-265
Apr 1964 3B2 SD12
Calorific value, Chicks, Growth factors.
- 1540-67
TOXICOLOGIC STUDIES ON PYRETHRIN-TYPE ESTERS OF CHRYSANTHEMUMIC ACID. I. CHRYSANTHEMUMIC ACID, 6-CHLOROPIPERONYL ESTER (BARTHRIIN).
A M Ambrose
Toxicol Appl Pharmac 5:414-426
1963 391.B T662
Barthrin, Chrysanthemumic acid, Esters, Pyrethrum.
- 1541-67
TOXICOLOGIC STUDIES ON ARMAZIDE.
H J Antonides P Chacharonis
Toxicol Appl Pharmac 4(1):44-54
Jan 1962 391.B T662
Alglicides, Armazide.
- 1542-67
THE CONTROL OF MITES ON DECIDUOUS FRUIT CROPS WITH BINAPACRYL.
R O Arias I A Rammer E A Kurtz S R Siemer
J Econ Entom 57(1):116-119, BIBL., TABS.
Feb 1964 421 JB22
Binapacryl, Fruit, Mites.
- 1543-67
MYCOTOXINS II. THE BIOLOGICAL ASSAY OF AFLATOXIN IN PEKING WHITE DUCKLINGS.
B H Armbrrecht O G Fitzhugh
Toxicol Appl Pharmac 6(4):421-425, BIBL. (425-426).
Jul 1964 391.B T662
Aflatoxin, Biological assay, Mycotoxicosis, Peking ducks.
- 1544-67
DDT- METABOLISM AND EXCRETION IN COLEOMEGILLA MACULATA DE GEER.
Y H Atallah W C Nettles Jr
J Econ Entom 59(3):560-564
Jun 1966 421 JB22
Coleomegilla maculata, DDT, Excreta, Metabolism.
- 1545-67
TOXICITY OF SEVERAL INSECTICIDES TO THE ADULT ALFALFA SEED CHALCID IN LABORATORY TESTS.
O G Bacon W D Riley
J Econ Entom 56(4):542-543
Aug 1963 421 JB22
Alfalfa seed chalcid, Bruchophagus roddi (Gussakovsky), Insecticides, Toxicology.
- 1546-67
EFFECT OF FORMULATION ON TOXICITY TO PLANTS AND INSECTS OF SOME SYSTEMIC INSECTICIDAL SEED DRESSINGS.
R Bardner
J Sci Food A 11(12):736-744, TABS.
Dec 1960 3B2 SD12
Seed dressings, Systemic insecticides, Toxicology.
- 1547-67
SPECIFICITY OF CARBAMATE INDUCED ESTERASE INHIBITION IN MICE.
R L Baron J L Casterline Jr O G Fitzhugh
Toxicol Appl Pharmac 6(4):402-410, TABS
Jul 1964 391.B T662
Carbamates, Esterases, Mice.
- 1548-67
TOXICITY AND ACCEPTANCE OF SOME PESTICIDES FED TO PARASITIC HYMENOPTERA AND PREDATORY COCCINELLIDS.
B R Bartlett
J Econ Entom 59(5):1142-1149
Oct 1966 421 JB22
- Coccinellids, Hymenoptera, Parasitic insects, Pesticides.
- 1549-67
TOXICITY OF SOME PESTICIDES TO EGGS, LARVAE, AND ADULTS OF THE GREEN LACEWING, CHRYSOPA CARNEA.
B R Bartlett
J Econ Entom 57(3):366-369, BIBL.
Jun 1964 421 JB22
Adults, Chrysopa carnea, Green lacewing, Insect eggs, Larvae, Pesticides, Toxicology.
- 1550-67
THE CONTROL OF RIPERSIA ORYZAE GREEN, A MEALYBUG OF THE PADDY PLANT IN WEST BENGAL.
A C Basu S N Banerjee
J Econ Entom 58(4):621-623
Aug 1965 421 JB22
Carbophenothion, Pseudococcidae, Pseudococcidae, Rice, Ripersia oryzae Green.
- 1551-67
BENZENE HEXACHLORIDE EMULSION AS A SUMMER CONTROL OF THE SOUTHERN PINE BEETLE.
W H Bennett L S Pickard
J Econ Entom 59(2):4B4
Apr 1966 421 JB22
Benzene hexachloride, Dendroctonus frontalis.
- 1552-67
INHIBITION OF CHOLINESTERASE AND ALI-ESTERASE IN PARATHION AND PARAOXON POISONING IN THE HOUSE FLY.
W C Bigley
J Econ Entom 59(1):60-65
Feb 1966 421 JB22
Aliphatic esterases, Cholinesterases, Musca domestica, Musca domestica, Paraoxon, Parathion, Toxicology.
- 1553-67
DETERMINATION OF FALLOUT CESIUM-137 IN ANIMAL AND PLANT TISSUES.
C Blincoe
J Agr Food Ch 9(2):127-129
Mar 1961 3B1 JB223
Cesium isotopes, Cesium-137, Plant contamination, Radioactive contamination.
- 1554-67
EFFECTIVENESS OF INSECTICIDES FOR CONTROL OF THE LESSER PEACH TREE BORER.
M L Bobb
J Econ Entom 59(4):971-973 PL.
Aug 1966 421 JB22
Insecticides, Synanthedon pictipes, Synanthedon pictipes.
- 1555-67
EVALUATION OF SOIL INSECTICIDE TREATMENTS FOR CONTROL OF CYCLODIENE-RESISTANT SOUTHERN CORN ROOTWORMS.
G M Boush M W Alexander
J Econ Entom 57(4):465-46B
Aug 1964 421 JB22
Cyclodiene, Diabrotica undecimpunctata howardi, Diabrotica undecimpunctata howardi Barber, Insecticide resistant insects, Soil insecticides.
- 1556-67
BIOLOGICAL AND CHEMICAL PROPERTIES OF DIMETHOATE AND RELATED DERIVATIVES.
U E Brady Jr B W Arthur
J Econ Entom 56(4):477-482, BIBL., 4B2, TABS
Aug 1963 421 JB22
Biochemistry, Dimethoate.
- 1557-67
PYRETHRUM REACTION AEROSOL.
H G Bremer
J Econ Entom 57(1):62-67, TABS.
Feb 1964 421 JB22
Insecticidal aerosols, Pyrethrum.
- 1558-67
STUDIES ON THE CHRONIC TOXICITY OF PRO-NOXFISH, A PROPRIETARY SYNERGIZED ROTENONE FISH-TOXICANT.
I C Brooks R W Price
Toxicol Appl Pharmac 3(1):49-56
Jan 1961 391.B T662
Fish poisons, Pro-noxfish, Rotenone.

- 1S59-67
MECHANISMS OF FUNGITOXIC ACTION OF N-DODECYLGUANIDINE ACETATE.
I F Brown H D Sisler
Phytopatholo 50(11):830-839
Nov 1960 464.8 P56
Fungicides, N-dodecylguanidine acetate.
- 1S60-67
LABORATORY AND GREENHOUSE EXPERIMENTS WITH A NEW SERIES OF SYSTEMIC INSECTICIDES.
D L Bull D A Lindquist V S House
J Econ Entom 57(1):112-116, TABS.
Feb 1964 421 J822
Anthonomus grandis Boheman, Systemic insecticides.
- 1S61-67
SYNERGISM OF ORGANOPHOSPHORUS SYSTEMIC INSECTICIDES.
D L Bull D A Lindquist V S House
J Econ Entom 58(6):11S7-11S9
Dec 1965 421 J822
Insecticide synergists, Organophosphorus.
- 1S62-67
GROWTH, REPRODUCTION, MORTALITY, AND PATHOLOGIC CHANGES IN RATS FED GAMMA IRRADIATED POTATOES.
C H Burns G D Abrams L E Brownell
Toxicol Appl Pharmac 2(1):111-131, TABS.
Jan 1960 391.8 T662
Animal morphology, Animal mortality, Animal physiology, Gamma rays, Irradiated food, Potatoes, Rats.
- 1S63-67
RADIONUCLIDES IN MILK.
J E Campbell G K Murthy C P Straub K H Lewis J G Terrill
J Agr Food Ch 9(2):117-122, TABS.
Mar 1961 381 J8223
Food contamination, Milk, Milk analysis, Radionuclides.
- 1S64-67
A ONE-YEAR STUDY OF THE TOXICITY OF ETHAMBUTOL IN DOGS: RESULTS OF GROSS AND HISTOPATHOLOGIC EXAMINATIONS.
V P Cappiello W M Layton Jr
Toxicol Appl Pharmac 7(6):844-849
Nov 1965 391.8 T662
Dogs, Ethambutol, Histopathology, Toxicology.
- 1S65-67
HERBICIDE TOXICITY: MAMMALIAN TOXICITY OF SESONE HERBICIDE.
C P Carpenter C S Weil H F Smyth Jr.
J Agr Food Ch 9(5):382-385
Sep 1961 381 J8223
Herbicides, Sesone, Toxicology.
- 1S66-67
MAMMALIAN TOXICITY OF 1-NAPHTHYL-N-METHYLCARBAMATE (SEVIN INSECTICIDE).
C P Carpenter C S Weil P E Palm M W Woodside J H Nair III
J Agr Food Ch 9(1):30-39, 8I8L. 39
Jan 1961 381 J8223
Carbaryl.
- 1S67-67
A STUDY OF THE DERMAL TREATMENT OF A STEER WITH C14-LABELED IMIDAN.
W F Chamberlain
J Econ Entom 58(1):51-55
Feb 1965 421 J822
Beef cattle, Hypoderma lineatum (deVilliers), Imidan, Insecticide application, Labeling.
- 1S68-67
STRUCTURE-ACTIVITY RELATIONSHIPS IN ANALOGS OF TEPA AND HEMPA.
S C Chang A B Borkovec
J Econ Entom 59(6):13S9-1362
Dec 1966 421 J822
Chemosterilants, Hempa, Musca domestica, Tapa.
- 1S69-67
EFFECT OF SESAMEX ON TOXICITIES OF INDIVIDUAL PYRETHRINS.
S C Chang C W Kearns
J Econ Entom 58(6):919-922
Dec 1962 421 J822
Pyrethrum, Sesamex, Toxicology.
- 1S70-67
BARK BEETLE MORTALITY IN TREES INJECTED WITH CACODYLIC ACID (HERBICIDE).
J F Chansler D A Pierce
J Econ Entom 59(6):13S7-13S9
Dec 1966 421 J822
Cacodylic acid, Dendroctonus adjunctus, Dendroctonus obesus, Dendroctonus ponderosae, Dendroctonus pseudotsugae, Herbicides, Scolytidae.
- 1S71-67
GOSSYPOL EXTRACTANTS: ORAL TOXICITY TO POULTRY OF A COMMERCIAL OCTYLAMINE.
S P Clark R T DuBoise
J Agr Food Ch 8(2):147-1S1, TABS.
Mar 1960 381 J8223
Amines, Armeen 8D, Gossypol, Octylamine, Poultry, Toxicology.
- 1S72-67
BIOLOGICAL EFFECTS OF SR90 IN MINIATURE SWINE.
W J Clarke
Amer Coll Vet Toxicol Pr 31-36
1960 391.9 AM3
SR90, Radiobiology, Swine.
- 1S73-67
INSECTICIDE EFFECTS ON ANIMALS: RESPONSE OF EXPERIMENTAL ANIMALS TO PHOSDRIN INSECTICIDE IN THEIR DAILY DIETS.
F P Cleveland J F Treon
J Agr Food Ch 9(6):484-488, 8I8L. 488
Nov 1961 381 J8223
Animal nutrition, Mevinphos.
- 1S74-67
A HOST-PARASITE SYSTEM FOR TESTING SYSTEMIC INSECTICIDES.
C M Clifford
J Econ Entom 59(3):738-740
Jun 1966 421 J822
Parasitism, Systemic insecticides.
- 1S75-67
APPROACHES TO MECHANISMS OF INSECTICIDAL ACTION.
E H Colhoun
J Agr Food Ch 8(4):2S2-2S7, 8I8L. 2S7, TABS.
Jul 1960 381 J8223
Insecticides.
- 1S76-67
LABORATORY EVALUATION OF VERTAIN CHEMOSTERILANTS AGAINST THE GYPSY MOTH.
C W Collier J E Downey
J Econ Entom 58(4):649-6S1
Aug 1965 421 J822
Chemosterilants, Porthetria dispar, Porthetria dispar (L).
- 1S77-67
FURTHER AIRPLANE SPRAY TESTS WITH CARBARYL AGAINST GYPSY MOTH IN NEW YORK.
D P Connola J J Homiak R C Sweet
J Econ Entom 59(5):1225-1226
Oct 1966 421 J822
Aircraft disinfection, Carbaryl, New York, Porthetria dispar, Porthetria dispar (L).
- 1S78-67
LABORATORY TESTS WITH 8IDRIN INSECTICIDE.
R A Corey
J Econ Entom 58(1):112-114
Feb 1965 421 J822
8idrin, Chromaphis juglandicola, Chromaphis juglandicola (Kaltenbach), Epilachna varitellaris Mulsant, Epilachna varivestis, Erythroneura comes, Erythroneura comes (Say), Tetranychus telarius, Tetranychus urticae.
- 1S79-67
LABORATORY AND FIELD EVALUATION OF SD 9129 AS AN INSECTICIDE.
R A Corey W C Moye W E Hall
J Econ Entom 58(4):6S8-660, TABS.
Aug 1965 421 J822
Insecticides, SD 9129, Lepidoptera.
- 1S80-67
PESTICIDE RESIDUE ANALYSIS: MICROCOULOMETRIC GAS CHROMATOGRAPHY OF PESTICIDES.
D M Coulson L A Cavanagh J E De Vries B Waither
J Agr Food Ch 8(5):399-402, TABS.
Sep 1960 381 J8223
Chromatography, Coulometers, Pesticide residues, Pesticides.

BIBLIOGRAPHY

60 1581-67

- 1581-67
TOXICITY OF INSECTICIDE RESIDUES ON GRAPE FOLIAGE TO RED-BANDED LEAF ROLLER.
J A Cox
J Econ Entom 59(2):318-322, TABS.
Apr 1966 421 J822
Argyrotaenia velutinana, Argyrotaenia velutinana (Walker), Grapes.
- 1582-67
STORAGE AND EXCRETION OF DDT IN STARVED RATS.
W E Dale T B Gaines W J Hayes Jr
Toxicol Appl Pharmac 4(1):89-106, TABS.
Jan 1962 391.8 T662
DDT, Rats, Starvation.
- 1583-67
PHYTOTOXICITY OF GAS MIXTURES: PLANT DAMAGE AND EYE IRRITATION FROM OZONE-HYDROCARBON REACTIONS.
E F Darley J T Middleton M J Garber
J Agr Food Ch 8(6):483-485
Nov 1960 381 J8223
Eye irritation, Gases, Hydrocarbons, Ozone, Plant diseases, Toxicology.
- 1584-67
EXPERIMENTAL INSECTICIDES APPLIED AS SPRAYS TO CONTROL THRIPS AND THE COTTON FLEAHOPPER.
J W Davis C B Cowan Jr W C Watkins Jr P D Lindgren
J Econ Entom 59(4):980-982, TABS.
Aug 1966 421 J822
Experimental insecticides, Frankliniella sp., Psallus seriatus, Psallus seriatus, Spraying, Thrips.
- 1585-67
FIELD EXPERIMENTS WITH INSECTICIDES ON COTTON FOR CONTROL OF THE BOLL WEEVIL, BOLLWORM, AND COTTON LEAFWORM IN 1961.
J W Davis C B Cowan Jr C R Parencla Jr
J Econ Entom 55(5):688-692
Oct 1962 421 J822
Alabama argillacea, Alabama argillacea (Huebner), Anthonomus grandis, Anthonomus grandis Boheman, Cotton, Heliothis zea, Heliothis zea (Boddie), Insecticides.
- 1586-67
METABOLISM, STORAGE, AND EXCRETION OF C14-ENDOSULFAN IN THE MOUSE.
P Deema E Thompson G W Ware
J Econ Entom 59(3):546-550
Jun 1966 421 J822
C14-endosulfan, Excreta, Metabolism, Mice, Storage.
- 1587-67
SYNERGISM AMONG ORAL CARCINOGENS II. RESULTS OF THE SIMULTANEOUS FEEDING OF BLADDER CARCINOGENS TO DOGS.
W B Delchmann T Scottl J Radomski E Bernal M Coplan F Woods
Toxicol Appl Pharmac 7(5):657-666
Sep 1965 391.8 T662
Bladder, Carcinogens, Dogs, Insecticide synergists.
- 1588-67
A COMPARATIVE STUDY OF TOXICOLOGICAL TEST METHODS ON A POPULATION OF THE TWO-SPOTTED SPIDER MITE (TETRANYCHUS TELARIUS).
V Dittlich
J Econ Entom 55(5):644-648
Oct 1962 421 J822
Acaricides, Tetranychus telarius, Tetranychus urticae, Toxicology.
- 1589-67
EFFECTS OF CERTAIN INSECTICIDES ON EARTHWORMS.
C C Doane
J Econ Entom 55(3):416-418
Jun 1962 421 J822
Chemicals, Earthworms, Insecticides.
- 1590-67
THE STABILISING EFFECT OF PIPERONYL BUTOXIDE ON PYRETHRINS EXPOSED TO ULTRA-VIOLET LIGHT.
J M Donaldson J H Stevenson
J Sci Food A 11(7):370-373
Jul 1960 382 S012
Piperonyl butoxide, Pyrethrum, Ultraviolet rays.
- 1591-67
FURTHER EVALUATION OF ANIMAL SYSTEMIC INSECTICIDES, 1962.
R O Drummond
J Econ Entom 56(6):831-834, TABS.
Dec 1963 421 J822
- Hypoderma, Hypoderma bovis (L.), Hypoderma lineatum (de Villers), Systemic insecticides.
- 1592-67
INSECTICIDAL PROPERTIES OF SEVIN AGAINST SOME STORED-GRAIN INSECTS.
A El Khaiek H El Sebae
J Econ Entom 56(3):420-421
Jun 1963 421 J822
Carbaryl, Stored-product insects, Toxicology.
- 1593-67
TEMPERATURE EFFECTS ON TOXICITY OF SYNERGIZED CARBAMATE INSECTICIDES ON HOUSE FLIES.
O Enan H T Gordon
J Econ Entom 58(3):S13-S16, 81BL. S15-S16
Jun 1965 421 J822
Carbamates, Insecticide synergists, Musca domestica, Musca domestica L., Temperature.
- 1594-67
TOXICITY OF INTRAVENOUSLY INJECTED URANIUM IN GUINEA PIGS.
Daniel R Farnell
Toxicol Appl Pharmac 7(1):32-36
Jan 1965 391.8 T662
Guinea pigs, Kidneys, Toxicology.
- 1595-67
SOME FACTORS INFLUENCING THE OVICIDAL EFFECTIVENESS OF SATURATED PETROLEUM OILS AND SYNTHETIC ISOPARAFFINS.
B J Flori E H Smith P J Chapman
J Econ Entom 56(6):885-888
Dec 1963 421 J822
Grapholpitha molesta (Busck), Oils, Ovicides, Paraffins, Petroleum.
- 1596-67
EFFECT OF PRE- AND POST-TREATMENT TEMPERATURES, AGE OF DEPOSIT, AND REPELLENCY ON THE TOXICITY OF KELTHANE TO THE TWO-SPOTTED MITE, TETRANYCHUS TELARIUS (L.) (ACARINA: TETRANYCHIDAE).
R W Fisher R I C Hansell
Can Entom 96(10):1307-1312
Oct 1964 421 C16
Acarina, Dicofof, Temperature, Tetranychidae, Tetranychus telarius (L.).
- 1597-67
SCREENING INSECTICIDES FOR CONTROL OF THE ADULT PERIODICAL CICADA.
H Y Forsythe Jr
J Econ Entom 59(6):1413-1416
Dec 1966 421 J822
Insecticides, Maglicicada septendecim, Maglicicada septendecim.
- 1598-67
SYMPOSIUM ON RADIOACTIVE FALLOUT IN RELATION TO FOODS.
E B Fowler
J Agr Food Ch 9(2):90
Mar 1961 381 J8223
Food analysis, Radioactive contamination.
- 1599-67
TOXICOLOGIC INVESTIGATIONS OF DELNAV.
J P Frawley R Weir T Tusing K P DuBois J C Calandra
Toxicol Appl Pharmac 5:605-624
1963 391.8 T662
Dioxathion, Toxicology.
- 1600-67
THE SYNERGISM OF SUBSTITUTED PHENYL N-METHYLCARBAMATES BY PIPERONYL BUTOXIDE.
T R Fukuto R L Metcalf M Y Winton P A Roberts
J Econ Entom 55(3):341-345, TABS.
Jun 1962 421 J822
Musca domestica, Musca domestica, Phenyl N-methylcarbamates, Piperonyl butoxide, Toxicology.
- 1601-67
ETHYLENE OXIDE AS A FUMIGANT AGAINST INSECTS.
R A Fulton A H Yeomans W N Sullivan
J Econ Entom 56(6):906
Dec 1963 421 J822
Ethylene oxide.
- 1602-67
THE ACUTE TOXICITY OF PESTICIDES TO RATS.
T B Gaines
Toxicol Appl Pharmac 2(1):88-99

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BIBLIOGRAPHY

60 I623-67

- Jan 1960 39I.8 T662
Pesticides, Rats, Toxicology.
- 1603-67
MENAZON AS A SYSTEMIC INSECTICIDE IN CATTLE.
R L Goulding
J Econ Entom 55(5):577-579, TABS.
Oct 1962 42I JB22
Cattle, Menazon.
- 1604-67
FIELD TESTS WITH NEW INSECTICIDES FOR CONTROL OF ALFAFA WEEVIL LARVAE IN WESTERN NEBRASKA.
A F Hagen
J Econ Entom 55(4):574-575
Aug 1962 42I JB22
Hypera postica, Hypera postica (Gyllenhal), Insecticides, Larvae.
- 1605-67
TEST OF ATTRACTANTS FOR THE PALM WEEVIL.
A C Hagley
J Econ Entom 58(5):1002-1003
Oct 1965 42I JB22
Attractants, Palmae, Rhynchophorus palmarum.
- 1606-67
MECHANISM OF DETOXICATION AND SYNERGISM OF BIDRIN INSECTICIDE IN HOUSE FLIES AND SOIL.
W E Hall
J Econ Entom 58(5):845-849
Oct 1965 42I JB22
Bidrin, Diptera, Musca domestica, Soil fumigation.
- 1607-67
THE YOUNDEN SQUARE AS AN EXPERIMENTAL DESIGN FOR THE FIELD EVALUATION OF BOLL WEEVIL INSECTICIDES.
R L Hanna J K Walker Jr
J Econ Entom 56(5):586-588
Oct 1963 42I JB22
Anthonomus grandis, Anthonomus grandis Boheman, Insecticides, Youden Square.
- 1608-67
EFFECTS OF APHOLATE ON A RESTRICTED POPULATION OF HOUSE FLIES.
E J Hansens P Granett
J Econ Entom 58(1):157-158
Feb 1965 42I JB22
Apholate, Musca domestica, Musca domestica.
- 1609-67
LARVICIDE TESTS WITH COLONY-REARED CULICOIDES VARIIPENNIS.
R L Harris R H Jones
J Econ Entom 55(4):575-576
Aug 1962 42I JB22
Culicoides variipennis (Coquillett), Insect rearing, Larvicides.
- 1610-67
STIMULATORY EFFECTS OF CHLORDANE ON HEPATIC MICROSOMAL DRUG METABOLISM IN THE RAT.
L Hart R W Shultice J R Fouts
Toxicol Appl Pharmac 5:371-386
1963 39I.8 T662
Chlordane, Microsomes, Rats, Stimulants.
- 1611-67
CONCENTRATION OF DDT IN BRAIN AND OTHER TISSUES IN RELATION TO SYMPTOMATOLOGY.
W J Hayes Jr W E Dale
Toxicol Appl Pharmac 6(3):349
May 1964 39I.8 T662
Brain, DDT, Rats, Symptomatology, Tissues.
- 1612-67
OBSERVATIONS ON THE BIOLOGY OF THE SOUTHERN CORN ROOTWORM AND INSECTICIDAL TESTS FOR ITS CONTROL ON PEANUTS IN GEORGIA.
S Hays L Morgan
J Econ Entom 58(4):637-642, TABS.
Aug 1965 42I JB22
Diabrotica undecimpunctata howardi,
Diabrotica undecimpunctata howardi Barber, Georgia, Insecticides, Peanuts.
- 1613-67
EFFECTIVENESS OF INSECTICIDES AGAINST THE SORGHUM WEEVIL IN SORGHUM HEADS.
C F Henderson J H Hatchett H G Kinzer
J Econ Entom 56(4):483-484
Aug 1963 42I JB22
Azinphosmethyl, Carbaryl, Celama sorghiiella,
Celama sorghiiella (Riley), Disulfoton, Mevinphos, Parathion, Sorghum.
- 1614-67
EFFECTIVENESS OF INSECTICIDES AGAINST THE CORN LEAF APHID IN SORGHUM WHORLS.
C F Henderson J H Hatchett H G Kinzer
J Econ Entom 57(1):22-23
Feb 1964 42I JB22
Insecticides, Rhopalosiphum maidis, Rhopalosiphum maidis, Sorghum.
- 1615-67
EFFECTS OF SOME CHEMOSTERILANTS ON THE VIABILITY OF EGGS, FECUNDITY, MORTALITY, AND MATING OF THE CABBAGE LOOPER.
T J Henneberry A N Kishaba
J Econ Entom 59(1):156-159
Feb 1966 42I JB22
Chemosterilants, Fertility, Insect eggs, Mating habits, Mortality, Trichoplusia ni, Trichoplusia ni (Hubner).
- 1616-67
SYMPOSIUM ON THE MECHANISM OF ACTION OF PESTICIDE CHEMICALS.
D J Hennessy
J Agr Food Ch 8(4):252
Jul 1960 38I JB223
Pesticides, Toxicology.
- 1617-67
LABORATORY TRIALS OF SIX POLYBUTENE EMULSIONS AGAINST THE TWO-SPOTTED SPIDER MITE.
D H C Herne
J Econ Entom 55(6):845-848, TABS.
Dec 1962 42I JB22
Emulsions, Polybutenes, Tetranychus telarius, Tetranychus urticae, Toxicology.
- 1618-67
SALT INJURY TO TREES.
F W Holmes
Phytopathology 50(4):240
Apr 1960 46A.8 P56
Calcium chloride, Salts, Sodium chloride, Tree injuries.
- 1619-67
EVALUATION OF THREE ALTERNATIVE INSECTICIDES FOR CONTROL OF GRASSHOPPERS IN ALBERTA.
N D Holmes D S Smith S McDonald G E Swales L K Peterson
J Econ Entom 58(1):77-79
Feb 1965 42I JB22
Alberta, Grasshoppers, Insect control, Insecticides.
- 1620-67
MODE OF ACTION OF DIPYRIDYL QUATERNARY SALTS AS HERBICIDES.
R F Homer G C Mees T E Tomlinson
J Sci Food A 11(6):309-315, TABS.
Jun 1960 38I S012
Dipyridyl, Herbicides, Quaternary salts.
- 1621-67
THE EFFECT OF SOME FUNGICIDES ON THE FLAVOR OF CANNED STRAWBERRIES.
G W Hope
J Agr Food Ch 12(2):189-191
Mar 1964 38I JB223
Canned food, Food flavor, Fungicides, Strawberries.
- 1622-67
EVALUATION OF NEW INSECTICIDES FOR CONTROL OF ONION THRIPS.
A F Howland J Wilcox
J Econ Entom 59(4):969-971
Aug 1966 42I JB22
Insecticides, Thrips tabaci, Thrips tabaci.
- 1623-67
RESULTS OF CAGE EXPERIMENTS WITH STERILE MALE RELEASES AND A CHEMOSTERILANT TECHNIQUE FOR CONTROL OF CABBAGE LOOPER POPULATIONS.
A F Howland P Vail T J Henneberry
J Econ Entom 59(1):194-196
Feb 1966 42I JB22
Chemosterilants, Insect cages, Sterile males, Trichoplusia ni, Trichoplusia ni (Hubner).

BIBLIOGRAPHY

60 1624-67

- 1624-67
TOXIC EFFECTS OF HEXACHLORONAPHTHALENE ON SWINE.
W G Huber R P Link
Toxicol Appl Pharmac 4(2):257-262
Mar 1962 391.8 T662
Hexachloronaphthalene, Hyperkeratosis, Swine.
- 1625-67
HERBICIDAL ACTIVITY: MOLECULAR SIZE VS. HERBICIDAL ACTIVITY OF ANILIDES.
C W Huffman S E Allen
J Agr Food Ch 8(4):298-302, 818L. 302, TABS.
Jul 1960 381 J8223
Anilides, Molecular size.
- 1626-67
EFFECTS OF DDT, AS USED IN BLACK FLY LARVAL CONTROL, ON STREAM ARTHROPODS.
H Jannback H S Eabry
J Econ Entom 55(5):636-639, TABS.
Oct 1962 421 J822
Arthropoda, DDT, Larvae, Simuliidae, Simuliidae.
- 1627-67
CONTROL OF THRIPS AND APHIDS ON CARNATIONS WITH SYSTEMIC INSECTICIDES.
R N Jefferson F S Morishita S T Besemer W A Humphrey
J Econ Entom 57(3):357-360,
Jun 1964 421 J822
Dianthus caryophyllus, Dianthus caryophyllus, Frankiniella sp., Myzus persicae, Systemic insecticides, Thrips.
- 1628-67
CHEMICAL STRUCTURE AND TOXICITY OF SOME CARBAMOYLOXY PHOSPHORODITHIOATES TO SUSCEPTIBLE AND ORGANOPHOSPHORUS-RESISTANT STRAINS OF MITES.
L R Jepson M J Jessor J O Complin
J Econ Entom 59(1):185-187
Feb 1966 421 J822
Carbamoyloxy phosphorodithioates, Insecticide resistant insects, Mites, Organophosphorus, Panonychus citri (McGregor), Tetranychus pacificus McGregor, Toxicity.
- 1629-67
TESTS OF GUTHION FOR THE CONTROL OF THE DOUGLAS-FIR CONE MIDGE.
N E Johnson
J Econ Entom 55(5):613-616
Oct 1962 421 J822
Azinphosmethyl, Azinphosmethyl, Contarinia oregonensis Foote, Douglas-fir cone midge.
- 1630-67
A TEST OF SYSTEMIC INSECTICIDES TO CONTROL DOUGLAS-FIR CONE AND SEED INSECTS.
N E Johnson J H Rediske
J Econ Entom 58(5):1020-1021
Oct 1965 421 J822
Insecticides, Insects, Pseudotsuga menziesii, Seed insects.
- 1631-67
THE EFFECTS OF VARIOUS CHEMICALS ON EGGS OF THE YELLOW-FEVER MOSQUITO, Aedes Aegypti.
C L Judson Y Hokama A D Bray
J Econ Entom 55(5):805-807
Oct 1962 421 J822
Aedes aegypti, Chemicals, Culicidae, Insect eggs.
- 1632-67
TOXICITY OF THE DIALYZABLE FRACTION OF THE VENOM OF THE YELLOW SCORPION, LEIRUS QUINQUESTRIATUS, TO THE MIGRATORY LOCUST.
E Kamon
Toxic 2(4):255-259
May 1965 391.8 T66
Dialysis, Leirus quinquestriatus, Melanoplus sanguinipes, Melanoplus sanguinipes, Toxicology, Venoms, Yellow scorpion.
- 1633-67
EFFECTIVENESS OF SEVEN ORGANOPHOSPHORUS COMPOUNDS AS SPACE APPLICATIONS AGAINST MUSCA DOMESTICA.
J W Kilpatrick H F Schoof
J Econ Entom 56(5):560-563, TABS.
Oct 1963 421 J822
Insecticide application, Musca domestica L., Organic compounds, Phosphorus compounds.
- 1634-67
HORN FLY AND FACE FLY CONTROL STUDIES WITH DOW M-1816.
F W Knapp
J Econ Entom 55(5):816-817
Oct 1962 421 J822
Dow M-1816, Haematobia irritans, Haematobia irritans (L.), Musca autumnalis, Musca autumnalis De Geer, Toxicology.
- 1635-67
CHRONIC TOXICOLOGIC STUDIES ON ISOPROPYL N-(3-CHLOROPHENYL) CARBAMATE (CIPC).
P S Larson E M Crawford B R Smith Jr G R Hennigar H B Haag
Toxicol Appl Pharmac 2(6):659-673
Nov 1960 391.8 T662
Isopropyl N-(3-Chlorophenyl) carbamate, CIPC, Toxicology.
- 1636-67
CONTROL OF HOUSE FLIES IN OUTDOOR PRIVIES WITH LARVICIDES.
G C LaBrecque M C Evers D W Melfert
J Econ Entom 59(1):245
Feb 1966 421 J822
Larvicides, Musca domestica, Musca domestica L., Privies.
- 1637-67
LABORATORY TESTS OF INSECTICIDES ON MOSQUITO LARVAE IN POLLUTED AND TAP WATER.
L L Lewallen W H Wilder
J Econ Entom 56(6):834-835
Dec 1963 421 J822
Culex pipiens quinquefasciatus Say, Culicidae, Insecticides, Larvae, Water treatment.
- 1638-67
AN EVALUATION OF SEVERAL INSECTICIDES AGAINST PESTS OF BROCCOLI.
M F Littleford L P Ditman
J Econ Entom 56(6):766-767
Dec 1963 421 J822
Brevicoryne brassicae (L.), Broccoli, Insect pests, Insecticides, Plutella maculipennis (Curtis), Trichoplusia ni (Hubner).
- 1639-67
IMPORTED FIRE ANT TOXIC BAIT STUDIES: GC-1283, A PROMISING TOXICANT.
C S Lofgren C E Stringer F J Bartlett
J Econ Entom 55(3):405-407, TABS.
Jun 1962 421 J822
Baits, GC-1283, Solenopsis saevissima richteri, Solenopsis saevissima richteri, Toxicology.
- 1640-67
COTTON-PLANT PIGMENT AS A SOURCE OF RESISTANCE TO THE BOLL-WORM AND TOBACCO BUDWORM.
M J Lukefahr D F Martin
J Econ Entom 59(1):176-179
Feb 1966 421 J822
Cotton, Heliothis virescens, Heliothis virescens, Heliothis zea, Heliothis zea (Boddie), Pigments, Upland cotton.
- 1641-67
SPRAY DEPOSIT ON OIL-SENSITIVE CARDS AND SPRUCE BUDWORM MORTALITY.
B Maksymiuk
J Econ Entom 56(4):465-467, TABS.
Aug 1963 421 J822
Choristoneura fumiferana, Choristoneura fumiferana (Clemens), Insecticide application, Mortality, Spraying.
- 1642-67
THE EFFECT OF VARIOUS ADJUVANTS ON THE SYSTEMIC INSECTICIDAL ACTIVITY OF PHORATE AND ZECTRAN.
J W Matteson H M Taft
J Econ Entom 57(3):325-326
Jun 1964 421 J822
Phorate, Systemic insecticides, Zectran.
- 1643-67
ABSORPTION, EXCRETION, AND METABOLISM OF A NEW ANTIBACTERIAL AGENT, NALIDIXIC ACID.
E W McChesney E J Froelich G Y Leshner A V R Crain D Rosi
Toxicol Appl Pharmac 6(3):292-309, TABS.
May 1964 391.8 T662
Absorption (biological), Bactericides, Excreta, Metabolism, Nalidixic acid.

- 1644-67
TOXICOLOGIC INVESTIGATIONS OF POLYACRYLAMIDES.
D D McCallister C L Hake S E Sadek V K Rowe
Toxicol Appl Pharmac 7(S):639-651, TABS.
Sep 1965 391.8 T662
Separan AP30, Separan NPI0, Toxicology.
- 1645-67
COMPARATIVE LETHALITY OF SEVERAL LATRODECTUS VENOMS.
J D McCrone
Toxic 2(3):201-203
Dec 1964 391.8 T66
Latrodectus, Latrodectus mactans, Lethal factor, Venoms.
- 1646-67
EFFECTS OF INSECTICIDES ON THE SCORPION CENTRUROIDES VITTATUS.
T McGregor J F Flanigan
J Econ Entom 55(5):661-662
Oct 1962 421 J822
Centruroides vittatus (Say), Insecticides, Scorpionida.
- 1647-67
CARBAMATE INSECTICIDES: MULTISUBSTITUTED CHLORO-AND METHYL-PHENYL N-METHYLCARBAMATES.
R L Metcalf C Fuertes-Polo T R Fukuto
J Econ Entom 56(6):862-864
Dec 1963 421 J822
Carbamates, Chloro-phenyl N-methylcarbamates, Methyl-phenyl N-methylcarbamates.
- 1648-67
SELECTIVE INSECTICIDAL ACTION OF ISOPROPYL PARATHION AND ANALOGUES.
R L Metcalf M Frederickson
J Econ Entom 58(1):143-147
Feb 1965 421 J822
Apis mellifera L, Insecticides, Isopropyl parathion, Musca domestica L.
- 1649-67
INSECTICIDAL CARBAMATES: COMPARISON OF THE ACTIVITIES OF N-METHYL AND N,N-DIMETHYLCARBAMATES OF VARIOUS PHENOLS.
R L Metcalf T R Fukuto M Y Winton
J Econ Entom 55(3):345-347
Jun 1962 421 J822
Carbamates, Insecticides, N-methylcarbamate, N,N-dimethylcarbamate, Phenols, Toxicology.
- 1650-67
SILICON-CONTAINING CARBAMATE INSECTICIDES.
R L Metcalf T R Fukuto
J Econ Entom 58(6):1151
Dec 1965 421 J822
Carbamates, Silicon.
- 1651-67
EFFECTS OF LOW DOSAGES OF INSECTICIDAL SEED-TREATMENTS ON COTTON AND COTTON INSECTS.
W J Mistrlic E R Mitchell
J Econ Entom 59(1):57-60
Feb 1966 421 J822
Cotton, Dosage, Insecticides, Insects, Seed treatment.
- 1652-67
SIMPLE SCREENING TEST FOR SYSTEMIC APHICIDES.
T E Mittler J T Pennel
J Econ Entom 57(2):302-303
Apr 1964 421 J822
Aphididae, Systemic insecticides.
- 1653-67
TOXICOLOGY OF HYDROXYPYRIDINETHIONE.
R A Moe J Kirpan C R Linegar
Toxicol Appl Pharmac 2(2):156-170
Mar 1960 391.8 T662
Hydroxypyridinethione., Toxicology.
- 1654-67
THE EFFECT OF MANGANESE ETHYLENE BISDITHIOCARBAMATE (MANEB) ON SOME CHEMICAL CONSTITUENTS OF COLLETOTRICHUM CAPSICI.
A L Morehart D F Crossan
Toxicol Appl Pharmac 4(6):720-729, 818L. 728-729, TABS.
Nov 1962 391.8 T662
Colletotrichum capsici (Syd), Fungicides, Maneb.
- 1655-67
EVALUATION OF INSECTICIDES IN THE LABORATORY AGAINST ADULT AND LARVAL STABLE FLIES.
G A Mount J B Gahan C S Lofgren
J Econ Entom 58(4):685-687
Aug 1965 421 J822
Adults, Insecticides, Larvae, Stomoxys calcitrans, Stomoxys calcitrans.
- 1656-67
FIELD EVALUATION OF ORGANOPHOSPHATE INSECTICIDES AS SOIL TREATMENTS FOR THE CONTROL OF HIPPELATES GNATS.
M Mulia
J Econ Entom 58(4):654-658, 818L. 657-658, TABS.
Aug 1965 421 J822
Diptera, Hippelates collusor (Townsend), Hippelates herml Sabrosky, Insecticides, Organophosphates, Soil fumigation.
- 1657-67
THE EFFECT OF LATRODECTUS MACTANS TREDECIGUTTATUS VENOM ON THE ENDOGENOUS ACTIVITY OF PERIPLANETA AMERICANA NERVE CORD.
L Nerl S Bettini M Frank
Toxic 3(2):95-99
Nov 1965 391.8 T66
Latrodectus mactans, Latrodectus mactans tredecimguttatus, Nerves, Periplaneta americana, Venoms.
- 1658-67
CONTACT TOXICITY OF TEN INSECTICIDES TO ADULTS OF THE CARROT RUST FLY.
H D Niemczyk
J Econ Entom 58(3):423-425
Jun 1965 421 J822
Insecticides, Psila rosae, Psila rosae (F.).
- 1659-67
UREA POISONING OF CATTLE.
F W Oehme
Amer Coll Vet Toxicol Pr 7-II
1963 391.9 AM3
Cattle, Feed toxicity, Urea.
- 1660-67
THE RELATIONSHIP BETWEEN THE HEMORRHAGIC AND LETHAL ACTIVITIES OF JAPANESE MAMUSHI (AGKISTRODON HALYS BLOMHOFFIL) VENOM.
T Omori S Iwanaga T Suzuki
Toxic 2(1):1-4
Jun 1964 391.8 T66
Agkistrodon halys blomhoffil, Hemorrhage, Japanese Mamushi, Lethal factor, Muscles, Necrosis, Snake venom.
- 1661-67
2-(P-TERT-BUTYLPHENOXY)ISOPROPYL 2-CHLOROETHYL SULFITE (ARAMITE) I. ACUTE, SUBACUTE, AND CHRONIC ORAL TOXICITY.
S L Oser M Oser
Toxicol Appl Pharmac 2(4):441-457
Jul 1960 391.8 T662
Aramite, Toxicology.
- 1662-67
TOXICOLOGIC STUDIES WITH BRANCHED AND LINEAR ALKYL BENZENE SULFONATES IN RATS.
S L Oser K Morgareidge
Toxicol Appl Pharmac 7(6):819-825
Nov 1965 391.8 T662
Benzene, Rats, Sulfonic acids, Toxicology.
- 1663-67
METABOLISM OF ARSANILIC ACID. I. METABOLIC STABILITY OF DOUBLY LABELED ARSANILIC ACID IN CHICKENS.
L R Overby L Straube
Toxicol Appl Pharmac 7(6):850-854
Nov 1965 391.8 T662
Arsanilic acid, Chicks, Metabolism.
- 1664-67
METABOLISM OF ARSANILIC ACID. II. LOCALIZATION AND TYPE OF ARSENIC EXCRETED AND RETAINED BY CHICKENS.
L R Overby R L Frederickson
Toxicol Appl Pharmac 7(6):855-867, 818L. 866-867, TABS.
Nov 1965 391.8 T662
Arsanilic acid, Chicks, Feed additives, Metabolism.
- 1665-67
CHEMOSTERILIZATION OF HOUSE FLIES FED CERTAIN ETHYLENIMINE DERIVATIVES.
J C Parish B W Arthur
J Econ Entom 58(4):699-702
Aug 1965 421 J822
Chemosterilants, Musca domestica, Musca domestica.

60 1666-67

- 1666-67
MAMMALIAN AND INSECT METABOLISM OF THE CHEMOSTERILANT THIO-
TEPA.
J C Parish B W Arthur
J Econ Entom 58(5):976-979
Oct 1965 421 J822
Chemosterilants, Insect metabolism, Mammalian metabolism,
Thiotepa.
- 1667-67
EFFECTS OF VENOM FROM THE SCORPION, CENTRUROIDES SCULPTURA-
TUS ON THE RAT.
R A Patterson
Toxic 2(3):167-170
Dec 1964 391.8 T66
Centruroides sculpturatus, Rats, Scorpionida, Venoms.
- 1668-67
CONTROL OF THE NEMATODE LEIDYNEMA APPENDICULATA (LEIDY)
(NEMATA: RHAADITIDA THELASTOMATIDAE) IN LABORATORY CUL-
TURES OF THE AMERICAN COCKROACH.
J Pawlik
J Econ Entom 59(2):468-469
Apr 1966 421 J822
Insect hosts, Insect rearing,
Leidynema appendiculata (Leidy), Nematoda: Rhabditida,
Periplaneta americana, Periplaneta americana (L.).
- 1669-67
CHRONIC TOXICITY OF SANTOMERSE NO.3 FROM OLEFIN (DODECYL
BENZENE SODIUM SULFONATE).
O E Paynter R J Weir Jr
Toxicol Appl Pharmac 2(6):641-648
Nov 1960 391.8 T662
Dodecyl benzene sodium sulfonate, Olefins, Santomerse no.3,
Toxicology.
- 1670-67
HERBICIDE TOXICOLOGY: TOXICOLOGY OF DALAPON SODIUM (2,2-
DICHLOROPROPIONIC ACID, SODIUM SALT).
O E Paynter T W Tusling D D McCollister V K Rowe
J Agr Food Ch 8(1):47-51, TA8S.
Jan 1960 381 J8223
Dalapon sodium, Herbicides, Toxicology.
- 1671-67
METABOLISM OF INSECTICIDES BY VARIOUS INSECT SPECIES.
A S Perry
J Agr Food Ch 8(4):266-272, 818L. 272.
Jul 1960 381 J8223
Insect metabolism, Insecticides.
- 1672-67
SHEEP BOT FLY CONTROL TESTS WITH DDVP.
R E Pfadt J Campbell
J Econ Entom 56(4):530-531
Aug 1963 421 J822
Dichlorvos, Oestris ovis L., Oestrus ovis, Sheep.
- 1673-67
THE VAPOR TOXICITY OF CERTAIN BROMOPROPANES TO THE GRAPE
PHYLLOXERA UNDER CONTROLLED LABORATORY CONDITIONS.
I A Rammer E M Stafford
J Econ Entom 55(2):203-211
Apr 1962 421 J822
Bromopropanes, Phylloxera vitifoliae, Phylloxera vitifoliae,
Toxicology.
- 1674-67
LABORATORY STUDY ON THE CONTACT TOXICITY OF DDT TO ECTRO-
PIS CREPUSCULARIA SCHIFF.
A P Randall
Can Entom 94(4):424-428
Mar 1962 421 C16
DDT, Ectropis crepuscularia Schiff, Saddle-backed looper.
- 1675-67
INSECT STERILANT EXPERIMENTS IN OUTDOOR CAGES WITH APHOLATE,
METEPA, AND FOUR BIFUNCTIONAL AZIRIDINE CHEMICALS AGAINST
THE HOUSE FLY.
R H Ratcliffe S S Ristich
J Econ Entom 58(6):1079-1082, TA8S.
Dec 1965 421 J822
Apholate, Chemosterilants, Ethylenimine, Metepa,
Musca domestica, Musca domestica.
- 1676-67
ENCAPSULATION AS A TECHNIQUE FOR FORMULATING MICROBIAL AND
CHEMICAL INSECTICIDES.
E A Raun R D Jackson
J Econ Entom 59(3):620-622
Jun 1966 421 J822
Chemical insecticides, Encapsulation,
Microbial insecticides.
- 1677-67
EVALUATION OF SEVERAL INSECTICIDES TO CONTROL THE ONION
MAGGOT.
W A Rawlins D Gonzalez
J Econ Entom 59(2):288-290, TA8S.
Apr 1966 421 J822
Hylemya antiqua, Hylemya antiqua (Meigen), Insecticides,
Organophosphates.
- 1678-67
METHYL BROMIDE, SULFURYL FLUORIDE, AND OTHER FUMIGANTS
AGAINST QUARANTINABLE COCHLICELLA AND THEBA SNAILS.
H Richardson H Roth
J Econ Entom 58(4):690-693
Aug 1965 421 J822
Cochlicella barbara (L.), Fumigants, Methyl bromide, Snails,
Sulfuryl fluoride, Theba pisana (Mueller).
- 1679-67
SYSTEMIC INSECTICIDES FOR CONTROL OF LYGUS HESPERUS KNIGHT
ON COTTON.
R L Ridgway C G Jackson R Patana D A Lindquist B G Reeves
J Econ Entom 59(4):1017-1018
Aug 1966 421 J822
Cotton, Lygus hesperus (Knight), Systemic insecticides.
- 1680-67
TESTS FOR BOLL WEEVIL CONTROL WITH A SYSTEMIC INSECTICIDE
AND A BOLL WEEVIL FEEDING STIMULANT.
R L Ridgway S L Jones L J Gorzycki
J Econ Entom 59(1):149-153
Feb 1966 421 J822
Anthonomus grandis, Anthonomus grandis Boheman, Feeding,
Insecticides.
- 1681-67
EFFECTS OF ADDITIVES ON THE TOXICITY OF PYRETHRINS TO STABLE
FLIES AND HORN FLIES.
R H Roberts R L Harris D H Graham
J Econ Entom 56(5):699-702, TA8S.
Oct 1963 421 J822
Haematobia irritans (L.), Pyrethrum,
Stomoxys calcitrans (L.).
- 1682-67
PRELIMINARY TESTS WITH INSECTICIDES FOR THE CONTROL OF THE
LITTLE BLUE CATTLE LOUSE.
R H Roberts
J Econ Entom 57(1):42-44, PL.
Feb 1964 421 J822
Insect control, Insecticides, Little blue cattle louse,
Solenopotes capillatus.
- 1683-67
INTRAVENTRICULAR INJECTION OF VENOM.
F E Russell V C Bohr
Toxicol Appl Pharmac 4(2):165-173
Mar 1962 391.8 T662
Central nervous system, Venoms.
- 1684-67
PENETRATION AND METABOLISM OF DDT IN RESISTANT AND
SUSCEPTIBLE HOUSE FLIES AND THE EFFECT ON LATENT TOXICITY.
F F Sanchez M Sherman
J Econ Entom 59(2):272-277, 818L. 276-277
Apr 1966 421 J822
Insecticide resistant insects, DDT, Metabolism,
Musca domestica, Musca domestica.
- 1685-67
TOXICOLOGY OF WOOD PRESERVATIVES TO SWINE.
I A Schlipper
Amer Coll Vet Toxicol Pr 9-13
1960 391.9 AM3
Lumber preservatives, Swine, Toxicology.
- 1686-67
FUNGICIDAL ACTIVITY AND STRUCTURE: PREPARATION AND
FUNGITOXICITY OF SOME TRIALKYL PHOSPHOROTETRATHIOATES.
C B Scott J W Yale Jr S Hashimoto
J Agr Food Ch 8(4):303-306, TA8S.
Jul 1960 381 J8223
Trialkyl phosphorotetrathioates.

- 1687-67
THE EFFECTS OF COUMAPHOS ON POULTRY AND ITS RESIDUES IN TISSUE AND EGGS.
F R Shaw C T Smith D L Anderson W J Fischang W H Ziener
J Econ Entom S7(4):S16-S18, TABS.
Aug 1964 421 JB22
Chickens, Coumaphos, Eggs, Insecticide residues.
- 1688-67
ACUTE AND SUBACUTE TOXICITY OF SEVERAL INSECTICIDES TO CHICKS.
M Sherman E Ross M T Y Chang
Toxicol Appl Pharmac 7(4):606-608
Jul 1965 391.8 T662
Chicks, Feed toxicity, Insecticides, Poultry manure.
- 1689-67
ACUTE AND SUBACUTE TOXICITY OF SEVERAL ORGANOPHOSPHORUS INSECTICIDES TO CHICKS.
M Sherman E Ross M T Y Chang
Toxicol Appl Pharmac 6(1):147-153
Jan 1964 391.B T662
Chicks, Feed additives, Insecticides, Organophosphorous.
- 1690-67
FIELD EXPERIMENTS ON INSECTICIDAL CONTROL OF LEPIDOPTEROUS LARVAE ON CABBAGE AND CAULIFLOWER.
H H Shorey
J Econ Entom S6(6):877-880, TABS.
Dec 1963 421 JB22
Cabbage, Cauliflower, Insecticides, Larvae, Lepidoptera.
- 1691-67
TOXICITY OF CHEMICAL AND MICROBIAL INSECTICIDES TO PEST AND BENEFICIAL INSECTS ON POLED TOMATOES.
H H Shorey I M Hail
J Econ Entom S6(6):813-817, TABS.
Dec 1963 421 JB22
Insect pests, Insecticides, Insects, Tomatoes.
- 1692-67
DIFFERENTIAL TOXICITY OF INSECTICIDES TO THE CABBAGE APHID AND TWO ASSOCIATED ENTOMOPHAGOUS INSECT SPECIES.
H H Shorey
J Econ Entom S6(6):844-847, TABS.
Dec 1963 421 JB22
Brevicoryne brassicae, Brevicoryne brassicae (L.), Diaeretiella rapae (McIntosh), Hippodamia, Insecticides.
- 1693-67
ACARICIDAL PROPERTIES OF ARAMITE AND KELTHANE AGAINST TWO STRAINS OF TWO-SPOTTED SPIDER MITE.
D Shrlver T J Henneberry
J Econ Entom SS(S):617-618
Oct 1962 421 JB22
Acaricides, Aramite, Dicofol, Dicofol, Tetranychus telarius (L.), Tetranychus urticae.
- 1694-67
PERSISTENT PSYCHIATRIC SYMPTOMS FROM EXPOSURE TO ORGANOPHOSPHATE INSECTICIDES.
P W Smith J R Dille
Toxicol Appl Pharmac 6(3):3S9
May 1964 391.B T662
Insecticides, Mental disorders, Organophosphorous.
- 1695-67
TOXICITY OF PINE RESIN VAPORS TO THREE SPECIES OF DENDROCTONUS BARK BEETLES.
R H Smith
J Econ Entom S6(6):827-831, BIBL. B30-B31, TABS.
Dec 1963 421 JB22
Dendroctonus brevicornis Le Conte, Dendroctonus jeffreyi Hopkins, Dendroctonus monticolae Hopkins, Insecticidal plants, Pinus, Resins.
- 1696-67
TESTS WITH DICHLORVOS VAPORS FOR THE CONTROL OF MUSHROOM FLIES.
R Snetsinger D Miner
J Econ Entom S7(1):I82-I83
Feb 1964 421 JB22
Dichlorvos, Insect control, Mushroom fly.
- 1697-67
THE FUMIGANT TOXICITY OF TWO NEW CHEMICALS TO STORED-PRODUCT INSECTS.
R L Soies P K Hareln
J Econ Entom SS(6):I014-I01S
Dec 1962 421 JB22
Chemicals, Fumigation, Insect control, Stored products, Toxicology.
- 1698-67
EFFECT OF INSECTICIDES ON NEUROPHYSIOLOGICAL ACTIVITY IN INSECTS.
J Sternburg
J Agr Food Ch 8(4):257-261, BIBL. 261.
Jul 1960 381 JB223
Insect neurophysiology, Insecticides.
- 1699-67
MICRONIZED INSECTICIDAL DUSTS FOR AIRCRAFT DISINSECTIZATION.
W N Sullivan S O Hill C H Gaddis R D Chisholm V A Johnson
J Econ Entom S6(6):869-872, BIBL. 871-872, TABS.
Dec 1963 421 JB22
Aircraft disinfection, Dusting, Insecticide application, Insecticides, Popillia japonica Newman.
- 1700-67
SYNERGISTIC AND ANTAGONISTIC ACTIONS OF INSECTICIDE-SYNERGIST COMBINATIONS AND THEIR MODE OF ACTION.
Y P Sun E R Johnson
J Agr Food Ch 8(4):261-266, TABS.
Jul 1960 381 JB223
Insecticide synergists.
- 1701-67
PHYTOTOXICITY OF HERBICIDES: REDUCTION OF 3-AMINO-1,2,4-TRIAZOLE PHYTOTOXICITY IN TOMATO PLANTS.
K A Sund E C Putaia H N Little
J Agr Food Ch 8(3):210-212, BIBL. 212, TABS.
May 1960 381 JB223
Amitrole, Herbicides, Tomatoes.
- 1702-67
FIELD AND LABORATORY STUDIES ON CONTROL OF CURRANT BORER.
E F Taschenberg A W Avens
J Econ Entom S7(1):123-130, TABS.
Feb 1964 421 JB22
Insect control, Insecticides, Ramosia tipuliformis, Ramosia tupiliformis.
- 1703-67
PROPERTIES OF PETROLEUM OILS IN RELATION TO TOXICITY TO CITRUS RED MITE EGGS.
K Trammel
J Econ Entom S8(4):S9S-601, TABS.
Aug 196S 421 JB22
Oils, Panonychus citri, Panonychus citri (McGregor), Petroleum.
- 1704-67
PRELIMINARY REPORT OF SELENIUM TOXICITY IN SHEEP.
J O Tucker
Amer Coil Vet Toxicol Pr 41-4S
1960 391.9 AM3
Sheep, Toxicology.
- 170S-67
ACTION OF LATRODECTUS MACTANS TREDECIMGUTTATUS VENOM AND FRACTIONS ON CELLS CULTIVATED IN VITRO.
G Vicari S Betini C Collotti N Frontali
Toxic 3(2):101-106, BIBL. 106
Nov 196S 391.8 T66
Cells, Latrodectus mactans tredecimguttatus, Proteins, Spiders, Venoms.
- 1706-67
DIETARY CONSIDERATIONS OF THE RADIONUCLIDE CONTAMINATION OF NONMILK FOODS.
R H Wasserman C L Comar
J Agr Food Ch 9(2):I3-I16, TABS.
Mar 1961 381 JB223
Cesium isotopes, Food contamination, Irradiated food, Strontium isotopes.
- 1707-67
BIOCHEMICAL STUDIES OF THE VENOM FROM THE SCORPION, CENTRUROIDES SCULPTURATUS.
D D Watt
Toxic 2(3):I71-180, BIBL. 179-180, TABS.
Dec 1964 391.8 T66
Centruroides sculpturatus Ewing, Scorpionida, Venoms.
- 170B-67
PRELIMINARY OBSERVATIONS CONCERNING THE USE OF SYSTEMIC INSECTICIDES IN LARGE TREES FOR CONTROL OF THE EUROPEAN ELM SCALE.

BIBLIOGRAPHY

60 1709-67

J E Weaver C K Dorsey
 J Econ Entom 59(1):241-242
 Feb 1966 421 JB22
Gossyparia spuria, *Gossyparia spuria* (Modeer),
 Systemic insecticides, Trees.

1709-67

RELATIONSHIP BETWEEN SHORT- AND LONG-TERM FEEDING STUDIES IN
 DESIGNING AN EFFECTIVE TOXICITY TEST.
 C S Weil D D McCollister
 J Agr Food Ch 11(6):486-491, TABS.
 Nov 1963 381 JB223
 Feed toxicity, Feeding study.

1710-67

EFFECTS OF CHEMICALS ON EUROPEAN CORN BORER EGGS.
 A L Wells G Guyer
 J Econ Entom 55(5):631-633, TABS.
 Oct 1962 421 JB22
 Chemicals, Insect eggs, *Ostrinia nubilalis*,
Ostrinia nubilalis (Huebner).

1711-67

FOOD ADDITIVES, SAFETY: EFFECT OF FEEDING BUTYLATED
 HYDROXYANISOLE TO DOGS.
 O H M Wilder P C Ostby B R Gregory
 J Agr Food Ch 8(6):504-506
 Nov 1960 381 JB223
 Butylated hydroxyanisole, Dogs, Food additives.

1712-67

ACUTE AND SUBACUTE TOXICITY OF TRITHION AND THE DIMETHYL
 HOMOLOG.
 M W Williams
 Toxicol Appl Pharmac 3(5):500-508
 Sep 1961 391.8 T662
 Carbophenothion, Toxicology.

1713-67

TOXICOLOGY OF PYRIDINETHIONES.
 C L Winek
 Toxicol Appl Pharmac 6(3):363
 May 1964 391.8 T662
 Animals, Pyridinethiones, Toxicology.

1714-67

OILS AND SURFACTANTS ALONE, AND INSECTICIDE-OIL COMBINATIONS
 FOR APHID CONTROL ON TURNIPS AND CABBAGE.
 D A Wolfenbarger
 J Econ Entom 57(4):571-574, TABS.
 Aug 1964 421 JB22
Brevicoryne brassicae (L.), Cabbage, Insecticides, Oils,
Rhopalosiphum pseudobrassicae (Davis),
 Surface-active agents, Turnips.

1715-67

EVALUATION OF APHOLATE AND TEPA AS CHEMOSTERILANTS FOR THE
 FALL ARMYWORM.
 J R Young H C Cox
 J Econ Entom 58(5):883-888
 Oct 1965 421 JB22
 Apholate, Chemosterilants, *Pseudaletia unipuncta*,
 Spodoptera frugiperda, Teps.

1716-67

EVALUATION OF SHELL SD-B447 FOR CONTROL OF TWO SWEET CORN
 INSECTS.
 J R Young M C Bowman
 J Econ Entom 59(1):170-173
 Feb 1966 421 JB22
Heliothis zea (Boddie), Insects, Shell SD-B447,
 Spodoptera frugiperda (J. E. Smith), Sweet corn.

1717-67

PRELIMINARY STUDIES OF THE TOXICITY OF CARBOPHENOTHION AND
 METHYL TRITHION IN LIVESTOCK.
 R L Younger R D Radeleff J B Jackson
 J Econ Entom 56(6):757-759
 Dec 1963 421 JB22
 Carbophenothion, Livestock, Methyl trithion.

1718-67

THE RELATION BETWEEN UPTAKE AND TOXICITY OF ORGANOPHOSPHATES
 FOR EGGS OF THE LARGE MILKWEED BUG.
 J Zschintzsch R D O'Brien E H Smith
 J Econ Entom 58(4):614-621, TABS.
 Aug 1965 421 JB22
 Insect eggs, *Oncopeltus fasciatus*, *Oncopeltus fasciatus*,
 Organophosphates.

1719-67

PARATHION STUDIES ON BEAN GROWN IN STERILE ROOT CUL-
 TURE.
 B M Zuckerman C W Miller R M Devlin W E Tomlinson
 J Econ Entom 59(5):1157-1160
 Oct 1966 421 JB22
 Beans, Parathion, Sterile root culture.

1720-67

TOXICITY OF PCNB TO MAGNOLIA FUSCATA.
 N Zummo A G Plakidas
 Plant Dis R 44(7):559
 15 Jul 1960 1.9 P69P
Magnolia fuscata, Pentachloronitrobenzene, Spraying,
 Toxicology.

65 PLANT PHYSIOLOGY & BIOCHEMISTRY

- 1721-67
METHOD OF CHLAMYDOSPORE GERMINATION OF ISPHACELOTHECA REILIANA IN SOIL.
I A Al-Isohally C J Mankin
Phytopatholo 50(9):627
Sep 1960 464.8 P56
Chlamydo spores, Seed germination, Soil moisture, Sphacelotheca reiliana.
- 1722-67
ACTIVITY OF THE ANTI-BIOTIC PRODUCED BY PULLULARIA PULLULANS.
N L Baigent J M Ogawa
Phytopatholo 50(1):82
Jan 1960 464.8 P56
Antibiotics, Pullularia pullulans.
- 1723-67
PARTIAL PURIFICATION OF SELF-INHIBITORS OF GERMINATION FROM UREDOSPORES OF UROMYCES PHASEOLI VAR. TYPICA.
A A Belt
Phytopatholo 50(9):629
Sep 1960 464.8 P56
Purification, Seed germination, Uredosporae, Uromyces phaseoli var. typica.
- 1724-67
HEAT-INDUCED ABNORMALITIES - A MODEL DISEASE.
G T A Benda
Phytopatholo 50(9):629
Sep 1960 464.8 P56
Heat, Nicotiana glutinosa, Virus diseases (plants).
- 1725-67
TOXIN PRODUCTION BY HELMINTHOSPORIUM VICTORIAE ON SYNTHETIC MEDIA CONTAINING DIFFERENT NITROGEN SOURCES.
R W Berry M C Futrell
Phytopatholo 50(9):629
Sep 1960 464.8 P56
Culture media, Helminthosporium victoriae, Nitrogen compounds, Toxins.
- 1726-67
THE INFLUENCE OF OIL CONTENT ON THE SUSCEPTIBILITY OF SEEDS TO FUMIGATION WITH METHYL BROMIDE.
R E Blackith O F Lubattl
J Sci Food A 11(5):253-258, TABS.
May 1960 3B2 S012
Fumigation, Methyl bromide, Oils, Seeds.
- 1727-67
THE EFFECT OF NUTRITION ON GERMINATION OF CONIDIA OF HELMINTHOSPORIUM SATIVUM IN NATURAL SOIL.
M G Boosalis
Phytopatholo 50(9):629
Sep 1960 464.8 P56
Conidia, Helminthosporium sativum, Plant nutrition, Seed germination, Soil fungi.
- 1728-67
DNA CONTENT OF PRUNUS LEAF TISSUE.
R E Brown D F Millikan
Phytopatholo 50(9):630
Sep 1960 464.8 P56
Deoxyribonucleic acid, Leaves, Prunus.
- 1729-67
ALTERING THE EFFECT OF OAT RUST RESISTANT GENES BY CERTAIN PHYSICAL MEANS.
J A Browning
Phytopatholo 50(9):630
Sep 1960 464.8 P56
Crown rust (oats), Oats, Puccinia graminis avenae, Stem rust (oats).
- 1730-67
EFFECT OF GIBBERELIC ACID ON THE EXTRACTION OF PROTEIN FROM THE LEAVES OF SPRING VETCHES (VICIA SATINA L.).
M Myers G Jenkins
J Sci Food A 12(10):656-661, TABS.
Oct 1961 3B2 S012
Gibberellic acid, Leaves, Proteins, Vetch, Vicia satina L..
- 1731-67
THE GROWING AND MANURING OF TEA.
R Child
J Sci Food A 15(3):133-142
Mar 1964 3B2 S012
Manures, Plant physiology, Tea.
- 1732-67
DEPTH OF FEEDING AS IT AFFECTS THE CONCENTRATION OF RADIO-ACTIVITY WITHIN THE PLANT.
C W Christenson E B Fowler
J Agr Food Ch 9(2):9B-100
Mar 1961 3B1 JB223
Plant contamination, Plant nutrition, Radioactive substances.
- 1733-67
ESTERS PRODUCED BY ENDOCONIDIAL-FORMING FUNGI.
R P Collins M E Morgan
Phytopatholo 50(9):632
Sep 1960 464.8 P56
Ceratozystis flabrata var. planti, Esters, Fungi, Thielaviopsis.
- 1734-67
USE OF GIBBERELIC ACID IN FACILITATING THE MECHANICAL HARVESTING OF DWARF BEANS.
J Dancer
J Sci Food A 12(9):64B-650
Oct 1961 3B2 S012
Dwarf beans, Gibberellic acid, Harvesting, Potassium salts.
- 1735-67
RESPONSES OF GRAPEFRUIT TREES TO VARIOUS SPRAY OIL FRACTIONS.
H A Dean J C Bailey
J Econ Entom 56(5):547-551, 8IBL. 550-551, TABS.
Oct 1963 421 JB222
Grapefruit, Oils, Plant physiology, Spraying.
- 1736-67
ROLE OF PECTIC ENZYMES IN SUSCEPTIBILITY AND RESISTANCE TO FUSARIUM VERTICILLIUM WILTS OF PLANTS.
D C Deese M A Stahmann
Phytopatholo 50(9):633
Sep 1960 464.8 P56
Fusarium, Pectins, Plant enzymes, Verticillium.
- 1737-67
UPTAKE AND DISTRIBUTION OF STRONTIUM IN VEGETABLES AND CEREALS.
R B Duckworth J Hawthorn
J Sci Food A 11(4):218-225
Apr 1960 3B2 S012
Grain, Vegetables.
- 1738-67
EFFECT OF CHARGE OF IONIZED CHEMOTHERAPEUTANTS ON THEIR TRANSLOCATION THROUGH XYLEM.
L V Edgington A E Dimond
Phytopatholo 50(4):239-240
Apr 1960 464.8 P56
Chemotherapeutants, Plant translocation, Xylem.
- 1739-67
REVIEW OF HERBICIDE PENETRATION THROUGH PLANT SURFACES.
C L Foy
J Agr Food Ch 12(5):473-476, 8IBL. 476
Sep 1964 3B1 JB223
Cuticle, Herbicides, Penetration.
- 1740-67
FERTILIZATION OF PYCNIA WITH UREDIOSPORES IN PUCCINIA GRAMINIS VAR. TRITICI.
W N Garrett R D Wilcoxson
Phytopatholo 50(9):636
Sep 1960 464.8 P56
Fertilization (plants), Puccinia graminis var. tritici, Pycnia, Urediospores.
- 1741-67
EFFECTIVENESS OF CHEMICAL DIP TREATMENTS ON THE CULTURE OF CROFT LILIES.
E C Gaslorkiewicz
Phytopatholo 50(9):636
Sep 1960 464.8 P56

BIBLIOGRAPHY

65 1742-67

- Dipping, *Lilium longiflorum*, Root rot (*Lilium longiflorum*).
- 1742-67
METABOLISM OF DIMETHOATE IN COTTON LEAVES.
J Hacskeylo D L Buil
J Agr Food Ch 11(6):464-466
Nov 1963 3B1 JB223
Cotton, Dimethoate, Plant metabolism.
- 1743-67
SULPHUR NUTRITION OF APHANOMYCES EUTEICHES.
W A Haglund T H King
Phytopatholo 50(9):637-638
Sep 1960 464.B P56
Aphanomyces euteiches, Plant nutrition, Sulphur.
- 1744-67
TOLERANCE OF SEVERAL GRASS SPECIES TO 2-CHLORO-S-TRIAZINE
HERBICIDES IN RELATION TO DEGRADATION AND CONTENT OF BENZO-
XAZINONE DERIVATIVES.
R H Hamilton
J Agr Food Ch 12(1):14-17, BIBL. 17
Jan 1964 3B1 JB223
Benzoxazinone, Grasses, Herbicides, Plant metabolism,
2-chloro-s-triazine.
- 1745-67
A HOLLY LEAF SPOT ASSOCIATED WITH THE USE OF COPPER FUNGI-
CIDES.
E A Herridge R C Lambe
Phytopatholo 50(1):B4
Jan 1960 464.B P56
Fungicides, Holly leaf spot.
- 1746-67
PLANT INJURY INDUCED BY ATMOSPHERIC OZONE.
A C Hill M R Pack M Treshow R J Downs L G Transtrum
Phytopatholo 50(9):639
Sep 1960 464.8 P56
Ozone, Plant injuries.
- 1747-67
STUDIES ON UPTAKE AND TRANSLOCATION OF C14-LABELED P-DI-
METHYLAMINOBENZENEDIAZO SODIUM SULFONATE (DEXON) BY SUGAR
BEET SEEDLINGS.
F J Hillis
Phytopatholo 50(9):639
Sep 1960 464.8 P56
Carbon-14, Para-dimethylaminobenzenediazo sodium sulfonate,
Plant translocation, Seedlings, Sugar beets.
- 1748-67
METABOLISM IN VITRO OF PHLORIDZIN AND OTHER HOST COMPOUNDS
BY VENTURIA INAEQUALIS.
J Holowczak J Kuc E B Williams
Phytopatholo 50(9):640
Sep 1960 464.8 P56
Phlorizin, Venturia inaequalis.
- 1749-67
ANTISPORULANT ACTION OF HEXACHLORO-2-PROPANOL.
J G Horsfall S Rich
Phytopatholo 50(9):640
Sep 1960 464.8 P56
Antisporulation, Hexachloro-2-propanol.
- 1750-67
METABOLISM OF ALPHA-CHLORO-N,N-DIALLYLACETAMIDE (CDAA) AND
2-CHLOROALLYL-N,N-DIETHYLDITHIOCARBAMATE (CDEC) BY PLANTS.
E G Jaworski
J Agr Food Ch 12(1):33-37, TABS.
Jan 1964 3B1 JB223
Alpha-chloro-NN-diallyl-acetamide, Herbicides,
Plant metabolism, 2-chloroallyl-NN-diethyldithiocarbamate.
- 1751-67
COMPARATIVE FUNGICIDICITY OF SOME MONO- AND DIALKYL-
SUBSTITUTED DITHIOCARBAMATE VAPORS AND SOLUTIONS.
J B Kendrick Jr
Phytopatholo 50(9):641
Sep 1960 464.8 P56
Alkylation, Dithiocarbamic acid, Fungitoxicity, Vapors.
- 1752-67
DIFFERENTIAL LONGEVITY OF TELIOSPORES OF PATHOGENIC RACES
OF TILLETIA AND T. FOETIDA.
E L Kendrick C S Holton
Phytopatholo 50(1):S1-S4
Jan 1960 464.8 P56
Fungi, Teliospores, Tilletia caries, Tilletia foetida.
- 1753-67
SOME FACTORS AFFECTING SPORANGIUM FORMATION OF PHYTOPHTHORA
CRYPTOGEA.
B W Kennedy D C Erwin
Phytopatholo 50(9):641
Sep 1960 464.8 P56
Culture media, Phytophthora cryptogea, Sporangia.
- 1754-67
INDUCED COLOR MUTANTS IN RHYNCHOSPORIUM SECALIS.
D M Kline
Phytopatholo 50(9):642
Sep 1960 464.B P56
Color mutants, Mutation, Rhynchosporium secalis.
- 1755-67
OBSERVATIONS ON THE EMERGENCE OF THE MICROSPORIDIAN SPORO-
PLASM.
J P Kramer
J Invertebrate Path 2(4):433-439
1960 421 JB26
Microsporidia, Nosema apis Zander, Nosema whitei Weiser,
Perezia pyraustae Palliot, Sporoplasm.
- 1756-67
TURNOVER OF CERTAIN Krebs CITRIC-ACID INTERMEDIATES IN
HEALTHY AND RUSTED TISSUES.
L R Krupka J M Daly
Phytopatholo 50(9):643
Sep 1960 464.B P56
Citric acid, Rust (wheat),
Tricarboxylic acid cycle.
- 1757-67
THE EFFECTS OF THE FEEDING OF THE POTATO LEAFHOPPER ON PHO-
TOSYNTHESIS AND RESPIRATION IN THE POTATO PLANT.
T L Ladd Jr W A Rawlins
J Econ Entom 58(4):623-628
Aug 1965 421 JB22
Ennomos subsignarius, Ennomos subsignarius (Hubner),
Head capsule.
- 1758-67
THE INFLUENCE OF TWO SYSTEMIC ORGANOPHOSPHATES ON GROWTH,
FRUITING, AND YIELD OF COTTON IN CALIFORNIA.
T F Leigh
J Econ Entom 56(4):517-522, 8IBL., S21-522, TABS.
Aug 1963 421 JB22
California, Cotton, Crop yields, Plant physiology,
Systemic insecticides.
- 1759-67
SYSTEMIC FUNGICIDES: THE TRANSLOCATION AND PERSISTENCE OF
TRITIUM-LABELED CYCLOHEXIMIDE IN EASTERN WHITE PINE SEED-
LINGS.
A J Lemin R C Thomas
J Agr Food Ch 9(4):254-256
Jul 1961 3B1 JB223
Chromatography, Essential oils, Mentha arvensis,
Mentha piperita.
- 1760-67
NATURALLY OCCURRING INSECTICIDES IN CRUCIFEROUS CROPS.
E P Lichtenstein D G Morgan C H Mueller
J Agr Food Ch 12(2):158-161
Mar 1964 3B1 JB223
Insecticidal plants, Rutabagas, Turnips,
2-phenylethylisothiocyanate.
- 1761-67
TRANSLOCATION OF SOME CHLORINATED HYDROCARBON INSECTICIDES
INTO THE AERIAL PARTS OF PEA PLANTS.
E P Lichtenstein K R Schulz
J Agr Food Ch 8(6):452-456, BIBL. 45S-456, TABS.
Nov 1960 3B1 JB223
Hydrocarbons, Insecticides, Peas, Plant translocation.
- 1762-67
PERSISTENCE AND TRANSLOCATION OF EXOGENOUS REGULATING COM-
POUNDS THAT EXUDE FROM ROOTS.
P J Linder J W Mitchell G D Freeman
J Agr Food Ch 12(5):437-438
Sep 1964 3B1 JB223
Exudates, Plant regulators, Plant translocation, Roots.
- 1763-67
SEED DISINFECTION: FUNGICIDE AND DYE DISTRIBUTION IN LIQUID
SEED TREATMENT.
O Lindstroem
J Agr Food Ch 8(3):217-224, TABS.

- May 1960 381 J8223
Dyes, Fungicides, Panogen process, Seed treatment.
- 1764-67
FUNGISTATIC EFFECTS OF LIGNIN, LIGNIN MONOMERS, AND MODEL SUBSTANCES.
B T Lingappa J L Lockwood
Phytopatholo 50(9):644
Sep 1960 464.8 P56
Fungicides, Glomerella cingulata, Lignin.
- 1765-67
SUPERIOR MEDIA FOR ISOLATION OF ACTINOMYCETES FROM SOIL.
Y Lingappa J L Lockwood
Phytopatholo 50(9):644
Sep 1960 464.8 P56
Actinomycetes, Chitin, Culture media.
- 1766-67
DEGRADATION OF 4-(2,4-DICHLOROPHENOXY)-8BUTYRIC ACID (4-(2,4-D8)) IN PLANTS.
D L Linscott
J Agr Food Ch 12(1):7-10
Jan 1964 381 J8223
Herbicides, Plant metabolism, 4-(2,4-D8) .
- 1767-67
A MYROTHECIUM ROT OF GLOXINIAS.
R H Litrell
Plant Dis R 49(1): 78-80
IS Jan 1965 1.9 P69P
Gloxinia, Myrothecium roridum, Sinningia speciosa.
- 1768-67
DETECTION OF COMPOUNDS THAT INHIBIT VEGETATIVE AND GROWTH OF TOBACCO.
P C Marth J W Mitchell
J Agr Food Ch 12(1):61-64
Jan 1964 381 J8223
Plant budding, Plant growth inhibitors, Tobacco.
- 1769-67
GROWTH RETARDANTS AND PLANT VIGOR: INCREASING TOLERANCE OF SOYBEAN PLANTS TO SOME SOLUBLE SALTS THROUGH APPLICATION OF PLANT GROWTH-RETARDANT CHEMICALS.
P C Marth J R Frank
J Agr Food Ch 9(S):3S9-361
Sep 1961 381 J8223
Plant growth inhibitors, Plant hardiness, Salts, Soybeans.
- 1770-67
THE DIPLOID NUCLEUS OF PUCCINIA CARTHAMI IN UNSTAINED WATER MOUNTS.
A H McCain
Phytopatholo 50(1):85
Jan 1960 464.8 P56
Cell nucleus, Diploid, Puccinia carthami.
- 1771-67
THE EFFECT OF MINERAL NUTRITION ON SPORE GERMINATION AND GROWTH RESPONSES IN ASPERGILLUS NIGER AND SOME OTHER FUNGI.
J S Melching G F Gregory
Phytopatholo 50(9):645
Sep 1960 464.8 P56
Aspergillus niger, Fungi, Minerals, Plant nutrition, Spore germination.
- 1772-67
HERBICIDE METABOLISM: ABSORPTION AND METABOLISM OF AMINO-TRIAZOLE IN COTTON.
C S Miller W C Hall
J Agr Food Ch 9(3):210-212
May 1961 381 J8223
Amitrole, Cotton.
- 1773-67
UPTAKE AND INNATE TOXICITY OF DODINE (N-DODECYLGUANIDINE ACETATE) TO FUNGUS CONIDIA.
L P Miller
Phytopatholo 50(9):646
Sep 1960 464.8 P56
Conidia, Dodine, Fungi.
- 1774-67
RELATIONSHIP OF LIPID CONTENTS OF FUNGAL CONIDIA TO UPTAKE OF TOXICANTS.
L P Miller E Richter
Phytopatholo 50(9):646
Sep 1960 464.8 P56
Conidia, Fungi.
- 1775-67
MOVEMENT OF RADIOISOTOPES IN RHIZOCTONIA SOLANI.
A M Monson
Phytopatholo 50(9):646
Sep 1960 464.8 P56
Isotopes, Radioactive substances, Rhizoctonia solani.
- 1776-67
METABOLISM OF TRIAZINE HERBICIDES BY PLANTS.
M L Montgomery V H Freed
J Agr Food Ch 12(1):11-14
Jan 1964 381 J8223
Herbicides, Plant metabolism, Triazine.
- 1777-67
THE ANTIGENIC ANALYSIS OF EXTRACTS FROM HEALTHY PLANTS.
E L Moorhead
Phytopatholo 50(9):646-647
Sep 1960 464.8 P56
Antigens, Plant extracts.
- 1778-67
HEALTH STATUS OF SISAL PLANTS (AGAVE SISLANA) AS RELATED TO SOILS AND THE MINERAL COMPOSITION OF THEIR LEAVES.
A Muller
J Sci Food A 15(2):129-132
Feb 1964 382 S012
Leaves, minerals, Plant hardiness, Sisal, Soils.
- 1779-67
NICANDRENONE, A NEW COMPOUND WITH INSECTICIDAL PROPERTIES, ISOLATED FROM NICANDRA PHYSALODES.
O Nalbandov R T Yamamoto G S Fraenkel
J Agr Food Ch 12(1):S5-S9
Jan 1964 381 J8223
Insecticidal plants, Nicandra physalodes, Nicandrenone.
- 1780-67
THE RELATIONSHIP OF CONIDIAL MORPHOLOGY AND INTERSPECIFIC FERTILITY IN THE GENUS HELMINTHOSPORIUM.
R R Nelson
Phytopatholo 50(9):648-649
Sep 1960 464.8 P56
Conidia, Helminthosporium.
- 1781-67
UPTAKE OF RADIOACTIVE FISSION PRODUCTS BY CROP PLANTS.
H Nishita E M Romney K H Larson
J Agr Food Ch 9(2):I01-I06, 818L. 10S-I06, T8S.
Mar 1961 381 J8223
Crops, Plant contamination, Radioactive substances, Soil contamination.
- 1782-67
RELATIONS OF SPORE MOISTURE TO SPORE SHAPE AND GERMINATION REACTION TO TEMPERATURE.
J M Ogawa A H McCain
Phytopatholo 50(1):85
Jan 1960 464.8 P56
Seed germination, Spore moisture, Spore shape.
- 1783-67
SAPROPHYTIC ACTIVITY AND SURVIVAL OF RHIZOCTONIA IN SOIL AS AFFECTED BY SOME ECOLOGICAL FACTORS.
G C Papavizas C B Davey
Phytopatholo 50(9):650
Sep 1960 464.8 P56
Plant ecology, Rhizoctonia, Saprophytes, Soil fungi.
- 1784-67
OOSPORE FORMATION BY APHANOMYCES EUTEICHES ON SYNTHETIC MEDIA.
G C Papavizas C B Davey
Phytopatholo 50(9):650
Sep 1960 464.8 P56
Aphanomyces euteiches, Culture media, Oospore formation.
- 1785-67
EFFECTS OF NITROGEN AND POTASSIUM FERTILISERS ON THE MINERAL STATUS OF PERENNIAL RYEGRASS (LOLIUM PERENNE). I. MINERAL CONTENT.
H Rahman P McDonald K Simpson
J Sci Food A 11(7):422-428, T8S.
Jul 1960 382 S012
Fertilizers, Lolium perenne, Minerals, Nitrogen, Potassium.
- 1786-67
EFFECTS OF NITROGEN AND POTASSIUM FERTILISERS ON THE MINERAL STATUS OF PERENNIAL RYEGRASS (LOLIUM PERENNE). II. ANION-CATION RELATIONSHIP.

BIBLIOGRAPHY

65 1787-67

- H Rahman P McDonald K Simpson
J Sci Food A 11(8):429-432, TABS.
Aug 1960 382 S012
Fertilizers, Ions, Lollum perenne, Minerals, Nitrogen,
Potassium.
- 1787-67
ENZIME INHIBITION: THE TRYPSIN INHIBITOR OF ALFALFA.
J S Ramirez H L Mitchell
J Agr Food Ch B(5):393-395, TABS.
Sep 1960 381 J8223
Aifaifa, Enzymes, Trypsin.
- 1788-67
CULTURE MEDIA FOR VIABILITY STUDIES AND STORAGE OF ERWINIA
AMYLOVORA.
J F Reinhardt D Powell
Phytopatholo 50(9):685-686
Sep 1960 464.B P56
Culture media, Erwinia amylovora.
- 1789-67
RUMEN DEGRADATION OF FUNGICIDES:FATE OF TETRAMETHYLTHIURAM
DISULFIDE IN THE DIGESTIVE TRACT OF THE RUMINANT ANIMAL.
R C Robbins J Kastelic
J Agr Food Ch 9(4):256-260
Jul 1961 381 J8223
Autoxidation, Potatoes.
- 1790-67
AVAILABILITY OF EXCHANGEABLE AND NON-EXCHANGEABLE STRONTIUM-
90 TO PLANTS.
H Roberts Jr R G Menzel
J Agr Food Ch 9(2):95-98
Mar 1961 381 J8223
Plant contamination, Soil contamination, Strontium isotopes.
- 1791-67
MUTATION FOR PATHOGENICITY IN PUCCINIA GRAMINIS VAR.
TRITICI.
J B Rowell W A Loegering H R Powers Jr
Phytopatholo 50(9):653
Sep 1960 464.8 P56
Mutation, Puccinia graminis var. tritici.
- 1792-67
PRODUCTION OF OOSPORES BY INTER- AND INTRASPECIFIC PAIRINGS
WITHIN THE GENUS PHYTOPHTHORA.
E J Savage C W Clayton M E Gallegly
Phytopatholo 50(9):653
Sep 1960 464.8 P56
Oospores, Pairings, Phytophthora.
- 1793-67
EFFECT OF COPPER AND GLYODIN FUNGICIDES ON AMINO ACID AND
SUGAR CONTENT AND OXYGEN USE OF COLLETOTRICHUM CAPSICI.
M R Siegel D F Crossan
Phytopatholo 50(9):680-685, 818L. 684-685, TABS.
Sep 1960 464.8 P56
Amino acids, Colletotrichum capsici, Copper sulfate,
Fungicides, Sugar.
- 1794-67
FATE OF 2,2-DICHLOROPROPIONIC ACID (DALAPON) IN THE COTTON
PLANT.
G N Smith D L Dyer
J Agr Food Ch 9(2):155-160
Mar 1961 381 J8223
Cotton, Dalapon.
- 1795-67
RESISTANCE TO THE TWO SPOTTED SPIDER MITE IN PELARGONIUM.
R Snetsinger C P Balderston R Craig
J Econ Entom 59(1):76-78
Feb 1966 421 J822
Pelargonium, Tetranychus telarius (L.), Tetranychus urticae,
Tetranychus urticae (Koch).
- 1796-67
STUDIES OF ENDOSULFAN IN BEAN PLANTS BY PAPER AND GAS
CHROMATOGRAPHY.
A C Terranova G W Ware
J Econ Entom 56(5):596-599
Oct 1963 421 J822
Beans, Chromatography, Endosulfan, Plant translocation.
- 1797-67
CRAMBE: SUSCEPTIBILITY TO SOME PLANT VIRUSES.
H H Thornberry M R Phillippe
Plant Dis R 49(1):74-77, TABS.
- 15 Jan 1965 1.9 P69P
Crambe, Crambe abyssinica, Host indexing (plants),
Virus diseases (plants).
- 1798-67
AN ENRICHMENT METHOD FOR ISOLATING ACTINOMYCETES THAT PRO-
DUCE DIFFUSIBLE ANTIFUNGAL ANTIBIOTICS.
P H Tsao C Leben G W Keitt
Phytopatholo 50(1):BB-B9
Jan 1960 464.8 P56
Actinomycetes, Antibiotics.
- 1799-67
ABSORPTION OF RADIONUCLIDES BY ABOVEGROUND PLANT PARTS AND
MOVEMENT WITHIN THE PLANT.
H B Tukey S H Wittner M J Bukovac
J Agr Food Ch 9(2):106-113, 818L. 112-113
Mar 1961 381 J8223
Radioactive substances, Radionuclides.
- 1800-67
SIMILAR METABOLIC ALTERATIONS INDUCED IN SWEET POTATO BY
POISONOUS CHEMICALS AND BY CERATOSTOMELLA FIMBRIATA.
I Uritani M Uritani H Yamada
Phytopatholo 50(1):30-34
Jan 1960 464.8 P56
Ceratostomella fimbriata, Plant metabolism, Toxicology.
- 1801-67
PLANT TISSUE ANALYSIS: X-RAY FLUORESCENCE DETERMINATION OF
ZINC IN PLANT TISSUES.
L D Whittig J R Buchanan A L Brown
J Agr Food Ch 8(5):419-421
Sep 1960 381 J8223
Fluorescence, Plant analysis, Spectroscopy, X-rays, Zinc.
- 1802-67
EFFECTS OF CERTAIN TEMPERATURES AND SEED TREATMENTS ON EMER-
GENCE AND TERMINAL BREAKDOWN OF COTTON SEEDLINGS.
A B Wiles
Phytopatholo 50(9):658
Sep 1960 464.8 P56
Cotton, Seed treatment, Seedlings, Temperature.
- 1803-67
IDENTIFICATION OF METABOLITES OF ZECTRAN INSECTICIDE IN
BROCCOLI.
E Williams R W Meikle C I Redemann
J Agr Food Ch 12(5):453-457, 818L. 456-457.
Sep 1964 381 J8223
Broccoli, Plant metabolism, Zectran.
- 1804-67
PECTINOLYTIC AND CELLULOLYTIC (CX) ENZYME PRODUCTION BY
CUCURBIT ANTHRACNOSE FUNGI.
N N Winstead C L McCombs
Phytopatholo 50(9):659
Sep 1960 464.8 P56
Anthracnose fungi, Cellulolytic enzymes,
Pectinolytic enzymes.

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70 CHEMISTRY

Chemicals, Insecticides, Nomenclature.

- 1805-67
QUANTITATIVE GAS CHROMATOGRAPHY OF ISOMERS OF INSECT REPELL-
ENT N,N-DIETHYLTOLUAMIDE.
F Acree Jr M Beroza
J Econ Entom 55(5):619-622
Oct 1962 421 J822
Chromatography, Insect repellents, Isomers,
N,N-diethyltoluamide.
- 1806-67
CODISTILLATION OF DDT WITH WATER.
F Acree Jr M Beroza M C Bowman
J Agr Food Ch 11(4):278-280
Jul 1963 381 J8223
Distillation, DDT .
- 1807-67
DETERMINATION OF BUTYLATED HYDROXYANISOLE, BUTYLATED HYDROX-
YTOLUENE, AND ETHOXYQUIN IN HYDROCARBON-SOLUBLE SAMPLES.
W J Alicino H C Klein J J Quattrone Jr T K Choy
J Agr Food Ch 11(6):496-498, TABS.
Nov 1963 381 J8223
Butylated hydroxyanisole, Butylated hydroxytoluene,
Ethoxyquin.
- 1808-67
ACARICIDE BIOASSAY: TWO ORGANISMS SUITABLE FOR BIOASSAYING
SPECIFIC ACARICIDES.
S Areekul R F Harwood
J Agr Food Ch 8(1):32-36, TABS.
Jan 1960 381 J8223
Acaricides, *Artemia salina* Leach, Biological assay,
Tyrophagus putrescentiae Schrank.
- 1809-67
THE HYDROXYLATION OF NAPHTHALENE-1-C14 BY HOUSE FLY MICRO-
SOMES.
R O Arias L C Terriere
J Econ Entom 55(6):925-929
Dec 1962 421 J822
Hydroxyl, Microsomes, *Musca domestica*, *Musca domestica*,
Naphthalene.
- 1810-67
THE METABOLISM OF DEHYDROACETIC ACID (DHA). .
T E Barman D V Parke R T Williams
Toxicol Appl Pharmac 5:545-568
1963 391.8 T662
Dehydroacetic acid, Metabolism.
- 1811-67
FEED ADDITIVES ANALYSIS: MICROANALYSIS OF PIPERAZINE.
H F Beckman L Feldman
J Agr Food Ch 8(3):227-228
May 1960 381 J8223
Feed additives, Microanalysis, Piperazine.
- 1812-67
SPECIFICITY OF DIARYLHALOETHANE-DEHYDROHALOGENASE OF SUSCEP-
TIBLE AND DDT-RESISTANT HOUSE FLIES.
R S Berger R G Young
J Econ Entom 55(4):533-536, TABS.
Aug 1962 421 J822
Chemistry, Diarylhaloethane-dehydrohalogenase, DDT,
Musca domestica, *Musca domestica*.
- 1813-67
OBSERVATIONS ON THE MECHANISM OF ACTION AND ON THE QUANTITA-
TIVE ASSAY OF ICHTHYOTOXIN FROM *PRYMNESIU PARVUM* CARTER.
F Bergmann I Parnas K Reich
Toxicol Appl Pharmac 5:637-649
1963 391.8 T662
Ichthyotoxin, *Prymnesium parvum*, Quantitative analysis.
- 1814-67
NEW APPROVED COMMON NAMES OF INSECTICIDES. III. .
S C Billings
J Econ Entom 55(5):822
Oct 1962 421 J822
- 1815-67
SYNTHESIS AND INSECTICIDAL ACTIVITY OF O-METHYL O-(2,4,5-
TRICHLOROPHENYL) PHOSPHORAMIDOTHIOATES AND RELATED COM-
POUNDS.
E H Blair R C Kauer E E Kenaga
J Agr Food Ch 11(3):237-240
May 1963 381 J8223
Biological activity, Insecticide synthesis,
O-methyl o-(2,4,5-trichlorophenyl) phosphoramidothioates.
- 1816-67
HERBICIDE UPTAKE AND DISTRIBUTION: SYNTHESIS OF CARBON -14-
LABELED DALAPON AND TRIAL APPLICATIONS TO SOYBEAN AND CORN
PLANTS.
F A Blanchard W W Muelder G N Smith
J Agr Food Ch 8(2):124-128
Mar 1960 381 J8223
C-14, Chemical synthesis, Corn, Insecticide application,
Sodium dalapon, Soybeans.
- 1817-67
INSECTICIDE SOLUBILITY: SOLUBILITY OF CARBON-14 DDT IN
WATER.
M C Bowman F Acree Jr
J Agr Food Ch 8(5):406-408
Sep 1960 381 J8223
C-14, DDT, Solubility, Water.
- 1818-67
FOOD ANTIOXIDANTS: DETERMINATION OF BUTYLATED HYDROXYANISOLE
AND BUTYLATED HYDROXYTOLUENE IN POTATO GRANULES BY GAS-
LIQUID CHROMATOGRAPHY.
R G Buttery B N Stuckey
J Agr Food Ch 9(4):283-285
Jul 1961 381 J8223
Butylated hydroxyanisole, Butylated hydroxytoluene,
Chromatography, Potatoes.
- 1819-67
INSECTICIDE ASSAY: CHROMATOGRAPHIC SEPARATION OF ACTIVE COM-
PONENTS OF NATURAL PYRETHRINS AND THEIR CHARACTERIZATIONS.
S C Chang
J Agr Food Ch 9(5):390-394, 818L. 394
Sep 1961 381 J8223
Chromatography, Pyrethrum.
- 1820-67
ANTIFUNGAL ACTIVITY OF SUBSTITUTED NITROANILINES AND RELATED
COMPOUNDS.
N G Clark A F Hams
J Sci Food A 12(11):751-757
Nov 1961 382 S012
Fungicides, Nitroanilines.
- 1821-67
THE ESTIMATION OF MIXTURES OF DDT AND BHC ISOMERS USING
INFRARED DIFFERENTIAL NULL-ANALYSIS.
B Cleverley
Anal Ch 33(11):1621-1623
Oct 1961 381 J825A
Benzene hexachloride, Benzene hexachloride,
Differential null-analysis, Infrared spectra, Isomerism,
DDT .
- 1822-67
SYSTEMIC FUNGICIDES.
R J W Cremlyn
J Sci Food A 12(12):805-811, 818L. 811-812
Dec 1961 382 S012
Fungicides, Systemic fungicides.
- 1823-67
THE SYNTHESIS OF TERTIARY CARBON DEUTERATED DDT AND DDT
ANALOGS.
A C Dachauer B Cocheo M G Solomon D J Hennessy
J Agr Food Ch 11(1):47-50
Jan 1963 381 J8223
Deuterium, DDT .
- 1824-67
TWO FUNGICIDALLY ACTIVE 5-CHLORO-4-ARYL-1,2-DITHIOL-3-ONES
DERIVED FROM CUMENE AND P-CYMENE.
W R Diveley K Brack A D Lohr
J Agr Food Ch 12(3):251-253
May 1964 381 J8223
p-cymene, Cumene, Fungicides,
5-chloro-4-aryl-1,2-dithiol-3-one.

BIBLIOGRAPHY

70 1825-67

- 1825-67
CARBAMATE INSECTICIDES: SYNERGISM BY ORGANOTHIOCYANATES.
A H El-Sebae R L Metcalf T R Fukuto
J Econ Entom 57(4):478-482, TABS.
Aug 1964 421 J822
Carbamates, Insecticide synergists, *Musca domestica* L.
- 1826-67
THE METABOLISM OF S-PROPYL-1-C14 N-BUTYLETHYLTHIOCARBAMATE (TILLAM-C14) IN RATS.
S C Fang M George V H Freed
J Agr Food Ch 12(1):37-40, TABS.
Jan 1964 381 J8223
Animal metabolism, Herbicides, Rats, S-propyl-1-C14 n-butylethylthiocarbamate.
- 1827-67
ISOTOPE-LABELED INSECTICIDES: ETHION-P32-2.
S E Forman B L Gilbert
J Agr Food Ch 9(4):260-262
Jul 1961 381 J8223
Ethion, Isotopes.
- 1828-67
SYMPOSIUM ON METABOLISM OF HERBICIDES.
V H Freed
J Agr Food Ch 12(1):2
Jan 1964 381 J8223
Herbicides, Metabolism, Symposia.
- 1829-67
CARBAMATE INSECTICIDES: INSECTICIDAL PROPERTIES OF SOME OPTICALLY ACTIVE SUBSTITUTED PHENYL-IN-METHYL CARBAMATES.
T R Fukuto R L Metcalf M Y Winton
J Econ Entom 57(1):10-12
Feb 1964 421 J822
Carbamates, Insecticides.
- 1831-67
NUCLEAR MAGNETIC RESONANCE IN THE EXAMINATION OF THE THERMAL DECOMPOSITION OF O,O-DIMETHYL O(4-(METHYLTHIO)-3-TOLYL) PHOSPHOROTHIOATE.
T R Fukuto E O Hornig R L Metcalf
J Agr Food Ch 12(2):169-171
Mar 1964 381 J8223
Fenthion, Nuclear magnetic resonance, Plant metabolism.
- 1832-67
INSECTICIDAL PROPERTIES OF SOME DIETHYL NITRONAPHTHYL PHOSPHATES.
T R Fukuto R L Metcalf M Frederickson M Y Winton
J Agr Food Ch 12(3):228-231
May 1964 381 J8223
Diethyl nitronaphthyl phosphates, *Musca domestica*, *Musca domestica* L..
- 1833-67
INSECTICIDE MEASUREMENT: DETERMINATION OF TOXAPHENE BY A SPECTROPHOTOMETRIC DIPHENYLAMINE PROCEDURE.
A J Graupner C L Dunn
J Agr Food Ch 8(4):286-289, TABS.
Jul 1960 381 J8223
Diphenylamine, Spectrophotometry, Toxaphene.
- 1834-67
ISOTOPE-LABELED INSECTICIDES: PREPARATION OF LABELED 2-ETHYLTHIOETHANOL, A DEMETON INTERMEDIATE.
K Groves R Haguwitz
J Agr Food Ch 9(4):262-263
Jul 1961 381 J8223
Demeton, Insecticides, Isotopes, 2-ethylthioethanol.
- 1835-67
SOME CHEMICAL CHARACTERISTICS OF A DDT-INDUCED NEUROACTIVE SUBSTANCE FROM COCKROACHES AND CRAYFISH.
W B Hawkins J Sternburg
J Econ Entom 57(2):241-247, PL.
Apr 1964 421 J822
Blattidae, Blattidae, Crayfish, DDT.
- 1836-67
SOIL FUMIGANT DETERMINATION: EXTRACTION AND DETERMINATION OF ETHYLENE DIBROMIDE IN SOILS.
J J Jurinak A L Brown P E Martin
J Agr Food Ch 8(2):113-115, TABS.
Mar 1960 381 J8223
Catalytic oxidation, Ethylene dibromide, Soil fumigation, Vacuum distillation.
- 1837-67
BIURET FORMATION IN THE MANUFACTURE OF UREA.
P J C Kaasenbrood P J van den Berg L J Revallier
J Agr Food Ch 11(1):39-43, TABS.
Jan 1963 381 J8223
Ammonia, Biuret, Fertilizers, Urea.
- 1838-67
INSECTICIDE ASSAY: ASSAY OF CO-RAL IN TECHNICAL MATERIAL AND FORMULATED PRODUCTS.
P F Kane C J Cohen W R Betker D MacDougall
J Agr Food Ch 8(1):26-29, TABS.
Jan 1960 381 J8223
Co-Ral, Coumaphos, Quantitative analysis.
- 1839-67
EFFECTS OF SOME SPRAY ADJUVANTS ON DDT EMULSIFIABLE CONCENTRATE.
H Kido E M Stafford
J Econ Entom 59(2):454-460, TABS.
Apr 1966 421 J822
DDT, Emulsifying agents.
- 1840-67
STERILIZATION OF AGAR MEDIA WITH PROPYLENE OXIDE.
W L Kiarman J Craig
Phytopathology 59(11):868
Nov 1960 464.8 P56
Agar, Culture media, Propylene oxide, Sterilization.
- 1841-67
SIMULTANEOUS QUANTITATIVE DETERMINATION OF LINDANE AND DDT GAS CHROMATOGRAPHY.
J R Koons H J Wesselman
J Agr Food Ch 12(6):550
Nov 1964 381 J8223
Chromatography, Insecticides, DDT, Lindane.
- 1842-67
SOME CONSIDERATIONS OF PRESENT BIOSPHERIC CONTAMINATION BY RADIOACTIVE FALLOUT.
W H Langham
J Agr Food Ch 9(1):91-95
Mar 1961 381 J8223
Biosphere, Radioactive contamination.
- 1843-67
DETERMINATION OF ENDOGENOUS GIBBERELLINS IN GREEN MALT BY ISOTOPIC, DERIVATIVE DILUTION PROCEDURES.
L Lazer W E Baumgartner R V Dahstrom
J Agr Food Ch 9(1):24-26
Jan 1961 381 J8223
Gibberellins, Isotopes, Malting barley.
- 1844-67
THE HALOGENATED ALIPHATIC ACIDS.
J K Leasure
J Agr Food Ch 12(1):40-43, 818L. 43
Jan 1964 381 J8223
Halogens, Herbicides, Organic compounds.
- 1845-67
SPREAD FACTOR VARIATION FOR OIL-BASE, AERIAL SPRAYS.
B Maksymuk A D Moore
J Econ Entom 55(5):695-699
Oct 1962 421 J822
Aerial spraying, Chemistry, Insecticides, Oils.
- 1846-67
INSECTICIDE TOXICITY: PREPARATION AND BIOLOGICAL ACTIVITY OF A SERIES OF HALOGENATED ETHYL AND VINYL DIMETHYL PHOSPHATE ESTERS.
A M Mattson R W Fay T B Gaines G W Pearce
J Agr Food Ch 8(3):196-198, TABS.
May 1960 381 J8223
Chemical synthesis, Dimethyl phosphate, Ethyl esters, Vinyl esters.
- 1847-67
THE FATE OF SULFURYL FLUORIDE IN WHEAT FLOUR.
R W Meikie
J Agr Food Ch 12(5):464-467
Sep 1964 381 J8223
Flour, Sulfuryl fluoride, Wheat.
- 1848-67
DRYWOOD TERMITE METABOLISM OF VIKANE FUMIGANT AS SHOWN BY LABELED POOL TECHNIQUE.
R W Meikie D Stewart O A Globus
J Agr Food Ch 11(3):226-230, TABS.

BIBLIOGRAPHY

70 1B70-67

- May 1963 3B1 JB223
Fumigants, Labeling, Termites, Vikane.
- 1B49-67
BIOASSAY OF A MICROBIAL INSECTICIDE CONTAINING SPORES OF BACILLUS THURINGIENSIS BERLINER.
J J Menn
J Invertebrate Path 2(2):134-13B
1960 421 JB26
Bacillus thuringiensis Berliner, Biological assay, Insecticides, Plutella maculipennis (Curtis), Spores.
- 1B50-67
FACTORS INFLUENCING THE SYSTEMIC INSECTICIDAL ACTION OF SUBSTITUTED PHENYL DIMETHYL PHOSPHATES.
R L Metcalf H T Reynolds T R Fukuto C Collins
J Econ Entom 57(4):531-536, TABS.
Aug 1964 421 JB22
Phenyl dimethyl phosphates, Systemic insecticides.
- 1B51-67
THE FATE OF CYANAMIDE IN COTTON.
C S Miller W C Hall
J Agr Food Ch 11(3):222-225
May 1963 3B1 JB223
Cotton, Cyanamide, Metabolism.
- 1B52-67
THE COLORIMETRIC DETERMINATION AND PAPER CHROMATOGRAPHY OF SOME AROMATIC CARBAMATES.
R Miskus M E Eldefrawi D B Menzel W A Svoboda
J Agr Food Ch 9(3):190-192
May 1961 3B1 JB223
Carbamates, Chromatography, Colorimetry.
- 1B53-67
GIBBERELIC ACID. XI.-- THE GROWTH-PROMOTING ACTIVITIES OF SOME FUNCTIONAL DERIVATIVES OF GIBBERELIC ACID.
J S Moffatt M Radley
J Sci Food A 11(7):3B6-390
Jul 1960 3B2 S012
Gibberellic acid.
- 1B54-67
THE RELATION BETWEEN BASICITY AND SELECTIVITY IN ORGANO-PHOSPHATES.
R D O'Brien B D Hilton
J Agr Food Ch 12(1):53-55
Jan 1964 3B1 JB223
Amiton, Ionization, Organophosphates.
- 1B55-67
PURIFICATION OF PESTICIDES: MULTIMOLECULAR ADSORPTION CHROMATOGRAPHY FOR PURIFICATION OF GRAM QUANTITIES OF PESTICIDES.
G G Patchett G H Batch Elder
J Agr Food Ch 9(5):395-396
Sep 1961 3B1 JB223
Chromatography, Pesticides, Purification procedures.
- 1B56-67
FUNGICIDE EVALUATION: FUNGICIDAL ACTIVITY OF SOME NEW AMINO ALCOHOLS SYNTHESIZED FROM CITRUS (S)-LIMONENE.
R Patrick W F Newhall
J Agr Food Ch 8(5):397-399
Sep 1960 3B1 JB223
Alcohols, Chemical synthesis, Limonene.
- 1B57-67
MICROBIOLOGICAL DEGRADATION OF THIRAM.
L T Richardson G D Thorn
Phytopatholo 50(9):651-652
Sep 1960 464.8 P56
Microbiological degradation, Microbiology, Thiram.
- 1B58-67
AN ACID METHOD FOR THE VOLUMETRIC ESTIMATION OF WATER-SOLUBLE DITHIOCARBAMATES.
M L Shankaranarayana C C Patel
Anal Ch 33(10):139B-1400
Sep 1961 3B1 JB25A
Acids, Dithiocarbamates, Volumetric analysis, Water solubility.
- 1B59-67
RECOVERY OF ETHYLENE CHLOROBROMIDE FROM AGRICULTURAL PRODUCTS.
W B Sinclair D L Lindgren R Forbes
J Econ Entom 57(3):346-34B
Jun 1964 421 JB22
Bromochloroethane, Insecticide residues.
- 1B60-67
THE ISOLATION AND IDENTIFICATION OF THE AMINO-NITRO-O-TOLUAMIDE FORMED BY THE BIOLOGICAL REDUCTION OF 3,5-DINITRO-O-TOLUAMIDE.
G N Smith B J Theigs P D Ludwig
J Agr Food Ch 11(3):257-260
May 1963 3B1 JB223
Amino-nitro-o-toluamide, Feed, 3,5-dinitro-o-toluamide.
- 1B61-67
FEED ADDITIVES: DETERMINATION OF 3,5 DINITRO-O-TOLUAMIDE (ZOALENE) IN FEED CONCENTRATES.
G N Smith
J Agr Food Ch 8(3):224-226, TABS.
May 1960 3B1 JB223
Feed additives, Feed concentrates, Zoalene.
- 1B62-67
IDENTIFICATION OF THE METABOLITES OF 3,5-DINITRO-O-TOLUAMIDE -C14 (ZOALENE) IN CHICKEN TISSUES.
G N Smith B J Theigs P D Ludwig
J Agr Food Ch 11(3):253-256
May 1963 3B1 JB223
Metabolites, Poultry meat, Zoalene, 3,5-dinitro-o-toluamide-C14.
- 1B63-67
THE IDENTIFICATION OF 3,5-DINITRO-O-TOLUAMIDE (ZOALENE) AND POSSIBLE METABOLITES BY PAPER CHROMATOGRAPHY.
G N Smith B J Theigs P D Ludwig
J Agr Food Ch 11(3):251-253
May 1963 3B1 JB223
Chromatography, Feed, Metabolites, Zoalene, 3,5-dinitro-o-toluamide.
- 1B64-67
INTEGRATION OF PHYSICO-CHEMICAL AND BIOLOGICAL TECHNIQUES IN SPECIFIC BIOASSAY, WITH SPECIFIC REFERENCE TO BIDRIN INSECTICIDE.
Yun-Pei Sun E R Johnson
J Econ Entom 5B(5):B38-B44
Oct 1965 421 JB22
Bidrin, Biological assay, Insecticides.
- 1B65-67
FLUOROMETRIC ASSAY FOR GIBBERELIC ACID.
R J Theiraault W C Friedland M H Peterson J C Sylvester
J Agr Food Ch 9(1):21-23
Jan 1961 3B1 JB223
Fluorometry, Gibberellic acid.
- 1B66-67
PETROLEUM FRACTIONS AS DDT SOLVENTS.
A M Thomas Jr
J Agr Food Ch 12(5):442-447, TABS.
Sep 1964 3B1 JB223
DDT, Petroleum.
- 1B67-67
THE METABOLISM OF DIMETHOATE BY VERTEBRATE TISSUES.
T Uchida W C Dauterman R D O'Brien
J Agr Food Ch 12(1):4B-52, TABS.
Jan 1964 3B1 JB223
Animal metabolism, Dimethoate.
- 1B68-67
DETERMINATION OF MERCURY IN MERCURIAL AND ORGANOMERCURIAL PESTICIDES.
F Vernon
Anal Ch 33(10):1435-1436, TABS.
Sep 1961 3B1 JB25A
Organic compounds, Pesticides, Solvents.
- 1B69-67
THE QUANTITATIVE DETERMINATION OF HEPTACHLOR IN PESTICIDE FORMULATIONS BY GAS CHROMATOGRAPHY.
H J Wesselman J R Koons
J Agr Food Ch 11(2):173-174
Mar 1963 3B1 JB223
Chromatography, Heptachlor.
- 1B70-67
THE METABOLISM OF SEVIN IN DAIRY COWS.
W E Whitehurst E T Bishop F E Critchfield G G Gyrisco
E W Huddleston H Arnold D J Lisk
J Agr Food Ch 11(2):167-169
Mar 1963 3B1 JB223
Carbaryl, Dairy cattle, Insecticide residues.

80 1871-67

80 ENGINEERING

- 1871-67
IMPROVED HYDROSTATIC PRESSURE GAUGE METHODS FOR MEASURING
OLEORESIN EXUDATION PRESSURE IN BARK BEETLE RESEARCH.
N H Anderson
Can Entom 96(10):1322-1327
Oct 1964 421 C16
Hydrostatics, Measuring equipment, Oleoresins, Scolytidae.
- 1872-67
PHOTOGRAPHY IN MITE COUNTING.
D Asquith
J Econ Entom 58(4):677-678
Aug 1965 421 J822
Mites, Photography, Sampling.
- 1873-67
A VERSATILE ALTERNATIVE CHAMBER FOR INSECT BEHAVIOUR STUDIES*
M D Atkins W G Wellington
Can Entom 94(4):428-433
Apr 1962 421 C16
Insect behavior, Insect cages.
- 1874-67
AERATED STEAM FOR SOIL TREATMENT.
K F Baker C M Olsen
Phytopatholo 50(1):82
Jan 1960 464.8 PS6
Soil treatment, Steam.
- 1875-67
A VEHICLE-MOUNTABLE ROTARY-TUBE SPRAYER.
C S Barnharst Sr
J Econ Entom 55(3):411-412, PL.
Jun 1962 421 J822
Equipment, Insect diseases, Insect vectors, Spraying.
- 1876-67
A PHOTOGRAPHIC TECHNIQUE FOR RECORDING DISTRIBUTION AND
LOSS OF INSECTICIDES ON CATTLE.
M L Beadles
J Econ Entom 59(4):1011
Aug 1966 421 J822
Cattle, Insecticide distribution, Insecticide loss,
Photography.
- 1877-67
SOME FACTORS AFFECTING THE CATCHES OF LEPIDOPTERA IN LIGHT
TRAPS.
P Belton R H Kempster
Can Entom 95(8):832-837
Aug 1963 421 C16
Lepidoptera, Light traps.
- 1878-67
IDENTIFICATION OF 3, 4-METHYLENEDIOPHENYL SYNERGISTS BY
THIN-LAYER CHROMATOGRAPHY.
M Beroza
J Agr Food Ch 11(1):S1-S4, 8I8L. S3-54
381 J8223
Chromatography, Insecticide synergists,
3,4-methylenedioxyphenyl.
- 1879-67
USE OF STEP-ON SWITCHES FOR CONTROL OF AUTOMATIC SPRAYERS.
I L Berry R A Hoffman
J Econ Entom 56(6):888-890
Dec 1963 421 J822
Electric switches, Spraying equipment.
- 1880-67
GAS CHROMATOGRAPHY RETENTION TIMES AND SENSITIVITY DATA FOR
INSECTICIDES AND HERBICIDES.
E J Bonelli H Hartmann K P Dimick
J Agr Food Ch 12(4):333-336, TA8S.
Jul 1964 381 J8223
Chromatography, Herbicides, Insecticides.
- 1881-67
A PORTABLE APPARATUS FOR SEPARATING FLY LARVAE FROM POULTRY
DROPPINGS.
H W Brydon R G Fuller
J Econ Entom 59(2):448-452
Apr 1966 421 J822
Diptera, Fannia spp., Insect collecting equipment,
Poultry manure.
- 1882-67
A SPEAR FOR SAMPLING BULK GRAIN BY SUCTION.
H D Surges
Bull Entomol R 51(1):1-6
Apr 1960 421 887
Grain, Grain sampling, Sampling, Spear, Suction traps.
- 1883-67
A ROTARY DISC DEVICE FOR APPLYING ULTRA-LOW-VOLUME
(UNDILUTED) PESTICIDES WITH GROUND EQUIPMENT.
E C Surt D B Smith E P Lloyd
J Econ Entom 59(6):1487-1490
Dec 1966 421 J822
Pesticide application, Spraying.
- 1884-67
MODIFICATIONS OF A LEPIDOPTEROUS LARVAE DISPENSER FOR A
PACKAGING MACHINE.
R L Burton E A Harrell
J Econ Entom 59(6):1544-1545
Dec 1966 421 J822
Insect rearing equipment.
- 1885-67
AN AUTOMATED PACKAGING MACHINE FOR LEPIDOPTEROUS LARVAE.
R L Burton H C Cox
J Econ Entom 59(4):907-909, PL.
Aug 1966 421 J822
Lepidopterosus larvae, Packaging machine,
Spodoptera frugiperda.
- 1886-67
DEVICES TO FACILITATE REARING OF LEPIDOPTEROUS LARVAE.
R L Burton E A Harrell H C Cox W W Hare
J Econ Entom 59(3):S94-S96
Jun 1966 421 J822
Insect rearing techniques, Larvae, Lepidoptera.
- 1887-67
AN INSECT FLIGHT TRAP FOR CROP AREAS.
G D Butier Jr
J Econ Entom 59(4):1030-1031, PL.
Aug 1966 421 J822
Insect collecting equipment.
- 1888-67
AN IMPROVED METHOD FOR STORAGE OF THE ALFALFA WEEVIL IN THE
LABORATORY.
H D Byrne
J Econ Entom 58(6):1161
Dec 1965 421 J822
Experimental insects, Hypera postica,
Hypera postica (Gyllenhal), Insect rearing equipment.
- 1890-67
A PRECISION SPRAY TECHNIQUE FOR EVALUATING OILS FOR SIGATOKA
DISEASE CONTROL ON INDIVIDUAL BANANA LEAVES IN THE FIELD.
L Calpouzos W A Brun T Theis C Colberg
Phytopatholo 50(1):69-72
Jan 1960 464.8 PS6
Bananas, Oils, Sigatoka leaf-spot disease, Spray technique.
- 1891-67
APPARATUS AND PROCEDURE FOR SEPARATION OF CORN ROOTWORM
EGGS FROM SOIL.
J H Chandler G J Musick M L Fairchild
J Econ Entom 59(6):1409-1410
Dec 1966 421 J822
Diabrotica, Diabrotica longicornis, Diabrotica virgifera,
Eggs, Insect collecting equipment.
- 1892-67
ADHESIVES FOR HOLDING MITES TO GLASS PLATES.
M L Cleveland
J Econ Entom 55(4):S70-S71
Aug 1962 421 J822
Adhesives, Laboratory equipment, Mites.

BIBLIOGRAPHY

80 1916-67

- 1893-67
PLASTER OF PARIS AS AN AID IN REARING INSECTS PUPATING IN THE SOIL.
R V Connin D L Cobb M S Gomulinski J C Arnsman
J Econ Entom 59(6):1530
Dec 1966 421 J822
Insect rearing equipment, Pupae.
- 1894-67
A MODIFIED PHOTOPERIOD CONTROL DEVICE.
W R Cothran G G Gyrisco
J Econ Entom 59(1):236-238
Feb 1966 421 J822
Hypera postica, Photoperiodism.
- 1895-67
A HEATING APPARATUS FOR CONDUCTING FEEDING EXPERIMENTS WITH BLOOD-SUCKING MITES.
H F Cross
J Econ Entom 55(1):140-142
Feb 1962 421 J822
Feeding, Heating apparatus, Mites.
- 1896-67
COLOR CHART FOR MARKING INSECTS.
W H Cross H C Mitchell
J Econ Entom 57(2):301
Apr 1964 421 J822
Insect identification.
- 1897-67
A CYCINDRICAL CAGE FOR FLY REARING.
E C Cummings J T Hallett J J Menn
J Econ Entom 57(1):177, PL.
Feb 1964 421 J822
Insect rearing equipment, Musca domestica.
- 1898-67
A TWO-BOTTOM TWO-WAY PLOW SOLE FUMIGATOR.
C E Dallimore
Phytopatholo 50(1):83
Jan 1960 464.8 P56
Fumigation, Plows.
- 1899-67
AN APPARATUS FOR CONTINUOUSLY RECORDING APHID FLIGHTS FROM THEIR HOSTS.
R Davis
J Econ Entom 58(5):1034-1035
Oct 1965 421 J822
Aphididae, Flight patterns, Insect flight.
- 1900-67
PORTABLE SPRAYER FOR AERIAL LVC APPLICATIONS.
A V Dearman H F Powell R K Thompson
J Econ Entom 58(6):1050-1052
Dec 1965 421 J822
Aircraft disinfection, Low-volume concentrate, Spraying equipment.
- 1901-67
AN EASILY CONSTRUCTED VACUUM DUSTER.
P H Dunn 8 J Mechalas
J Econ Entom 56(6):899
Dec 1963 421 J822
Dusting equipment.
- 1902-67
NEW SPRAY REAGENTS FOR THE DETECTION OF THIOPHOSPHATE INSECTICIDES ON PAPER CHROMATOGRAMS.
M C Dutt D H Seow
J Agr Food Ch 11(6):467
Nov 1963 381 J8223
Chromatography, Spraying, Thiophosphates.
- 1903-67
TEFLON AS A BARRIER TO INSECTS.
W Ebeling R E Wagner
J Econ Entom 56(5):715-716
Oct 1963 421 J822
Laboratory equipment, Teflon.
- 1904-67
A CAGE FOR COLLECTING INSECTS FROM TREE STEMS AND BRANCHES.
D P Elliott J M Powell
Can Entom 98(10):1112-1113
Oct 1966 421 C16
Insect cages, Insect collecting equipment, Trees.
- 1905-67
IMPROVED METHOD OF USING YELLOW-PAN APHID TRAPS.
D A Evans J T Medler
H M Flint C K Lahren
J Econ Entom 59(6):1526-1527
Dec 1966 421 J822
Aphididae, Insect collecting equipment.
- 1906-67
A PAPER-BAG TEST CAGE FOR USE WITH THE TOBACCO BUDWORM.
H M Flint C K Lahren
J Econ Entom 59(6):1540-1541
Dec 1966 421 J822
Heliothis virescens, Heliothis viscerens, Insect collecting equipment.
- 1907-67
SIMPLIFIED METHODS FOR LABORATORY MAINTENANCE OF SALTATORY ORTHOPTERA.
H Frings M Frings
J Econ Entom 55(6):1019-1020
Dec 1962 421 J822
Insect cages, Insect rearing, Insect rearing equipment, Orthoptera.
- 1908-67
METHODS FOR PLACING WASP TRAP NESTS IN ELEVATED LOCATIONS.
R E Fye
J Econ Entom 58(4):803-804
Aug 1965 421 J822
Hymenoptera, Hymenoptera, Insect traps.
- 1909-67
A POWER TOOL FOR SAMPLING SOIL FOR INSECTS.
K E Gibson
J Econ Entom 58(4):788-790
Aug 1965 421 J822
Insects, Soil sampling.
- 1910-67
EVALUATION OF A SLOWER ATTACHMENT FOR LIGHT TRAPS.
P A Glick H M Graham C H Billingsley
J Econ Entom 57(1):169-170, PL.
Feb 1964 421 J822
Light traps.
- 1911-67
KILLING HOUSE-FLIES, MUSCA DOMESTICA L., BY MEANS OF HANGING DROPS OF INSECTICIDE.
K G Gostick P S Hewlett
Bull Entomol R 51(3):523-532
Nov 1960 421 887
Diptera, Insecticide application, Insecticide residues, Insecticides, Musca domestica.
- 1912-67
AN OLFACMETER FOR USE IN THE STUDY OF MOSQUITO ATTRACTANTS.
H K Gouck C E Schreck
J Econ Entom 58(3):589-590
Jun 1965 421 J822
Attractants, Culicidae, Olfactometers.
- 1913-67
USE OF CYANIDE IN PINK BOLLWORM SEX-LURE TRAPS.
H M Graham D F Martin
J Econ Entom 56(6):901-902
Dec 1963 421 J822
Cyanides, Insect traps, Pectinophora gossypiella, Pectinophora gossypiella (Saunders), Sex attractants.
- 1914-67
A SMALL CAGE FOR THE COLLECTION OF INSECT EXCRETA.
E A C Hagley
J Econ Entom 55(2):261
Apr 1962 421 J822
Equipment, Excreta, Insect cages.
- 1915-67
DUSTING STATIONS AND CABLE BACKRUBBERS AS SELF-APPLICATORY DEVICES FOR CONTROL OF THE FACE FLY.
J A Hair T R Adkins Jr
J Econ Entom 58(1):39-41
Feb 1965 421 J822
Backrubbers, Dusting, Insect control, Insecticides, Musca autumnalis, Musca autumnalis DeGeer.
- 1916-67
A LABORATORY TECHNIQUE FOR BIOASSAY OF PLANT ATTRACTANTS FOR THE BOLL WEEVIL.
D D Hardee E B Mitchell P M Huddleston T 8 Davich

BIBLIOGRAPHY

80 1917-67

- J Econ Entom 59(1):240-241
Feb 1966 421 J822
Anthonomus grandis, *Anthonomus grandis* Boheman,
Biological assay, Plant attractants.
- 1917-67
A WALK-IN LIGHT TRAP INSTALLATION WITH A MOTH-BEETLE SEPARATOR.
K Harrendorf A J Keaster
J Econ Entom 58(5):1010-1011
Oct 1965 421 J822
Coleoptera, Light traps, Moths.
- 1918-67
A FAN FOR HANDLING LIVE INSECTS.
E A Harrell W W Hare J R Young
J Econ Entom 59(3):756-758
Jun 1966 421 J822
Insect collecting equipment.
- 1919-67
AN INEXPENSIVE PORTABLE SUCTION INSECT SAMPLER.
E Harrell R Davis
J Econ Entom 58(4):791-792
Aug 1965 421 J822
Insect collecting equipment, Insects, Sampling.
- 1920-67
GROUND EQUIPMENT FOR APPLYING LOW-VOLUME INSECTICIDES TO SWEET CORN.
E A Harrell W W Hare J R Young
J Econ Entom 59(2):487-489
Apr 1966 421 J822
Insecticides, Spraying equipment, Sweetcorn.
- 1921-67
AN EFFECT OF ELECTROSTATIC DUSTING ON DDT DUST DEPOSITION.
E A Harrell M C Bowman W W Hare
J Econ Entom 58(5):1016-1017
Oct 1965 421 J822
Electrostatic dusting, DDT .
- 1922-67
A MODIFIED HIGH-CLEARANCE SPRAYER FOR PLOT USE.
K Harrendorf
J Econ Entom 58(5):1014-1015
Oct 1965 421 J822
Spraying, Spraying equipment.
- 1923-67
A DISPENSING PUMP FOR VISCOUS FORMULATIONS OF LURE.
W G Hart M S Fujimoto
J Econ Entom 59(6):1544
Dec 1966 421 J822
Attractants, Spraying equipment.
- 1924-67
NEW DEVICES FOR REARING AND HANDLING HOUSE FLIES IN THE LABORATORY.
S B Hays G M Amerson
J Econ Entom 59(6):1523-1524
Dec 1966 421 J822
Insect rearing equipment, *Musca domestica*, *Musca domestica*.
- 1925-67
MODIFICATION OF A LABORATORY REARING METHOD FOR THE PLUM CURCULIO, *CONOTRACHELUS NENUPHAR*.
S B Hays J H Cochran
J Econ Entom 57(3):408-409, BIBL.
Jun 1964 421 J822
Conotrachelus nenuphar, *Conotrachelus nenuphar*,
Insect rearing equipment.
- 1926-67
PRECISION EQUIPMENT FOR APPLYING GRANULAR FORMULATIONS IN INSECTICIDE TESTS.
C F Henderson
J Econ Entom 55(5):663-667
Oct 1962 421 J822
Equipment, Granular insecticides, Insecticide application.
- 1927-67
A SIMPLE TECHNIQUE FOR TRITIATION OF AROMATIC INSECTICIDES.
B D Hilton R D O'Brien
J Agr Food Ch 12(3):236-238
May 1964 381 J8223
Insecticides, Labeling, Tritium.
- 1928-67
AN INSECT-PROOF DOORWAY.
B Hocking
Bull Entomol R 51(1):135-144
Apr 1960 421 887
Doors.
- 1929-67
TRAP FOR SEPARATING COLLECTIONS OF INSECTS BY INTERVAL.
W R Horsfall
J Econ Entom 55(5):808-811
Oct 1962 421 J822
Insect collecting equipment, Insect traps.
- 1930-67
ELECTRON MICROSCOPE STUDY ON THE CYTOLOGY OF A MICROSPORIDIAN SPORE BY MEANS OF ULTRATHIN SECTIONING.
A Huger
J Invertebrate Path 2(2):84-103, 818L. 104-105
1960 421 J826
Cytology, Electron microscopes,
Locusta migratoria migratorioides Reiche and Fairmaire,
Microsporidian spores, Microtomy, *Nosema locustae* Canning.
- 1931-67
A LIGHT-WEIGHT LEAF CAGE FOR SMALL ARTHROPODS.
P R Hughes R E Hunter T F Leigh
J Econ Entom 59(4):1024-1025, PL.
Aug 1966 421 J822
Arthropoda, Leaf cage.
- 1932-67
FURTHER OBSERVATIONS ON THE EFFECTIVENESS OF CHEMICALLY TREATED SCREENS IN KILLING BITING MIDGES, *CULICOIDES SANGUISUGA* (DIPTERA: CERATOPOGONIDAE).
H Jamnback
J Econ Entom 56(5):719-720
Oct 1963 421 J822
Ceratopogonidae, Ceratopogonidae,
Culicoides sanguisuga (Coquillett), Diptera, Screens.
- 1933-67
AN AUTOMATIC SAMPLE-CHANGING DEVICE FOR LIGHT-TRAP COLLECTING.
E W King C D Piess J K Reed
J Econ Entom 58(1):170-172
Feb 1965 421 J822
Insect collecting equipment, Sampling.
- 1934-67
RUBBER-BULB ASPIRATORS TO HANDLE MINUTE INSECTS.
R L Kirkpatrick
J Econ Entom 55(3):411
Jun 1962 421 J822
Eggs, Equipment, Insects, Larvae.
- 1935-67
THE AUTOMATIC MEASUREMENT OF FUMIGANT CONCENTRATIONS.
M J Kolbezen C W Wilson J W Eckert
Phytopatholo 50(9):642
Sep 1960 464.8 P56
Fumigants, Measurement.
- 1936-67
AN APHID FLIGHT CHAMBER: CONSTRUCTION AND OPERATION.
J B Kring
J Econ Entom 59(6):1518-1520
Dec 1966 421 J822
Aphididae, Insect flight chamber.
- 1937-67
EQUIPMENT FOR CHECKING FUMIGATION EFFECTIVENESS IN SILO 8IN5*
G W Lammers R C Dobson
J Econ Entom 58(5):1011-1012
Oct 1965 421 J822
Equipment, Fumigation, Silos.
- 1938-67
GROWING SEEDLINGS FREE OF AIR-BORNE MICROFLORA.
C Leben
Phytopatholo 50(9):644
Sep 1960 464.8 P56
Microflora, Plant physiology, Seedlings.
- 1939-67
TESTS WITH ATTRACTANTS AND A SIMPLE TRAP FOR THE EUROPEAN EARWIG, *FORFICULA AURICULARIA*.
E F Legner D W Davis
J Econ Entom 55(6):1006-1007
Dec 1962 421 J822

- Attractants, Baits, *Forficula auricularia*,
Forficula auricularia, Insect traps.
- 1940-67
AN IMPROVED TUBE CLOSURE FOR BIOLOGICAL TESTS.
P C Lippold
J Econ Entom 59(3):626-628
Jun 1966 421 J822
Biological assay, *Drosophila melanogaster*,
Test tube closures.
- 1941-67
A TECHNIQUE FOR MAKING HIGH-RESOLUTION CONTINUOUS-TONE
PHOTOGRAPHS OF NEMATODES.
H H Lyon W F Mal
Phytopatholo 50(9):644
Sep 1960 464.8 P56
Nematodes, Photography.
- 1942-67
A RAPID METHOD OF ESTIMATING THE ATOMIZATION OF OIL-BASE
AERIAL SPRAYS.
B Maksymuk
J Econ Entom 57(1):16-19
Feb 1964 421 J822
Aerial spraying, Oil-base aerial sprays, Spray atomization.
- 1943-67
BAITED TRAPS FOR SAMPLING DROSOPHILA POPULATIONS IN TOMATO
FIELD PLOTS.
H C Mason
J Econ Entom 56(6):897-899
Dec 1963 421 J822
Drosophila, Insect traps, Tomatoes.
- 1944-67
FLOTATION TECHNIQUE FOR EXTRACTING EGGS OF DIABROTICA SPP.
AND OTHER ORGANISMS FROM SOIL.
J W Matteson
J Econ Entom 59(1):223-224
Feb 1966 421 J822
Diabrotica spp., Extraction techniques, Insect eggs,
Soil fauna.
- 1945-67
A MODIFIED ASPIRATOR FOR COLLECTING SMALL ARTHROPODS.
J W Matteson
J Econ Entom 58(5):1031-1031
Oct 1965 421 J822
Arthropoda, Aspirator, Insect collecting equipment.
- 1946-67
AN EFFECT OF STATIC ELECTRICITY ON CAPTURES IN INSECT TRAPS.
M G Maw
Can Entom 96(11):1482
Nov 1964 421 C16
Insect traps, Static electricity.
- 1947-67
A METAL CAGE FOR REARING GRASSHOPPERS.
P C Mazuranich F T Cowan
J Econ Entom 59(1):232-234
Feb 1966 421 J822
Camnula pellucida (Scudder), Grasshoppers, Insect cages,
Insect rearing, *Melanoplus bivittatus* (Say),
Melanoplus differentialis (Thomas),
Melanoplus sangulnipes (F.).
- 1948-67
A LABORATORY INSECTICIDE SPRAYER DESIGNED TO SIMULATE FIELD
SPRAYING EQUIPMENT.
S McDonald N W Hall
J Econ Entom 58(4):739-742
Aug 1965 421 J822
Insecticides, Spraying equipment.
- 1949-67
APPARATUS FOR STUDYING FEEDING AND OVIPOSITION BY ANGOUIMOIS
GRAIN MOTH ADULTS.
R B Mills
J Econ Entom 58(1):177
Feb 1965 421 J822
Feeding, Insect eggs, *Sitotroga cerealella*,
Sitotroga cerealella.
- 1950-67
A SQUEEZE DEVICE FOR DETECTION OF LARVAE OF THE SORGHUM
MIDGE, *CONTARINIA SORGHICOLA* (COQUILLET).
E Montoya
J Econ Entom 58(5):938-940
- Oct 1965 421 J822
Contarinia sorghicola, Larvae.
- 1951-67
PRECISION OF ATOMIZATION ESTIMATES FOR AERIAL SPRAYS.
A D Moore B Maksymuk D A Isler
J Econ Entom 57(1):19-21
Feb 1964 421 J822
Aerial spraying, Spray atomization.
- 1952-67
TRAPPING AS A MEANS OF STUDYING THE GAME TSETSE, *GLOSSINA
PALLIDIPES* AUST.
K R S Morris
Bull Entomol R 51(3):533-558
Nov 1960 421 887
Glossina pallidipes Aust., Insect traps.
- 1953-67
A MACHINE FOR CHANGING THE POSITIONS OF A PAIR OF DIRECTION-
AL LIGHT TRAPS TO ELIMINATE POSITIONAL EFFECTS.
C F Nicholls
Can Entom 94(2):200-204
Feb 1962 421 C16
Insect traps, Stridulation.
- 1954-67
AN EXPANDED CAGE FOR FEEDING TESTS OF COCCINELLID PREDA-
TORS OF APHIDS.
C F Nicholls J A C Berube
J Econ Entom 58(6):1169-1170
Dec 1965 421 J822
Aphididae, Aphididae, Coccinellida, Insect cages,
Predaceous insects.
- 1955-67
A PLOT SEEDER MODIFIED TO APPLY SEED AND GRANULAR INSECTI-
CIDES SIMULTANEOUSLY.
H D Niemczyk G Prins
J Econ Entom 56(4):529
Aug 1963 421 J822
Insecticide application, Seed planting equipment.
- 1956-67
HAND SEEDER ADAPTED FOR PRECISION PLANTING OR FOR APPLI-
CATION OF GRANULATED INSECTICIDES OR FERTILIZERS.
J A Onsager
J Econ Entom 59(4):1018-1019, PL.
Aug 1966 421 J822
Fertilizer spreaders, Hand seeder, Insecticide application,
Precision planting.
- 1957-67
AN ECONOMICAL METHOD OF MAINTAINING ADULT DIPTERA.
A W Osborn E Shipp
J Econ Entom 58(5):1023
Oct 1965 421 J822
Diptera, Insect cages, Insect rearing.
- 1958-67
ARTIFICIAL OVIPOSITION DEVICES FOR APPLE MAGGOT.
R J Prokopy
J Econ Entom 59(1):231-232
Feb 1966 421 J822
Oviposition, *Rhagoletis pomonella*,
Rhagoletis pomonella (Walsh).
- 1959-67
SAMPLING MITES ON PEACH LEAVES WITH THE HENDERSON-
MCBURNIE MACHINE.
W L Putman
J Econ Entom 59(1):224-225
Feb 1966 421 J822
Henderson-McBurnie machine, Leaves, Mites, *Panonychus ulmi*,
Panonychus ulmi (Koch), Peaches, Sampling.
- 1960-67
THE USE OF FLUON TO PREVENT THE ESCAPE OF STORED-PRODUCT
INSECTS FROM GLASS CONTAINERS.
S Radinovsky G W Krantz
J Econ Entom 55(5):815-816
Oct 1962 421 J822
Glass containers, Polytetrafluoroethylene,
Polytetrafluoroethylene, Stored product insects.
- 1961-67
A LIGHT TRAP FOR MOTHS OF *NACOLEIA DICEMENALIS*.
S B Rao
J Econ Entom 58(5):1000-1002
Oct 1965 421 J822

BIBLIOGRAPHY

80 1962-67

- Light traps, Moths, *Nacoleia diemenalis*.
- 1962-67
A BLOWER-AUGUR METERING GRANULAR APPLICATOR.
R C Riley D J Sutherland J H Simpson
J Econ Entom 58(1):121-124
Feb 1965 421 J822
Insecticide application.
- 1963-67
TESTS WITH TRAP DESIGN AND KILLING AGENTS IN BLACK-LIGHT SURVEY TRAPS.
G G Rohwer S A Rohwer II
J Econ Entom 57(2):301-302
Apr 1964 421 J822
Insecticides, Light traps.
- 1964-67
GROUND-APPLIED INSECTICIDES AGAINST THE CEREAL LEAF BEETLE.
R F Ruppel Y M Yun
J Econ Entom 58(1):41-46
Feb 1965 421 J822
Cereal leaf beetle, Insecticide application, Insecticides, *Oulema melanopa* (L).
- 1965-67
USE OF FIELD BAIT STATIONS IN CHEMOSTERILANT CONTROL OF THE MEXICAN FRUIT FLY.
M Sanchez Riviello J G Shaw
J Econ Entom 59(3):753-754
Jun 1966 421 J822
Anastrepha ludens, *Anastrepha ludens*, Baits, Chemosterilants.
- 1966-67
PORTABLE BLACK-LIGHT TRAP BATTERY AND AC OPERATION.
M H Sartor J C Oertel
J Econ Entom 56(4):536
Aug 1963 421 J822
Light traps.
- 1967-67
APPLICATION OF DIRECT PHOTOMETRY TO AGRICULTURAL ANALYSIS.
R D Scott
J Sci Food A 11(10):584-592
Oct 1960 382 S012
Agricultural chemistry, Photometry, Spectrometry.
- 1968-67
DESIGN AND PERFORMANCE OF A LABORATORY AIR-BLAST SPRAYER.
W A Simanton K Trammel
J Econ Entom 58(3):576-578
Jun 1965 421 J822
Citrus, Spraying equipment.
- 1969-67
A SIMPLE AND INEXPENSIVE TRACTOR-MOUNTED INOCULUM APPLICATOR*
W R Sitterly G L Buckner Jr
Plant Dis R 44(7):532-533
15 Jul 1960 1.9 P69P
Immunization, Inoculum applicator, Tractors.
- 1970-67
SIMPLE APPARATUS FOR COMBUSTION OF SAMPLES CONTAINING C14-LABELED PESTICIDES FOR RESIDUE ANALYSIS.
G N Smith P D Ludwig R C Wright W R Sauriedel
J Agr Food Ch 12(2):172-175
Mar 1964 381 J8223
Combustion, Pesticide residues.
- 1971-67
A CARBON DIOXIDE TRAP FOR SIMULIIDAE (DIPTERA).
E L Snoddy K L Hays
J Econ Entom 59(1):242-243
Feb 1966 421 J822
Diptera, Insect traps, Simuliidae.
- 1972-67
A HOLDING CAGE AND HANDLING DEVICE FOR NOCTUID MOTHS.
J N Snow
J Econ Entom 59(6):1547-1548
Dec 1966 421 J822
Heliothis zea, Insect cages, Moths, *Spodoptera frugiperda*.
- 1973-67
A MICROCHAMBER FOR REPLICATING PHOTOPHASES IN DIAPAUSE STUDIES WITH THE EUROPEAN CORN BORER.
A N Sparks
J Econ Entom 59(2):492-493, PL.
Apr 1966 421 J822
Diapause, Life cycle, *Ostrinia nubilalis*, *Ostrinia nubilalis* (Hubner), Photophases.
- 1974-67
MECHANICS OF INFRARED CINEMATOGRAPHY IN STUDIES WITH THE EUROPEAN CORN BORER.
A N Sparks L A Facto
J Econ Entom 59(2):420-422
Apr 1966 421 J822
Infrared photography, Mechanics, *Ostrinia nubilalis*, *Ostrinia nubilalis* (Hubner).
- 1975-67
A PHOTOELECTRIC COUNTER TO MONITOR OLFACTORY RESPONSE OF MOTHS.
K J Starks P S Callahan W W McMillan H C Cox
J Econ Entom 59(4):1015-1017, PL.
Aug 1966 421 J822
Moths, Olfactometers, Olfactory response, Photoelectric counter.
- 1976-67
ARTIFICIAL EGGING RECEPTACLES FOR THREE SPECIES OF TEPHRITID FLIES.
N Tanaka
J Econ Entom 58(1):177-178
Feb 1965 421 J822
Ceratitis capitata, *Ceratitis capitata*, *Dacus cucurbitae*, *Dacus cucurbitae*, *Dacus dorsalis*, *Dacus dorsalis* (Hendel), Insect eggs.
- 1977-67
A STORAGE METHOD FOR COLLECTIONS OF INSECTS IN LIQUID.
J B Thomas
Can Entom 94(2):216-218
Feb 1962 421 C16
Insect collecting equipment.
- 1978-67
A NEW DRAWING AID.
J B Thomas L M Gardiner
Can Entom 94(2):218-220
Feb 1962 421 C16
Drawing, Microscopy.
- 1979-67
A THERMAL PREFERENCE METHOD OF BIOASSAY OF THE TOXICITY OF INSECTICIDAL FILMS TO HOUSE FLIES.
J Ward E M Gillham C Potter
Bull Entomol R 51(2):379-387
Jul 1960 421 887
Biological assay, Diptera, Insecticidal films, *Musca domestica*, Thermal analysis, Toxicology.
- 1980-67
DENSITY DEPENDENCE IN POPULATION FLUCTUATIONS.
K E F Watt
Can Entom 96(8):1147-1148
Aug 1964 421 C16
Density, Insect population, Insect population density, Insect population statistics.
- 1981-67
MATHEMATICAL MODELS FOR USE IN INSECT PEST CONTROL.
K E F Watt
Can Entom 93, SUPPL. 19
1961 421 C16
Insect control, Insect ecology, Insect pests, Mathematical analysis.
- 1982-67
COMMENTS ON FLUCTUATIONS OF ANIMAL POPULATIONS AND MEASURES OF COMMUNITY STABILITY.
K E F Watt
Can Entom 96(11):1434-1442, TABS.
Nov 1964 421 C16
Animal communities, Animal population, Animal population statistics.
- 1983-67
EFFECT OF BAIT-TRAP COLOR ON ATTRACTANCY TO *DROSOPHILA MELANOGASTER*.
H E Wave
J Econ Entom 57(2):295-296
Apr 1964 421 J822
Attractants, *Drosophila melanogaster*, Insect collecting equipment.

1984-67

A PORTABLE ELECTRICALLY OPERATED COLLECTING DEVICE.
G T Weekman H J Ball
J Econ Entom 56(5):708-709,
Oct 1963 421 J822
Insect collecting equipment.

1985-67

EQUIPMENT FOR TRAPPING AND REARING THE AMERICAN COCKROACH,
PERIPLANETA AMERICANA.
J T Whitlan Jr L W Smith Jr
J Econ Entom 57(1):164-165, PL.
Feb 1964 421 J822
Insect collecting equipment, Insect rearing equipment,
Periplaneta americana, Periplaneta americana.

1987-67

A PORTABLE DEVICE FOR MASS-COLLECTING OR SAMPLING FOLIAGE-
INHABITING ARTHROPODS.
L F Wilson
J Econ Entom 55(5):807-808
Oct 1962 421 J822
Arthropoda, Insect collecting equipment.

1988-67

AN IMPROVED ELECTRONIC COUNTING APPARATUS FOR USE IN OLFAC-
TOMETERS.
G W Wood J W McAllan W D Wasson
J Econ Entom 58(6):1166-1167
Dec 1965 421 J822
Olfactometers.

1989-67

MODIFICATION OF A VACUUM CLEANER FOR CAPTURING GERMAN AND
BROWN-BANDED COCKROACHES.
C G Wright
J Econ Entom 59(3):759-760
Jun 1966 421 J822
Blattella germanica, Brown-banded cockroaches,
Insect collecting equipment, Supella supellectilium,
Vacuum cleaners.

1990-67

THE DYE-TRACER METHODS MEASURING AERIAL SPRAY DEPOSITS IN
FOREST INSECT RESEARCH.
J S Yull J P Secrest
J Econ Entom 59(3):720-723
Jun 1966 421 J822
Aerial spraying, Deposits, Dyes, Forest insects,
Measurement.

1991-67

TESTS FOR SELECTING TRACER DYES FOR AERIAL SPRAYS.
J S Yull J D Secrest
J Econ Entom 59(3):719-720
Jun 1966 421 J822
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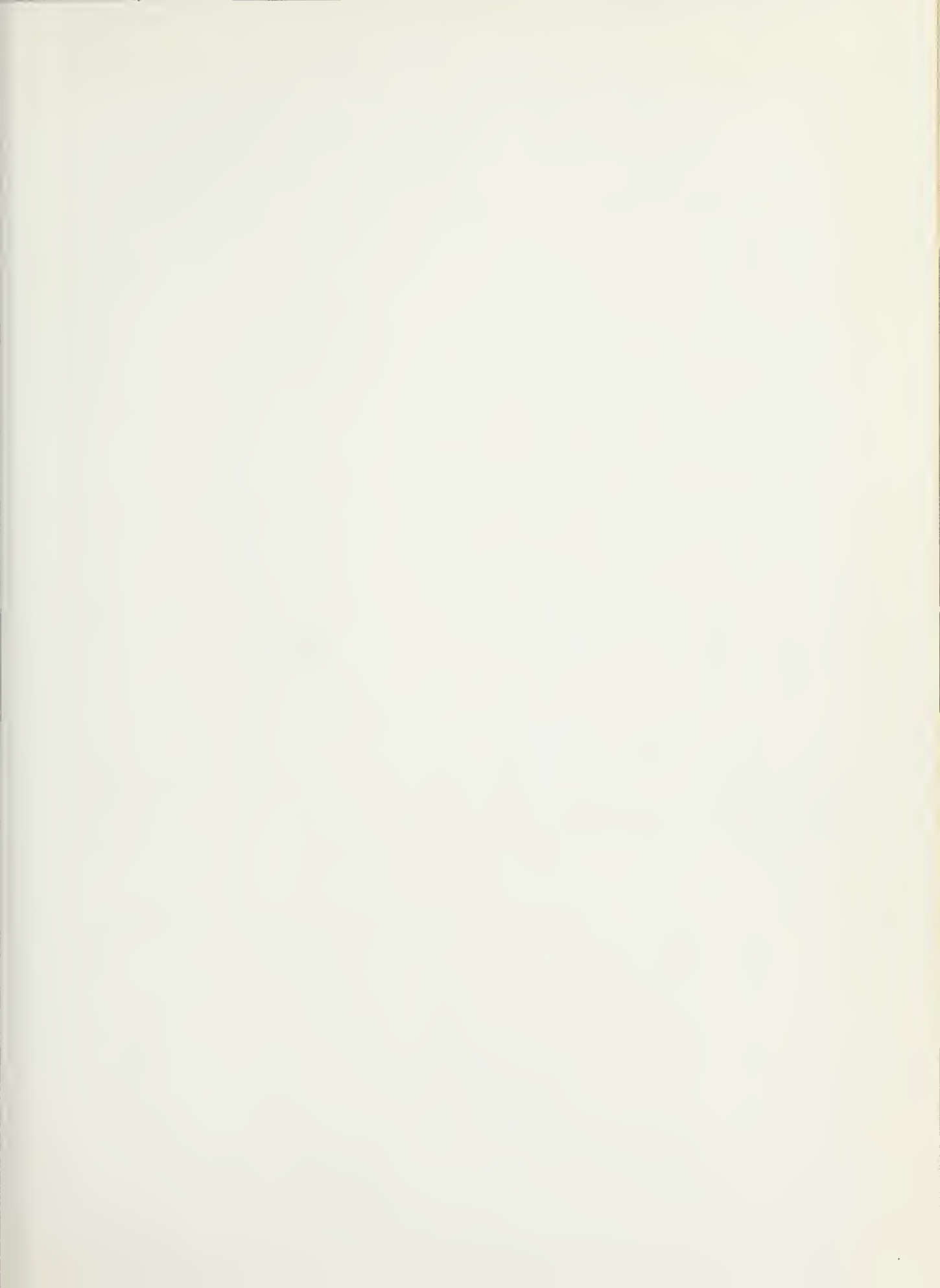
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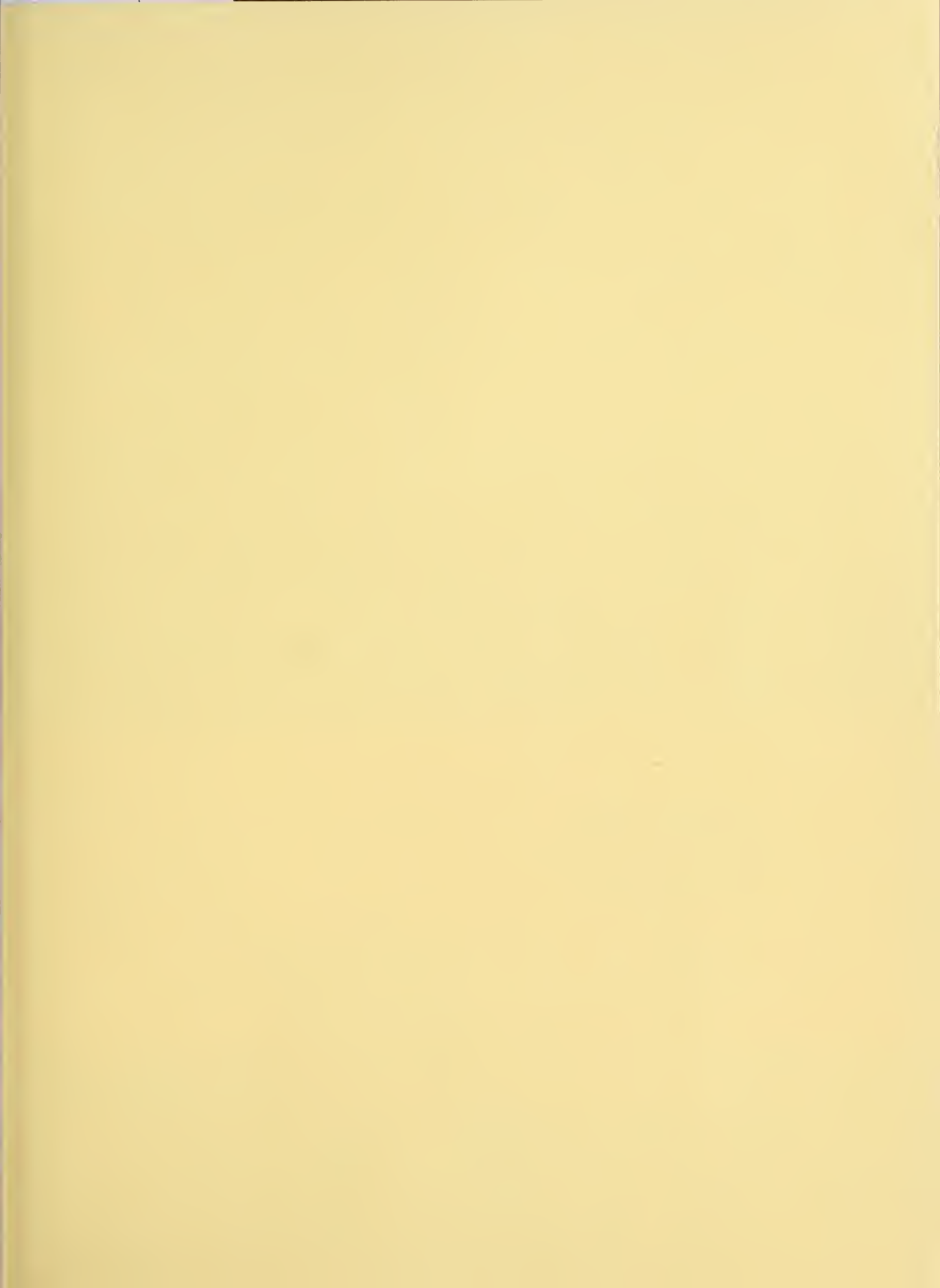
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