

Journal of Economic Entomology

VOLUME 105

AUGUST 2012

NUMBER 4

FORUM

- Phosphine Resistance in *Tribolium castaneum* and *Rhyzopertha dominica* From Stored Wheat in Oklahoma. **PDF** *
G. P. OPIT, T. W. PHILLIPS, M. J. AIKINS, AND M. M. HASAN 1107
- Estimating the Economic Cost of One of the World's Major Insect Pests, *Plutella xylostella* (Lepidoptera: Plutellidae): Just How Long Is a Piece of String?
MYRON P. ZALUCKI, ASAD SHABBIR, REHAN SILVA, DAVID ADAMSON, LIU SHU-SHENG,
AND MICHAEL J. FURLONG 1115

APICULTURE AND SOCIAL INSECTS

- Characteristics of Honey Bee and Non-*Apis* Bee (Hymenoptera) Farms in Canada. **PDF** *
Z. DALY, A. MELHIM, AND A. WEERSINK..... 1130
- Effects of Brood Pheromone (SuperBoost) on Consumption of Protein Supplement and Growth of Honey Bee (Hymenoptera: Apidae) Colonies During Fall in a Northern Temperate Climate.
RAMESH R. SAGILI AND CAROLYN R. BREECE 1134
- Influence of Toxic Bait Type and Starvation on Worker and Queen Mortality in Laboratory Colonies of Argentine Ant (Hymenoptera: Formicidae).
MELISSA MATHIESON, RICHARD TOFT, AND PHILIP J. LESTER 1139
- Use of Flax Oil to Influence Honey Bee Nestmate Recognition. **PDF** *
MICHAEL D. BREED, CECILY A. LYON, ANNA SUTHERLAND, AND ROBERT BUCHWALD..... 1145

BIOLOGICAL AND MICROBIAL CONTROL

- Enhanced Attraction of *Plutella xylostella* (Lepidoptera: Plutellidae) to Pheromone-Baited Traps With the Addition of Green Leaf Volatiles.
PENGYAN LI, JUNWEI ZHU, AND YUCHUAN QIN 1149
- Acute Toxicities and Sublethal Effects of Some Conventional Insecticides on *Trichogramma chilonis* (Hymenoptera: Trichogrammatidae). **PDF** *
DE-SEN WANG, YU-RONG HE, XIANG-LING GUO, AND YONG-LI LUO 1157
- The Utility of Camptothecin as a Synergist of *Bacillus thuringiensis* var. *kurstaki* and Nucleopolyhedroviruses Against *Trichoplusia ni* and *Spodoptera exigua*.
SHIFENG SUN, ZHONGSHAN CHENG, JING FAN, XINGHU CHENG, AND YI PANG 1164

COMMODITY TREATMENT AND QUARANTINE ENTOMOLOGY

- Optimizing Metabolic Stress Disinfection and Disinfestation Components to Control *Pseudococcus longispinus*.
FELIX ZULHENDRI, H. NIHAL DE SILVA, LISA E. JAMIESON, CONRAD O. PERERA,
SIEW-YOUNG QUEK, AND ALLAN B. WOOLF 1171

Export of Commercial Hass Avocados From Argentina Poses Negligible Risk of *Ceratitidis capitata* (Diptera: Tephritidae) Infestation. **PDF** *
M. ELVIRA VILLAGRÁN, EDUARDO WILLINK, M. TERESA VERA, AND PETER FOLLETT 1178

ECOLOGY AND BEHAVIOR

Trap Capture of Three Economically Important Fruit Fly Species (Diptera: Tephritidae): Evaluation of a Solid Formulation Containing Multiple Male Lures in a Hawaiian Coffee Field.
TODD SHELLY, JON NISHIMOTO, AND RICK KURASHIMA 1186

Three-Dimensional Temporal and Spatial Distribution of Adult *Rhyzopertha dominica* in Stored Wheat and Corn Under Different Temperatures, Moisture Contents, and Adult Densities.
FUJI JIAN, RON LARSON, DIGVIR S. JAYAS, AND NOEL D. G. WHITE..... 1194

Phenology of *Dasineura oxycoccana* (Diptera: Cecidomyiidae) on Cranberry and Blueberry Indicates Potential for Gene Flow.
MELISSA A. COOK, SHEILA M. FITZPATRICK, AND BERNARD D. ROITBERG 1205

Dispersal Behavior of Neonate European Corn Borer (Lepidoptera: Crambidae) on Bt Corn. **PDF** *
J. M. RAZZE AND C. E. MASON 1214

ECOTOXICOLOGY

Acromyrmex octospinosus (Hymenoptera: Formicidae) Management: Effects of TRAMILs Fungicidal Plant Extracts.
ISABELLE BOULOGNE, HARRY OZIER-LAFONTAINE, LIONEL GERMOSEN-ROBINEAU, LUCIENNE DESFONTAINES, AND GLADYS LORANGER-MERCIRIS 1224

Effect of the Natural Pesticide Spinosad (GF-120 Formulation) on the Foraging Behavior of *Plebeia moureana* (Hymenoptera: Apidae). **PDF** *
D. SÁNCHEZ, E. DE J. SOLÓRZANO, P. LIEDO, AND R. VANDAME..... 1234

Repellency of Essential Oils to *Frankliniella occidentalis* (Thysanoptera: Thripidae) as Affected by Type of Oil and Polymer Release. **PDF** *
ISABELLE PICARD, ROBERT G. HOLLINGSWORTH, STÉPHANE SALMIERI, AND MONIQUE LACROIX 1238

FIELD AND FORAGE CROPS

Western Corn Rootworm Larval Movement in SmartStax Seed Blend Scenarios. **PDF** *
SARAH N. ZUKOFF, WAYNE C. BAILEY, MARK R. ELLERSIECK, AND BRUCE E. HIBBARD..... 1248

Crop Sequence Effects on Root Maggot (Diptera: Anthomyiidae: *Delia* spp.) Infestations in Canola.
L. M. DOSDALL, K. N. HARKER, J. T. O'DONOVAN, R. E. BLACKSHAW, H. R. KUTCHER, Y. GAN, AND E. N. JOHNSON 1261

Seasonal Population Dynamics of the Potato Psyllid (Hemiptera: Triozidae) and Its Associated Pathogen "*Candidatus Liberibacter solanacearum*" in Potatoes in the Southern Great Plains of North America. **PDF** *
J. A. GOOLSBY, J. J. ADAMCZYK, JR., J. M. CROSSLIN, N. N. TROXCLAIR, J. R. ANCISO, G. G. BESTER, J. D. BRADSHAW, E. D. BYNUM, L. A. CARPIO, D. C. HENNE, A. JOSHI, J. E. MUNYANEZA, P. PORTER, P. E. SLODERBECK, J. R. SUPAK, C. M. RUSH, F. J. WILLETT, B. J. ZECHMANN, AND B. A. ZENS 1268

Field Evaluation of Attractive Lures for the Fruit Fly *Bactrocera minax* (Diptera: Tephritidae) and Their Potential Use in Spot Sprays in Hubei Province (China).
XIAO-WEI ZHOU, CHANG-YING NIU, PENG HAN, AND NICOLAS DESNEUX 1277

HORTICULTURAL ENTOMOLOGY

- True Bug (Heteroptera) Impact on Cocoa Fruit Mortality and Productivity.
YEDE, R. BABIN, C. DJIETO-LORDON, C. CILAS, L. DIBOG, R. MAHOB,
AND C. F. BILONG BILONG 1285
- Influence of Intensity and Duration of Regulated Deficit Irrigation on *Erythroneura elegantula* (Hemiptera: Cicadellidae) on Grape.
MICHAEL J. COSTELLO AND SHAWN T. VEYSEY..... 1293
- Reflective Mulch and Acibenzolar-S-methyl Treatments Relative to Thrips (Thysanoptera: Thripidae) and Tomato Spotted Wilt Virus Incidence in Tomato. **PDF** *
D. G. RILEY, S. V. JOSEPH, AND R. SRINIVASAN..... 1302
- Adaptation of Indigenous Larval Parasitoids to *Tuta absoluta* (Lepidoptera: Gelechiidae) in Italy.
CHIARA FERRACINI, BARBARA LETIZIA INGEGNO, PAOLO NAVONE, ESTER FERRARI, MARCO MOSTI, LUCIANA TAVELLA, AND ALBERTO ALMA..... 1311
- Comparison of Scarab Grub Populations and Associated Pathogens and Parasitoids in Warm- or Cool-Season Grasses Used on Transitional Zone Golf Courses. **PDF** *
CARL T. REDMOND, DAVID W. WILLIAMS, AND DANIEL A. POTTER..... 1320
- Fumigant Toxicity of Plant Essential Oils Against *Camptomyia corticalis* (Diptera: Cecidomyiidae). **PDF** *
JUN-RAN KIM, PERUMALSAMY HARIBALAN, BONG-KI SON, AND YOUNG-JOON AHN..... 1329
- Evaluation of Monitoring Traps with Novel Bait for Navel Orangeworm (Lepidoptera: Pyralidae) in California Almond and Pistachio Orchards. **PDF** *
JUSTIN E. NAY, ELONCE M. PETERSON, AND ELIZABETH A. BOYD 1335
- Effect of Trap Color and Orientation on the Capture of *Aphelinus mali* (Hymenoptera: Aphelinidae), a Parasitoid of Woolly Apple Aphid (Hemiptera: Aphididae). **PDF** *
ELIZABETH H. BEERS..... 1342
- Evaluation of Monitoring Traps for *Drosophila suzukii* (Diptera: Drosophilidae) in North America.
JANA C. LEE, HANNAH J. BURRACK, LUZ D. BARRANTES, ELIZABETH H. BEERS,
AMY J. DREVES, KELLY A. HAMBY, DAVID R. HAVILAND, RUFUS ISAACS,
TAMARA A. RICHARDSON, PETER W. SHEARER, CORY A. STANLEY, DOUG B. WALSH,
VAUGHN M. WALTON, FRANK G. ZALOM, AND DENNY J. BRUCK..... 1350
- Cage Study of Spinosad-Based Bait Efficacy on *Bactrocera cucurbitae*, *Dacus ciliatus*, and *Dacus demmerezi* (Diptera: Tephritidae) in Reunion Island.
JEAN-PHILIPPE DEGUINE, ELISABETH DOURAGUIA, TOULASSI ATIAMA-NURBEL, FRÉDÉRIC CHIROLEU, AND SERGE QUILICI 1358
- Injury to Apical Meristem of Cranberry by *Dasineura oxycoccana* (Diptera: Cecidomyiidae) Reduces Production of Floral-Units in the Next Growing Season.
S. TEWARI, J. P. BUONACCORSI, AND A. L. AVERILL 1366
- Efficacy of *Leptospermum petersonii* oil, on *Plutella xylostella*, and Its Parasitoid, *Trichogramma pretiosum*. **PDF** *
PURWATININGSIH, N. HEATHER AND E. HASSAN 1379

HOUSEHOLD AND STRUCTURAL INSECTS

- Efficacy of Commercial Baits and New Active Ingredients Against Firebrats and Silverfish (Zygentoma: Lepismatidae). **PDF** *
STEVEN R. SIMS AND ARTHUR G. APPEL 1385

INSECTICIDE RESISTANCE AND RESISTANCE MANAGEMENT

- Baseline Susceptibility of *Planococcus ficus* (Hemiptera: Pseudococcidae) From California to Select Insecticides. **PDF** *
NILIMA PRABHAKER, CARMEN GISPERT, AND STEVEN J. CASTLE..... 1392
- Lack of Fitness Costs Associated With Acetamiprid Resistance in *Bemisia tabaci* (Hemiptera: Aleyrodidae).
MUHAMMAD BASIT, ALI H. SAYYED, SHAFQAT SAEED, AND MUSHTAQ A. SALEEM..... 1401
- Adaptation by Western Corn Rootworm (Coleoptera: Chrysomelidae) to Bt Maize: Inheritance, Fitness Costs, and Feeding Preference.
JENNIFER L. PETZOLD-MAXWELL, XIMENA CIBILS-STEWART, B. WADE FRENCH,
AND AARON J. GASSMANN..... 1407
- Residual Bioassay to Assess the Toxicity of Acaricides Against *Aceria guerreronis* (Acari: Eriophyidae) Under Laboratory Conditions.
VANESKA B. MONTEIRO, DEBORA B. LIMA, MANOEL G. C. GONDIM, JR.,
AND HERBERT A. A. SIQUEIRA..... 1419
- Toxicity of Thiamethoxam and Mixtures of Chlorantraniliprole Plus Acetamiprid, Esfenvalerate, or Thiamethoxam to Neonates of Oriental Fruit Moth (Lepidoptera: Tortricidae).
MONEEN M. JONES, JACQUELINE. L. ROBERTSON, AND RICHARD. A. WEINZIERL..... 1426

MOLECULAR ENTOMOLOGY

- Validation of Reference Genes for Gene Expression Studies in *Aphis glycines* (Hemiptera: Aphididae).
RAMAN BANSAL, PRAVEEN MAMIDALA, M. A. ROUF MIAN, OMPRAKASH MITTAPALLI,
AND ANDY P. MICHEL..... 1432

PLANT RESISTANCE

- Digestive Proteolytic and Amylolytic Activities and Feeding Responses of *Helicoverpa armigera* (Lepidoptera: Noctuidae) on Different Host Plants.
S. A. HEMATI, B. NASERI, G. NOURI GANBALANI, H. RAFIEE DASTJERDI,
AND A. GOLIZADEH 1439
- Whitefly Population Dynamics and Evaluation of Whitefly-Transmitted Tomato Yellow Leaf Curl Virus (TYLCV)-Resistant Tomato Genotypes as Whitefly and TYLCV Reservoirs. **PDF** *
RAJAGOPALBABU SRINIVASAN, DAVID RILEY, STAN DIFFIE, ALTON SPARKS,
AND SCOTT ADKINS 1447
- Evaluation of Corn Germplasm Lines for Multiple Ear-Colonizing Insect and Disease Resistance. **PDF** *
XINZHI NI, WENWEI XU, MICHAEL H. BLANCO, AND JEFFREY P. WILSON..... 1457
- Location of the Mechanism of Resistance to *Amphorophora agathonica* (Hemiptera: Aphididae) in Red Raspberry.
D. M. LIGHTLE, M. DOSSETT, E. A. BACKUS, AND J. C. LEE..... 1465

STORED-PRODUCT

- Influence of Nutrition on Male Development and Reproduction in *Tribolium castaneum*.
QING-LEI MING AND CHAO CHENG..... 1471