

Entomology
CRIS Research Reports In-Progress
for Agr Exp Station, Univ of Massachusetts
Reporting Period 10/01/2001 to 09/30/2002

**AD-421 Publications for Reports in-Progress and Submitted to CRIS for
MAS as of 01/17/2003**

Project Number: MAS00085

Population Studies of Gypsy Moth

Performing Department: Entomology -- 0910

Cooper, V. S., M. H. Reiskind, J. A. Miller, K. Shelton, B. A. Walther, E. J. Temeles, J. S. Elkinton+, and P. W. Ewald 2002. Timing of transmission and the evolution of virulence of an insect virus. Proc. Royal Soc B, London 269: 1161-1165

Project Number: MAS00200105108

Refinement of Wooden Pesticide - Treated Spheres for Apple Maggot Control

Performing Department: Entomology -- 0910

Wright, S., B. Chandler and R. Prokopy. 2001. Improvement of sugar-delivery systems for rain- activated pesticide-treated spheres. Fruit Notes of New England 66:25-29.

Chandler, B. and R. Prokopy. 2001. Residual activity of insecticide on wooden and plastic pesticide-treated spheres. Fruit Notes of New England 66:35-36.

La Fleur, G., J. Rull and R. Prokopy. 2001. Do sugar caps atop wooden pesticide-treated spheres affect apple maggot fly attraction of spheres? Fruit Notes of New England 66:37-39.

Project Number: MAS005559

New Multi-Tactic Alternatives to Current Pesticides Against Key Apple Pests

Performing Department: Entomology -- 0910

Prokopy, R., A. Baj, J. Clements, A. Tuttle and B. Chandler. 2001. Comparison of Avaunt versus Guthion in every-row versus perimeter-row sprays against key apple pests: 2001 results. *Fruit Notes of New England* 66:14-18.

Prokopy, R., B. Chandler, S. Dynok, P. Appleton and S. Becker. 2001. Commercial orchard evaluation of pesticide-treated spheres for apple maggot control in 2001. *Fruit Notes of New England* 66:30-34.

Chandler, B. and R. Prokopy. 2001. Residual activity of insecticide on wooden and plastic pesticide-treated spheres. *Fruit Notes of New England* 66:35-36.

La Fleur, G., J. Rull and R. Prokopy. 2001. Do sugar caps atop wooden pesticide-treated spheres affect apple maggot attraction to spheres? *Fruit Notes of New England* 66:37-39.

Baj, A., A Tuttle and D. Cooley. 2002. Flyspeck disease management: comparison of Flint versus Captan in every-row versus perimeter-row sprays. *Fruit Notes of New England* 67(2):9-12.

Project Number: MAS00774

BEHAVIORAL ECOLOGY AND MANAGEMENT OF CRANBERRY PEST INSECTS

Performing Department: Entomology -- 0910

Averill, A.L. and Sylvia, M.M. 2002. Outbreak of cranberry weevil in Massachusetts; All clear-for now. *Cranberries Magazine* 54: 8-9 and 22.

Sisterson, M.S. and Averill, A.L. 2002. Cost and benefits of food foraging for a braconid parasitoid. *Journal of Insect Behavior* 15: 571-588.

Long, B.B. and Averill, A.L. 2002. Compensatory response of cranberry to simulated damage by cranberry weevil (*Anthonomus musculus* Say) (Coleoptera: Curculionidae). *Journal of Economic Entomology*, in press.

Sisterson, M.S. and Averill, A.L. 2002. Interactions between parasitized and unparasitized conspecifics: Parasitoids modulate competitive dynamics. *Oecologia*, in press.

Project Number: MAS00801

ASSESSMENT OF NEW NATURAL ENEMIES FOR CONTROL OF WESTERN FLOWER THRIPS IN GREENHOUSE CROPS

Performing Department: Entomology -- 0910

Van Driesche, R. G., Lyon, S., Smith, T., and Lopes, P. 2002. Use of Amblyseius cucumeris in greenhouse bedding plants for thrips control - is mechanical application better? Preceedings of the Working Groups Meeting, May 6-9, 2002, Victoria, British Columbia, Canada. IOBC WPRS Bulletin 25(1):273-276.

Project Number: MAS00802

CHARACTERIZATION OF THE PERSISTENT INSECT VIRUS HZ-2V

Performing Department: Entomology -- 0910

Rallis, C.P. and J.P. Burand. 2002. Pathology and ultrastructure of the insect virus, Hz-2V, infecting agonadal male corn earworms, Helicoverpa zea. J. Invertebr. Pathol. 80:81-89.

Project Number: MAS00817

Regulation of Feeding and Mating Behavior in the Blowfly, Phormia regina, and the House Fly, Musca domestica

Performing Department: Entomology -- 0910

Tu, M.-P., Kou, R., O'Remus, G., Yin, C. -M., and Stoffolano, J. G., Jr. 2002. Allatotropic activity in the brain of female Phormia regina (Diptera: Calliphoridae). J. Insect Physiol. 48: 733-741.

Project Number: MAS00833

Endocrine control of reproduction in higher dipterans

Performing Department: Entomology -- 0910

Yin, C.-M. 2002. Life span impacted by the insulin-like signaling pathway is linked to the neuroendocrine system in Drosophila melanogaster. Proceedings of the Symposium on the Progress of Taiwan Entomological Research at the Threshold of 21st Century, pp. 9-16. National Museum of Natural Science, Taichung, 12-15-2001.

Tu, M.-P., Kou, R., O'Remus, G., Yin, C.-M. and Stoffolano, J.G. Jr. 2002. Allatotropic activity in the brain of female Phormia regina (Diptera: Calliphoridae). J. Insect Physiol. 48, 733-741.

Project Number: MAS00838

Toward Bio-based Management of Key Apple Pests

Performing Department: Entomology -- 0910

Pinero, J.C., S.E. Wright and R.J. Prokopy. 2001. Response of plum curculio to odor-baited traps near woods. J. Econ. Entomol. 94:1386-1397.

Leskey, T.C. and R.J. Prokopy. 2002. Developing a branch-mimicking trap for adult plum curculios. Entomol. Exp. Appl. 102:253-259.

Project Number: MAS009804117

MODELING THE FATE OF GENETICALLY ENGINEERED BACULOVIRUSES

Performing Department: Entomology -- 0910

Dwyer, G., J. Dushoff, J.S. Elkinton, J.P. Burand and S.A. Levin. Variation in Susceptibility: Lessons from an Insect Virus. In: Adaptive Dynamics of Infectious Diseases: p74-84. In Pursuit of Virulence Management. U. Dieckmann, J.A.J. Metz, M.W. Sabelis and K. Sigmund eds. Cambridge University Press, Cambridge, UK. 2002.

Project Number: MAS020012786

Virus-Host Interactions Involved in the Transmission of a Novel Insect Virus

Performing Department: Entomology -- 0910

Rallis, C.P. and J.P. Burand. 2002. Pathology and ultrastructure of the insect virus, Hz-2V, infecting gonadal male corn earworms, *Helicoverpa zea*. J. Invertebr. Pathol. 80:81-89.

Project Number: MAS09904402

Bio-Based Methods of Reducing Insecticide Use Against Two Key Apple Pests

Performing Department: Entomology -- 0910

Pinero, J.C., S.E. Wright and R.J. Prokopy. 2001. Response of plum curculio to odor-baited traps near woods. *J. Econ. Entomol.* 94:1386-1397.

Prokopy, R.J., P.L. Phelan, S.E. Wright, A.J. Minalga, R. Barger and T.C. Leskey. 2001. Compounds from host fruit odor attractive to adult plum curculios. *J. Entomol. Sci.* 36:122-134.

Rull, J. and R. Prokopy. 2001. Cultivar preferences affect apple maggot fly distribution in orchards. *Fruit Notes of New England* 66:19-21.

Rull, J. and R. Prokopy. 2001. Apple maggot fly ovipositional preferences for fruit of different apple cultivars. *Fruit Notes of New England* 66:22-24.

Prokopy, R., B. Chandler and J. Pinero. 2002. Commercial-orchard evaluation of traps for monitoring plum curculio: 2001 results. *Fruit Notes of New England* 67(1):17-22.

Prokopy, R. 2002. An odor-baited "trap-tree" approach to monitoring plum curculio. *Fruit Notes of New England* 67(1):23-24.

Hoffman, S., R. Prokopy et al. 2002. Influences of odor-bait, cultivar type and adjacent habitat on performance of perimeter traps for controlling apple maggot flies. *Fruit Notes of New England* 67(2):20-24.