

Look What's Out There

in

Integrated Pest Management

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<http://www.wvu.edu/~agexten>

Nematodes Used to Control Peach Tree Pests

Agricultural Research Service (ARS) scientists in the Southeastern Fruit and Tree Nut Research Laboratory in Byron, Ga., are seeking environmentally friendly alternatives to the chemical pesticides commonly used to combat insect pests of peaches. ARS entomologists David Shapiro-Ilan and Ted Cottrell, along with colleagues at the University of Florida and the University of Georgia, are evaluating two soil-dwelling nematodes, *Steinernema riobrave* and *Steinernema carpocapsae*, as possible biological controls. They have been tested in controlling damage caused by the plum curculio weevil (*Conotrachelus nenuphar*), and two clear-winged moths, the peach tree borer (*Synanthedon exitiosa*), and the lesser peach tree borer (*S. pictipes*). The *Steinernema riobrave* nematode was used to defend against plum curculio larvae—producing a suppression rate of 78 to 100 percent. For the peach tree borer, the researchers used *Steinernema carpocapsae*. They found that a single field application of *S. carpocapsae* provided 88 percent suppression when applied to mature peach tree borer infestations in springtime. In a recent field trial, three applications of *S. carpocapsae* during the peach tree borer's fall egg-laying season completely suppressed all damage. The scientists knew from laboratory studies that another peach pest, the lesser peach tree borer, is also highly susceptible to *S. carpocapsae*. But the researchers also realized that controlling the lesser peach tree borer would be more difficult

because they attack trees aboveground—where the nematodes dry out and are less effective. To deal with this problem, the researchers applied *S. carpocapsae* nematodes to tree wounds and then covered the wounds with moisture-holding bandages. In the first trial, 100 percent lesser peach tree borer mortality was attained in five days.

(By Sharon Durham, USDA ARS March 2008)

IPM PIPE Featured as New Plant Management Network Webcast

Joining the growing number of Webcasts on the Plant Management Network's Focus on Soybean is a new presentation describing the Integrated Pest Management Pest Information Platform for Extension and Education (ipmPIPE). Dr. Donald Hershman, extension plant pathologist at the University of Kentucky, presents "The ipmPIPE: A New Tool for Enhancing IPM Use in Soybean." The ipmPIPE now involves monitoring and reporting pests of soybean and various legume crops, specifically soybean aphid and soybean rust, with other components in development. Advances of the ipmPIPE over the existing IPM template include easy stakeholder access to pest incidence and distribution data, disease forecasting, and state-specific control recommendations, through a public Web site, on a near-real time basis. For more information and to view the presentations go to:

<http://www.plantmanagementnetwork.org/edcenter/seminars/ipmPIPE/>.

(CSREES Update March 2008)

Child Pesticide Safety

A pesticide is any bait, liquid, powder, or spray used to kill a pest (ants, germs, cockroaches, flies, mice, rats, or termites). You turn your head and your toddler is inserting a sandwich half into the DVD player. Mostly, we're lucky; our momentary slipups as parents aren't too harmful. However, some close calls can be scary-like catching your three-year-old holding a can of bug spray. Most people aren't aware that household pesticides, the products we use in and around our homes to kill ants, germs, cockroaches, flies, mice, rats, and termites, can harm a child's health if stored or used improperly. Each year thousands of children under the age of six are poisoned by common household pesticide products. Many parents still store pesticide products within the reach of children. One of the simplest ways of preventing pesticide poisoning is to store household products out of a child's reach. Accidents are bound to happen in life, but we can't depend solely on good fortune to protect our kids from harm's way. Play it safe. With some simple prevention steps, you can assure a safe and healthy home for your family despite life's unpredictable moments. Children can come into contact with pesticides stored or applied in their homes, yards, day-cares, schools, parks, or on pets. Children often touch things (that may contain a pesticide) and put their hands in their mouths. They also crawl and play on floors, grass, or in spaces that might contain pesticides. These activities may put them at higher risks for poisoning. Contact with pesticides may cause serious harm to a child's health. How do you know if your child has been poisoned? The signs of pesticide poisoning may look like the flu. If your child shows any of the following signs after coming in contact with a pesticide, call your poison control center right away.

- Headaches
- Dizziness
- Muscle twitching
- Weakness
- Tingling

How can I make sure that my child doesn't get poisoned? Use these tips to help you poison-proof your home:

- Post the Poison Control Centers Exit EPA disclaimer national hotline phone number, 1-800-222-1222, near every telephone in your home.
- Read the label first. Follow the directions as they are written on the label before using a product.
- Crawl around on your hands and knees to see if you've missed any potential dangers from your child's viewpoint.
- Use child-resistant packaging correctly by tightly sealing the container after every use.
- Install safety latches on cabinets.
- Re-close a pesticide package if ever interrupted during application (e.g., phone call, doorbell, etc.). Make sure the container is completely out of children's reach while you're absent.
- Keep pesticides in their original containers. Never put poisonous products in containers that could be mistaken for juice or food.
- Alert all caregivers about the potential dangers of pesticides and share these tips with them.
- Teach children that "pesticides are poisons" and not to be touched.
- Lock up all pesticides and harmful products in a cabinet, out of a child's reach.

(EPA Feb 2008)

EPA Releases Amended Cypermethrin Reregistration Eligibility Decision

EPA is modifying certain risk mitigation measures that were imposed as a result of the 2006 Reregistration Eligibility Decision (RED) for the pesticide cypermethrin. EPA reassessed the cypermethrin RED in response to public comments directed towards product labeling, risk mitigation, and the upcoming registration review process for pyrethroids, pyrethrins, and synergist chemicals. In response to the commenters and continuing efforts to mitigate risk, the Agency has made several modifications to the

cypermethrin RED label requirements for pre-construction termiticide applications, spray drift language for agricultural products, and ventilation for total release foggers. For more information, go to:

<http://www.epa.gov/fedrgstr/EPA-PEST/2008/March/Day-19/p5292.htm>

EPA considers all pathways of exposure to ensure that all exposures are below levels of concern. Pesticides can move from the sites where they are applied into the surrounding environment through a number of different ways, including spray drift and volatilization. Spray drift, can occur when pesticides move off the application site in the air as particles or aerosols during application or when the pesticides move that are attached to dust. Volatilization occurs when pesticide surface residues change from a solid or liquid to a gas or vapor after an application of a pesticide has occurred. Once airborne, volatile pesticides can move long distances off site. Fumigant pesticides (used to treat soil before planting and to treat structures such as homes or storage bins) are especially volatile. But, not all pesticides are volatile.

Historically, EPA has assessed inhalation exposures through volatilization for pesticides that have high vapor pressures (a characteristic that allows them to move easily into a gaseous state). Certain indoor-use pesticides and fumigants meet this high vapor pressure criterion. EPA has assessed exposures and risks related to volatilization for these pesticides in its re-evaluation program for pesticides on the market, as well as, during its registration program before allowing use. As a result, measures have been taken or are proposed to reduce exposures and risks below levels of concern. In addition to this re-evaluation work, EPA has reviewed data on volatilization that have recently become available from the Pesticide Action Network of North America (<http://www.panna.org/drift/science>) as well as many studies from the California Air Resources Board

(<http://www.cdpr.ca.gov/docs/emon/pubs/tac/monitoring.htm>). EPA has been joined in this effort by the States of California, Florida, Minnesota,

and Washington and by Canada. These data show that detectable exposures occur for semi-volatile pesticides. However, the data available to date show that the exposures are low and generally below levels of concern. As a result of this analysis, EPA is in the process of reconsidering the criteria it uses to trigger an assessment of exposure from inhalation of pesticides that volatilize. In addition to high vapor pressure, other factors to consider are temperature, solvents and formulation type, size of area treated and application method. This work will help to determine the best way to evaluate exposures resulting from volatilization and improve the risk assessment process. The Agency continues to work with states and other federal agencies as well as seeking input from our stakeholders to determine the most appropriate way to evaluate and the significance of these exposures.

For more information

If you are interested in more detail on how EPA evaluates pesticides to protect your health and environment, see:

- How EPA assesses health risks from pesticides:
<http://www.epa.gov/pesticides/factsheets/riskassess.htm>
- The re-evaluation of pesticides:
<http://www.epa.gov/oppsrrd1/reevaluation/index.htm>

(EPA March 2008)

Organic Products for Pest Management

A recently launched firm, Marrone Organic Innovations (MOI), engages in natural product innovation for pest management and has begun developing and marketing "effective and environmentally responsible natural products that focus on unmet needs for weed, pest [insect] and plant disease management" according to www.marroneorganics.com the firm's website. Among a slate of newer and forthcoming products either on the market or to be introduced by MOI are: GreenMatch-O, said to be an

organic, non-selective, economical burndown bioherbicide based on a citrus oil extract; a second organic bioherbicide; a biofungicide; several bioinsecticides; a rice- specific bioherbicide; and other products for conducting pest management organically. For more information, please contact:

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Marrone Organic Innovations, Inc.
2121 2nd. St., Suite B-107
Davis, CA 95618
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(IPMnet NEWS January 2008)

NEW! Online First Detector Training

The National Plant Diagnostic Network (NPDN) is pleased to announce that the Online First Detector Training modules are up and running and can be found at: <http://cbc.at.ufl.edu/>. The site allows anyone to participate in the First Detector Program. The course is composed of several modules, and includes topics such as:

- The NPDN Mission
- Agricultural Biosecurity
- Purpose of a First Detector
- Monitoring for Exotic Pests
- How to Submit a Suspicious Sample
- The Art and Science of Plant Pest Diagnostics
- And more....

Each module takes anywhere from 40 to 60 minutes and the course can be completed at your own pace. To get started, first register for the First Detector Training Workshops to get your user name and password.

The general goal of the program is to get the public involved in protecting our plant related industries and our natural plant resources from being impacted by exotic and potentially damaging plant pests be they insects, weeds or pathogens. Upon completion of the training,

First Detectors receive a certificate of training completion. Trained First Detectors are also provided with the opportunity to receive the national NPDN First Detector newsletter as well as pest alerts via e-mail through the National First Detector registry. For more information, go to <http://cbc.at.ufl.edu/> or contact Dr. John Baniecki at: John.Baniecki@mail.wvu.edu.

Funding Opportunity

- **2008 The Hyland R. Johns Grant Program: Tree Research and Education Endowment Fund.** The goal of the Tree Research and Education Endowment Fund (TREE) Grant Programs is to provide support for research and technology transfer projects that are in keeping with the TREE Fund's mission and priorities as well as addressing topics that have the potential of benefiting the everyday work of arborists. Hyland R. Johns Grants support multiyear research projects (two to five years in duration). Grants may support expenses over multiple years, but no more than one grant can be awarded to any project. For successful applicants, grant award amounts will vary from the amount requested depending on the adjudged value of the project relative to the needs of the arboricultural industry. Grants range from \$7,500 to \$25,000. Funds cannot be used to pay for overhead expenses, student tuition or student fees. Deadline for application is May 1, 2008. Research and Technology Transfer proposals in the following priority areas are more likely to be funded, but all proposals will be considered.
 - **Root and Soil Management:** Many urban tree problems originate below ground. Promoting root development, protecting roots from injury, and conflicts with infrastructure are issues that arborists encounter regularly. Managing roots includes soil management.
 - **Planting and Establishment:** Survival and vigorous growth of trees after

planting is of concern to arborists and the entire green industry. Arborists are increasingly dealing with problems that originate in, or could be avoided by, the planting process.

- **Plant Health Care:** Healthy plants have more effective defense systems and are better able to resist pests. Complete understanding of plant health may lead to new pest control strategies.
- **Risk Assessment and Worker Safety:** Safety is a major concern. It can be a life-or-death issue to workers and the public. Detection of defects, and knowing how they develop, are important. Improved equipment and work practices are needed.

Please see web link for complete details:
http://www.treefund.org/pdfs/H.JohnsApplication_2008.pdf

Did You Know That



To control weeds in your garden, cover the entire garden with black plastic or large tarps for a few weeks in early spring. This helps kill early sprouting weed seeds. When you remove the plastic, till the soil, wait a week or so for more seeds to sprout, then till again.

Events



April 1-2, 2008

2008 Women in Agriculture Educators Conference, Oklahoma City, Oklahoma. For more information go to:

<http://www.agrisk.umn.edu/wia/Conferences/WIA2008/>

April 5, June 21 & 27, and Sept. 20, 2008

Christmas tree workshops for new growers will be held at Glengary Christmas Tree Farm in Amissville, VA. This workshop is open to the public and is an annual event held by the Virginia Christmas Tree Growers Association.

For more information, go to:

http://www.vaipm.org/fm/2008_Christmas_Workshop_Agenda_Registration_Form.pdf

May 27-30, 2008

The 2008 Weeds Across Borders conference will be held in Banff, Alberta, Canada. For more information go to:

<http://www.nawma.org/documents/2008%20WAB/WAB%20announcement-english.pdf>

September 22 - 26, 2008

16th Ornamental Workshop on Diseases and Insects, Kanuga Conference Center, Hendersonville, NC

Comments or Questions?

If you have any comments or questions regarding any of the material presented, please let us know by sending an e-mail to:

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