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# Nursery

## MANAGEMENT & PRODUCTION

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# Proactive pest management

Brandon Boyd, left, and Lee Theiss  
Delray Plants

**The Great Nursery Adventure**  
AFTER PAGE 32

NMPRO • Nursery Management & Production

AUGUST 2007

New Perennials/Biological Controls/Automation

IEWS FROM THE  
**BUGLADY**  
WITH SUZANNE WAINWRIGHT-EVANS

A grab bag of new products to help your IPM efforts



Suzanne Wainwright-Evans is founder of Buglady Consulting, (610) 767-9221; [suzanne@bugladyconsulting.com](mailto:suzanne@bugladyconsulting.com).

**T**he basics of integrated pest management are finding exactly what enemies you have and battling them with the best weapons available.

For both of these steps to work, it helps to have the right tools. Here are some of the best new products hitting the market for IPM.

If used correctly, they should all greatly improve your pest- and disease-management programs.

#### Microscope snaps instant images

Imagine you're out in the nursery. You find a pest, but you're not sure what it is. So you collect some leaves and head back to the office. In the past, you could flip through

some books and try to give it your best guess, or you could call an expert and try to describe it over the phone. Either method could lead you to an incorrect ID.

Another option is to mail the sample to a lab, but that could take too long to get an answer.

Now there's a tool that can expedite the identification of your problem. It is called the IPM Scope, available from Ball Horticultural Co. This handy little gadget fits into the palm of your hand and can be used in a few different ways.

After connecting it to a computer, the magnified images can be seen live on a computer screen. Then, with a click, a digital photo can be taken of the enlarged image.

Another option is to take movies of the invader — even time-lapsed movies.

The IPM Scope is simple to operate. Place it over the sample and use the side knob to choose between 10X and 140X magnification.

Once your images have been captured, you can e-mail them to your consultant, extension agent — or mother-in-law, for that matter.

◆ **For more:** Ball Horticultural Co., (800) 879-2255; [www.ballseed.com](http://www.ballseed.com).

#### New dye shows drift, coverage

Ever wonder where your sprays are going? Are you really getting proper coverage?

Florikan E.S.A. Corp. is bringing a tool to the market to help answer these questions. The product, called Cover-2, is a dye that's tank-mixed with your insecticide, fungicide or herbicide.

After it's sprayed (tank-mixed or not), it leaves a purple indicator dye on crops, equipment, the ground or anything that it comes in contact with. What sets it apart from other spray dyes is that it rapidly breaks down in ultraviolet light, completely disappearing in a few hours up to about one full day.

The time period depends on dye concentration, sunlight exposure and irrigation/rainfall.

This tool can be used in many ways. It indicates spray drift and how far sprayers are



Photos by Suzanne Wainwright-Evans

**Cover-2 is a dye that can be tank-mixed to indicate pesticide coverage. It completely disappears in a few hours up to one day.**

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covering. It shows what type of leaf coverage you're getting with your spray product. It also shows if you're having sprayer calibration problems.

Using Cover-2 can help save money by not wasting expensive pesticides. You see where you money is going.

Cover-2 works best on lighter-color foliage because the dye is not as visible on dark-green leaves.

◆ **For more:** Florikan E.S.A. Corp., (800) 322-8666; [www.florikan.com](http://www.florikan.com)

### Building a better sticky trap

A sticky card is a sticky card, right? Not necessarily. As technologies in other areas of pest management have advanced, so has sticky card technology.

The next generation of sticky cards makes pest monitoring a lot less "sticky." Gone are the days of your hands ending up as sticky as the cards themselves.

The new cards have an adhesive that will not get on your hands during handling. It stays put on the card, but traps just as many insects.

The new cards are also biodegradable, making them more eco-friendly than their counterparts. But this doesn't mean they don't stand up to irrigation or rain. They handle the weather just fine.

One other benefit is that they are odorless, so there's no scent to deter insects from landing. The new cards have grid lines, making it easier to assess insect populations.

Colors available are blue (primarily for thrips monitoring) and yellow for most other insect pests, especially fungus gnats. These cards are available through Buglady Consulting.

◆ **For more:** Buglady Consulting, (908) 246-9464; [www.bugladyconsulting.com](http://www.bugladyconsulting.com).

### Worms are organic, too

Beneficial nematodes are an area of pest management that we learn more about every day. These microscopic worms are applied like conventional spray insecticides and control many pests.

They're best known for their ability to control problematic insects such as fungus gnats and black vine weevils.

With the current focus on growing "greener," these little worms are becoming more popular. Becker Underwood introduced a new nematode, BioNem C, that is OMRI listed. This means it has been approved by Organic Materials Review Institute

for use in organic crop production. These nematodes have not been genetically altered in any way and can be used on crops that are being grown organically.

◆ **For more:** Becker Underwood, (515) 232-5907; [www.beckerunderwood.com](http://www.beckerunderwood.com).

### Broad-spectrum organic

With the nation's green movement in full force, more ornamental growers will be interested in producing crops



**Ecotec provides excellent contact kill for pests like aphids, while allowing beneficial insects to get back to work.**

in accordance to OMRI standards. One more product, Ecotec from Brandt Consolidated, is a broad-spectrum insecticide and miticide that is OMRI listed.

Ecotec is made from natural plant oils and kills pests with two modes of action. Not only does it suffocate the pest, it also blocks some of the neuroreceptors that control movement, heart rate and metabolism.

With these combined methods of killing, knock down is fast. Another benefit of this product is that it's very compatible with beneficial insects as well as predatory mites.

Since Ecotec is made from natural plant oils, it degrades rapidly in the environment. Most growers want products with long-term residual action, but a short-term residual can be a good thing, too.

A short-term residual allows beneficial insects to get back to work faster than with many conventional chemical pesticides demonstrating long residuals.

Long-term residuals may not necessarily prevent pest populations from returning to crops, but usually severely impact beneficial organisms from living on the plants. Because of this short-term residual,

Ecotec is labeled with a zero-hour REI (restricted-entry interval).

Ecotec kills a wide array of pests on contact. It's labeled for aphids, some beetles, caterpillars, fungus gnat larvae, leafhoppers, mealybugs, soft scale, whiteflies and mites. It's a product that should be used in rotation to prevent resistance issues.

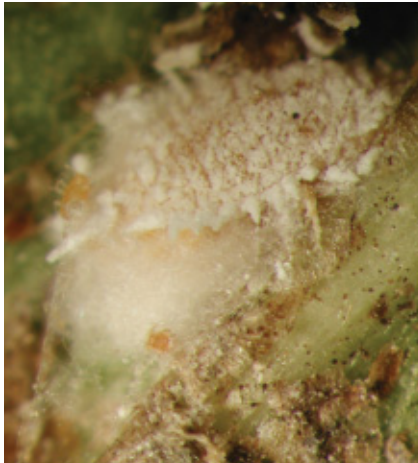
Also keep an eye out for Sporotec, a companion fungicide that's also OMRI listed.

◆ **For more:** Brandt Consolidated, (800) 252-2905; [www.brandtconsolidated.com](http://www.brandtconsolidated.com).

### This orange oil is 'green'

TriCon is a U.S. EPA-registered insecticide/fungicide from BioWorks Inc. made of borax, orange oil and biodegradable surfactants.

Once an insect has been sprayed with TriCon, death occurs within 24-48 hours. What makes this product so effective is it kills in a few different




**This female mealybug with her egg sac would make an excellent target for TriCon.**

ways. It can cause insects' cuticles to rupture, causing loss of body fluids. It can also suffocate insects. It disrupts insects' ability to fly, leaving it victims to predation and/or preventing it from moving to new plants.

TriCon can also be tank-mixed with other systemic/translaminar chemistries. Check the label, as it can't be mixed with chemicals containing sulfur, oils or copper. BioWorks has a list of compatible tank mixes.

TriCon can be an excellent part of a resistance-management program. It's labeled for use on outdoor nursery plants and has a 12-hour REI. If you're concerned about your native beneficial population, this product will have a minimal impact. Once the sprays are dry, the beneficials can return to work.

◆ **For more:** BioWorks, (800) 877-9443; [www.bioworksinc.com](http://www.bioworksinc.com).



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