Greenhouse TPM/IPM Weekly Report
University of Maryland Cooperative Extension
Central Maryland Research and Education Center

From: Stanton Gill and Ethel Dutky, University of Maryland Cooperative Extension
Ginny Rosenkranz, Extension Educator, Chuck Schuster, Extension Educator, Suzanne Klick and Shannon Wadkins, Technicians, University of Maryland Cooperative Extension
Amanda Laudwein, Joanne Lutz, John Speaker, and Marie Rojas (Independent IPM Scouts)

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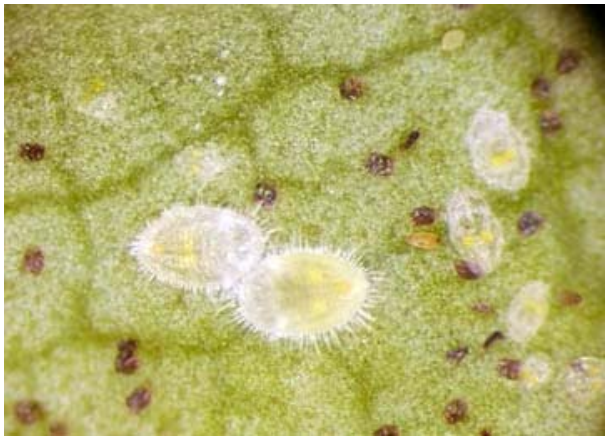
Fungus for Whitefly Control, other than *Beauveria bassiana*



Humberto Enrique Cabanillas (USDA Agricultural Research Service- Beneficial Insect Research Unit, Weslaco, TX) has found a fungus, *Isaria propawski,* that is very effective in controlling nymphal and adult stages of *Bemisia tabaci* Biotype B. What is interesting about this fungus is that it works in semiarid regions like Texas, where temperatures can reach 107 °F (41°C). It is also fairly persistent. This fungus produces a large number of spores in culture media, making it relatively easy to grow in vitro in the laboratory. This fungus has also been able to kill the glassy eyed sharpshooter. Now, we just need a company to get this product registered with the EPA and bring it into the marketplace.

OFA Conference, Columbus Ohio
What's New in Oils?

At the OFA conference I met with Whitmire Company representatives. They are carrying two horticultural oils. One is called Ultra-Pure oil, and it is a 98% petroleum oil from Canadian refineries. This oil is replacing Ultra-Fine oil that Sun Company, Inc. used to make. However, you will continue to see Ultra-Fine oil until the current supply is completely gone from the marketplace. Whitmire now has a petroleum oil which is OMRI approved called PureSpray Green. They are also carrying a natural pyrethrum called Pyreth-It. Although this product is not OMRI approved, it can be very useful to cut flower growers. It should knock down most insects and not have a residual when the cut stems are sold to the public.

The Latest Catch Phrase

It looks like "sustainable" is the new buzz word in 2007. I have never seen so many "sustainable" pots and soil amendments being sold as I did this year at the OFA conference. There are several companies selling pots made out of straw, cow manure, and other materials. Organic fertilizers made using fish waste and animal waste compost byproducts are being sold by many new companies. Hope that your business continues to be sustainable – you take in more money than you spend.

Banker Plants for Thrips Predators

I spoke with Dominique-Andre Demers of BioBest at the OFA conference about thrips control. He told me that several growers in Canada are growing ornamental peppers among thrips-prone plants. The predator, *Orius,* will frequent the blooms of peppers to feed on the pollen. This encourages *Orius* populations to feed on thrips in the area and lay eggs.

Attractant Kairomone for Thrips

At the OFA conference, I learned that a group of scientists in New Zealand and the Netherlands have found a kairomone that can be applied to sticky traps. This kairomone attracts two thrips commonly found in greenhouses, western flower thrips and onion thrips. It has been found to increases by 2 to 20 times the number of thrips attracted to the sticky cards. It is interesting that the enhanced traps caught more thrips, but they did not capture more natural enemies. Koppert Biological Systems is looking at marketing the new enhanced sticky cards under the name "Lurem-TR."

Chrysanthemums

Fertility

Brian Clark, Extension Educator in Prince Gerorge's County, had a grower bring in a mum sample displaying symptoms of interveinal chlorosis and an overall yellowing. Although a slow-release fertilizer had been applied, it was not available to the plants. Last season, the grower had experienced problems with root rot, so they were being overly-cautious with the irrigation program this year. As a result, the soil became so dry that the fertilizer was not being released.

European Corn Borer

The Maryland Department of Agriculture's Pest Survey Report indicates low levels of adult European corn borer activity across the state, particularly in the lower central region in Anne Arundel and Prince George's counties. European corn borers can collapse the stems of chrysanthemum crops. Growers should check at the base of the stems for eggs. If damage is occurring, cut into the stems to check for larvae.

Gladiolus Rust

The following is a press release from the Florida Department of Agriculture and Consumer Services…

TALLAHASSEE -- Florida Agriculture and Consumer Services Commissioner Charles H. Bronson is asking for the public's help in his department's ongoing effort to eradicate gladiolus rust, *Uromyces transversalis*, from Florida.

Gladiolus rust (*U. transversalis*), which is host specific to gladiolus plants and other closely related plant species, was first detected in the United States in 2006 at a floral farm in Manatee County. Additional surveys found rust on a commercial gladiolus farm 100 miles southeast in Hendry County. Surveys conducted around the areas of infestation indicated that gladiolus rust was limited to the commercial sites in Manatee and Hendry counties, and four residential gardens in the urban areas around the Manatee County farm. After the infestations were confirmed, all infected plant material was voluntarily destroyed.

A technical committee was formed to develop eradication techniques that include host-free fallow periods (time frames when no host material is planted), fungicide applications, and frequent scouting of production and fallow fields and surrounding neighborhoods.

Of the six rust fungi that can infect gladiolus, *U. transversalis* is the most economically important. If uncontrolled, total yield losses can occur. Pustules form mostly on foliage, but can also form on flower spikes. Rust spores are spread by wind, water, on people and garden tools, and long distances by movement of infected plants. It is not harmful to humans or animals.

In 2007, there was a recurrence of the infestation in the two commercial areas and the Department and the United States Department of Agriculture are working closely with growers to clean up infestations. In addition, the Department is surveying all properties within a two-mile radius of the commercial farms to make sure no gladiolus rust is present in residential gladiolus plantings.

Because this rust disease is very damaging to gladiolus plants, and has impacts on commercial flower shipments, the Department is making every effort to eliminate it from Florida. The disease has also been detected in California where similar action is being taken.
Florida agriculture officials are asking anyone with gladiolus plants in their landscape to be on the lookout for and report any suspect gladiolus rust symptoms to the Department's helpline at 1-888-397-1517, and, if requested, state plant inspectors will examine suspect gladiolus rust-infected plants reported by concerned parties at no cost or penalty to the reporting party. For more information on gladiolus rust or other plant pests and diseases, visit http://www.doacs.state.fl.us/pi.