



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

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July 27, 2007

Chilli Thrips

This thrips species is being found in Florida and Texas, and it is just a matter of time until it shows up in Maryland. This new fact sheet will help you in identifying this thrips. It is available at <http://ncipmc.org/alerts/chilithrips.pdf>. If you think that you may have chilli thrips, send samples of adults in alcohol to our office at CMREC.

Spider Mites

With the hot, sunny weather we are continuing to see large populations of twospotted spider mites-especially on hanging baskets. The photo on the right shows extensive damage to New Guinea impatiens. Entire leaves had become bronzed and were covered in silk webbing.



Control: Avid (abamectin), Akari (fenpyroximate), Floramite (bifenazate), Judo (spiromesifen), Mesurol (methiocarb), and Sanmite (pyridaben)

Aphids

The photo on the right shows ants that were found feeding on the sugary honeydew produced by an aphid colony this week. The ants will ward off predators in order to protect their food source. Also note the bright, white cast skins of the aphids.



Control: Endeavor (pymetrozine), Safari (dinotefuran), Talstar (bifenthrin), TriStar (acetamiprid), Azatin (azadirachtin), BotaniGard (*Beauveria bassiana*), and Astro (permethrin)

Southern Blight

We are beginning to see southern blight showing up this week. This fungal disease thrives in the heat of summer. The following information, taken from a past report, was provided by David Clement at the Home & Garden Information Center...

This fungal blight is caused by *Scerotium rolfsii*. This fungus can attack probably all herbaceous perennials. It is active only during hot weather, so plants can grow well in infested soil during most of the growing season, and only become damaged during the hottest part of the summer.



Sclerotia of the Southern Blight Fungus

The first symptoms seen are wilting and collapse of individual stems or entire plants. Close inspection of the stem at the soil line reveals white mycelium (strands of fungus growing on the stem and mulch or soil surface), and small (1/8 to 1/6 inch), tan spherical sclerotia that resemble mustard seeds (They are white when first formed and gradually, over several days, turn brown). Roots of infected plants are typically unaffected and survive helping plants recover the next season. Cortical decay of the stem at the soil line is common during hot, humid weather. Southern blight is commonly found on many ground covers; including *Lysimachia*, *Ajuga*, *Plumbago* and ground cover themes. It is capable of blighting most herbaceous perennials, vegetables, annuals, herbs and even turf and woody plants.

Management Strategies: The basis for control of Southern blight is to reduce the number of sclerotia surviving in the upper few inches of the soil. During the growing season, remove blighted plants and the mycelium clinging to stems and mulch. Deep cultivation can provide good control by burying the sclerotia.

The cornerstone for control of all blight diseases is sanitation both during the growing season and in the fall. Wilted and blighted plants and plant parts should be promptly removed from the garden. Do not compost material killed by southern blight (*Sclerotium rolfsii*) or white mold (*Sclerotinia*) because the sclerotia of these fungi may survive composting. In the fall, all plant debris should routinely be cut at ground level and removed. This material may be composted.

Fall Crops

Many of you have already stuck your poinsettia cuttings. Be sure to watch out for fungus gnat larvae at this stage. The larvae can bore into roots and drill into the stems of plants. You can apply Distance as a soil drench or apply the entomopathogenic nematodes, *Steinernema feltiae*. Monitor your pansy crops closely for fungus gnat larvae as well. It's best to run newly-planted pansies on the dry side to avoid problems. Also, be aware that the cool nights we've been having could cause early flowering on Chrysanthemums. It is too late for disbudding at this point.

Chrysanthemum lace bug, *Corythucha marmorata*

An alert grower showed us several chrysanthemums with an insect on them that they had not seen before on their fall potted mums. She noted it was causing distorted growth and left fecal spots on the undersides of the foliage.

The insects were chrysanthemum lace bug. It is not unusual that the grower did not recognize this infrequent pest of fall mums. I have seen them on fall asters, and occasionally in herbaceous perennial plant operations, but rarely in fall mums. The chrysanthemum lace bug is an occasional pest of ambrosia, scabiosa, *Echinops*, sun flower, *Rudbeckia*, and *Tanacetum*. This lace bug is sometimes noticeably abundant on golden rod and other weeds in the Compositae family.

Chrysanthemum lace bugs are in a group of insects in the order Hemiptera (true bugs). The name Hemiptera, from the Greek *hemi* (half) and *pteron* (winged), is a reference to their forewings which are partly thickened and partly membranous- except for lace bugs which have wings that are completely lacy. When folded, the tips of the wings overlap and form an X pattern. Another key characteristic is the distinctive inverted triangle, called the scutellum, behind the pronotum (the area just behind the head).

Lace bugs cause damage by inserting their needlelike mouthparts (stylet) and extracting plant juices. Adults and nymphs will both cause injury to plants. Their feeding causes stippling and discoloration of the foliage. Chrysanthemum lace bug nymphs are found on the undersides of the leaves, where most of the feeding injury occurs. Adult lace bugs may be found walking around on the upper leaf surfaces.

Females insert their dark brown eggs into the leaf in small groups. Lace bugs cover their eggs with a dark secretion that hardens and forms a protective adhesive covering. From the eggs hatch minute nymphs that develop through several stages before they finally molt into adults. Since other lace bugs in this genus (*Corythucha*) overwinter as adult bugs in some sheltered areas, it is likely the chrysanthemum lace bug does too.

Control: No biological controls are sold for the specific control of chrysanthemum lace bug. Lacewing larvae and other general predators should help control them. Chemical controls include Orthene (acephate), Merit–landscape and Marathon – Nursery (imidacloprid), Safari (dinotefuran), and TriStar (acetamiprid)



Deer Very Active This Summer

The extended drought is limiting the food sources for deer. We are getting increasing numbers of calls from growers who are telling us that the deer are getting bolder and migrating into greenhouse operations to feed on young pansy plants and other plants grown in open areas just outside the greenhouses. Many of you are starting ornamental cabbage and kale which are an attractant to deer. We would suggest that you contact DNR and obtain a crop damage permit.

Here are some options for deer control:

- 1.) lead poisoning (shotgun or rifle where permitted)
- 2.) 10 ft high fencing
- 3.) Low fence with a shocking device designed for deer protection. Bait this with peanut butter.
- 4.) Deer protection using dogs

Scouting reports

IPM scouts are seeing powdery mildew on Lemon Thyme and large mealybug populations on Coleus.

Powdery mildew control: Armicarb or Milstop (potassium bicarbonate), Compass (trifloxystrobin), Cleary's 3336 (thiophanate-methyl), Daconil (chlorothalonil), Heritage (azoxystrobin)

Mealybug control: TriStar (acetamiprid), Talstar (bifenthrin), BotaniGard (*Beauveria bassiana*), Safari (dinotefuran), Astro (permethrin)



Summer Cut Flower Conference

The Summer Cut Flower Conference was held on Tuesday at the Wicomico County Extension office in Salisbury. Here are some of the highlights...

In the morning sessions, Ko Klaver of Zabo Plant and Wanda Kelly of Rainbow Farm talked about growing and marketing lilies and about new lily varieties. Ko said that in recent years lily production has surpassed roses in the worldwide market, and that the more well-known Asiatic and Oriental lilies are being replaced with newer LO, LA, and OT hybrid lilies. He also emphasized the point that local growers have a distinct advantage in providing fresh flowers to consumers. Lilies that are shipped dry from the Netherlands or California are noticeably lower in quality and have a shorter shelf life than locally-grown flowers that are transported in water.



'Royal Sunset' LA Hybrid Lily

Wanda Kelly shared some of her experiences on selling at farmers markets. For example, she has found that customers are more likely to come to her booth when she displays the stems en masse in larger buckets rather than in smaller containers. Wanda also said that she believes it's important to carry at least one variety with a stronger scent (such as Oriental lilies or OT hybrid lilies) that will draw customers over.

In the afternoon we toured Burt Klotz's farm in Nanticoke. Burt spoke about peony production, water quality, and weed control. Burt picks most of his peonies when the unopened buds are soft when squeezed- at the "marshmallow stage". He waits until his red peonies are half opened before he picks those flowers. The stems, all cut over a three week period, can then be stored dry in the cooler for several months. When they are ready to go to market, the stems are placed in buckets of warm water at 110° F. The leaves will re-hydrate quickly and the blooms will open.

Burt also did an equipment demonstration for the group. The tilling equipment pictured, available from BDI Machinery in Pennsylvania for \$13,000, will loosen the ground to a depth of 16-18" and requires a 60-70 horsepower tractor to operate. A smaller model, available for \$8,000, will loosen the ground to a depth of 10" and only requires a 40 horsepower tractor.



At the end of the day, Ron Peterman shared some growing tips with the group on the cut flower varieties that he produces at his farm. For example, Ron told us that he pinches the centers out of his 'Limelight' hydrangea blooms to give the flowers a more rounded shape.

