



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

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**June 13, 2008**

**Golden Tortoise Beetle, *Charidotella bicolor***

We are seeing damage from the golden tortoise beetle on ornamental sweet potato vines at several greenhouse operations this week. This beetle is a bright, metallic gold color. It feeds on plants in the morning glory family (Convolvulaceae). You will often find holes in the leaves, but not see any beetles. The damage can look similar to slug feeding, but the holes are more rounded in shape and slime trails are absent.

**Control:** Control is usually not necessary. The adult beetles are great to observe, and generally ornamental sweet potato vine provides so many leaves that a little foliar feeding is tolerable.



**Golden Tortoise Beetle on Ipomoea**

**Septoria Leaf Spot**

Kevin Nickle from PorLawn Plus brought us this rudbeckia sample last week. Karen Rane, Director of the Plant Diagnostic Lab, identified it as *Septoria* spp. Dark brown leaf spots caused by the *Septoria* fungi are common in wet seasons, especially on rudbeckia. Keep the foliage as dry as possible to reduce infection.

**Control:** Fungicides labeled for *Septoria* on rudbeckia include Daconil (chlorothalonil) and Protect T/O (mancozeb). These are protectants and will not cure symptomatic leaves.



**Septoria Leaf Spot on Rudbeckia**

## Southern Blight

With the high temperatures (90+ °F) that showed up on June 7, 8 and 9<sup>th</sup> and high humidity, we should start to see plants in the landscape collapsing from Southern blight. This fungal blight is caused by *Scerotium rolfii*.

**The following information was provided by David Clement, Home & Garden Information Center:**

*Scerotium rolfii* is capable of blighting most herbaceous perennials, vegetables, annuals, herbs and even turf and woody plants. It is commonly found on ground covers; including Lysimachia, Ajuga, and Plumbago. Southern blight 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.

The first symptoms seen are wilting and collapse of individual stems or entire plants. Cortical decay of the stem at the soil line is common during hot, humid weather. 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 turn brown over several days.



**Sclerotia of Southern Blight**

**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. Do not compost material killed by southern blight (*Sclerotium rolfii*) or white mold (*Sclerotinia*) because the sclerotia of these fungi may survive composting.

### **Fourlined Plant Bug**

We are still seeing some fourlined plant bug activity out in the landscape. These bugs inject a toxin that discolors foliage when they feed. They were found damaging chrysanthemums this week. They will also attack mints, spirea, rudbeckia, phlox, and many others.

**Control:** Damaged foliage will drop off and control is not necessary.



**Four-lined Plant Bug Adult**



**Four-lined Plant Bug Damage**

### **Canna Virus**

We have been seeing virus symptoms on canna lilies at several different greenhouse operations recently. The leaves are mottled with yellow streaking along the veins. Similar findings were reported in the June 5, 2008 issue of Ohio State's Buckeye Yard and Garden Online Disease Digest. They suspect that Canna Yellow Mottle Virus (CaYMV) is the cause. There is no commercially available test for this disease, which can also cause stunting and yellow and brown leaf flecks. This virus is distinct from canna mosaic, which is aphid-transmitted. No insect vectors have been found to transmit CaYMV. It is spread through the propagation of rhizomes from infected stock plants.



**Virus Symptoms on Canna Lily**

**Control:** Ask your supplier if the rhizomes you are purchasing have been virus-indexed. Remove and destroy infected plants.

**Daylily Leaf Streak, *Aureobasidium macrostictum***

We are seeing leaf streak symptoms on daylilies in the landscape this week. The leaf yellowing begins at the tip and progresses along the midvein. This disease can also cause reddish-brown spots that may be confused with daylily rust, *Puccinia hemerocallidis*. Daylily rust can cause similar brown to yellow leaf streaks, but is characterized by distinct orange pustules. Daylily leaf streak is most common during periods of high humidity and rainfall in the summer. Plants often recover when temperatures decrease in the fall. The fungus overwinters on dead, infected leaves.



**Daylily Leaf Streak**

**Controls:** Banrot, Cleary's 3336, Daconil, Spectro 90, Fore, FungoFlo, Chipco 26019, Junction, Protect T/O, Zyban, and Concorde

**June 10, 2008 MDA Pest Survey Report Update**

The highest numbers of corn earworm (*Helicoverpa zea*) adults are being found in the Beltsville area of Prince George's County. This moth mainly damages corn ears, but has been reported to also damage several species of vegetables, cut flowers, and herbaceous perennials. We saw larvae boring into the stems of cardinal flower (*Lobelia cardinalis*) last year in late July. The larvae have characteristic prominent raised black spots on the body with short spines projecting from the center.



**Corn Earworm Larva**

**Control:** When adult activity is high, an application of Conserve or a synthetic pyrethroid like acephate (Orthene) will control larvae before they bore into the stems

The highest numbers of European cornborer (*Ostrinia nubilalis*) adults are showing up in traps in the Mt. Airy area of Carroll County. These larvae prefer to feed on corn, but can tunnel into the stems of thick-stemmed ornamentals like chrysanthemums and sunflowers.

### Scouting Reports

This week we are seeing aphids on lantana; thrips, mites, and aphids on zinnias; chrysanthemum aphids and thrips on argyranthemum; aphids on roses; thrips on portulaca, verbena, and dahlias; two-spotted spider mites on cannas and lemon verbena; mealybugs on mandevilla; and aphids and thrips on marigolds.



**Chrysanthemum aphids**



**Aphids in marigold bloom**



**Citrus mealybugs on mandevilla vine**



**Aphids on rose bud**

## **Beneficials**

We are seeing lots of syrphid fly activity in greenhouses this week. Larvae were found on ageratum feeding on aphids. Adults were observed on ageratum, coleus, tuberous begonias, and annual blue salvia. Aphid mummies parasitized by *Aphidius* wasps were also observed on hibiscus and zinnias this week.



**Syrphid Fly Larva**



**Syrphid Fly Adult**



**Parasitized Green Peach Aphid**