



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

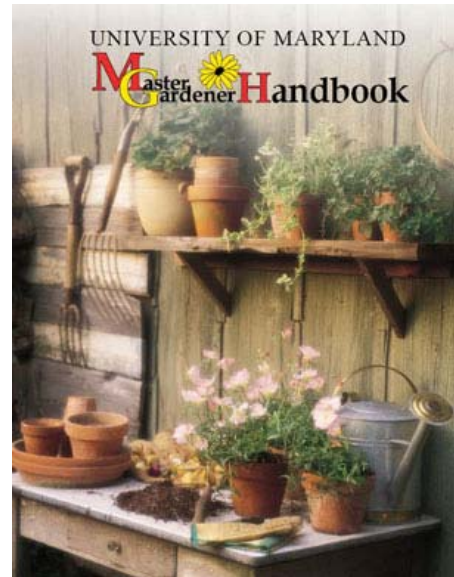
From: Stanton Gill, Regional Specialist and Karen Rane, Plant Pathologist
Ginny Rosenkranz, Chuck Schuster and Brian Clark, Extension Educators
Suzanne Klick and Shannon Wadkins, Technicians, Maryland Cooperative Extension
John Speaker, Independent IPM Scout

September 12, 2008

New Master Gardener Handbooks Are Now Available

The new handbook is 640 pages and includes 400 color photos. All material has been completely revised and updated. There are now 28 chapters, including 9 new chapters (e.g. ecology, weeds, invasive species, alternatives to turf, landscape design, water quality and conservation).

The cost is \$69 and includes shipping and handling. Mail your order form and check made payable to the University of Maryland to Robin Hessey at the Home and Garden Information Center at 12005 Homewood Road Ellicott City, MD 21042. Order forms can be found on the HGIC website at: <http://mastergardener.umd.edu/Handbook.cfm>. For more information contact Robin Hessey at 410-531-1754.



Liriope Problems Continue

As previously mentioned in our August 15 report, we have received several calls this season about crown rot on liriope- primarily in landscape plantings. Several fungi have been reported to cause crown and root rot in this plant – Phytophthora, Pythium, Rhizoctonia and Fusarium are reported in several references.



Karen Rane, UMD Plant Diagnostic Lab, was able to isolate a Fusarium species from the first sample submitted by a landscape company. She then recovered both Fusarium and Colletotrichum (an anthracnose fungus) from the discolored crowns of plants submitted by a container nursery. This week we received a third liriope sample with identical symptoms from another container nursery that also tested positive for Fusarium.

Caterpillars on Mums

As we move into September, you will see the moth of the saltmarsh caterpillar laying eggs on Chrysanthemum stems. The larvae feed on the inner growth first, so you have to examine the interior of the plants to detect these caterpillars early. Also watch for them on mallow, Eupatorium, Aster, Amaranthus, and Achillea. Early instars closely resemble the yellow woollybear (both are in the Arctiidae family). However, yellow woollybears will have more hairs covering their body.

Control: *Bacillus thuringiensis* works very well.

Conserve will also give good control.



Saltmarsh Caterpillar

Whiteflies

In talking and visiting with greenhouse growers, it appears that whitefly populations on poinsettia are low so far this year. The growers that have found whiteflies have been treating with either Sanmite, Pylon, Avid or Distance and are reporting good success with control. It is decision time at this point. If whiteflies are not a problem, you can continue to monitor and see what happens. If you find a population you could treat with the materials mentioned, but make sure you treat before the bracts start to color up. Most growers opt to apply one of the neonicotinoids as a soil drench at this point. If you apply one of the neonicotinoids as a soil drench, use enough water to get it into the root zone, but keep the watering light enough to avoid leaching for the next 5 -7 days. You have choices of imidacloprid (Marathon), dinotefuran (Safari), thiamethoxam (Falgship), or clothianidin (Celero).



Sessile stage on underside of leaf

Note on whitefly control: David Brock of Fuller System, Inc. sent in the following comment... "Don't forget that Fulex Nicotine and DDVP Fumigators still work pretty darn well on greenhouse crops after all these years."

Scouting Reports

This week scouts are finding green peach aphids on *Eupatorium* 'Little Joe' and calibrachoa; rust on *Solidago*; leafhopper damage on echinacea; powdery mildew on petunia, echinacea, and *Monarda* 'Petite Delight'; bandedwinged whitefly and sawflies on hibiscus; longtailed mealybugs on dracaena and alocasia; tortricid leafrollers on sensitive ferns.





Asclepias

Bright yellow oleander aphids are being seen on *Asclepias* at garden centers and out in the landscape. Also look for red and black milkweed bugs and milkweed beetles at this time of year. Monarch caterpillar larvae are also being seen on *Asclepias*.



Goldenglow aphids

Red goldenglow aphids were found on *Rudbeckia* 'Indian Summer' and *Heliopsis* this week. This photo shows predatory midge larvae feeding on the aphids.



Mums

Ben Beale, Extension Educator in St. Mary's County, is reporting spider mites, corn earworms, and grasshoppers on mums. The corn earworms seem to prefer the thicker-stemmed mum varieties. John Speaker is also reporting aphids on mums. Thrips populations usually explode during bloom time, but we're not seeing that this year.



We have been seeing a lot of caterpillar activity on mums this week. Tortricid leafrollers and the camouflaged looper *Geometridae* (*Synchlora aerata*), the larvae of the wavy-lined emerald moth caterpillar was seen on 'Jason' this week. They feed on the flower petals and attach the pieces to their body to use as a disguise.



Tortricid on Chrysanthemum

Pansies

This photo of yellowing on the leaf margins of pansies was sent to us by a grower this week. Initially we thought that it could be a nutritional problem or phytotoxicity from a growth regulator application, but upon further investigation it turned out that the symptoms resulted from cleaning out the lines with chloride and sodium hydroxide.

Another grower was having problems with interveinal chlorosis from high pH induced iron deficiency. To correct an iron deficiency, apply iron sulfate at 2lbs/100 gallons. Don't forget to rinse off the foliage when finished! They did not understand why their soil pH kept rising since they had purchased a 15-2-20 fertilizer blended specifically for pansies. A closer look at the bag revealed that 12.5% was nitrate nitrogen and only 2.5% was in the form of ammoniacal nitrogen.

The pH should be between 5.6-6.0 for pansy crops. Remember to check the calibration on your meters. Ours was beginning to be off very soon after being calibrated. We spoke with a Hanna technical representative that told us the probes are good for about one year before they need to be replaced.

