NC STATE UNIVERSITY
COLLEGE OF AGRICULTURE & LIFE SCIENCES

North Carolina Pest News

Departments of Entomology and Plant Pathology

Volume 28, Number 6, May 17, 2013

CAUTION !

The information and recommendations in this newsletter are applicable to North Carolina and may not apply in other areas.

Stephen J. Toth, Jr., Editor

Dept. of Entomology, North Carolina State University, Box 7613, Raleigh, NC 27695

(919) 513-8189 Phone
(919) 513-1114 Fax
steve_toth@ncsu.edu

In This Week's Issue . . .

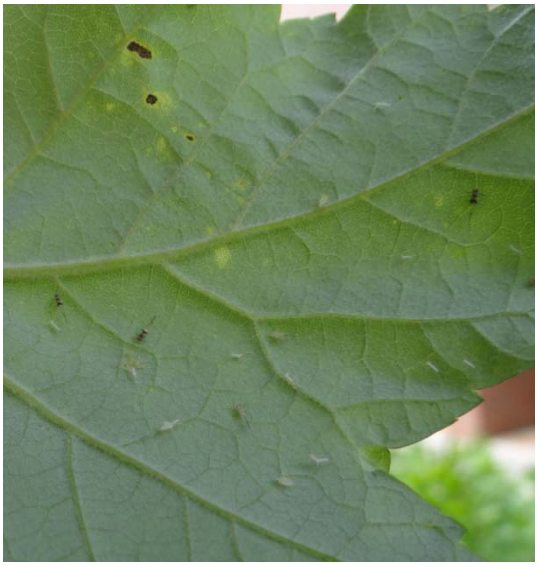
See current and archived issues of the *North Carolina Pest News* on the Internet at: http://ipm.ncsu.edu/current_ipm/pest_news.html

ORNAMENTALS AND TURF

From: Adam Dale, Graduate Student, and Steve Frank, Extension Entomologist

Painted Maple Aphids

Painted maple aphids are common on maple trees and do not generally require treatment. However, you will probably see them if you are scouting for scales or other more important pests. They are quite colorful up close. We sent out an alert and blog post (http://ecoipm.com) this week with a full life history description and pictures from under a dissecting scope. As with all aphids and other phloem feeders you can see shiny honeydew on leaves below where aphids are feeding. The tree in the picture below also has a severe scale infestation so the honeydew you see was not all from these aphids.



A group of painted maple aphids feeding on the underside of a maple leaf. Photo: S. D. Frank.

A group of painted maple aphids feeding on the underside of a maple leaf. Photo: S. D. Frank.

From: Steve Frank, Extension Entomologist

Ambrosia Beetle Trapping

This week did not find any ambrosia beetles in our traps and did not get any attacks on our experimental trees. So we may be out of the woods for this year. Since this week was cool I will keep trapping one more week to be sure we don't get surprised by latecomers who were waiting for warm weather. Check the blog or twitter alerts for updates.

Cankerworms Gone!

Cankerworms have finished feeding for the year and are no nestled safely underground as pupae. At this point you should take stock of which trees were defoliated in your yard or on the properties you manage. Heavily infested trees will also be heavily infested next year because the caterpillars pupate under the tree they were born in then climb back up as adults in fall. Consider banding these trees and adjacent trees to prevent consecutive years of defoliation.

Cankerworm information: http://ecoipm.com/research/cankerworm-project-home/
More banding information: http://www.cabarruscounty.us/government/departments/cooperative-extension/lawn-garden/Pages/Cankerworm-Prevention.aspx

Elm Pests Get Going

Right now a lot is happening on elm trees. For those of you who still have elm trees you can look for elm leaf miner, *Fenusa ulmi*, and woolly elm aphid, *Eriosoma americanum*. Elm leaf miner is a sawfly that lays eggs in elm leaves. The larvae mine tissue creating blotchy, brown translucent areas on the

leaves. In late spring the larvae exit leaves, drop to the ground and borrow an inch down to pupate. Affected leaves will remain on the trees and become brown as mined tissue dies. They may drop prematurely. This time of year you can find a few adults left but mostly you will find larvae in various stages of development. Mines are small so far but expand rapidly. Imidacloprid and Orthene can be used to kill larvae in mines, but they are protected from contact insecticides such as bifenthrin. If adults are present in your area, foliar applications of these products can reduce oviposition.

Small leaf miner larvae in a new leaf mine. Photo: S. D. Frank.

Woolly elm aphids in curled elm leaves. Photo: S. D. Frank.

Woolly elm aphids are an interesting aphid that manipulates host foliage to create a shelter. The foliage is not altered into a true gall like those on witch hazel but as you can see in the picture that are pretty snug and protected from the elements. These aphids use serviceberry (*Amelanchier* spp.) roots as alternate hosts. They overwinter as eggs on elm bark. A female aphid emerges as elm leaves are expanding. She feeds on the underside of a leaf and at maturity produces 200 eggs. The infested leaves begin to curl and accumulate waxy debris that makes the aphids look woolly. Mid-summer a winged generation develops that migrates to Amelanchier trees. These colonies of twisted leaves can be easily pruned out. In the case they are over abundant or there are other pests present an insecticide application may be warranted.

Lady Beetles

Lady beetles seem particularly abundant this week. On a single bush I found several dozen this morning. There are two stages pictured: larvae and pupae. I figure everyone knows what adults look like. Lady beetles and their larvae feed on many soft-bodied insects such as aphids, mites, scales, caterpillars, and

many others. Avoid applying insecticide applications when lady beetles are present. Adult lady beetles typically lay eggs only where there is prey. So if you see lots of lady beetles you may need to take a look at what else is on your plant.

Lady beetle larvae. Photo: S. D. Frank.

Several lady beetle pupae. Photo: S. D. Frank.

Slugs in the Landscape and Nursery

After a wet couple weeks I have seen a lot of slug damage to annuals and perennials in landscapes. Slugs thrive in moist area such as around dripping water spigots and irrigation heads. With all the rain we have had though they are everywhere that is shady and humid. Management of slugs begins with making the habitat less suitable for them by reducing moisture, decaying vegetation, and debris or pots they can hide under. Of course, reducing pots in not an option at nurseries. There are some baits that can be broadcast in slug prone areas. These include products containing metaldehyde or methiocarb (Mesurol) which are carbamates toxic on contact or ingestion. These products are also toxic to pets and children so baits should be inconspicuous and sprinkled over the area rather than arranged in piles that pets and children will notice. Iron phosphate (Sluggo) also has good efficacy against snails and slugs. It also has less mammalian toxicity. Review the below websites for articles on slugs and slug management:

http://www.oan.org/associations/4440/files/digger/Digger_APR_2011_p49-53.pdf

http://www.ipm.ucdavis.edu/PDF/PESTNOTES/pnsnailsslugs.pdf

Slug damage to hostas and annuals. Notice ragged holes and slime trails. Photos: S. D. Frank.

New Articles About Nursery and Landscape Pests

We have a new article in Nursery Management on spider mite identification and management and a new article in American Nurseryman about ambrosia beetles and the most current management strategies. These articles and other industry publications are posted on our Industry Publications page: http://ecoipm.com/extension/extension-resources/industry-publications/

Gloomy Scale Crawlers are Active

Gloomy scale, *Melanaspis tenebricosa*, is an armored scale that is found on maples and other tree species. It becomes very abundant on landscape maples and can cause branch dieback and tree death in some cases. It is not unusual to find trees with nearly 100% of their trunk covered in scale. Street trees are particularly prone to gloomy scale. I have never found one that didn't have it! Crawlers of this scale are active now and can be seen on bark and under scale covers. Control of this scale is complicated because crawlers emerge over 6 to 8 weeks so it is impossible to treat all the crawlers at once with horticultural oil or other contact insecticide. This is as opposed to scale such as euonymus scale in which all crawlers are produced within a narrow window of 2 weeks or so. However, horticultural oil can still be applied to kill gloomy scale because it will kill some adults also. We have found even a single application dramatically reduces scale abundance. Several systemic products are available to provide longer control of even late stage scales. These include Safari, TriStar, and Distance though it is important to note that imidacloprid (Merit) is not effective on armored scale. More information on armored scale control can be found http://www.ces.ncsu.edu/depts/ent/notes/O&T/shrubs/note157/note157.html.

Gloomy scale on a maple branch. Photo: S. D. Frank.

To see an overview of gloomy scale on urban trees watch our short video:
http://www.youtube.com/watch?v=1Fg-ZPkJwRA&feature=youtu.be

Lecanium Scale Crawlers!

Oak and European fruit lecanium scale are one of the largest soft scales in our area. Scale ovisacs are brown and rounded reaching 6 mm in diameter. This is the most noticeable stage and is present right now. As members of the soft scale family Coccidae, lecanium scales produce honeydew that can cause sooty mold on oaks or plants below. Oak lecanium scale primarily infests oaks trees. However, European fruit lecanium can infest many tree species including oaks. They are impossible to tell apart without a microscope (even then it is hard). Large populations can reduce growth and vitality especially in newly planted trees.

Lecanium scale ovisac on willow oak. Photo: S. D. Frank.

Eggs are present now under adult scale covers and crawlers are beginning to hatch. The crawler stage should be targeted for best efficacy. On trees small enough to treat foliage horticultural oil can be used. On larger trees a systemic such as dinotefuran can be applied as a drench or trunk injection. This scale is not easily eradicated and optimal control measures are still unclear. It is attacked by many parasitoids and predators that can reduce scale abundance if protected from insecticides. A short video by graduate student Emily Meineke describes the scale biology (http://www.youtube.com/watch?v=tD6I7P6BdKU). You can see another video about her research (http://www.youtube.com/watch?v=UnhoEFnNHxo).