

# North Carolina Pest News

Departments of Entomology and Plant Pathology



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Volume 21, Number 6, May 19, 2006

## CAUTION !

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

### *In This Week's Issue . . .*

#### **FIELD AND FORAGE CROPS**

- Cotton Thrips Again
- Spider Mites in Cotton
- Plant Bugs and Stink Bugs in Cotton
- Burrowing Bugs in Cotton

#### **ORNAMENTALS AND TURF**

- Azalea Lace Bugs
- Scales and Aphids on Oak
- Thrips on Foxglove
- Dead Seed Corn Maggot Flies Don't Fly
- An Ambrosia Beetle By Any Other Name is Still a Pain
- Three Things are Certain: Taxes, Death, and Euonymus Scale

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[http://ipm.ncsu.edu/current\\_ipm/pest\\_news.html](http://ipm.ncsu.edu/current_ipm/pest_news.html)

## **FIELD AND FORAGE CROPS**

From: Jack S. Bachelier, Extension Entomologist

### **Cotton Thrips Again**

With our dramatically changing weather patterns and wide planting window, cotton producers across North Carolina are faced with every conceivable thrips scenario. For many, higher migrating adult thrips levels, the establishment of immature thrips, the ending of the three-week activity of the seed treatments Gaucho Grande, Cruiser and Avicta, and appearance of the first true leaf signals good timing for a foliar insecticide spray. For foliar treatments for our common thrips species, stick with rates suggested in the *North Carolina Agricultural Chemicals Manual* (<http://ipm.ncsu.edu/agchem/5-5.pdf>). For example, rates above 0.25 pounds of active ingredient per acre of Orthene are not needed unless damaging levels of western flower thrips are present. Unless we experience very hot, dry conditions for more than a week, western flower thrips should not be present in damaging levels on cotton.

In general, our cotton looks pretty “beat up”, having come through less than ideal conditions for emergence and “grow-off”. Because seedlings remain in a thrips-vulnerable stage far longer, slower growing cotton is always more susceptible to thrips damage than cotton that gets to a quick start.

Most of our May planted crop should be relatively well protected by both seed treatments and Temik (given our good soil moisture conditions), at least during the period of expected insecticide activity – three weeks for seed treatments and 4 to 5 weeks for Temik.

For cotton planted from approximately May 15 to 20, or later (significant replanting is now underway), in most cases a seed treatment alone or Temik 15G at the lower 3 pound rate will not require a foliar treatment for thrips. Although thrips levels will probably be high during the next few weeks, by the time this late planted, quickly growing cotton gets to the “three weeks from planting” stage, thrips levels here are typically on the decline.

### **Spider Mites in Cotton**

As mentioned in last week’s *North Carolina Pest News*, watch for spider mites in the weeks following foliar applications behind seed treatments. Based on a survey of our state’s crop consultants averaged over the past two years, the odds of spraying for spider mites following a seed treatment plus a foliar spray for thrips were approximately 9-fold greater than behind Temik alone, probably due to a combination of fewer foliar sprays following Temik and the good miticidal activity of aldicarb, the active ingredient of Temik.

### **Plant Bugs and Stink Bugs in Cotton**

Fortunately, we are still about a month until the time when plant bugs may be seen as an economic problem in some areas. Remember, unlike plant bugs, stink bugs are not damaging pests on cotton until a week or two after bloom.

## Burrowing Bugs in Cotton

I received several calls this past week about high levels of small dark bugs with reddish “backs” among the debris in reduced till cotton. These are the nymphal stages of burrower bugs (Fig. 1), the adults of which are shiny black in color. Unlike their closely related cousins the stink bugs, burrower bugs are not regarded as economic pests of cotton.



Fig. 1. Burrow bug nymphs. Image from Patrick Alexander.

## ORNAMENTALS AND TURF

From: Stephen B. Bambara, Extension Entomologist

### Azalea Lace Bugs

Azalea lace bugs should be hatched and active in most areas. This insect feeds from the underside of azalea leaves and its tiny feeding spots remove the dark green color from leaves. This is not fatal and most azaleas have at least a little lace bug activity. Tiny black fecal spots on the leaf underside are a diagnostic character of lace bugs. If they have been a serious concern in the past, now is the time to treat for adults with a contact insecticide or something such as Orthene on the undersides of leaves. Imidacloprid systemic insecticide is also very effective. Before any chemical treatment, decide whether it is really necessary. In most cases, pesticides are not required. For more information on insect pests of azaleas, see *Ornamental Insect Information Note Number 134* at:

<http://www.ces.ncsu.edu/depts/ent/notes/O&T/specificplants/note134/note134.html>.

### Scales and Aphids on Oak

The willow oak (*Quercus phellos*) on the North Carolina State University campus is a great resource for the *North Carolina Pest News*. This week I noticed the crawlers of one of the Parthenolecanium scales. The adult scale forms small brown spheres on the stems (Fig. 2).

There is also dramatic leaf curling on some tips (Fig. 3). "This is caused by the feeding by an aphid in the genus *Stegophylla*," says David Stephan of the North Carolina State University Plant Disease and Insect Clinic. The aphids (Fig. 4) are still present and happy within the protection of the curled up leaves. The feeding that caused the curling began a few weeks ago, but is in evidence now. By the time leaf distortion is noticed, it is usually too late to take action.

Oaks are truly amazing plants in the ecosystem. They harbor a large assortment of insects that feed on them. Yet, they are rarely killed by any of these native insects. The trees may look galled, ragged and worn, yet they continue to grow and survive. It is often human activities that create problems. Controlling oak pests is usually somewhere between difficult and impossible and often not necessary.



**Fig. 2. Adult scale insects.**  
Image from John A. Weidhass,  
Virginia Tech University  
(<http://www.forestryimages.org>).



**Fig. 3. Leaf curling.** Image from Stephen B. Bambara.



**Fig. 4. Aphids.** Image from Stephen B. Bambara.

## Thrips on Foxglove

A Master Gardener recently showed me a sample of foxglove (*Digitalis*) heavily damaged by nymphal thrips. These may have been onion thrips. There are other possible culprit species. Foxglove seems to be unusually attractive to the thrips where they feed on all above ground parts of the plant. Sometimes heavily infested foxgloves become as brown as a Manila envelope. Onion thrips are less than 2 mm and may need magnification to view clearly. They feed on a variety of ornamental flowering plants (and others) and may be very damaging to chrysanthemums and carnations.

Onion thrips are a part of the huge swarm of flower thrips, grain thrips, soybean thrips and other species that take flight in late May and early June. Onion thrips are native insects, and because they have a large feral population on weeds and other plants that are never sprayed, onion thrips are not resistant to pesticides. One of the neem seed extract or pyrethrum extract pesticides should give temporary control for those interested in organic measures. Because of the enormous numbers of thrips that fly in late May and early June, continual applications of insecticidal soaps may be too harsh for the plant, but one or two applications will be fine as long as the plant has been irrigated before spraying and the spraying is done early in the day or in the evening. Orthene, malathion, Sevin or any of the other traditional synthetic pesticides should also give adequate suppression. Find more information about onion thrips and their life history on the web at: [http://ipm.ncsu.edu/ag295/html/onion\\_thrips.htm](http://ipm.ncsu.edu/ag295/html/onion_thrips.htm).

## Dead Seed Corn Maggot Flies Don't Fly

About this time of year we often receive calls about dead flies stuck to twigs. It is an unusual sight and may cause undue concern to gardeners. These flies are adults of the seedcorn maggot (Fig. 5), which is sometimes a pest of agriculture. Seedcorn maggot flies are grayish-brown in color and about one-fifth of an inch in length. The legs are black and there are bristles scattered on the body. Some seedcorn maggot flies become infected with a fungus of the genus *Entomophthora*. Infected flies are swollen and have pinkish bands on the abdomen. Sometimes, gray *Entomophthora* spores are visible on the fly and on the substrate nearby. This fungus apparently causes the flies to land on protruding objects such as any twigs, clotheslines, and fence posts. The flies cling there and usually die in the afternoon as their abdomens swell with fungal strands inside.



Fig. 5. Seedcorn maggot flies. Image from Stephen B. Bambara.

Early the next morning, the fungal spores are released into the air while the humidity is high. The spores infest other seedcorn maggots. Although the fungus-infected flies appear to be damaging the plant, these adult flies are harmless. The seedcorn maggot is found throughout North Carolina. Seedcorn maggots feed primarily on decaying organic matter, but sometimes infest the seeds and seedlings of vegetables. The dead, fungus-infected flies are sometime abundant on the dead twigs of dogwood and crape myrtle in the spring. Most of the damage is caused by the maggot stages that sometimes kill germinating vegetable seeds. This results in poor stands and replanting. Injury is usually most severe during wet, cold seasons and on land rich in organic matter. Typically no control measure is necessary on ornamentals. The presence of fungus-infected flies indicates a natural control factor at work. For control of the maggots in vegetable gardens and field crops, shallow planting in well-prepared seed beds sufficiently late in the season to get quick germination of the seed is probably the best means of control. Prompt replanting or resetting of damaged crops usually works well. In addition, the maggots are easily controlled by planting treated seed.

From: Christine A. Casey, Extension Entomologist

### **An Ambrosia Beetle By Any Other Name is Still a Pain**

Ambrosia beetles, for which I'm sure we all have a few choice names of our own, will soon be getting official new names from the Entomological Society of America (ESA). "Asian ambrosia beetle" is often used in the industry to refer to *Xylosandrus crassiusculus*; however, there are several pest species of ambrosia beetle native to Asia, so the Common Names Committee of the ESA has decided to end the confusion.

*Xylosandrus crassiusculus*, formerly know as the Asian ambrosia beetle, will become the *granulate ambrosia beetle*. *Xylosandrus mutilatus* will become the *camphor shot borer*, and *Xlyeborus glabratus* will become the *redbay ambrosia beetle*.

### **Three Things are Certain: Taxes, Death, and Euonymus Scale**

Over 30 years of observation, entomologists have developed a biological calendar to predict the emergence of a variety of pests each spring. This calendar is based on the relationship between the timing of plant flowering and insect activity, which are often correlated because both are based on temperature. This system is especially useful for insects such as immature scale insects that are hard to detect.

In mid-May, look for first bloom of doublefile and black haw viburnums, weigela and spirea (350 to 380 degree days). This indicates the following: lilac borer and lesser peachtree borer adult emergence (control immatures seven to 10 days later with Astro, Permethrin Pro, Perm-Up or Onyx), holly leafminer adult emergence (control immatures seven days later with Conserve), and euonymus scale crawler hatch (control crawlers now with horticultural oil and apply Safari for season-long control).

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*Recommendations for the use of chemicals are included in this publication as a convenience to the reader. The use of brand names and any mention or listing of commercial products or services in this publication does not imply endorsement by North Carolina State University, North Carolina A&T State University or North Carolina Cooperative Extension nor discrimination against similar products or services not mentioned. Individuals who use chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Be sure to obtain current information about usage regulations and examine a current product label before applying any chemical. For assistance, contact an agent of North Carolina Cooperative Extension.*

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