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Lexington, KY 40546

# KENTUCKY PEST NEWS

ENTOMOLOGY · PLANT PATHOLOGY · WEED SCIENCE
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**Number 1197** **May 26, 2009**

LAWN & TURF
-Ground-Nesting Bees

SHADE TREES & ORNAMENTALS
-Emerald Ash Borer Confirmed at Two Locations in Kentucky
-Problem-Solving - These Might Pop-Up
-Scab Disease Is Defoliating Susceptible Flowering Crabapples

TOBACCO
-Disease Update

INSECT TRAP COUNT

## LAWN & TURF

### Ground-Nesting Bees
**By Lee Townsend**

Several species of "yard/ burrowing/ mining/ digging bees" can be found entering and leaving pencil- diameter holes in turf. They may be brightly colored or dark. They will be “hairy” in order to carry pollen. Often there will be a mound of fine soil around the holes, which are entrances to their underground nests.

These bees generally live alone but over time, large communities can develop where conditions are favorable and food is abundant. They select sunny, well-drained soils where grass cover is thin. Females may share entrances but dig separate tunnels with side branches for brood rearing chambers. These bees collect pollen and nectar and bring is back to the nest to feed their larvae.

Yard bees can sting but generally are not aggressive and do not defend their nest area like honey bees. However, they pose a potential problem in children's play areas. Sevin dust can be put in the holes or some Sevin, or other turf insecticide, can be mixed in water according to the spray instructions and poured into the nest areas.

Alternatives

1. Do nothing unless the bees pose a threat - they are good pollinators. Increase mowing height - that may make the area less attractive to them.
2. Treat burrow areas with a turf insecticide.
3. Long term - over-seed to establish a thicker turf, this should discourage the bees from living in the area.

## SHADE TREES & ORNAMENTALS

### Emerald Ash Borer Confirmed at Two Locations in Kentucky
**By Lee Townsend**

There are two confirmed infestations of the emerald ash borer (EAB), an invasive insect pest of ash trees. These are the first findings of this destructive insect in the Commonwealth. The discoveries resulted from Kentucky Division of

Forestry and University of Kentucky officials investigating reports of dying ash trees in a private woodlot in Shelby County and a residential landscape in Jessamine County.

The adult stage of the EAB is a half inch elongate, metallic-green beetle. The beetles may be seen resting on ash leaves or chewing small feeding notches in the edges of ash leaves. The larval stage, a flat, white segmented worm, chews long winding tunnels beneath the bark. Extensive tunneling reduces water and food transport in the tree, resulting in tree death. This insect only attacks ash trees.

Kentuckians are urged to identify ash trees on their property and to examine them for signs of EAB activity. Symptoms of infestation include dieback of the upper tree canopy, sprouts growing from roots and trunk, loose bark, signs of woodpecker activity, and D-shaped exit holes in the trunk. If you suspect that your trees may be infested, contact the Emerald Ash Borer Hotline (866) 322-4512 or the Office of the State Entomologist. (859) 257-5838. More information is available at http://www.emeraldashborer.info/ . The Kentucky EAB page is http://pest.ca.uky.edu/EXT/EAB/welcome.html.

Officials urge Kentuckians to take several steps to help keep EAB from spreading:
• Don't transport firewood, even within Kentucky. Don't bring firewood along on a camping trip. Buy the wood you need locally. Don't bring extra wood home with you.
• Don't buy or move firewood from outside Kentucky. If someone comes to your door selling firewood, ask them about the source of the wood. If it came from outside Kentucky, don't buy it.

**Problem-Solving - These Might Pop-Up**
**By Lee Townsend**

Here are some things to consider when looking at trees over the next couple of weeks. One is the distinctive shiny spots signaling honeydew deposits on leaves. Check undersurfaces of leaves for aphids, soft scales, or other sap-feeders that may be present. The sugar-rich deposits can result in sooty mold growth on leaves and twigs. Generally, the aphid infestations will end naturally as temperatures continue to rise. However, soft scales have a much greater potential effect on tree health and should be investigated more thoroughly. Look for pea-like soft scales on twigs, branches, or limbs. They can be flicked off easily with a fingernail. Close examination with a hand lens can let you determine if eggs are present, indicating that crawler hatch may not be far away. Identification of scales helps to determine when crawlers are active so that sprays can be timed correctly. Also, a root drench with imidacloprid can provide good control of soft scales.

Leaf miner activity (left) can provide some striking symptoms, and can be mistaken for spray injury. Usually, accumulations of dark frass can be seen in the mines and occasionally the larva may be found.

Leaf miners feed within the leaf, leaving a "blister" that can be torn open. Once in the leaf, the insect is protected from most insecticide applications. Products such as Orthene penetrate the leaf to some extent and may provide some control. Frequently, the insect is at or near the end of its development before damage is seen. Heavily infested leaves may drop early but usually there is no significant injury to healthy, established trees and shrubs. Natural enemies can serve to regulate leaf miner populations if some cosmetic damage can be tolerated. Insecticide applications often are more damaging to natural enemies than to the target pest. Galls are beginning to appear on leaves now. Some, such as the one caused by the elm pouchgall aphid (left) are very distinctive. The host and gall appearance often can be used to identify the causal

organisms, which can be mites, wasps, maggots, and aphids or related insects. Heavily galled leaves may drop early but usually galls do not drastically affect tree or shrub health.

Gall control is rarely practical because insecticide applications would need to be made about the time of bud break in an attempt to control the gall maker before initiation of the growth.

**Scab Disease Is Defoliating Susceptible Flowering Crabapples**
**By John Hartman**

Crabapple scab, caused by the fungus *Venturia inaequalis* is appearing now on susceptible flowering crabapples throughout Kentucky (Figure 1). Disease-favorable weather during April and May has been providing ideal temperatures and leaf wetness for primary infections and for numerous cycles of secondary infections. Weather monitoring instruments in some regions of the state recorded periods of up to 60 hours of continuous leaf wetness at moderate temperatures, more than adequate time for *V. Inaequalis* spores to germinate and infect crabapple foliage and fruit.

Figure 1. Scab symptoms on crabapple leaf.

Kentucky flowering crabapples are enjoyed for their attractive foliage and fruit as well as for their springtime blooms. Unfortunately for scab-susceptible crabapples, the foliage just now is not attractive due to scab disease. Scab-infected leaves are dull with sporulating lesions and many leaves are beginning to turn yellow and drop from the trees. By summer, the branches will be practically bare of foliage (Figure 2). Based on research we did many years ago, defoliation due to scab disease this year will reduce spring bloom the next year (Figure3).

Figure 2. Susceptible flowering crabapples in summer. Leafy tree on right was treated with fungicide in springtime. Defoliated trees on left were not treated with fungicide.

Figure 3. Same flowering crabapples as Figure 2 the next spring. Note more blooms present on tree sprayed the previous year.

<u>Managing apple scab in landscapes and nurseries</u>.

- The fungus overwinters in fallen leaves from the previous season. While trees are dormant in the landscape or nursery, rake up and destroy or chop up old, infected, fallen leaves.
- Remove and destroy abandoned apple and susceptible crabapples growing near the nursery. Hopefully, most nurseries are growing scab-resistant crabapples.
- On mature landscape trees, thin out crabapple foliage by pruning to allow improved ventilation and sunlight penetration.
- To prevent primary infections, apply fungicides when the first green shoot tips are showing in early spring before flowers open and repeat 3 or 4 times at two-week intervals. In research done some years ago, we found that early spring sprays were most effective at preventing summer defoliation. Fungicide choices include protectants containing ingredients such as mancozeb, chlorothalonil, captan, or sulfur. Effective fungicides with some systemic activity include those with active ingredients such as thiophanate-methyl, propiconazol, myclobutanil, triadimefon, or fenarimol.
- Use scab-resistant or scab-immune crabapples in the landscape. Scab immune trees don't get scab while scab resistant trees may show some lesions, but not enough to cause defoliation. Nurserymen should be growing scab-immune or scab-resistant crabapples; these may include the following:
'Adirondack', 'Bob White', 'Brandywine', 'Callaway', 'Camelot','Candymint',

'Canterbury', 'Christmas Holly', 'Cinderella', 'Coralburst', 'David', 'Dolgo', 'Evereste', 'Excalibur', 'Firebird', 'Foxfire', 'Golden Raindrops', 'Guinevere', 'Hamlet', 'Holiday Gold', 'King Arthur', 'Lancelot', 'Lollipop', 'Louisa', 'Manbeck Weeper', 'Mary Potter', 'Molton Lava', 'Pink Princess', 'Prairifire', 'Prairie Maid', 'Professor Sprenger', 'Purple Prince', 'Rawhide', 'Red Jewel', 'Sentinel', 'Silver Moon', 'Sinai Fire', 'Strawberry Parfait', 'Sugar Tyme', 'Tina', 'White Angel', 'Winter Gem', *M. baccata* 'Jackii', *M. floribunda, M. sargentii, M.* x zumi 'calocarpa'.

- Do not grow these in the nursery.
  Very susceptible: 'American Masterpiece', 'American, Triumph', 'Harvest Gold',, 'Indian Magic', 'Jewel Berry', 'Pink Satin', 'Red Jade', 'Royal Scepter', 'Spring Snow', 'Thunderchild', 'Weeping Candied Apple', 'White Cascade'.
  Extremely susceptible: 'Almey', 'Eleyi', 'Hopa'.

## TOBACCO

### Disease Update
**By Kenny Seebold**

A little bit of warm and dry weather can really make a difference when it comes to diseases in tobacco float beds. Two weeks ago we were seeing an explosion of target spot and a little collar rot, but reports of new cases slowed to a trickle during this past week. Quite a bit of tobacco made it into the ground last week as well; however, we still have a fair amount of seedlings still in float beds around the state. Good management practices will be critical in protecting these plants until they are able to be set. Key things to consider are proper fertility, good airflow, timely clipping, and application of fungicides. Regular applications of mancozeb fungicides (Dithane, Penncozeb, or Manzate ProStick) are recommended up to transplanting, and it wouldn't hurt to use a little agricultural streptomycin to keep blackleg in check.

As mentioned in last week's article, the number of cases of Pythium root rot continues to grow in response to warming temperatures. This disease can move very quickly once float water temperatures reach the mid-70's. Severe levels of Pythium root rot could result in additional delays in getting those plants to the field along with reduced numbers of useable transplants. Moreover, plants with significant root rotting could damp-off in the field, or be more susceptible to diseases like black shank or Fusarium wilt. At this point in the season, all growers should be watching for Pythium and should have a management program in place (e.g. Terramaster fungicide) to prevent this disease from getting started. In cases where Pythium shows up on plants that will go to the field within 5 or so days, there's not a serious need to apply Terramaster; however, if plants will be held for longer than a week, treatment at 1-1.4 fl oz/100 gallons of float water is advisable. As a note of caution, Terramaster should not be used any later than 8 weeks after seeding tobacco in the float system.

It's important to keep watch for these late-season disease issues as we get ready to go to the field. Many producers in Kentucky are still facing delays in setting because of continued wet weather; this puts plants still in float beds at increased risk to diseases like Pythium root rot, blackleg, and target spot. Refer to the "2009 Kentucky-Tennessee Tobacco Production Guide" (ID-160) for more information. The guide can be found online at www.uky.edu/Ag/TobaccoProd/pubs/id160.pdf.

## DIAGNOSTIC LAB HIGHLIGHTS
**By Julie Beale and Paul Bachi**

Recent agronomic samples in the PDDL have included Sclerotinia collar rot, Rhizoctonia damping off, target spot and Pythium root rot on tobacco.

On fruit, vegetable and herb samples, we have diagnosed Phomopsis leaf blight on strawberry; scab and frogeye leaf spot on apple; plum pockets (*Taphrina*) on plum; fire blight on pear; pepper mild mottle virus on pepper; intumescence

(physiological) on sweet potato; white rust on lettuce; Pythium root rot and early blight on tomato; and powdery mildew on rosemary.

On ornamentals, we have seen Sclerotinia stem rot on wild ginger; rust on hollyhock; Botrytis blight on zinnia; black spot and rosette disease on rose; scab on crabapple; and Phomopsis gall on bitternut hickory.

**INSECT TRAP COUNTS**
**MAY 15-22**

| Location | Princeton, KY | Lexington, KY |
|---|---|---|
| Black cutworm | 4 | 20 |
| Armyworm | 10 | 242 |
| Corn earworm | 15 | 1 |
| European corn borer | 0 | 0 |
| Southwestern corn borer | 0 | 0 |
| Fall armyworm | 0 | 0 |

Graphs of insect trap counts for the 2008 season are available on the IPM web site at -http://www.uky.edu/Ag/IPM/ipm.htm. View trap counts for Fulton County, Kentucky at - http://ces2.ca.uky.edu/fulton/InsectTraps

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College of Agriculture

**Cooperative Extension Service**

*University of Kentucky*
*Entomology Department*
*Ag Distribution Center*
*229 Stadium View Road*
*Lexington KY 40546-0229*

*Official Business*