soil plant and pest center

UT Extension

Ornamental
Pest & Disease
Update

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SLUGGISH ROSES

By Frank Hale

Some sawfly larvae with a gummy worm or slug-like appearance are called oakslugs or roseslugs, depending on the host. Roseslugs are actively feeding now on roses in the nursery and landscape. Their feeding causes holes in the underside of the leaves. Additionally, they can devour all but the clear top layer (the epidermis that allows light into the leaf for photosynthesis). These clear areas look like tiny windowpanes and this feeding damage is called windowpaning.

Roseslug damage to Knockout Rose

While a healthy rose can withstand this type damage, these unsightly leaves will remain on the plant, often throughout most of the he season.

Sawflies are not difficult to control with insecticides but you need to act quickly or you will have lots of holes and window-paning. Make sure that the roseslugs are still feeding on the plant when an insecticide application is made. Spinosad (Conserve SC and other brands) is an effective insecticide that is safe to most beneficial arthropods (it is toxic to bees exposed to direct spray on blooming crops or other vegetation) when used according to the label. Pyrethroid insecticides, imidacloprid (Merit and other brand names) and carbaryl (Sevin, Carbaryl) are also effective but the use of these insecticides often increases the probability of having an outbreak of twospotted spider mites. Remember, Bt (Dipel and other brands) **does not work on sawflies**. It is only effective on lepidopteran caterpillars (larvae of moths, butterflies, skippers).

Black Knot

By Alan Windham

Black knot is a fairly common disease on several *Prunus* spp. I see it most commonly on ornamental plums and black cherry. It may also be observed on wild plums, fruiting plums and other *Prunus* spp. Black knot is indigenous to the U.S. and Canada, but absent in Europe where it is considered an A1 quarantine pest.

Black knot appears as swollen galls on twigs and branches of susceptible host. Olive-green knots may appear in the fall and darken to black as they mature, usually in two years. The causal fungus, *Apiosporina morbosa* (syn= *Dibotryon morbosa*), produces ascospores from fruiting bodies in the knots. Ascospores infect young shoots in the spring via wounds or by direct penetration. Young twigs may die during the first year after infection.

Black knot on an ornamental plum

Severe black knot on an ornamental plum

Black knot on a scaffold branch

Trees should be monitored for knots and removed promptly by making a cut 3-to-4 inches below the knot. Heavily infected trees with significant branch dieback should be removed. Keeping trees healthy may be difficult if heavily infected black cherry or plum are located nearby. Fungicides are sometimes used in orchards but are rarely used in home plantings. Several fruiting plums are resistant to black knot. Also, the fungal parasite, *Tricothecium roseum,* may be found on black knot where it is parasitizing the causal fungus, *Apiosporina*.

WINTER INJURY

By Alan Windham

The winter of 09-10 wasn't extremely cold, but there were periods of several consecutive days when temps remained below freezing. Cold air and frozen soils can lead to scorched leaves, shoot dieback and root death for plants in containers that were not properly protected. During the past several weeks we have gotten questions from Extension agents, home gardeners and professionals in the green industry about plant problems related to winter injury.

Leaf scorch and shoot dieback from winter injury has been widely reported on southern magnolia

Leaf scorch and limited shoot dieback on southern magnolia (*Magnolia grandiflora*) has been one of the most common complaints. Injury has also been observed on the following plants: arborvitae, boxwood, crape myrtle, holly, Leyland cypress and nandina. In a few cases, we have gotten calls about wholesale death or severe injury on Leyland cypress planted less than one year. Diagnosing this type of damage is clearly in the

New growth on dwarf yaupon holly 'Bordeaux' on a shoot that was injured this winter.

In the realm of forensic pathology. Coming to an absolute diagnosis is tough, as winter injury may have played a role, but care of plants prior to planting and after installation may have also played a role in the injury. Certainly, if a high percentage of plants are affected, this points to some type of abiotic (cold injury, drought) injury.

In some instances, replacement of severely injured plants is necessary. In many cases, no treatment is necessary as injured leaves are shed and new growth covers damaged leaves that remain on the plant. Patience is key with many plants . Wait for new growth to appear, as on the holly pictured above. Once you can clearly discern which shoots are severely injured or dead, corrective pruning can take place. Many evergreen shrubs and trees will look their worst in late winter or early spring, when old foliage is shedding prior to new growth. Within a few weeks, the extent of the damage should be more clear.

Eastern Tent Caterpillar

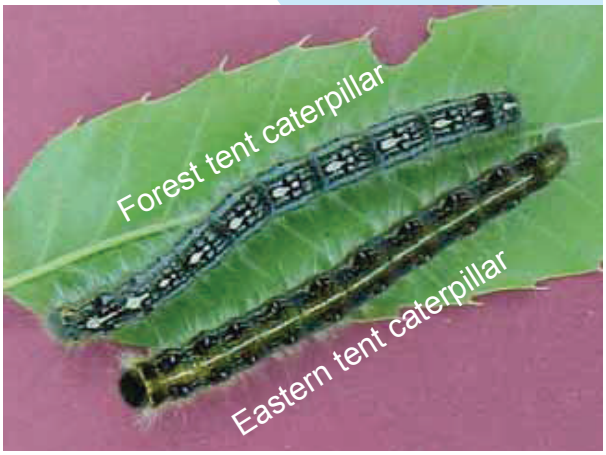
By Frank Hale

Eastern tent caterpillars have hatched from eggs within shiny black egg masses that encircle twigs near the end of branches of wild cherry, crabapple, plum and apple. They can also be found on peach, cherry, pear, hawthorn and even maple. These tiny caterpillars emerged at bud swell and moved on the branch toward the trunk to construct a silken

nest where the branch forks. Caterpillars remain within the protective tent for most of the day. When temperatures are warm enough, they move out to feed on the foliage usually during the morning, early afternoon, evening and at night. The caterpillars lay down silk trails on the bark that they follow when foraging. Developing eastern tent caterpillars can be identified by the white stripe down the back. As the caterpillars mature in 4-6 weeks they can reach 2 to 2.5 inches in length. The mature caterpillars leave the tree and wander on the ground where they spin white silken cocoons on the ground in protected areas.

The forest tent caterpillar which should also be active now or very soon, has white keyhole-shaped markings down

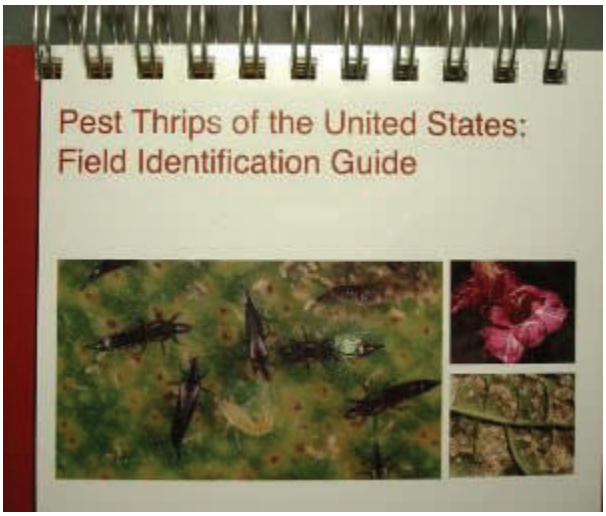
the back instead of a white stripe. The forest tent caterpillar feeds on many types of forest trees but seems to have preferred hosts depending on the location. Oak is the preferred host in the Midsouth, although wild cherry, basswood, ash and sweetgum are said to be common hosts. Apparently, red maple is not attacked. Outbreaks do not appear to be common in Tennessee although in some parts of the country outbreaks lasting 3 years can reduce forest growth and 5-to-7 year outbreaks can cause high tree mortality. Forest tent caterpillars do not form a nest but instead make a silken mat on the trunk or a branch. Fortunately, both of these caterpillars only have one generation per year.



THRIPS INFO

While not yet in Tennessee, chili thrips have caused quite a stir south of us. Check out this pest alert on chili thrips.

Also, there is a new publication, Pest Thrips of the United States: Field Identification Guide, that is very helpful for thrips identification and the damage they cause.



Further reading
Web Resources

The Eastern Tent Caterpillar and Its Control

Common Tree Borers in Tennessee

Disease of Shade and Ornamental Trees

The Hemlock Woolly Adelgid: A Threat to Hemlock in Tennessee

UT Extension Home Page

Agent's Corner

By Alan Windham

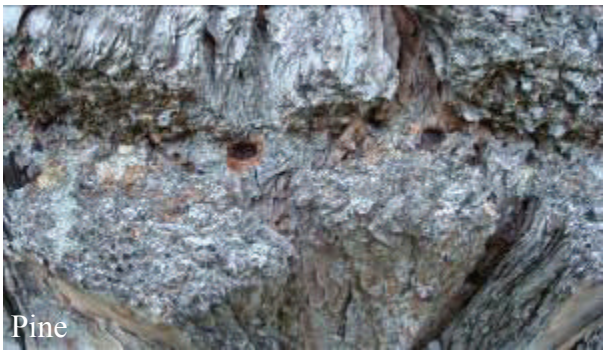
Questions from Extension agents are interesting and sometimes very challenging. Whatever the question, it's always an opportunity to learn about the natural world, plant problems, insects and the damage they cause. Generally, there is a logical explanation for the unknown, but sometimes we are left scratching our heads. Below are a couple of images of problems submitted by agents. Do you know the cause? Check the next page for the answer.

Agent's Corner

Answers

Horizontal bands around tree trunks are often caused by feeding injury of the yellow bellied sapsucker which overwinters in Tennessee. In almost all cases, wounds from feeding injury are visible upon closer inspection.

Eastern red cedar



Pine

soil plant and pest center

News from the Soil, Plant and Pest Center

By Debbie Joines

Over 12,000 soil samples have been processed since January 1. The quality of your results is assured by our participation in the North American Proficiency Testing program. In the NAPT program, blind samples of soil and plant tissue are tested quarterly and compared with other participating labs. This insures that our lab equipment is calibrated and operating to NAPT Standards.

For more information on soil, plant or media testing visit the SPPC web site.

Soil Plant 2009 NAPT Participating Laboratory

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