Kentucky Nursery LISTSERV Bulletin

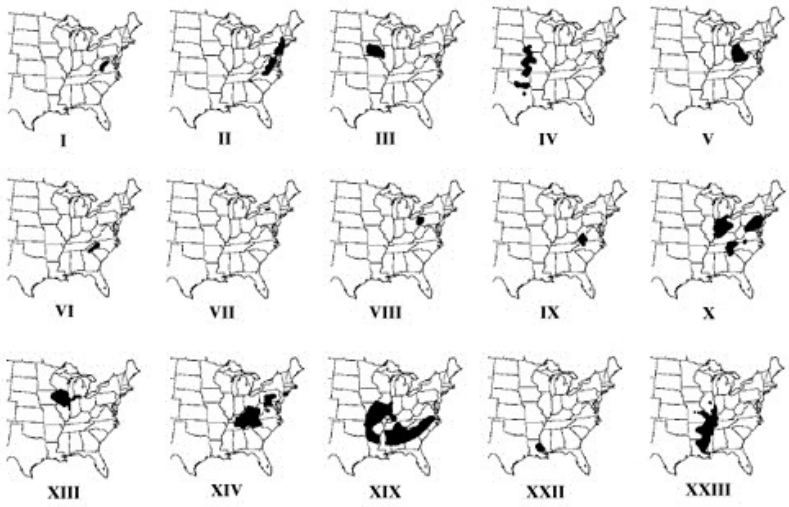
University of Kentucky Nursery Crops Team

End of May 2015

Periodical Cicadas are out…

Periodic cicadas have been reported in Calloway County. Affected plant species: any woodies, with small caliper plants being particularly susceptible. Please see this short (less than 2 minute) video from the UKRECHort on the 13-Year Periodical Cicada from 2011.

More information on the predicted emergence of "broods" and their locations across Kentucky is available in this article: ENTFACT-446 Periodical Cicadas in Kentucky.



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Azalea leaf with Azalea lace bugs and excrement spots. Image—Castner, Univ of FL

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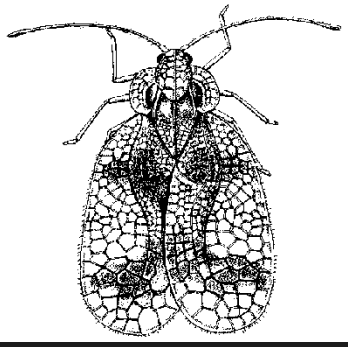


Lacebug illustration.
Image: University of Kentucky Entomology

Lacebugs

Host Plant(s)	Pest Species
Azalea	*Azalea lace bug*
Hawthorn, Serviceberry	*Hawthorn lace bug*
Pieris	*Andromeda lace bug*

Life Cycle: Adult lacebugs are 1/8" to 3/16" long insects with clear, ornate, lacy wings. Nymphs are spiny and wingless. Feeding results in spotted leaves and dark, varnish-like excrement on the under sides. With broadleaved evergreens it is doubly important to prevent damage because the foliage will retain the ugly injury and be less functional for more than one year.

Most lacebugs spend the winter as eggs that hatch in early spring. There may be several generations during a season. With multi-generation species, numbers early in the season are so small that feeding symptoms may not be noticed. Populations peak in late summer and results of their feeding can make plants unsightly.

Azalea lacebugs are about 1/8" long with light brown bodies. They prefer evergreen varieties but attack deciduous varieties and mountain laurel. Sap removal by adults and nymphs causes a spotting visible on the upper leaves. In heavy infestations, leaves may be white an drop prematurely. Spots of their tarry excrement build up on the under sides of the leaves.

Adult azalea lace bug—Castner, UF

The lacy wings of the adults have dark brown to black markings, nymphs are black and spiny. Populations are greatest in mid- to late summer as the second genera-

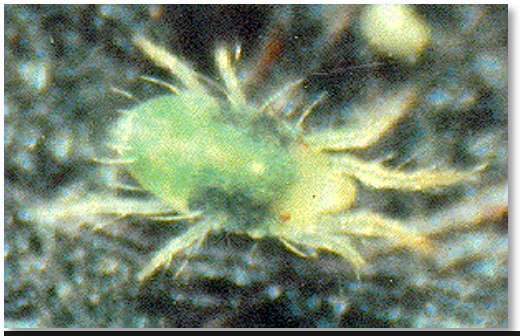
Control: Repeated treatments may be needed to control these pests effectively. Insecticides such as Insecticidal Soap, Summer Horticultural Oils, Dursban, Malathion, Orthene, Sevin may be used depending on the species or cultivar. Always read product labels carefully before purchase. Look for information on phytotoxicity that can occur on sensitive plants or under some environmental conditions.

Check for infestations so that a treatment can be applied before the plants are disfigured by the pest. Thorough treatment of the undersides of the leaves is needed for best results.

Spider mites

Host Plant(s)	Pest Species
Azalea, Cherry Laurel, Holly	Southern red mite
Rose, Winged Euonymus, others	Twospotted spider mite

Twospotted spider mite is the most common and destructive mite on deciduous ornamentals. It has an extremely wide host range and will feed on many varieties of trees, shrubs, flowers, weeds, fruits, greenhouse and field crops. Immatures and adults are yellowish to greenish with two dark spots on either side of the body. Eggs are spherical and translucent. Strands of webbing are spun by the mites on the undersides of infested leaves and between branches. Twospotted spider mites overwinter as adult females in the soil or under the bark of host plants. They become active during the spring and may feed and reproduce throughout the summer and into fall provided conditions remain favorable for plant growth. It is considered a Awarm season@ mite which thrives under hot, dry summer conditions. Damaging populations seldom during wet, cool weather. The mites are especially destructive to winged euonymous (burning bush) in landscapes.



Twospotted spider mite—UK Entomology

Southern red mite is the most common and destructive spider mite on broad-leaved evergreens, especially Japanese and American hollies, azaleas, viburnum, roses and rhododendron. Feeding on the undersides of leaves causes stippling, browning, occasional distortion, and premature leaf drop. Southern red mites overwinter in the egg stage on the undersides of leaves. Its numbers are greatest during cooler periods of the spring and fall.

Management: Spider mites are one of the more difficult groups of landscape pests to control. Infestations are easiest to control when detected early, before the mite populations have reached very high levels. Elimination of moderate to heavy infestations of spider mites usually requires the use of specific pesticides known as miticides. Some, but not all, insecticides will also control mites. Several mite-control products are listed in the table near the bottom of the article **ENTFACT-438 Spider Mites on Landscape Plants**

Southern red mite—Image: R.F. Mizell, University of Florida

Black vine weevil

Adult Black vine weevil—Image, :enn State Extension

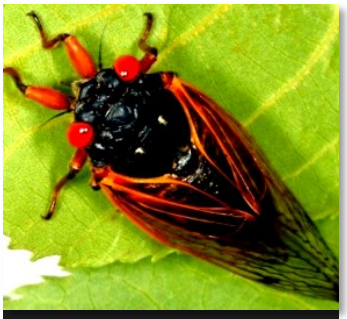
Host Plants: Euonymus, Japanese Andromeda, Japanese Holly, Rhododendron, Yew, Taxus, many others

Pest Information: Root weevils overwinter in the soil as grubs that pupate in the spring. Adult beetles emerge in late May through June, feed at night on foliage leaving characteristic leaf notching, and hide during the day. After feeding for as long as 30 to 60 days, they begin laying eggs in soil. The eggs hatch in late summer or early fall and the grubs start feeding on the roots. Most damage is caused by grubs after resuming feeding in the spring. The most severe damage is caused by the grubs (larval stage) which feed on the roots and underground stems. They may girdle the root crown. Larvae even feed on roots of houseplants that spent the summer out of doors near infested plants. The symptoms are of general plant unthriftiness including stunting and yellowing or off-color foliage. Root feeding often results in death of the plant. Plants may fail to put out new growth in the spring as a result of the root injury, or may put out the first flush of new growth, and subsequently die. Unfortunately, it is when plants are close to death that home gardeners often first notice the problem.

Black vine weevil chewing damage—Image: Viette

Management: Growers should watch for leaf notching as an indication of adult emergence. Injury (notches in leaves) will be easy to see on broad-leaved evergreens such as rhododendron, but may be hard to find on narrow-leafed ones such as Taxus. Weevils may be feeding on leaf edges, especially near the trunk. Use a flashlight at night (adults are nocturnal) during early to mid-June to inspect plants for the presence of weevils. Or use a burlap cloth gathered in folds around the base of plants which provides a hiding place for adults during the daytime; gently unfold to see if adults are present. Ideally you want to detect the start of adult emergence activity so that you can accurately time a spray for adults when most have emerged, but before egg laying begins.

Periodical Cicada



Periodical Cicada Adult—Image R. Bessin, 2005

Host Plant(s): Young trees

Pest Information: Periodical Cicadas are so-named because they are not seen every summer. Instead, they are only seen periodically, every few years. Most periodical cicada species in Kentucky have a very predictable development cycle where the nymphs live underground for exactly 13 or 17 years, depending on the species. Several species of periodical cicadas are found in Kentucky. Populations of periodical cicadas are referred to as broods. Periodical cicadas are generally a little smaller than annual cicadas. Also, typical periodical cicadas have red eyes, while annual cicadas have dark green or black eyes. Periodical cicada adults typically emerge in early summer, while annual cicada adults are typically seen in late summer. Cicadas are not normally important pests in Kentucky, and they cannot harm humans, pets, or livestock, but during years when large numbers of periodical cicadas emerge from the soil, young trees can suffer significant damage from egg-laying by female cicadas.

Periodical Cicada Nymph—Image R. Bessin, 2008

Management: Active borers expel coarse, brown, sawdust-like frass (fecal material and wood particles) that accumulates around holes or cracks in bark or at the base of infested plants. In some hosts, especially *Prunus* spp., frass may be mixed with gum. Empty, tan-colored pupal skins, left partially protruding from the bark when adults emerge in the spring, are another sure sign that borers are present. Lindane and Dursban (chlorpyrifos) are registered for control of chewing borers on lilac, dogwood, rhododendron, oak, ash, and flowering fruit trees. Lindane, Throdan, and Dursban provide good control of dogwood borer. Dogwood trees should be sprayed in late May (i.e., around the week of Memorial Day, or when hawthorn and liffleleaf lindens are blooming). This will leave an insecticidal residue on the bark that will kill young borers as they hatch and attempt to bore into the tree.

The University of Kentucky's **Nursery Crop Extension Research Team** is based out of two locations across the bluegrass to better serve our producers.

The **University of Kentucky Research and Education Center (UKREC)** in **Princeton** serves western Kentucky producers while our facilities and personnel on main campus in **Lexington** serve central and eastern Kentucky producers.

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