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CLINIC NEWS

Issue 25, August 15, 2016

This bulletin from the Cooperative Extension Plant Health Clinic (Plant Disease Clinic) is an electronic update about diseases and other problems observed in our lab each month. Input from everybody interested in plants is welcome and appreciated.

Buckeye

Buckeye blotch, caused by *Guignardia aesculi*, creates an unsightly problem on most horse chestnut and buckeye species. However, injury to the plant is minimal because the damage occurs late in the season. Symptoms first appear on leaves as water-soaked areas which turn reddish-brown to brown with yellow borders. These spots coalesce, causing large blotches which curl the leaves. By late summer the whole plant appears scorched. Fallen leaves harbor the spores, so a thorough cleanup of twigs and leaves is important in control of Buckeye blotch. As with other leaf spot diseases, infection is intensified by humid conditions. Improving air circulation by keeping weeds and other plants away from valuable specimens helps to reduce disease. Fungicides containing mancozeb or chlorothalonil are effective applied at bud break during wet springs. Reapply at intervals specified on the label as long as wet conditions persist. For new plantings, select plants with resistance to *Guignardia* blotch such as bottlebrush buckeye (*Aesculus parvifolia*).

Buckeye Leaf blotch- *Guignardia aesculi*



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Buckeye Leaf blotch- *Guignardia aesculi*



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Oak

Multiple samples of heavily galled oak leaves have been arriving at the Plant Health Clinic. They come with the complaint of browning and falling leaves. The culprit is a tiny gall wasp. The Jumping oak gall is caused by *Neuropterus saltatorius*, a wasp belonging to the Cynipid group of wasps. Signs of infestation by Jumping gall wasp are spots with a brown center, purple margin, and a yellow halo on the upper leaf surface. A tiny round gall, the size of a pin head is found on the underside of the leaf. Inside the gall resides a wasp larva. There are about 600 species of gall wasps in the United States. Depending on the species, roots, stems, twigs, leaves, buds, or flowers are attacked. The galls are formed when a gall wasp lays an egg on the plant tissue, stimulating the plant to produce the gall in response to the injury. The result is food and shelter for the wasp larvae that live protected inside the gall. These small wasps are harmless to people. The Jumping oak gall has two generations a year, and attacks the white oak group. Females emerge in the spring from the ground



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and lay eggs on the leaves. The eggs hatch, male and females mate, and the females lay eggs, resulting in the second generation galls. The galls get their name "Jumping galls" because when they drop off the leaves to the ground the larvae inside hit the insides of the gall causing it to jump in an effort to find crevices in which to overwinter. Heavily infested leaves turn brown, and fall from the tree prematurely. This happens late enough in the growing season to do no lasting harm to healthy mature trees. However, since they spend part of their lifestyle in the ground, lawn insecticides may reduce numbers. Jumping oak gall outbreaks typically last for one or two years and then decline as natural controls reduce gall wasp numbers again.

Oak Jumping gall- *Neuropterus saltatorius*



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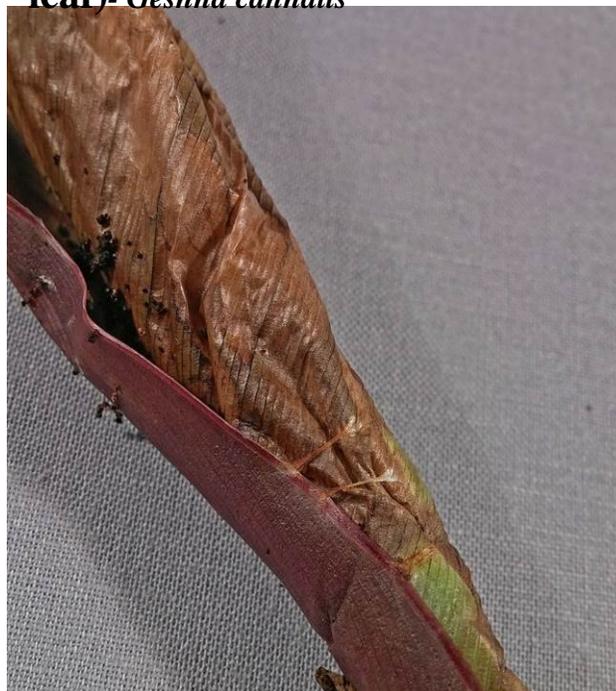
Canna by Ricky Corder

Two species of canna leaf roller are present in the Southeastern United States, the larger canna leaf roller, *Calpododes ethlius* (Stoll) (Insecta: Lepidoptera: Hesperidae), and the lesser canna leaf roller, *Geshna cannalis* (Quaintance) (Insecta: Lepidoptera: Pyralidae). The lesser canna leaf roller appears to be more common in our area than the greater, but both have similar life cycles and management.

Canna leaf rollers, as their name implies, roll canna leaves and keep them rolled using silk produced by larva (caterpillar). This is accomplished by attaching silk before the leaf unrolls (preferred by the lesser canna leaf roller) or by attaching silk to one edge of the leaf and pulling toward the other edge (usually the larger canna leaf roller). Once rolled, the leaf provides a protective area for the caterpillar to feed. The lesser canna leaf roller caterpillars generally feed on the surface of the leaf and don't chew completely through the leaf, but the larger leaf roller feeds through the leaf. Later when the leaf opens, the feeding damage appears as holes in the leaves and ragged leaf edges.

Canna leaf rollers only feed on plants in the Genus *Canna* and close relatives, so other plants in the garden are not threatened. This also makes management a little easier because dead plant material can be cut to the ground in winter and disposed of which reduces the number of overwintering larvae and pupae. Systemic insecticides such as Merit or Bayer Advanced Tree and Shrub Systemic Insecticide may be applied. Alternatively, a product applied to the leaves containing *Bacillus thuringiensis* (BT) gives control without toxicity to organisms other than members of the Lepidoptera.

Lesser Canna leaf roller damage (note the silk tying the leaf)- *Geshna cannalis*



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Lesser Canna leaf roller larva- *Geshna cannalis*



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