



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.

Loropetalum

Several years ago the Plant Health Clinic began to receive samples of Loropetalum with galls on the branches and twigs. The causal agent has been identified as the bacterium *Pseudomonas Savastanoi*. This pathogen causes similar galls on oleander, olive, ash, privet, and forsythia. Symptoms are dead shoots, stems, and plant death. Dark colored, rough textured galls or knots may be found below the dieback. During wet weather bacteria may ooze from the galls. The bacterium is believed to enter plant tissue through wounds caused by pruning, as well as through weather events such as hail and freeze injury. Bacterial gall is a very difficult disease to control. Removal of all galled branches may help slow the disease. Remove galls several inches below the damage, dipping pruners in 10% bleach solution between cuts. Prune only during dry weather.

The application of copper fungicides/bactericides after pruning may also be beneficial. An alternative is to remove the plant entirely.

Loropetalum Bacterial Gall- *Pseudomonas Savastanoi*



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Loropetalum Bacterial Gall- *Pseudomonas Savastanoi*



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Billbug by Ricky Corder

Billbugs are major pests of turf across the US. The four pest species found in the US are the bluegrass billbug, hunting billbug, Denver billbug, and Phoenician billbug, all belonging to the Genus *Sphenophorus*. The hunting billbug, *S. venatus vestitus* Chittenden, is the most common in the southern US. Adult billbugs are reddish-brown to black weevils that are 1/2" to 3/4" long and are characterized by having a "snout" or "bill". The adult hunting billbug can be identified by markings on the pronotum that appear to be a "Y" surrounded by parentheses. Billbug larvae are C-shaped grubs that are white with a brown headcapsule. Unlike true white



grubs, billbug larvae don't have legs. Young larvae burrow into grass stems and feed on the internal contents. While doing so, they leave sawdust-like frass. Often this frass can be seen during a "tug" test. Damaged grass will easily be pulled from the thatch and the sawdust-like frass will fall from the damaged end or be visible. Billbugs overwinter as larvae and emerge in spring. In the South, there may be two generations per year with the second generation emerging in early fall. Billbug damage appears worse with improper fertilization and irrigation, however, light damage can be masked by proper fertilization and irrigation. Early infestations can appear similar to dollar spot disease, but heavy infestations can lead to large dead patches. For long-term cultural control, choose resistant cultivars. Resistant cultivars have been identified in some Bermuda and zoysia varieties. Entomopathogenic nematodes, *Steinernema carpocapsae* and *Heterorhabditis bacteriophora*, can be applied at 1 billion juveniles per acre immediately followed by irrigation. Chemical control options include surface residual sprays for adults and white grub treatments for larvae. Effective white grub insecticides registered for homeowners in Arkansas are carbaryl (various brands), chlorantraniliprole (Acelepryn, GrubEx1), clothianidin (Arena), clothianidin + bifenthrin (Aloft), halofenozide (Mach 2), imidacloprid (Merit, Advanced Lawn Grub Control), thiamethoxam (Meridian), and trichlorfon (Bayer Advanced).

Bluegrass billbug larva- *Sphenophorus parvulus*



David Shetlar, The Ohio State University, Bugwood.org

Hunting billbug-*Sphenophorus venatus vestitus*



David Shetlar, The Ohio State University, Bugwood.org

Iris

Bearded irises are beginning to send up bloom stalks in preparation for spring bloom. Ideally bearded iris should be grown in full sun in well-drained soils with a pH of 6.0-7.0. They have very few disease problems when growing conditions are favorable. That said, prolonged periods of warm, wet weather are advantageous for the development of Iris Leaf Spot, caused by the fungus *Didymellina macrospora*, synonym *Heterosporium iridis*. Symptoms on the leaves begin as very small, green to yellow, water-soaked spots, which become oval brown lesions with water-soaked yellow margins. After bloom, the spots may enlarge to form large, irregular, necrotic areas. Older lesions become gray with reddish brown to dark brown borders. Badly affected leaves often display tip dieback and leaf curl. Severely affected leaves may die completely. This can weaken the plant and reduce bloom quality. Good cultural practices can help significantly in reducing Iris Leaf spot. All iris debris



should be cleaned up in the fall, or before new leaves appear in the spring. During the growing season, diseased portions of the leaf should be removed from the plant and from the planting. Overly crowded clumps should be divided and replanted in the fall. Sprinkler irrigation should be avoided and plants watered at ground level. Fungicide sprays may be applied when the new fan leaves are four to six inches, and repeated four or five times at 7 to 10 day intervals. Products containing chlorothalonil, or myclobutanil, or thiophanate-methyl, or mancozeb, or trifloxystrobin are effective. A spreader sticker should be added to enable the fungicide to stick to the waxy iris leaves.

Iris Leaf Spot-*Didymellina macrospora* (*Heterosporium iridis*)



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Request for help from Dr. Robbins:

Root knot nematode populations are needed for our Arkansas species study. I am a nematologist in the department of Plant Pathology in Fayetteville. My student and I are trying to amass populations of as many species of Root knot nematode (*Meloidogyne* sp.) as possible for species identification using molecular techniques. At present no root knot species in Arkansas have been identified using molecular technology. We are interested in receiving populations from home gardens, shrubs, flowers, trees and grasses. For samples we need about a pint of soil and feeder roots in a sealed plastic bag that is plainly identified by plant host, location (City County, physical address, collector and date of collection). Please send samples to us at the follow address:

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