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Arkansas Plant Health Clinic Newsletter

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Plum and Cherry

Every spring the Clinic receives inquiries about black, knobby growths on limbs and twigs of plum and cherry. These odd growths are a result of a fungal disease known as Black Knot, causal agent *Apiosporina morbosa* (*Dibotryon morbosum*). Black Knot can girdle twigs and limbs, resulting in disfigurement, weakened trees, yield loss, and sometimes tree death. Prunes, plums, sweet cherries, and sour cherries are all susceptible. Black knot appears very rarely on peach. The first symptoms are small, light-brown swellings usually located on the fruit spur or at the base of the leaf petiole. These appear during the summer the first year after infection. Young knots may have an olive-green color but later become hard, brittle, and dark-colored. Older knots are black in color and hard in texture. The knots are usually asymmetrical and protrude more on one side of the affected branch. Prune out and destroy all visible knots before new growth starts in the spring. The cuts should be made at least 6-8 inches below the lowest part of the knot. Cut out knots on large, main branches and trunks with a knife or chisel, including an inch of healthy bark around the knot. All clippings should be burned, buried, or otherwise removed from the property. Mancozeb, Captan, Topsin M, or fungicides containing chlorothalonil are helpful in controlling Black Knot if the cultural controls are also practiced. Apply first spray in the spring just as green tissue begins to appear. Spray again just before and after bloom. Spray at 2- week intervals until new growth stops. Lime-sulfur sprayed during the dormant season is also helpful. Wild plums and cherries can serve as continuous sources of inoculum. When planning an orchard, it is wise to remove wild cherries and plums within 600 feet of the orchard. Check for resistant cultivars as some plums have good resistance.

Plum Black Knot-*Apiosporina morbosa, (Dibotryon morbosum)*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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Liriope

Liriope Root and Crown Rots

Liriope, also known as Lilyturf, Lirope, and Monkey Grass, is a hardy, useful plant for the perennial border. Some cultivars have very attractive blooms as well as decorative foliage. It does best in sun with moist, well-drained soils with a pH of about 6. Liriope is a very drought resistant plant once established. Although it prefers sun, it tolerates shade very well if the ground is not boggy. There are many cultivars available, in both variegated and green leafed varieties. Buyers should be aware that some are clump-forming and others are aggressive spreaders. The spreaders are great for large areas on banks or under trees but can be a huge nuisance in a bed with other perennials. Research the many cultivars available before choosing one for your needs. Liriope may suffer from serious root and crown rots when planted in soils that stay wet for prolonged periods. Both Phytophthora and Pythium spp. can cause serious disease in Liriope. Yellowed leaves that appear water-soaked, discolored, and rotted at the base are a symptom of these rots. Affected leaves become chocolate-brown near the base and are easily pulled from the crown. If the drainage cannot be improved, the best option is to plant Liriope in a different spot. Fungicides such as Monterey Aliette, Mancozeb, or Subdue Maxx may be of some use if the drainage problems are corrected. Many homeowners, however, find the cost of these fungicides prohibitive.

Liriope Phytophthora Crown Rot-*Phytophthora* spp.

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Liriope Anthracnose

Another common disease problem on Liriope is Anthracnose, caused by *Colletotrichum* spp. It can become severe by the end of the growing season, particularly if the planting is under overhead irrigation. Red lesions appear on the leaves, usually starting at the tips and spreading downward. The spots coalesce, killing large areas of the leaf. Both disease and insect problems can be reduced by mowing or pruning the old foliage in late winter and removing it from the planting. Spectracide Immunox; Fertilome Liquid Systemic Fungicide; Ortho Garden Disease Control; Bonide Fung-onil Multipurpose Fungicide RTU; and Bio Advanced Garden-Disease Control for Roses, Flower, Shrubs may be used along with cultural controls to limit disease. Start

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spraying in the spring at new growth. Limit overhead irrigation or schedule it early in the day so foliage can dry.

Liriope Anthracnose-
***Colletotrichum* spp.**

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Leafhoppers and Two-Lined Spittlebugs

There are thousands of species of leafhopper insects found in North America. Depending on species, the adults range in size from 1/16 to 5/8 inch in length. Leafhoppers may be found on most types of plants from food crops to ornamentals to turf. They come in a wide range of colors and patterns. Both nymphs and adults can hop, and the adults can also fly. All feed on sap by inserting their stylet mouthparts into leaves and stems. Some species restrict feeding to the upper cells of leaf tissue, producing yellowish-white wounds. The discoloration occurs because of cell destruction from the feeding process as well as from the injection of toxic saliva. If leafhopper numbers are great enough, large areas of the leaf can turn yellow. These insects excrete small brown to black spots at their feeding sites, like those deposited by lace bugs. Leafhoppers are important pests as some can transmit plant pathogens such as viruses or mycoplasma-like organisms. There are many beneficial insects that prey on leafhoppers. Ladybugs, lacewings, and parasitic wasps are some among the many natural predators that eat leafhoppers. Insecticides such as those containing Imidacloprid, insecticidal soaps, Malathion, Sevin, Permethrins, and many others provide chemical control.

The Two-Lined Spittlebug, *Prosapia bicincta*, feeds the same way as leafhoppers and causes the same leaf discoloration, but is plumper than the narrower leafhoppers tend to be. The adults are about 1/3 inch in length and feed on various ornamentals but can be especially a problem on Holly. Insecticides such as Orthene, Decathlon and insecticidal soaps provide chemical control against the Two-Lined Spittlebug.

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Holly Two-Lined Spittlebug Damage-*Prosapia bicincta*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Holly Two-Lined Spittlebug Damage-*Prosapia bicincta*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Two-Lined Spittlebug-*Prosapia bicincta*

Photo by Johnny N. Dell, Bugwood.org

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.

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