



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.

Plums and cherries

Every year at this time the clinic receives samples of cherry and plum with black woody galls on the stems. The common name of the disease is Black Knot, caused by *Apiosporina morbosa* (*Dibotryon morbosum*). This is a common fungal disease of *Prunus* spp. Yield losses result from extensive dieback of girdled limbs and stunting of growth beyond the knots. Trees can be severely weakened, disfigured and, in extreme cases, killed as a result of infection. Prunes, plums, sweet cherries, and sour cherries are all hosts for Black Knot. Wild cherries and plums serve as continuous sources of inoculum. The first symptoms are small, light brown swellings usually located at the base of the leaf petiole or on the fruit spur. These appear during the summer and first year after infection. Young knots may have an olive-green color, but later become hard, brittle and black in color. Older knots are coal-black in color and hard in texture. The knots often protrude more on one side of the affected branch. Control starts with pruning. 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. Never purchase plants showing knots or abnormal swellings on the twigs and branches. 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 cherries and plums within 600 feet of the orchard should be removed if possible to prevent spores blowing into the orchard and causing new infections. Some Plum cultivars are resistant to Black knot. The cultivars Stanley, Damson, Bluefree, and Shropshire are considered highly susceptible; Fellenburg, Methley, Milton, Bradshaw, and Early Italian are moderately

susceptible; Formosa, Shiro, and Santa Rose are slightly susceptible; and President is considered highly resistant. In general, Japanese varieties are less susceptible than most American varieties.

Young Black Knot gall



Sherrie Smith University of Arkansas Cooperative Extension

Old gall with characteristic color



Lance Kirkpatrick University of Arkansas Cooperative Extension

Holly

Cylindrocladium leaf spot of holly is a common disease of container Hollies such as Japanese, American, Yaupon, and Burfords. Symptoms start as tiny, yellow spots on the foliage. The spots enlarge to circular spots with tan to brown centers and a purple-black border. Defoliation and shoot blight occurs on badly infected plants. Clean up any fallen leaves. Prune out dead



shoots. Avoid overhead irrigation. Spray fungicides at new growth in the spring and repeat every 10-14 days until shoot growth has stopped. Green Light Systemic Fungicide and Halt are effective for *Cylindrocladium* leaf spot.

Cylindrocladium leaf spot



Sherrie Smith University of Arkansas Cooperative Extension

inches long. Older leaves are more resistant to infection. Environmental conditions such as high humidity and poorly aerated soils can promote severe infections on susceptible cultivars. The first symptom is a thickening and fleshy appearance of leaves or flowers. The galls are green to pink colored when young. They become white with spore masses, then finally hard and brown as the season progresses. Control consists simply of picking the galls off before they turn white. Don't drop the galls on the ground. Remove them from the property. Ornamental fungicides with mancozeb give decent protection if applied at bud break and at 14 day intervals until the new leaves harden.

Azalea leaf gall



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Azalea

Although seldom causing serious damage, Azalea leaf gall is a nuisance in many azalea plantings. The fungus, *Exobasidium vacinii*, appears on tender new leaves and flowers with cool, wet weather in the spring. Azalea gall is more common on the leaves than flowers. The fungus overwinters as spores in the bud scales. In the spring the newly emerging leaves become infected. Azalea leaves are most susceptible when they are less than 2

Wheat

Last season the clinic received wheat samples with virus symptoms that non-the-less tested negative for virus. Bacterial Mosaic of wheat is a foliar disease that produces symptoms resembling viral infections. The causal agent is *Clavibacter michiganense* subsp. *tessellarius*. Small yellow lesions coalesce into streaks, typically uniformly distributed over the leaf blade. Infections are localized resulting in flecks, streaks, and



mosaic symptoms. No bacterial exudates are produced. There may be degrees of resistance among cultivars. The clinic now has a test kit to test for Wheat Bacterial Mosaic.

Wheat Bacterial Mosaic



APS Image Library

Wheat by Bob Scott

We are starting to see wheat with glyphosate damage from burn-down drift. Note the twisted leaves, yellowing, and distorted heads.

Wheat roundup damage



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