



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.

Plum and Cherry

This is the time of year the Plant Health Clinic receives samples of cherry or plum with black woody galls on the stems. The common name of the disease is Black Knot, caused by *Apiosporina morbosa* (*Dibotryon morbosum*). Dieback of girdled limbs and stunted growth beyond the knots can cause reduced yields. Trees with Black knot can be severely weakened, disfigured and, in extreme cases, killed as a result of numerous galls. 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 to olive-green swellings, usually located at the base of the leaf petiole or on the fruit spur. Only tender, new growth is susceptible. The knots become apparent late in the summer the first year of infection. Older knots are brown to black in color and hard in texture. The knots often protrude more on one side of the affected branch. All knots should be pruned out and destroyed 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 at bud swell. 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.

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



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



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Daylily

Daylilies are a staple in the perennial border, tolerant of a range of growing conditions. They are, however, susceptible to a fungal disease known as Daylily leaf

streak, caused by *Aureobasidium microstictum*, formerly known as *Collecephalus hemerocallidis*. Symptoms are water-soaked, dark green spots along the leaf midvein. The spots turn reddish-brown, and coalesce, forming dead streaks the length of the leaf. Badly infected leaves turn yellow and die. Leaves with these symptoms should be removed. Plants may benefit from being lifted and divided. Overhead irrigation should be avoided. At the end of the season, all old foliage should be removed. Fungicides containing chlorothalonil, or myclobutanil, or thiophanate-methyl may be applied, starting at new growth in the spring. Make 3-4 applications at 14 day intervals.

Daylily leaf streak-*Aureobasidium microstictum*



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Rose

Powdery mildew of roses, caused by *Sphaerotheca pannosa*, is a common and persistent problem wherever roses are grown. The disease gets its name from the white mycelial patches of the fungus that appear on the upper surface of the leaves. The earliest symptoms are slightly raised, blister like, often red areas on the upper surfaces of leaves. Tender new buds, leaves and stems are the most susceptible. Young leaves may become twisted and distorted. Older leaves aren't usually distorted but may be covered with the white fungal growth. Flower infections result in blooms of poor quality. Ideal conditions for infection are high humidity, and temperatures of 64-77°F. Most roses are susceptible to powdery mildew, with old ramblers and hybrid teas being quite vulnerable. Immunox, Bayer Advanced Garden –Disease control for Roses, Flowers, Shrubs, Ortho Rose Pride Rose & Shrub Disease Control, Bonide Remedy, and Fertilome Liquid Systemic Fungicide, are labeled for control.

Rose Powdery mildew- *Sphaerotheca pannosa*



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Dianthus

There are several diseases that attack the foliage and stems, and flowers of dianthus. Bacterial leaf spot is caused by a species of *Pseudomonas*. Symptoms are somewhat circular sunken, brown lesions with a darker border. During periods of prolonged leaf wetness, bacterial oozing may be observed with a hand lens. This disease superficially resembles Dianthus Alternaria blight, caused by *Alternaria dianthicola*. Symptoms of Alternaria blight are small, purplish spots with brown centers on leaves and petioles. Small brown specks in the center of the lesions are the conidiophores and spores of the fungus. Badly infected leaves turn yellow. Petioles may be completely girdled by a lesion, causing all growth above the lesion to wilt and die. With both diseases, it is important to limit overhead irrigation, and increase air circulation. Copper fungicides are useful against Bacterial leaf spot. Fungicides such as Bayer Advanced Garden Disease Control for Roses, Flower, Shrubs, or Spectracide Immunox, or Fertilome Liquid Systemic Fungicide, or Ortho Max Garden Disease Control, or Fertilome Liquid Fungicide, or Green Light Fung-Away Fungicide or Green Light Systemic Fungicide may be used for Alternaria leaf blight.

Dianthus Bacterial leaf spot- *Pseudomonas* spp.



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Dianthus Bacterial leaf spot-
Pseudomonas spp.



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