



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.

Liriodendron

Liriodendron or tulip poplars are very large, attractive, fast growing trees. They attain heights of 80-120 ft., and are desirable landscape specimens due to their attractive pyramidal form, and pretty leaves and flowers. Tulip poplars have few disease or insect problems. However, during prolonged wet weather in the spring, trees may develop anthracnose, caused by the fungus *Colletotrichum gloeosporioides*. Symptoms are brown to black lesions along the veins of leaves. The lesions expand and can cover large areas of the leaves. During moist periods, orange spore masses may be seen in the lesions. Good sanitation is critical in anthracnose control. All fallen leaves and twigs should be raked up and removed from the planting. If the tree is small enough to make pruning practical, infected twigs should be pruned out of the canopy. A product containing chlorothalonil or mancozeb or copper may be applied at bud swell in the spring, and twice afterwards at 10-14 day intervals.

Tulip Tree Anthracnose- *Colletotrichum gloeosporioides*



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Tulip Tree Anthracnose- *Colletotrichum gloeosporioides*



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Blackberry

Cane Blight of blackberries and raspberries, caused by the fungus *Leptosphaeria coniothyrium*, can cause significant fruit loss. The fungus overwinters on dead tissue of old floricanes. Spores are produced from the spring through the fall. The fungus enters primocanes through wounds caused by poor pruning techniques, or insect damage, freeze injury, herbicide injury, and storm damage. Once a cane is infected, the pathogen continues to spread under the epidermis during the fall and winter months. Symptoms usually appear after bloom and leaf emergence. Cane dieback of the fruit bearing canes is the most obvious symptom. Dark brown to purple cankers may be found on the affected canes. The cankers appear silvery white when sporulating. Canes may become brittle and break off easily. Spray during dormancy with sulfur. Take great care when pruning not to injure adjacent canes. Avoid overhead irrigation. Any practices that reduce risk of splash dispersal of spores helps. In cases of widespread damage in a planting, biennial cropping (alternate year bearing) in which no primocanes are present in the year



in which fruit is picked helps to avoid the disease. High volume sprays Pristine or Cabrio or Abound or Captan applied before, during, or immediately after harvest has given good control of cane blight.

Blackberry Cane Blight- *Leptosphaeria coniothyrium*



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Blackberry Cane Blight **ascospores-** *Leptosphaeria* *coniothyrium*



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Blackberry Cane Blight- *Leptosphaeria coniothyrium*



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Rosette or Double Blossom, caused by the fungus *Cercospora rubi*, is a serious disease of many cultivars of blackberries. Infections cause reduced yields, poor quality fruit, and cane death. Buds on primocanes become infected in early summer, but there are no symptoms until next spring. At that time a proliferation (witches-broom) of shoots occurs at the infected bud site. These shoots are usually smaller than normal and have pale green foliage that later turns bronze. Unopened flower buds are elongated, coarser, and often redder than uninfected buds. Sepals enlarge and sometimes differentiate into leaves. The petals of unfolding flowers are usually pinkish, wrinkled, and twisted, giving the appearance of a double bloom. Berries do not develop from infected flowers. Double Blossom can be controlled in areas where it is not severe with sanitation. Infected rosettes and blossom clusters should be removed before they open, to prevent dispersal of the spores. Old floricanes should be removed and destroyed immediately after harvest. The removal of all wild blackberries and dewberries around the planting is also recommended. In areas where disease pressure is more severe both primocanes and floricanes may be cut to the ground immediately after harvest. The primocanes are then allowed to regrow from buds at the base. Chemical control starts at first bloom. Abound, Cabrio, and Pristine are labeled for Double blossom. Homeowners must rely on sanitation.

Blackberry Double Blossom- *Cercospora rubi*



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Blackberry Double Blossom- *Cercospora rubi*



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Blackberry Double Blossom- *Cercospora rubi*



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Hydrangea

Bacterial Leaf Spot, caused by *Xanthomonas campestris*, is a disfiguring disease of several species of hydrangea including *Hydrangea quercifolia* (Oakleaf hydrangea), *H. macrophylla*, and *H. arboreacens*. The bacterium mostly enters into the plant through stomata, other natural openings, and/or plant wounds. Symptoms first appear as water-soaked spots. The spots darken and develop an angular shape; some of the spots may enlarge, coalesce and eventually cause death of mature leaves. Infected leaves should be removed if practical. Avoid over-head irrigation. Copper fungicides may be used in the spring on hydrangea with a history of Bacterial Leaf Spot.

Hydrangea Bacterial Leaf Spot- *Xanthomonas campestris*



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Hydrangea Bacterial Leaf Spot- *Xanthomonas campestris*



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