



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.

Peony

Peonies have few serious disease problems when planted in a sunny location in good garden soil with adequate drainage. They require at least six hours of direct sun, and prefer a pH of 6.5-7.0. When offered ideal conditions, peonies can live for decades, some reaching one hundred years. However, in locations with heavy, poorly drained soils, they are prone to Phytophthora blight and stem canker caused by *Phytophthora cactorum*. Symptoms begin as small water-soaked spots on emerging shoots, stems, petioles, buds, or leaves. The spots become dark brown to black, leathery elongated lesions. A wet rot occurs when crowns and roots are infected, causing the collapse and death of the entire plant. Once symptoms are noticed, chemical treatments are usually not effective. All parts of the infected plant, and the immediate soil should be removed from the planting. Peonies should not be replanted in that location until drainage issues are resolved and infested soil has been replaced.

Peony Phytophthora blight- *Phytophthora cactorum*



Photo courtesy of Paula Wallace, Garvin Woodland Gardens

Peony Phytophthora blight- *Phytophthora cactorum*



Sherrie Smith University of Arkansas Cooperative Extension

Iris

Bearded irises are dependable, hardy plants that have few disease problems when grown in full sun in well-drained soil. A pH of 6.0-7.0 is preferred. Nevertheless, during periods of warm weather along with prolonged wet conditions, they are susceptible to Iris Leaf spot, caused by *Didymellina macrospora*, also known as *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. Tip



dieback and leaf curl may occur. Severely affected leaves often 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.

Azalea

Every spring the Clinic receives samples of azalea leaves with thickened, fleshy, distorted areas. Azalea Leaf gall, caused by *Exobasidium vaccinii*, affects new growth, especially during cool, wet springs. The galls are pink to white initially, but eventually become brown with age. Older leaves do not become infected. Azalea Leaf gall is an unattractive nuisance that does not kill the plant. Blueberries and camellias are also susceptible. Good sanitation practices go a long way toward controlling this disease. Leaves with galls should be removed from the planting as soon as they appear. Start chemical control on azaleas with a history of Leaf gall at the first sign of new growth in the spring. Products containing mancozeb, or triadimefon, or myclobutanil, or chlorothalonil may be applied at bud break and at 10-14 day intervals until new leaves harden.

Iris Leaf spot-*Heterosporium iridis*



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Azalea Leaf gall-*Exobasidium vaccinii*



Don Plunkett University of Arkansas Cooperative Extension-retired



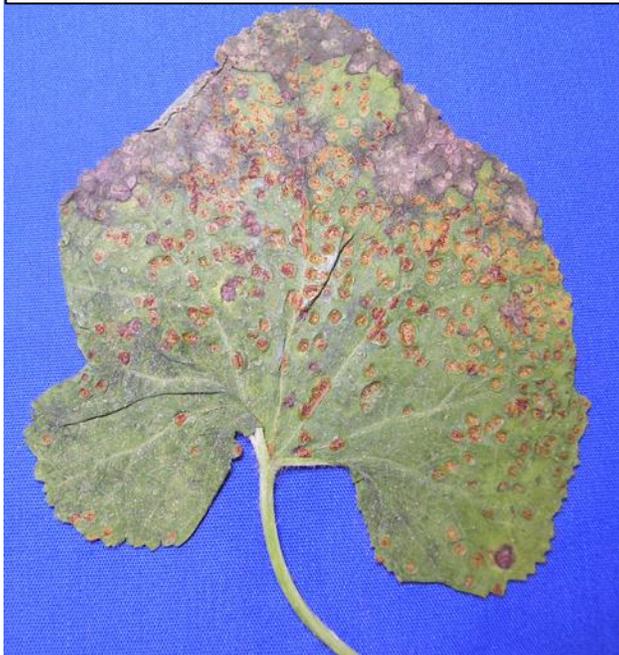
Sherrie Smith



Hollyhock

The Plant Health Clinic is starting to receive samples of hollyhock covered with rust, caused by the fungus *Puccinia malvacearum*. All Malva and hollyhock species are susceptible, with the common Malva weed, *Malva rotundifolia* serving as a reservoir for the disease. Symptoms are numerous yellow to orange spots on the upper surface of the leaves. The undersides of the leaves become dramatically covered with large orange to brown pustules. Heavily infected plants may also have the pustules on stems and green flower parts. Most of the leaves can be killed when infections are severe. Good sanitation is important in controlling Hollyhock rust. Infected leaves should be removed immediately. In the fall plants should be cut to the ground and burned or otherwise disposed of, along with any leaves left on the ground. Fungicides should be applied early in the spring at new growth. Products containing chlorothalonil such as Daconil, or Mancozeb, or myclobutanil should be applied through early July.

Hollyhock Rust- *Puccinia malvacearum*



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Hollyhock Rust- *Puccinia malvacearum*



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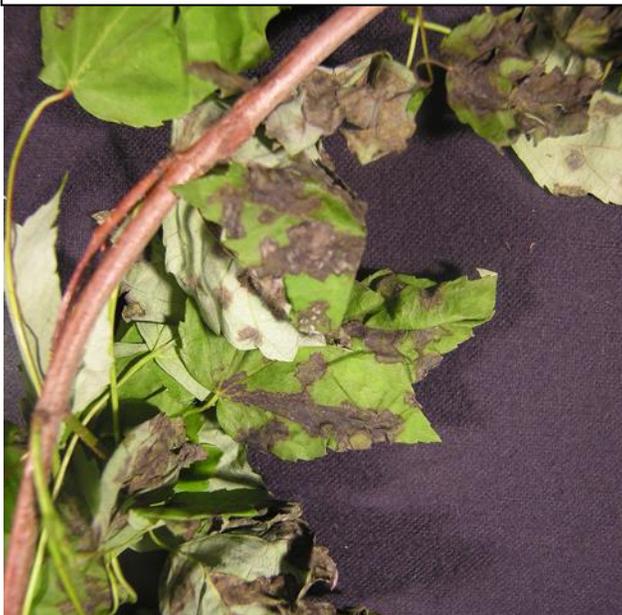
Maple

Cool, wet weather in the spring is favorable for outbreaks of Maple anthracnose, caused by the fungus *Gloeosporium apocryptum*. Symptoms are brown to black lesions along the veins of newly opening leaves. The lesions expand and can cover large areas of the leaves. Buds, leaves, twigs, and branches up to an inch in diameter may be killed. The infected leaves fall from the tree, causing the tree to expend additional energy to re-foliate. Yearly infections by can weaken maple trees, predisposing them to other diseases and to insects. 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.

Maple Anthracnose- *Gloeosporium apocryptum*



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Maple Anthracnose- *Gloeosporium apocryptum*



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