



Arkansas Plant Health Clinic Newsletter

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Wheat

The Plant Health Clinic has received samples of wheat with Sharp Eyespot, caused by *Ceratobasidium cereale* (formerly *Rhizoctonia cerealis*). Common symptoms of Sharp Eyespot are sharply defined, lens-shaped lesions on the outer leaf sheaths of the low portions of the plant. Lesions have a sharply defined dark margin and often have shredding of the epidermis within the lesion. Severe Sharp Eyespot can cause whiteheads or lodging. Although wheat may be infected at any time during the growing season, early infections can lead to severe disease. The development of Sharp Eyespot is favored by acidic, dry, and sandy soils, and temperatures of around 48°F (9°C). Studies have shown that later sowing decreases the incidence of the disease. There are also fewer incidences if the previous crop was not a host. Barley, oats, and rye are also hosts. Fungicides are usually not recommended for Sharp Eyespot.

Wheat Sharp Eyespot- *Ceratobasidium cereale*



Photo by Sherrie Smith, University of Arkansas
Cooperative Extension



Wheat Sharp Eyespot- *Ceratobasidium cereale*



Photo by Jason Osborn, University of Arkansas
Cooperative Extension

Gardenia

Gardenias are grown for their fabulously scented white flowers and evergreen foliage. Depending on the cultivar, they range in size from 2-8 ft. (0.6-2.4m) tall with a naturally rounded form. They grow best in full sun to light shade in moist, rich, well-drained soil with a pH of 5.0-6.0. Gardenias need an inch of water a week and should be fed monthly during the growing season. Most are winter hardy only in zones 8-10, but there are a few newer cultivars that can tolerate colder temperatures. A common leaf problem of gardenia is Bacterial Leaf Spot, caused by *Xanthomonas axonopodis* pv. *maculifoliigardeniae*. Symptoms begin as small, light-yellow circles on the upper surface of the leaves. The lesions enlarge and become a reddish brown with a yellow border. Spots may

coalesce into larger, irregular lesions. Heavily infected leaves may turn yellow and drop prematurely. The disease is favored by crowding, high humidity, and warm spring temperatures. Rain or irrigation splash spreads the bacterium within the plant. Often the problem begins in propagation greenhouses where conditions are ideal for disease development. Cultural controls are usually enough to control the disease in the home garden. Overhead watering should be avoided. Leaves that have spots can be removed and destroyed. Commercial nurseries may use an ornamental streptomycin for severe cases.

Gardenia Bacterial Spot- *Xanthomonas axonopodis* pv. *maculifoliigardeniae*



Photo by Sherrie Smith, University of Arkansas
Cooperative Extension



Azalea

This is the time of year that 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. Initially, the galls are pink to white but eventually become brown with age. Only new leaves are susceptible; older leaves do not become infected. Azalea Leaf Gall is an unattractive nuisance but does not kill the plant. Blueberries and camellias are also susceptible to leaf galls caused by *Exobasidium vaccinii*. Good sanitation practices are usually enough to control Azalea Leaf Gall. Leaves with galls should be removed from the planting as soon as they appear. For badly infected plantings, 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.

Azalea Leaf Gall-*Exobasidium vaccinii*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Azalea Leaf Gall-*Exobasidium vaccinii*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Pine

Brown Spot Needle Blight, caused by *Mycosphaerella dearnessii* (formerly *Scirrhia acicola*), is a fungal disease of a wide range of pine species. Symptoms first appear as irregularly circular, light gray-green spots on needles in the fall. Spots enlarge rapidly and encircle the needle, forming narrow tan-brownish bands. Finally, the tips of the needles die because of multiple infections. Many needles may be killed the first season they are infected. With repeated infections, long-leaf seedlings are characterized by a long



needleless stem with a tuft of severely infected needles at the end of the stem. The fungus fruits on very small, dark-brown-to-black-colored, elongated spots on the dead part of the needle. Spores are produced in wet weather, and the needles may be attacked several times in one season. At least three successive annual defoliations must occur to kill longleaf pine seedlings. The best control in longleaf plantations is obtained by controlled winter burning until seedlings are above 18 inches (46cm) high (the brown spot danger level). In nurseries and on valuable specimen trees, apply fungicidal sprays at two-week intervals during humid weather, from April 15 through May. Copper fungicides and chlorothalonil are very effective against this disease.

Pine Brown Spot-*Mycosphaerella dearnessii*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Pine Brown Spot-*Mycosphaerella dearnessii*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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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