DIVISION OF AGRICULTURE
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University of Arkansas System

Sherrie Smith
Rick Cartwright

SPDN
Southern Plant Diagnostic Network
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Arkansas Plant Health Clinic Newsletter

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Strawberry

Leather rot, caused by several species of Phytophthora, is a soil borne disease dependent on wet soil conditions to infect and cause disease. Symptoms are different depending on the fruit maturity. On green fruit, the infected areas appear dark brown or normal green with a brown edge. On ripe, mature fruit, they appear bleached and range in color from light lilac to purple, or there may be no change in color. Infected fruits are tough and leathery, eventually drying to hard, shriveled mummies. A nasty, bitter taste is typical of infected fruit. One infected berry is enough to spoil the taste of an entire batch of jam or jelly. When weather conditions are warm and rainfall is abundant, the pathogen releases its spores into the soil. These infested soil particles are deposited onto the fruit by rain or wind. It is critical to ensure good drainage in the field so water does not stand. Infected fruit should be promptly removed from the planting. Aliette and Ridomil Gold are labeled for Phytophthora diseases of strawberry. Homeowners may reduce losses by careful mulching of beds to cut down on rain splash and fruit contact with the soil.

Strawberry Leather Rot- *Phytophthora* spp.

Photo by Steve Vann, University of Arkansas Cooperative Extension

Strawberry Leather Rot- *Phytophthora* spp.

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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Iris

Nothing says spring like a bed of blooming iris. Iris are available in a rainbow of color and size options, most possessing a delightful fragrance. Plus, they are one of the easiest perennials to grow. Iris requires good drainage and at least 6 hours of direct sun for best bloom but can tolerate part shade and a wide range of soils. They are not heavy feeders. A balanced fertilizer such as 5-10-10 or 6-10-6, applied once in early spring and again in early summer following bloom is adequate. The ideal pH is 6.8. Plantings with poor air circulation and too much water are prone to both foliar and root diseases. The most common foliage disease we see is Iris leaf spot caused by the fungus, *Didymellina macrospora (Heterosporium iridis)*. Symptoms are small, water-soaked lesions that develop rapidly into 1/2-inch- long spots with brownish purple centers and yellow margins. The leaf spots are found most often on the top portions of the foliage, but in severe cases can be found over the entire leaf. In such cases, leaf death may occur, weakening the plant. Iris leaves and flower stalks should be removed in the fall to reduce over-wintering inoculum. If possible, improve air circulation by thinning surrounding vegetation. Avoid overhead irrigation. Four to six sprays of an ornamental fungicide containing chlorothalonil (Daconil), or mancozeb (Fore, Dithane, Penncozeb), or trifloxystrobin (Compass) starting when the leaves are 4 to 6 inches high and repeated at 7-to-10-day intervals, will control the disease.

Iris Leaf Spot-*Didymellina macrospora (Heterosporium iridis)*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Peony

Peonies are reliable, healthy, long-lived perennials when planted in full sun with adequate soil fertility and good drainage. Disease problems arise when they are planted is locations with poor drainage. Wet, cold springs, coupled with unfavorable growing conditions, can cause Phytophthora blight caused by *Phytophthora cactorum*. Symptoms are dark brown or black, leathery cankers or lesions on shoots, petioles, and leaves. The crown and roots may also be infected, causing a wet rot to develop and kill the entire plant. Infections generally occur in the roots and lower portions of the stem, making treatment with fungicides ineffective. Confirmed cases should be removed and destroyed, together with adjacent soil. Improving drainage and replacing the soil in that location will usually fix the problem. At that point, healthy new peonies can be re-planted.

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Peony Phytophthora Blight-*Phytophthora cactorum*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Peaches/Nectarines

If you are seeing symptoms of Peach leaf curl, it is too late to spray this season. Peach leaf curl is caused by the fungus *Taphrina deformans*. Symptoms are thickening, puckering, curling, and discoloration of leaves. Red, pink, or yellow may color the thickened leaf tissue. In severe cases, defoliation occurs along with substantial yield loss. This disease is easily controlled with one well-timed fungicide application in the fall after 90% of the leaves have dropped, or very early in the spring before the buds begin to swell. Chlorothalonil or copper sprays are effective. It is important to maintain over-all tree health with proper fertilization, irrigation, and pest control.

Peach Leaf Curl-*Taphrina deformans*

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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Rick Cartwright

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