



Arkansas Plant Health Clinic Newsletter

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Strawberry

This is turning out to be another very bad year for anthracnose on strawberry. Anthracnose Fruit rot is found wherever strawberries are grown. Three species of the fungus *Colletotrichum* have been associated with anthracnose on strawberry: *Colletotrichum acutatum*, *Colletotrichum gloeosporioides*, and *Colletotrichum fragariae*. Chandler, Camarosa, Treasure, and Albion are popular cultivars that are particularly susceptible. Symptoms on fruit appear as brown to black, water-soaked spots on green and ripe fruit. The lesions become sunken and firm, turning brown to black. Pink, salmon, or orange-colored masses of spores form in the lesion under humid conditions. The entire fruit may dry up and become mummified. Infected flowers may also dry up, or developing fruit remain small, hard, and misshapen. Lesions on strawberry stolons and petioles are often associated with anthracnose crown rot. Lesions begin as small red streaks, and rapidly become dark, sunken, elongated lesions. Pink spore masses form under humid conditions. When lesions encircle the stem, its leaf wilts and dies. The first symptom of anthracnose crown rot is wilting of the youngest leaves on the plant. Once the crown rot is extensive, the entire plant

wilts and dies. Anthracnose crown rot is most often caused by *Colletotrichum fragariae*. Anthracnose spores may survive up to nine months on debris in the field. Spread and severity of the disease may be reduced by practices that keep the foliage as dry as possible. Fields where high rates of nitrogen are used, especially ammonium sources of nitrogen, have significantly higher disease levels. Rotate Captan with Topsin M, or Quadris Top, or Pristine, or CaptEvate, or Elevate, or Fontelis, or Scala. To be effective, sprays should be started before the onset of the disease. Follow label for best results. Planting resistant cultivars such as Sweet Charlie, Florida Radiance, and Florida Elyana may be the most practical options for some growers.

Strawberry Anthracnose- *Colletotrichum* spp.



**Photo by Sherrie Smith, University of Arkansas
Cooperative Extension**



Strawberry Anthracnose- *Colletotrichum spp.*



Photo by Danielle Kurz, University of Arkansas
Cooperative Extension

Strawberry Anthracnose- *Colletotrichum spp.*



Photo by Sherrie Smith, University of Arkansas
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Strawberry Anthracnose Spore Masses-*Colletotrichum spp.*



Photo by Sherrie Smith, University of Arkansas
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Strawberry Anthracnose on Petioles-*Colletotrichum spp.*



Photo by Sherrie Smith, University of Arkansas
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Strawberry Anthracnose in Crown-*Colletotrichum* spp.



Photo by Sherrie Smith, University of Arkansas
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Iris

One of the nicest attributes of bearded iris is the lovely fragrance. They are also 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 foliar disease we see is **Iris Leaf Spot** caused

by the fungus, *Cladosporium iridis*, (synonym *Heterosporium iridis*), teleomorph *Didymellina macrospora* (synonym *Mycosphaerella macrospora*). 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 a fungicide containing thiophanate-methyl starting when the leaves are 4 to 6 inches high and repeated at 7-to-10-day intervals, will control the disease. Rates and timing will depend on individual labels.

Iris Leaf Spot-*Cladosporium iridis*

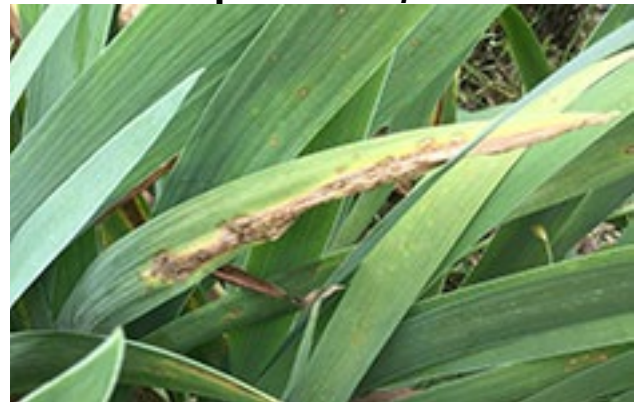


Photo by Sherrie Smith, University of Arkansas
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Iris Leaf Spot-*Cladosporium iridis*



Photo by Sherrie Smith, University of Arkansas
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Iris Leaf Spot-*Cladosporium iridis*



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Iris Leaf Spot-*Cladosporium iridis*

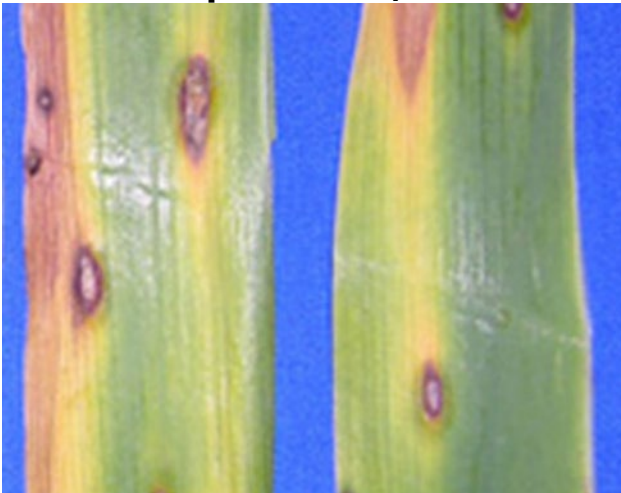


Photo by Sherrie Smith, University of Arkansas
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Iris Leaf Spot Spore-*Cladosporium iridis*

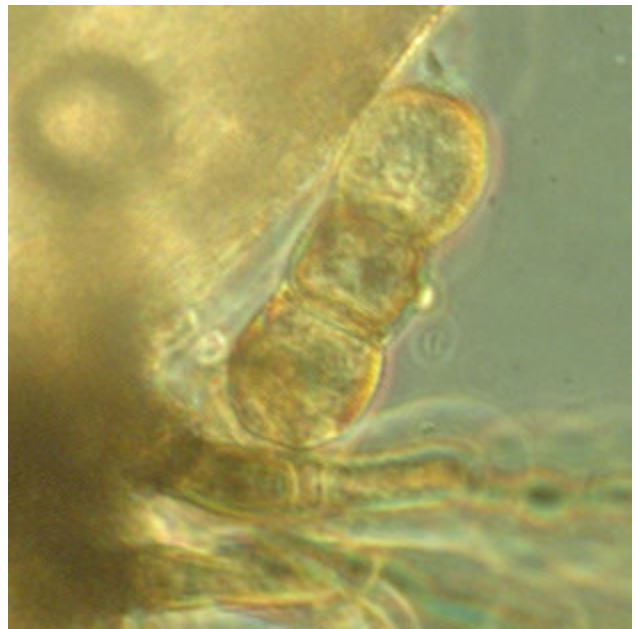


Photo by Sherrie Smith, University of Arkansas
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Iris Roundup damage

Homeowners should be very careful about spraying weeds in their iris beds with Roundup. Heavy exposure can cause twisted stems and deformed blooms. Plants may have symptoms for 3 or 4 years.

Iris Roundup Damage-Abiotic



Photo by Allen Bates, formerly 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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