Sherrie Smith

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Arkansas Plant Health Clinic Newsletter

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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 Fruit Rot-*Colletotrichum acutatum*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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Strawberry Anthracnose Fruit Rot (misshapen from bloom infection)-*Colletotrichum acutatum*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Strawberry Anthracnose Fruit Rot spore masses-*Colletotrichum acutatum*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Strawberry Anthracnose Petiole Rot-*Colletotrichum fragariae*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Strawberry Anthracnose Crown Rot-*Colletotrichum fragariae*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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Rose of Sharon

Fusarium canker of trees and shrubs, caused by several species of the fungus fusarium occur on a wide host range. The Plant Health Clinic received a sample of Rose of Sharon with Fusarium canker, caused by *Fusarium lateritium.* The orange fruiting bodies of the fungus were easily seen with the naked eye. The shrub had hundreds of cankers, most less than an inch long. Wilting and branch dieback had occurred. In cross section, cankered branches showed black discoloration in the wood. Fusarium cankers are not curable. All damaged branches should be pruned out. Disinfect hand tools by dipping them in 10% bleach solution (one cup bleach to nine cups water). Do not leave pruners in bleach solution as this will ruin them. Prune only during dry weather, cutting cankered branches back to healthy tissue. Fusarium canker is most likely to occur on plants injured by storm, improper pruning, drought, or lawn care equipment.

Rose of Sharon Fusarium Canker-*Fusarium lateritium*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Rose of Sharon Fusarium Canker-*Fusarium lateritium*

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Willow

Willow Scab, caused by the fungus *Venturia saliciperda,* infects Salix species wherever willows are grown. The Willow Scab fungus is frequently found on willow with an unrelated pathogen, the Black Canker fungus, *Glomerella miyabeana*, to produce an extremely destructive blight of willow. Both pathogens' over-winters as dormant spores in leaves and twigs that were infected last season. The spores are wind and rain-splashed in the spring to opening buds and leaves. Infected leaves and twigs die and fall prematurely to the ground. During wet weather throughout the growing season, new spores are produced and released from the infected debris. Black canker usually infects leaves and twigs later in the season than scab. The cankers most often appear at the nodes underlying petioles. Leaf blades that become infected turn black near the base. Leaves will shrivel and drop prematurely. Homeowners may use Fertilome Broad Spectrum Lawn and Garden Fungicide, (chlorothalonil), or Hi-Yield Vegetable, Flower, Fruit, and Ornamental Fungicide,(chlorothalonil) or Ortho Maxx Garden Disease Control, (chlorothalonil), or Ortho Disease B Gon Garden Fungicide, (chlorothalonil), or Garden Tech Daconil Fungicide,(chlorothalonil), or Bonide Fung-onil Multipurpose Fungicide, (chlorothalonil), or Spectracide Immunox Plus, (myclobutanil & permethrin), or Bonide Rose Rx Systemic Drench, (tebuconazole), or Bayer Advanced Garden-Disease Control for Roses, Flowers, Shrubs, (tebuconazole), or Bayer Advanced Garden-All-in-One Fungicide/Insecticide/Fertilizer, (tebuconazole & imidacloprid), or Fertilome 2-N-1 Systemic Fungicide,(tebuconazole & imidacloprid),or Bonide Infuse Systemic for Turf and Ornamentals, (thiophanate-methyl), or Ortho Rose and Flower Insect and Disease Control, (triticonazole & acetamiprid).

Willow Scab-*Venturia saliciperda*

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Willow Scab Spores-*Venturia saliciperda*

Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Willow Black Canker-*Glomerella miyabeana*

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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