



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.

Soybean

The Plant Health Clinic has been receiving soybean samples suspected of having Sudden Death Syndrome (SDS). However, upon microscopic inspection, the disease has been *Neocosmospora* stem rot, caused by *Neocosmospora vasinfecta*. Leaf symptoms resemble those of SDS, with interveinal chlorotic spots on the upper leaves of individual plants or small groups of plants. The leaf spots enlarge and become necrotic. Defoliation can occur in as little as two weeks after foliar symptoms are observed. Reddish-orange fruiting bodies (perithecia) resembling tiny beebees develop on and inside stems near or below the soil line, and on roots and nodules. Sometimes, the stem may be reddish-orange in color without the perithecia. Both the foliar symptoms and the perithecia closely resembles Red Crown Rot, caused by *Cylindrocladium crotalariae*, requiring microscopic examination to differentiate the two diseases. Control measures have not yet been established for soybeans.

Neocosmospora Stem Rot- (Field symptoms) *Neocosmospora vasinfecta*



Amanda Greer University of Arkansas CES

Neocosmospora Stem Rot- *Neocosmospora vasinfecta*



Cliff Coker University of Arkansas CES

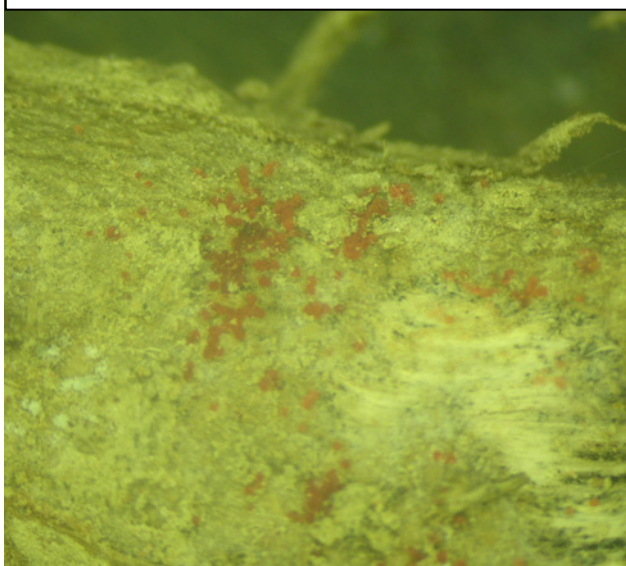
Neocosmospora Stem Rot (leaf symptoms)-*Neocosmospora vasinfecta*



Sherrie Smith University of Arkansas Cooperative Extension

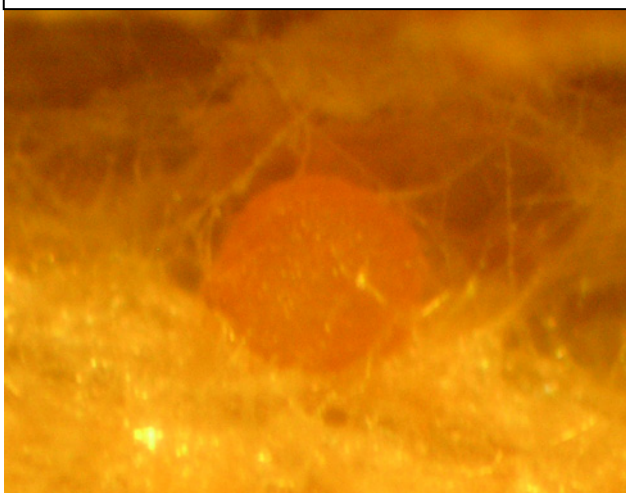


**Neocosmospora Stem Rot
Perithecia-*Neocosmospora vasinfecta***



Sherrie Smith University of Arkansas Cooperative Extension

**Neocosmospora Stem Rot
(Perithecia inside pith)-
*Neocosmospora vasinfecta***



Sherrie Smith University of Arkansas Cooperative Extension

Apple

Alternaria Blotch of apple, caused by *Alternaria mali*, can cause up to 50% defoliation of trees, and reduction of fruit yield in susceptible cultivars. Delicious apples and cultivars with a Delicious parent are susceptible, including Redgold, Fuji, Mutsu, Jonagold, and Jonathon. The fungus overwinters on fallen leaves and dormant buds. Infection can occur in 5 to 6 hours when temperatures are between 70-75° F. Primary infections appear on leaves in late spring or early summer. Multiple infections can occur throughout the season during hot, wet weather. The spots begin as small, round tan to purplish or blackish spots, with a brownish purple border. Older lesions may coalesce and become darker with a frog-eye appearance. Lesions on petioles cause leaves to turn yellow and fall from the tree prematurely. Without leaves to feed the fruit, fruit either falls from the tree or is smaller than normal. Pristine, Sovran, and Fontelis are labeled for control of Alternaria blotch. Disease incidence should not exceed 40% before applications are made. Trees with mite stress in addition of Alternaria blotch suffer from greater defoliation. Mites should be controlled when found at 9 or more mites per leaf. Insecticidal soaps, fine oils, Agri-mek, Apollo, Danitol, Kanemite, Portal, Savey, and Zeal, are labeled for mites in apples.

Apple Alternaria blotch (fruit lesions)-*Alternaria mali*



Jason Osborn University of Arkansas Cooperative Extension



Apple Alternaria blotch (leaf lesions)-*Alternaria mali*



Jason Osborn University of Arkansas Cooperative Extension

Homeowners may use Captan, Bordeaux mixture, or Kocide, or Bravo WeatherStik may be applied in the fall after the tree loses its leaves to protect twigs and buds during wet fall weather. Follow labels carefully for timing of fungicides to prevent injury to the tree.

Peach Coryneum blight on fruit- *Wilsonomyces carpophilus*



Clay Wingfield University of Arkansas Cooperative Extension

Peach Coryneum blight on leaves- *Wilsonomyces carpophilus*



Clay Wingfield University of Arkansas Cooperative Extension

Peach

Coryneum blight of stone fruit, (Shot hole disease), caused by the fungus *Wilsonomyces carpophilus* attacks peaches, nectarines, apricots, and cherries. The fungus causes lesions on leaves, buds, fruit, and twigs. Leaf symptoms begin as small, red spots that become purple with a lighter center. The center of older spots drops out, leaving a shot hole. Leaves will have numerous holes look tattered. Twig cankers are small, red to purple oval lesions. Spots on fruit are brownish, sunken and up to ½ inch in diameter. Fruit lesions may coalesce causing the skin to crack. Frequent rain combined with wind and warm weather provides optimal conditions for infection. Coryneum blight spreads rapidly within a tree and more slowly to neighboring trees. This is a difficult disease to eradicate. Although the fungus does not over winter on fallen leaves, buds and twigs may produce spores for up to 3 years. All dead and infected wood should be pruned out and removed from the orchard. Fixed copper fungicides should be applied in the spring at shuck fall stage. Abound, Quadris Top, Pristine, Rovral 4FL, Eagle 20EW, Fontelis, Scala SC, Gem 500SC, Adament 50WG, and Ziram Granuflo are labeled for control of Coryneum blight during the growing season.



**Peach Coryneum blight on
leaves- *Wilsonomyces carpophilus***



Clay Wingfield University of Arkansas Cooperative Extension

**Peach Coryneum blight on
twig- *Wilsonomyces carpophilus***



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