



## Arkansas Plant Health Clinic Newsletter

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### Pine

Pitch canker is endemic in the south-eastern United States. Slash pine is a favorite host along with Longleaf and loblolly pine. Pitch canker is a fungal disease caused by *Fusarium subglutinans f. sp. Pini*. It is seed borne and may also be transmitted by insects, principally bark beetles and beetles which feed in cones. Symptoms are large flows of pitch around the canker of an infected tree. If the tree's bark around the infected area is removed, resin-soaked wood is exposed. Loss of shoots, crown dieback, dying needles, and stunted growth, deformed crowns, and shoots, are additional symptoms. It is not a systemic disease. Each canker is a separate infection. Individual branches with cankers may be pruned out. Avoid wounding trees, especially from July to November. Be careful when mowing or weed eating around the tree. Reduce stress by watering during drought periods. Many trees will recover, but trees with large trunk cankers may die. Dying and dead trees should be removed from the landscape to protect nearby healthy trees.

### Pine Pitch Canker- *Fusarium subglutinans f. sp. Pini*



Photo by Sherrie Smith, University of Arkansas  
Cooperative Extension



## **Pine Pitch Canker- *Fusarium subglutinans* f. sp. *Pini***



Photo by Mike McClintock, University of Arkansas Cooperative Extension

## **Soybean** by Amanda Greer

Arkansas has its first case of *Neocosmospora* stem rot in Soybean. The disease was detected by Amanda Greer, Plant Pathology Program Technician, at the Southeast Research and Extension Center at Monticello. The disease was verified by Cliff Coker, and finally by the Plant Health Clinic. To date, *Neocosmospora* has been identified in Drew, Desha, and Poinsett Counties in a total of seven locations. Symptoms of *Neocosmospora* stem rot, *Neocosmospora vasinfecta*, are interveinal chlorotic spots on upper leaves of individual or small groups of plants. The spots expand and become necrotic. The plants may terminate prematurely. The foliar symptoms resemble those of Sudden death Syndrome or Stem canker. Defoliation can occur in as little as two weeks after foliar symptoms begin. Red orange perithecia develop on the lower stems near or below the soil line and on roots and

nodules. The stem may be red colored without the perithecia. Mycelium may be present in the pith tissue. Because *Neocosmospora* stem rot closely resembles Red Crown Rot *Cylindrocladium crotalariae*, suspect plants require laboratory examination for diagnosis. Control measures have not yet been established for soybeans.

## **Soybean *Neocosmospora* Stem Rot- *Neocosmospora vasinfecta***



Photo by Cliff Coker, University of Arkansas Cooperative Extension

## **Soybean *Neocosmospora* Stem Rot- *Neocosmospora vasinfecta***



Photo by Amanda Greer, University of Arkansas Cooperative Extension



## **Neocosmospora Perithecia- *Neocosmospora vasinfecta***



Photo by Amanda Greer, University of Arkansas Cooperative Extension

## **Neocosmospora Perithecia- *Neocosmospora vasinfecta***

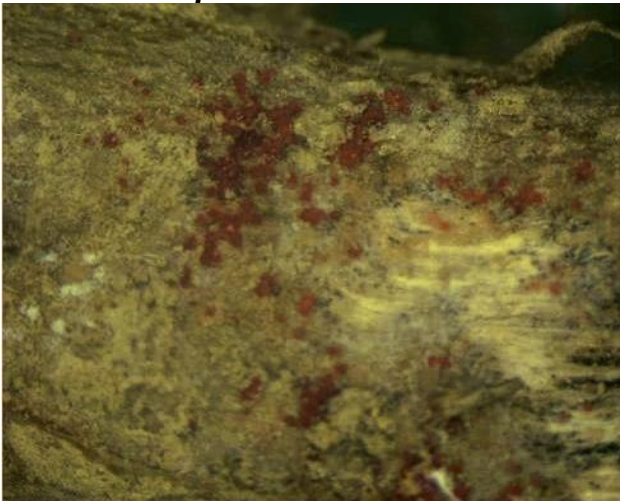


Photo by Sherrie Smith, University of Arkansas Cooperative Extension

## **Milo (Grain Sorghum)**

The clinic is seeing samples of grain sorghum with midge damage. Scouting should be done at bloom time and pesticides applied at that time. It is at bloom that the adult midge lays its eggs. The adult is a small, mosquito-sized, orange-colored insect that blends in with sorghum flower parts. "The first two or three generations often develop in Johnson grass. As they move into grain sorghum, numbers increase during flowering. Damage occurs when larvae feed on newly fertilized ovaries, preventing normal kernel development. Apply controls when 25-30% of heads have begun to flower, and the number of midge adults found averages one per head. See Arkansas MP144 for list of insecticides.

## **Sorghum Midge-*Stenodiplosis sorghicola***



Photo by Sherrie Smith, University of Arkansas Cooperative Extension



**Sorghum** Charcoal rot, Anthracnose rot, and Fusarium root and stalk rot are also present in milo fields currently. These diseases can cause early senescence and lodging. Charcoal rot may be diagnosed by splitting crowns open and looking for tiny black microsclerotia of the charcoal rot pathogen. Crowns with red discoloration may be Fusarium or Anthracnose rots. Stalk rots cannot be cured. Crop rotation should be practiced.

### **Sorghum Anthracnose Stalk Rot-** *Colletotrichum graminicola*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

### **Sorghum Charcoal Rot-** *Macrophomina phaseolina*

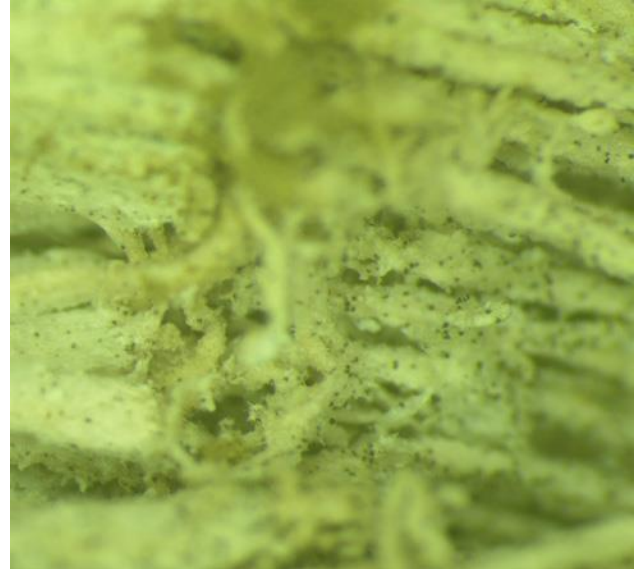


Photo by Sherrie Smith, University of Arkansas Cooperative Extension

### **Pear**

Pear samples from several locations are currently being tested for the presence of a disease called pear decline. The results of the testing will be issued in a news bulletin if positive. Pear Decline is a serious disease caused by a phytoplasma-like organism. It is transmitted by an insect, called the pear psylla. Psyllas look like tiny cicadas. It also can be transmitted by grafting and budding. Poor shoot and spur growth, dieback of shoots, upper rolling of leaves, red leaves, reduced leaf and fruit size, premature leaf drop, and tree death are all symptoms of Pear decline. Pear decline is recognized in three forms: slow decline, quick decline, and reddening of the foliage. Symptoms of quick decline are sudden



wilt and death of the tree, sometimes preceded by slow decline. It is more common when trees are stressed by hot, dry weather. Slow decline is a progressive weakening of the tree. Symptoms are reduced terminal growth, smaller, fewer, leathery leaves that are light green and have slightly rolled edges. Premature reddening of the foliage in late summer and autumn is the mildest form of Pear decline. This form occurs on trees with more tolerant rootstocks. The expression of the disease depends on rootstock susceptibility, tree vigor, and psylla numbers. The most important control measure is to use decline-resistant or decline tolerant rootstocks. In pear orchards, psylla control reduces the incidence of pear decline.

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.

"This work is supported by the Crop Protection and Pest Management Program [grant no. 2017-70006-27279/project accession no. 1013890] from the USDA National Institute of Food and Agriculture."

## **Pear Decline-Phytoplasma suspected**



**Photo by Jim Robbins, University of Arkansas Cooperative Extension**