



Arkansas Plant Health Clinic Newsletter

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Maple

Hypoxylon Canker

Hypoxylon (*Biscogniauxia*) Canker, caused by *Biscogniauxia atropunctata* (formerly *Hypoxylon atropunctatum*), can attack oak, elm, hickory, pecan, sycamore, beech, and maple among others. Hypoxylon is weakly pathogenic and unable to attack and kill healthy trees. Trees stressed by factors such as drought, insects, leaf fungi, saturated soil, compacted soil, excessive heat, nutrient deficiency, and overcrowding are susceptible. The spores are air-borne, or rain-splashed, and enter through wounds in the bark. The first symptom of Hypoxylon Canker is yellowing of the leaves, and a noticeable thinning of the crown along with branch dieback. The sapwood begins to decay rapidly, showing radiating dark lines of decay in cross-section. When a diseased limb or the trunk dies, mats (stroma) of spores form under the bark. The pressure of these mats forces the bark to loosen. Sections of bark slough from the trunk and branches, collecting at the base of the tree. On the wood where the bark has sloughed off, tan to olive green, or reddish powdery masses of spores may be observed. The color of the spores depends

upon the species of tree. Within a couple of weeks or a few months, these areas become dark brown to black, eventually becoming silver-gray in color. When the canker girdles the main trunk, infected trees turn brown and die apparently overnight. Last year Arkansas suffered from prolonged drought and heat, two major stress factors favorable for Hypoxylon Canker. Hypoxylon can grow at temperatures up to 104°F. The Plant Health Clinic is now receiving samples of dead and dying maples and oaks infected with Hypoxylon. There are no chemicals to treat this disease. Since it is a problem only where trees are stressed, the best defense is maintaining healthy trees. Even large trees need watering during prolonged drought. Dead and dying trees should be removed at ground level and burned or otherwise removed from the property to reduce spore production.

Maple Hypoxylon Canker- *Biscogniauxia atropunctata* (formerly *Hypoxylon atropunctatum*)



Photo by Sherrie Smith, University of Arkansas
Cooperative Extension

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Maple Hypoxylon Canker- *Biscogniauxia atropunctata* (formerly *Hypoxylon atropunctatum*)



Photo by Jerri Lephiew, University of Arkansas
Cooperative Extension

Steganosporium Canker

Steganosporium Canker, caused by *Steganosporium ovatum*, is common on both maples and oaks as a saprophyte on dead bark. The fungus is usually found on lower, shaded limbs. However, on trees predisposed to disease by adverse conditions such as drought,

or winter injury, or another disease, *Steganosporium* can become a pathogen, killing branches and contributing to death of the tree. Symptoms are numerous distinct black fungal pustules that may coalesce into a crusty, black film on the bark. Dead limbs and branches are often shed by the tree. The only control for *Steganosporium* Canker is to maintain good tree health. Make sure the trees have an inch of water a week during dry spells and fertilize per soil test.

Maple Steganosporium Canker- *Steganosporium ovatum*



Photo by Sherrie Smith, University of Arkansas
Cooperative Extension



Maple Steganosporium Canker spores-*Steganosporium ovatum*



Photo by Sherrie Smith, University of Arkansas
Cooperative Extension

Watermelon

Cucurbit Yellow Vine Disease, (CYVD), is a bacterial wilt disease of squash, pumpkin, and melon. CYVD has been confirmed in Texas, Oklahoma, Arkansas, Colorado, Kansas, Nebraska, Massachusetts, Missouri, and Connecticut. The causal agent is the bacterium *Serratia marcescens*. The phloem of the vine is plugged by the bacterium causing a brown phloem ring, yellowing of the foliage, stunting, wilting, and vine death. Wilting and death typically occur about 14 days before harvest. The disease is vectored by the squash bug (*Anasa tristis*). They are a common pest of cucurbits, often found in large groups feeding on

the foliage. In areas with a history of CYVD, control must start the day of planting. Weekly foliar treatments with Pounce or other pyrethroids are recommended. Homeowners may use malathion or Sevin. Research has been done using row covers to keep the bugs off the crop with some success. Growers in some heavily infected areas of the country have used a trap crop with excellent results. They plant the trap crop 2-3 weeks earlier than the crop they are trying to protect, using a straight neck summer squash such as 'Lemon Drop' or 'Hyrific'. The trap crop is planted in the border rows of crop being protected. The squash bugs are then killed by insecticides before they can move into the crops being protected.

Cucurbit Yellow Vine Disease (CYVD) phloem discoloration- *Serratia marcescens*



Photo by Sherrie Smith, University of Arkansas
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Cucurbit Yellow Vine Disease (CYVD)-*Serratia marcescens*



Photo by Edward Sikora, Auburn University, Bugwood.org

"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."

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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