



Arkansas Plant Health Clinic Newsletter

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Sorghum

Maize Dwarf Mosaic Virus (MDMV) is known to attack corn, sorghum, and Johnson grass, as well as up to 200 other grasses. MDMV belongs to the *Potyvirus* genus of viruses and can be spread through infected seed and mechanical injury but is more commonly spread via aphids. At least 15 species of aphids are known to be vectors. An aphid may acquire the virus after feeding on an infected plant for a few seconds. When they move to a non-infected plant, they can transmit the virus after 15-30 minutes of feeding on that plant. Symptoms begin as chlorotic spotting that eventually develops a mosaic pattern of red streaking and blotches on sorghum. Infected plants may be stunted, have increased tiller numbers, have shortened upper internodes, and have barren heads or ears. Control involves eradicating Johnson grass in the vicinity, the use of tolerant cultivars, and aphid control. Late planted crops are more susceptible as they typically have more aphid pressure.

Sorghum Maize Dwarf Mosaic Virus (MDMV)-*Potyvirus*



Photos by Travis Faske, University of Arkansas
Cooperative Extension

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Squash

Tunneling by the Squash Vine Borer, *Melittia cucurbitae*, causes the collapse of an infested squash or pumpkin plant. The borers are the larvae of a clearwing moth which emerges from the soil in the spring and lays eggs singly on the undersides of squash and pumpkin vines. The eggs are usually laid at the base of the plant. When the larvae hatch, they burrow into the stem and start feeding. This causes the eventual collapse and death of the vine. Growers don't notice anything wrong until the vine starts wilting. Large white worms with brown heads can be seen if stems are cut open. You can sometimes find the larvae in the squash fruit as well. Mature larvae eventually exit the plants and burrow into the soil where they pupate until the following spring. Control measures should be started as soon as vines begin to run. Malathion or products containing bifenthrin, when applied as sprays or dusts, are effective. Continue a 7-to-10-day reapplication schedule for 3 to 5 weeks. Commercial growers may apply Thionex, or Asana, or Synapse.

Squash Vine Borer-*Melittia cucurbitae*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Squash Vine Borer-*Melittia cucurbitae*



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Squash Vine Borer-*Melittia cucurbitae*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Rose

Although most people who grow roses are familiar with Black spot, there are other fungal leaf spot pathogens of roses. Rose Spot Anthracnose, caused by *Sphaceloma rosarum*, causes leaf spots and shot holes in the foliage. Spots are small, round, reddish-purple with gray or white centers and red margins. Tissue in the center of the spots may drop out or crack, giving infected leaves a shot-hole appearance.

Petioles and stems can also develop purplish lesions. Leaf drop may occur in severely infected plants. The spores of the fungus are spread from plant to plant by splashing water. The disease is favored by long leaf wetness periods. Therefore, it's important to avoid overhead irrigation. Proper plant spacing for good air circulation, good weed control, and using drip irrigation rather than sprinklers are management practices helpful in reducing the incidence of Spot Anthracnose. Fungicides labelled for control of black spot of rose are also effective in managing Spot Anthracnose. Although many different types of roses may get Spot Anthracnose, wild roses, climbers, and ramblers seem particularly susceptible.

Rose Spot Anthracnose-*Sphaceloma rosarum*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension



Peach

Coryneum Blight of stone fruit (Shot Hole Disease) is caused by the fungus *Stigminta carpophila* (formerly *Wilsonomyces carpophilus*). It attacks apricots, cherries, nectarines, and peaches. Lesions may occur on leaves, buds, fruit, and twigs. Leaf symptoms begin as small, red spots that become purple with a lighter center. The centers of older spots drop out, leaving a shot hole. Leaves may have so many holes they look tattered. Twig cankers are small, red to purple, oval lesions. Fruit spots are brownish, sunken, and up to 1/2 inch in diameter. Fruit lesions may coalesce, causing the skin to crack. Repeated 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. The fungus does not overwinter on fallen leaves, but infected 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, Adament 50WG, Eagle 20EW, Fontelis, Gem 500SC, Pristine, Quadris Top, Rovral 4FL, Scala SC, and Ziram Granuflo are labeled for control of Coryneum Blight during the growing season. Homeowners may use Captan during the growing season. Bordeaux mixture, or Kocide, or Bravo Weather Stik 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-*Stigminta carpophila*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Peach Coryneum Blight-*Stigminta carpophila*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension



Peach *Coryneum* Blight-*Stigmina carpophila*



Photo by Clay Wingfield, 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.

"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."

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