



Arkansas Plant Health Clinic Newsletter

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Grape

Grapes are not an easy crop to grow in Arkansas. Our high humidity and warm weather is favorable for fungal diseases. Black rot, caused by the fungus *Phyllosticta ampellicida*, formerly *Guignardia bidwellii*, is the most economically important disease of grapes. All new growth is susceptible throughout the growing season, including leaf laminates, petioles, shoots, tendrils, peduncles, and fruit. Symptoms on leaves are circular tan spots that eventually become reddish brown with a narrow dark brown border. Black pimple-like fruiting bodies of the fungus form in the lesions. The fruiting bodies also appear in black lesions on the young shoots. Infection on the berries starts as a small white dot. In only a few hours, the tiny dot is surrounded by a reddish-brown ring. Within a few days the berry starts to dry, shrivel, and wrinkle to become a hard, blue-black mummy. The symptoms on Muscatine fruit are small, black, superficial, scabby lesions on infected berries. The lesions may coalesce to cover most of the berry. Infected berries may crack at the edges of the scabs. Black rot can be effectively controlled by using Captain, or Abound, or Pristine, or Aprovia, or Revus Top,

or Adament, or Topguard, or Inspire Super, or Quadris Top, starting when shoots are 4-6 inches high, and continuing at 14-day intervals until August.

Grape Black Rot-*Phyllosticta ampellicida*, formerly *Guignardia bidwellii*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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Grape Black Rot-*Phyllosticta ampellicida*, formerly *Guignardia bidwellii*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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Corn Smut

Corn smut, caused by the fungus *Ustilago maydis*, can produce startling symptoms, but is generally not considered a serious pathogen. Annual losses seldom exceed 2% where resistant cultivars are grown. Although all above-ground parts of the plant can be infected, Corn smut is most spectacular when kernels are infected. Large galls form instead of normal kernels when the fungus invades the kernels and starts growing. Galls begins as glistening silvery white to greenish white, but eventually darkens and becomes a mass of powdery, dark olive brown to black spores. The incidence of smut is higher on nitrogen rich soils, or recently manured soils. Resistant varieties are the best method of control. Infected plant parts should be removed before they can sporulate. In some parts of the world infected ears are considered a delicacy while the galls are in the fresh soft stage. It is sold fresh or canned as huitlacoche, cuitlacoche, or maize mushroom.

Corn Smut-*Ustilago maydis*



Photo by Gerald Alexander, formerly , University of Arkansas Cooperative Extension



Corn Smut-*Ustilago maydis*



Photo by Cindy Ham, University of Arkansas Cooperative Extension

Corn Smut-*Ustilago maydis*



Photo by Grant Beckwith, University of Arkansas Cooperative Extension

Tomato

Yellow shoulder is caused by fruit exposed to high temperatures during maturation and ripening. Some cultivars are more prone to it than others. Some afternoon shade often reduces the amount of yellow shoulder. Along with Yellow shoulder we often see cracking. Cracking is usually associated with excess amounts of water. The plant tissue swells with the water faster than the skin can grow and cracking occurs. Sunburn or sunscald occurs during hot temperatures when protective foliage has been lost due to disease or insect feeding.

Tomato Yellow Shoulder-Abiotic



Photo by Sherrie Smith, University of Arkansas Cooperative Extension



Tomato Cracking-Abiotic



Photo by Rachel Bearden, 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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Tomato Sunburn-Abiotic



Photo by Sherrie Smith, University of Arkansas Cooperative Extension