



Arkansas Plant Health Clinic Newsletter

Follow us on social media



Eggplant

The **eggplant**, (*Solanum melongena*) belongs to the family Solanaceae, and is closely related to the tomato and potato. It is a short-lived perennial usually cultivated as an annual, growing 16 to 57 inches tall, with large coarsely lobed leaves 4-8 inches long and 2-4 inches broad. The flowers are white to purple. The fruit is a fleshy berry containing numerous small soft seeds. The fruit comes in a variety of colors, shapes, and sizes from white to deep purple. The cooked flesh is tender with a rich flavor that readily absorbs fats and seasonings during cooking. Because eggplant belongs to the tomato family, it is susceptible to some of the same diseases. We have seen clinic samples with bacterial canker and verticillium wilt. Eggplant can also get Phomopsis blight caused by *Phomopsis vexans*. This can infect aboveground plant parts at all stages of development. Usually, spots first appear on seedlings shortly after they emerge. Dark, sunken cankers form on the stem slightly above the soil line. Eventually, these cankers encircle the stem, resulting in the collapse and death of the plant. Black fruiting bodies (pycnidia) may be observed with a hand lens. Symptoms on leaves are usually noted on older leaves. Spots are circular, about 1 inch in diameter, and with a

distinct narrow brown margin. The centers of the lesions are gray to brown with black fruiting bodies. Infected leaves may yellow and drop prematurely. Fruit spots are like those on leaves but are much larger, leaving diseased fruit unmarketable. Phomopsis can survive from year to year in plant debris in the soil and on seed. Prompt cleanup of all plant debris after harvest will reduce the amount of inoculum. Because of residual inoculum in the soil, control starts with a two-to-three-year rotation with non-Solanaceae crops. Overhead irrigation should be avoided if possible, so foliage and stems are not wet for prolonged periods of time. Protective fungicides labeled for eggplant are Quadris and Cabrio.

Eggplant-*Solanum melongena*



5603723

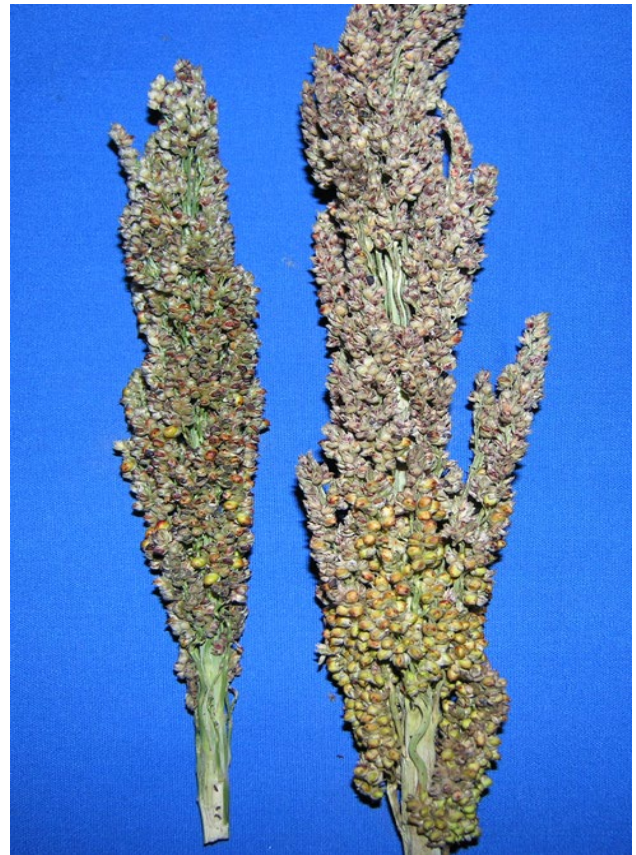


filling stage and maturity during a period without frequent rains.



Sorghum

Grain mold can cause yield reductions in early maturing sorghum in regions where they flower and fill during periods of high humidity and rainfall. *Fusarium*, *Alternaria*, *Olpitrichum*, *Curvularia*, *Phoma*, and *Colletotrichum* can all cause grain mold. Symptoms are the appearance of pink, orange, gray, white, or black mycelium on the grain surface. Often more than one fungus is involved. Early infected grain is often aborted, or grain size is reduced. Late infections sometimes only affect the seed coat. Head blight differs from grain mold only that it kills large areas of the panicle itself. This causes a major drooping of the rachis branches as they collapse. *Fusarium moniliforme* is the causal agent of Head blight. The only control at present is the adjustment of planting dates so that plants enter the grain-



Peas

Septoria blotch caused by *Septoria pisi* is generally a minor disease of peas, but when environmental conditions are favorable it can cause premature leaf-drop and yield reduction. Large indistinct yellow to straw-colored lesions develop with many pycnidia on lower leaves



first. Chlorothalonil is labeled for pea foliar diseases. This is a disease favored by rainy weather and cool temperatures. It's often found in conjunction with Bacterial blight of peas caused by *Pseudomonas syringae* pv. *pisii*, which thrives under the same environmental conditions. Bacterial blight symptoms can appear on any of the aboveground plant parts. Small, shiny, water-soaked spots appear that eventually enlarge, and turn brown and necrotic. The centers of the lesions eventually become pale and transparent. Stem infections begin as flecks that can enlarge and girdle the stem, causing death of all the plant above the lesion. Immature pods may be infected at flowering. Flower buds shrivel and become decayed. Later infections appear on pods as lesions along the dorsal fissure. There are only three methods used to control Bacterial blight: plant disease free seed, disinfest equipment, and use resistant cultivars.

Pea Septoria Leaf Spot-*Septoria pisi*



Peach and nectarine

Several closely related bacterial diseases affect peaches and nectarines. Bacterial spot caused by *Xanthomonas pruni* is also called bacteriosis, bacterial shot hole, bacterial crack, black spot, and gummosis. Other hosts are Japanese plum, American and European plum, apricot, almond, sweet and tart cherries. The pathogen invades twigs via fresh leaf scars in the autumn. The infections are expressed as black tip or spring cankers in the following winter to early spring. Bacterial spot infects leaves, twigs, and fruit. Grayish water soaked lesions appear along the midrib, vein, or leaf tip of leaves. Older spots become purple as they age. The centers may fall out giving a shot-hole appearance. The entire fruit crop may be lost when infections are severe. Fruit symptoms start about five weeks after petal fall. Small, water-soaked lesions appear on the immature fruit. Gum may exude from the spots during periods of high humidity. As the fruit matures, lesions become cracked and sunken and may appear cavernous. Autumn applications of fixed copper may be helpful in preventing leaf scar infections. The best control is using resistant varieties. Resistant peach cultivars are Biscoe, Bounty, Candor, Clayton, Derby, Dixired, Jerseydawn, Newhaven, Salem, Sentinel, and Sweethaven. Resistant nectarines are Carolina red, Le Grand, Nectured 3, Nectured 6, Royalkist, and Sweet Melody.



Peach Fruit Bacterial Gummosis- *Xanthomonas pruni*



Photo by Sherrie Smith, University of Arkansas
Cooperative Extension

Corn

Crazy top of corn, (*Sclerophthora macrospora*), is a systemic disease that develops when soils have been flooded shortly after planting or before plants are in the four-five leaf stage. Soils need only be saturated for 24-48 hours for infection to occur. Generally, symptoms include excessive tillering, and rolling and twisting of the upper leaves. Typically, proliferation of the tassel occurs until it resembles a mass of leafy structures. Leaves may be narrow, strap like, and leathery. Stunting may also occur. The only control is to ensure good drainage of corn fields.

The University of Arkansas System Division of Agriculture offers all its Extension and Research programs to all eligible persons without regard to race, color, sex, gender identity, sexual orientation, national origin, religion, age, disability, marital or veteran status, genetic information, or any other legally protected status, and is an Affirmative Action/Equal Opportunity Employer.

Corn Crazy Top- *Sclerophthora macrospora*



Photo by Bill Dodgen, 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."