



## Arkansas Plant Health Clinic Newsletter

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### Wheat

With many wheat fields suffering from flooding this spring, we are seeing a lot of downy mildew. The pathogen, *Sclerophthora macrospora*, causes a proliferation of florets, and distortion of upper leaves and spikes. Therefore, the disease is also known as crazy top. Symptoms are stunting, yellowing, excessive tillering, thickened, leathery, or warty leaves, twisted heads and leaves, and proliferated flower parts. Diseased plants are commonly seen scattered in or beside standing water. Downy mildew is often confused with glyphosate damage which can also cause stunting, yellowing, twisting, and distortion of leaves and spikes. With glyphosate, there is almost always a tell-tale yellowed or bleached area at the base of leaves. Glyphosate does not produce the warty or leathery leaves commonly associated with Downy mildew. There is no control for Downy mildew except for improving drainage in areas with a history of the disease.

### Wheat Downy Mildew- *Sclerophthora macrospora*



Photo by Sherrie Smith, University of Arkansas  
Cooperative Extension

### Wheat Roundup Damage-Abiotic



Photo by Sherrie Smith, University of Arkansas  
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## Cherry laurel

Sooty mold can be an annoying problem on a variety of ornamentals. The underlying cause of sooty mold is an insect infestation. Sap feeding insects such as aphids, whiteflies, and scale secrete honeydew that coats leaves and stems. This creates an ideal environment for saprophytic fungi to colonize the leaf surfaces. These fungi are not feeding on the plant, but on the sugar rich honeydew. Colonies create an unsightly blackish coating on the leaves. In severe cases sooty mold can reduce photosynthesis by blocking sunlight. The mold may be washed off the foliage but will return unless the insects are eliminated. Plants exhibiting sticky leaves, or an unusual black coating should be carefully checked for insects. Check stems and the underside of leaves.

## Cherry Laurel Whiteflies- *Aleyrodidae*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

## Cherry Laurel Sooty Mold-Variou fungi



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

## Cryptomeria

*Cryptomeria japonica*, also known as Japanese cedar, is an attractive pyramidal evergreen with short awl-shaped needles that tend to curve toward the stem. In the Mid-South, *Cryptomeria* suffers primarily from drought, spider mites, and Maskell scale insects. The Maskell scale is a smaller, thinner version of the Oystershell scale. Females are 0.5 mm wide and 1-2mm long, and a translucent light brown color. Eggs are yellow. Males are smaller than the females. This insect also attacks juniper, arborvitae, yew, sequoia, and others. It can cause serious damage to juniper. Sprays of fine horticultural oil are effective. Insecticidal soaps, pyrethrin, and imidacloprid are also labeled for scale. Follow label as some insecticides are only effective at the crawler stage.





## **Cryptomeria Maskell Scale-** *Lepidosaphes* sp.



Photo by Sherrie Smith, University of Arkansas  
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## **Tomato**

Bacterial speck is generally favored by lower temperatures and wet conditions. Leaf spots are dark brown to black, and round. They lack a halo at first but develop one over time. The lesions occur all over the leaf but can be most prominent on leaf tips. All parts of the plant may be affected. On stems the lesions are oval to elongate. On fruit, tiny dark specks develop. The area around the speck may be greener than the surrounding tissue. Bacterial speck is caused by *Pseudomonas syringae* pv. *tomato*. Control methods consist of planting clean seed, and cultural controls. For bacterial speck, avoid overhead irrigation and working in the garden when foliage is wet. Use clean seed. Clean up

crop debris at the end of the season. Practice a three-year rotation where no peppers, tomato, eggplant or potato are grown in that spot. Practice a preventive copper + mancozeb spray program from bloom until the first-formed fruit are 1/3 their final size. After that point, the greatest risk of bacterial speck is passed; copper can be dropped from the program.

## **Tomato Bacterial Speck-** *Pseudomonas syringae* pv. *tomato*



Photo by Sherrie Smith, University of Arkansas  
Cooperative Extension



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Photo by Sherrie Smith, University of Arkansas Cooperative Extension

## **Vegetables**

Homeowners and growers should be cautious using herbicides around their vegetable crops. For instance, members of the Solanaceae family are extremely sensitive to glyphosate drift. Symptoms on many crops, including tomatoes, are leaf distortion, stunting, and bleaching at the base of leaves. Glyphosate does not stay active in the soil, so damaged plants may be replaced immediately with new plants. Another problem is the use of manure in gardens that has come from pastures that have been treated with a phenoxy herbicide such as Grazon. Grazon contains picloram and 2,4-D, which are both growth regulator herbicides. The leaf cupping, twisting, and distorted new growth are all symptoms of growth regulator herbicide injury. It may be as long as 18 months before it is safe to replant vegetables in a garden contaminated with phenoxy herbicides.

## **Green Bean Grazon Damage-** **Abiotic**



Photo by Sherrie Smith, University of Arkansas Cooperative Extension





## Potato Grazon Damage-Abiotic



Photo by Sherrie Smith, 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 Roundup Damage-Abiotic



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