



## Arkansas Plant Health Clinic Newsletter

Follow us on social media



### Strawberry

Some of the most significant diseases of strawberries are caused by species of the fungal genus *Colletotrichum*. *Colletotrichum* may infect fruit, buds, blossoms, runners, crowns, and leaves. Anthracnose Crown Rot is caused mainly by *C. fragariae* with Fruit Rot being caused by three species of *Colletotrichum* but associated primarily with *C. acutatum*. The severity of Fruit Rot epidemics has been linked to annual cropping on plasticulture. When conditions during harvest are rainy and warm, Fruit Rot may spread very quickly and can cause devastating losses. Fruit lesions begin as whitish, water-soaked lesions up to 3 mm (1/8") in diameter. As lesions age, they turn light tan to dark brown and eventually become sunken and black. During humid or wet weather, lesions may be covered with pink to orange spore masses. Anthracnose on green fruit often begins as single seed infections. Infected seeds turn black and become slightly sunken. In all cases, affected fruit eventually form hard shriveled mummies. Lesions on strawberry stolons and petioles are often associated with Anthracnose Crown Rot. Lesions begin as small red streaks and rapidly become dark, sunken, elongated lesions. Pink spore masses

form under humid conditions. When lesions encircle the stem, its leaf wilts and dies. The first symptom of Anthracnose Crown Rot is wilting of the youngest leaves on the plant. The inside tissue of infected crowns will develop a firm, reddish brown rot. The entire plant eventually wilts and dies. Spread and severity of the disease may be reduced by practices that keep the foliage as dry as possible. Fields where high rates of nitrogen are used, especially ammonium sources of nitrogen, have significantly higher disease levels. Abound, Cabrio, Captan, Captevate, and Pristine are labeled for control of Anthracnose on strawberries. HOWEVER, RESISTANCE TO FUNGICIDES WITH FRAC CODES 1 AND 11 HAVE BEEN NOTED IN SOME FIELDS. To be effective, sprays should be started before the onset of the disease. Follow label for best results.

### Strawberry Anthracnose Fruit Rot-*Colletotrichum acutatum*



Photo by Sherrie Smith, University of Arkansas  
Cooperative Extension

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.



## Strawberry Anthracnose Crown

*Rot-Colletotrichum acutatum*



Photo by Sherrie Smith, University of Arkansas  
Cooperative Extension

## Strawberry Anthracnose Crown

*Rot-Colletotrichum fragariae*



Photo by Sherrie Smith, University of Arkansas  
Cooperative Extension

## Pecan

The Plant Health Clinic has received several pecan samples with poor quality nuts due to Embryo Rot. Embryo Rot is caused by environmental conditions. Too much moisture causes nuts to sprout in the shells and then dry out. Diagnostically, the eye of the kernel where the two halves attach will be discolored or completely rotted out. The entire nut or large portions will be blackened and ruined. Embryo Rot may occur when there is a lack of penetrating freezes that would dry and shed the shuck. It also occurs when nuts are sitting on the ground subjected to flooding or prolonged wet periods.

## Pecan Embryo Rot-Abiotic



Photo by Sherrie Smith, University of Arkansas  
Cooperative Extension



## Spider Mites

Spider Mites are a scourge on many ornamental and food crops. Warm weather mites such as the Twospotted spider mite, *Tetranychus urticae*, and Tumid spider mite, *Tetranychus tumidus*, can complete their life cycle in as little as a week to eight days when temperatures rise to 85-95°F (30-35°C). During cool weather, it may take a month or more to go from egg to mature adult. Twospotted spider mites overwinter as adult mites in the soil. Most other common spider mites overwinter as eggs on leaves or bark. Cool weather mites such as those commonly found on broad-leaved evergreens and conifers, as well as the Southern red mite and European red mite are most active in the spring and fall months. Severity of mite infestations is dependent on host species, plant health, leaf age, and moisture stress. Stressed plants are always more susceptible to mite attacks. Growers should be aware that plants that had large numbers of mites last season are likely to have mites this season. Scout early before significant damage has been done. Insecticidal soaps, fine horticultural oils, and products containing bifenthrin are labeled for use against spider mites for homeowners.

## Tomato Twospotted Spider Mite damage-*Tetranychus urticae*



Photo by Don Plunkett, University of Arkansas Cooperative Extension

## Tomato Twospotted Spider Mite damage-*Tetranychus urticae*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

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.



## **Twospotted spider mites mating-** *Tetranychus urticae*



**Photo by Ricky Corder, 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."

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.