



Arkansas Plant Health Clinic Newsletter

Follow us on social media



Strawberry

More than thirty viruses and phytoplasmas have been documented affecting strawberries. Aphids, whiteflies, and nematodes are among the vectors transmitting viruses to strawberries. The most economically important viruses are those transmitted by aphids. Strawberry Crinkle Virus (SCV), Strawberry Mild Yellow Edge Virus (SMYEV), Strawberry Mottle Virus (SMoV), and Strawberry Vein Banding Virus (SVBV) are considered the most important in terms of yield loss. There are usually no visual symptoms when a strawberry is infected by a single virus. However, infections by more than one virus can result in visual symptoms, yield loss, and plant decline. Symptoms may include stunting, yellowing or reddening of the foliage, leaf mottle, leaf curling, deformed berries, and plant collapse. Symptoms may resemble nutritional deficiencies or toxicities. There is no cure for a virus infected plant. Plants with viruses should be removed from the planting. The only preventatives are starting with virus free plants and practicing good vector control. Growers should scout for insects and use recommended control strategies. Commercial growers may use Admire Pro, or Provado 1.6F, or Actara for both aphids and whiteflies. Homeowners may

use insecticidal soap, pyrethrin, malathion, or Sevin. Contact Dr. Donn Johnson (dtjohnson@uaex.edu) for more information on scouting techniques and control strategies.

Strawberry Mild Yellow Edge Virus (SMYEV)-Potexvirus



Photos 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.



Willow

Willows like moist soil and can tolerate a lot of water. However, on soils that stay wet for extended periods of time, the oxygen content in the soils becomes limited and feeder roots start to die. The tree tries to compensate by forming clumps of adventitious roots above the soil line. Allow the soil to dry between watering. The strange looking clusters of root initials on the trunk usually do not disappear.

Willow Adventitious Roots-Abiotic



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Tomato

Timber Rot, caused by *Sclerotinia sclerotiorum*, is one of the common names given to a serious fungal disease of tomato. The disease is also known as White Mold or Sclerotinia Rot. Timber Rot is also found on alfalfa, beans, cabbage, canola, carrots, celery, cucumbers, eggplant, lettuce, onions, peas, peppers, potatoes, pumpkins, and squash, among others. Symptoms are water-soaked lesions, usually at the soil line, that eventually girdle the stem. During periods of high humidity, white fungal growth covers the lesions. Hard, black pebble-like survival structures of the fungus called sclerotia develop on the outer surface of the stem or inside the stem. Timber Rot is most active when temperatures are between 59° and 70°F coupled with high humidity, rainfall, and/or heavy dews. Timber Rot is difficult to control because the survival structures can persist in the soil for up to 10 years, and because of the large host range. Soil fumigation where it is still permitted is an option for commercial growers. The fungicides Evito 480SC and Aftershock are labeled for commercial growers to use for suppression. Homeowners may use soil solarization, sanitation, and a biocontrol product called Contans WG. The active ingredient of Contans WG is *Coniothyrium minitans*, a fungus that parasitizes the sclerotia. It must be applied several months before planting the crop, or in the fall following harvest.



Tomato Timber Rot-*Sclerotinia sclerotiorum*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Tomato Timber Rot-*Sclerotinia sclerotiorum*



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.



Blackberry

Orange Rust of blackberries and raspberries, caused by *Gymnoconia nitens*, is a systemic rust that grows throughout the plant. Once the plant is infected, it will always have Orange Rust. Orange Rust does not usually kill the plant but reduces yield by weakening and stunting the infected plant. New shoots in the spring are weak and spindly with stunted or malformed and paler than normal leaves. Any plants with these symptoms should be immediately removed before the Orange Rust pathogen starts producing spores. If infected plants are left in place, the lower surface of the leaves becomes covered with waxy, blister-like pustules. The pustules turn bright orange and powdery. The spores are spread by wind and rain splash. The infected leaves wither, turn brown, and drop from the plant. The best defense is removal of any infected plants immediately as well as the removal of nearby wild brambles. There are no effective chemical controls.

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."

Blackberry Orange Rust- *Gymnoconia nitens*



Photo by Mitch Crow 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.