



Sherrie Smith

Rick Cartwright

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.

Photinia

Red tip Photinia is one of the most popular shrubs grown in the southern United States. Unfortunately, most members of this family are susceptible to *Entomosporium* leaf spot. Leaf spots first appear as tiny red specks on either surface of the leaf. The bright red spots may coalesce into large maroon blotches. Older spots may have gray centers with dark purple halos. Severe infections may result in heavy leaf drop and weakening or death of the plant. Cultural controls consist of avoiding overhead irrigation, improving air circulation, and cleaning up fallen leaf/stem debris. Chemical control using Daconil or Funginex is effective but sprays must be applied early and continued throughout the season.



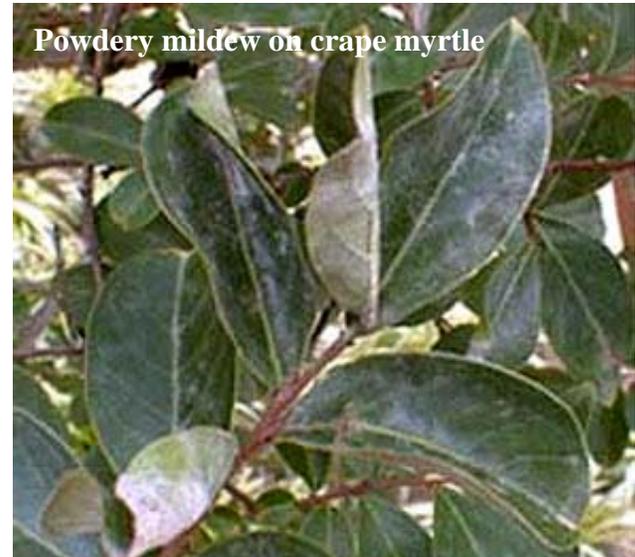
Entomosporium leaf spot of Photinia

Steve Vann University of Arkansas Cooperative Extension

Crape Myrtle

Powdery mildew on crape myrtle is caused by the fungus *Erysiphe lagerstroemiae*. It attacks new growth first and is noticeable as a white powdery covering on the leaf surface. Flowers, stems, and older growth are also affected. Leaves and flowers may become distorted and stunted. In severe cases premature leaf drop can occur. Cool nights, frequent wetting of the foliage and shady locations encourage powdery mildew. This disease is most prevalent in the spring and fall.

Crape myrtle should be planted in a sunny location with good air circulation. Chemicals such as daconil (MP154) will help suppress its spread. The best defense against powdery mildew is planting resistant cultivars. Lists of resistant varieties can be found on the internet.



Powdery mildew on crape myrtle

<http://www.cals.ncsu.edu/course/pp318/profiles/map/cm.htm>

Turf

Brown patch (causal agent *Rhizoctonia solani*) is a serious turf disease affecting warm and cool season grasses. Symptoms on Zoysia, Bermuda grass or St. Augustine include irregular to circular patches of light brown, thinned turf. Sometimes a thin stand of green grass grows inside the browned areas. Cool season grasses such as bent, fescue, and rye will often develop patches with a darkened border or smoke ring at the outer edge of the patch. Active infections are noticeable at the edge of patches by yellow leaves. Individual leaf blades may have lesions with bleached centers and purple margins. The patches can grow to several yards in diameter developing in the fall to early spring as the grass breaks dormancy. Leaf sheaths rot enabling them to be easily pulled from the runner. Disease develops most rapidly when air temperatures are 75-85°F and wet conditions are present. The disease gradually subsides when temperatures rise above 90°F. Controlling leaf moisture is important in managing this disease. Turf should be watered only when necessary and early in the day to



Sherrie Smith

Rick Cartwright

allow it to dry out. Excessive nitrogen applications should be avoided before the onset of hot humid weather. Several light applications are safer than a heavy application. Good drainage and aeration are excellent preventative measures. Fungicides (MP 154) may be necessary. The clinic has received numerous samples of St. Augustine with take-all patch caused by *Gaeumannomyces graminis*. The first symptom of this disease is yellowing of the leaves and discoloration of the roots. The area of turf affected may be circular or irregular in shape and up to 20 feet in diameter. The stolons will often have dark brown to black areas. It is severe in the range of 59-76 °F, and develops under cool moist conditions in midspring to early summer. During periods of high heat stress the grass will continue to decline. Severe symptoms are often observed on lawns with a high sand content and a pH above 6.5. A deficiency in potassium and/or phosphorous may increase severity. Infections may be spread to other areas by lawn equipment and the movement of plant debris. This can be a difficult disease to control. Cultural controls consist of adjusting the pH to 5.5-6.0, providing adequate potassium and phosphorous based on an annual soil test, improving the root zone by coring, dethatching, and proper irrigation. Fungicide applications should be applied in the spring.

Brown patch



Take all patch



<http://www.ipm.ucdavis.edu/PMG/r785102211.html>

Ash

Ash trees are prone to several problems. Ash decline, known as ash yellows, is caused by a phytoplasma-like organism. Infected trees show up to 79% slower growth than uninfected trees. Other symptoms include decline, twig dieback, and witches broom growths of dense short twiggly clusters of branches. Leaves in these abnormal sprouts are light green or develop chlorosis between the veins. These twigs often die back during the winter. Witches broom sprouts are usually only about 15-18 inches long (note the diagnostic growth at the bottom of the tree). Mode of transmission of the disease is unknown although insect vectors are suspected. There is no treatment. Good cultural practices, watering and fertilization will prolong the life of the tree. Ash anthracnose is a problem seen this time of year. Buds are infected in the spring, causing necrosis and distortion of the newly emerging leaves. Such leaves will often have irregular brown blotches associated with leaf veins. Symptoms on older leaves are small brown circular lesions. In severe cases this disease can cause defoliation of the tree. Control consists of raking up and burning fallen leaves and twigs. Three applications of fungicides may be used in the spring, at bud swell, at bud break, and when leaves are half grown. Daconil works well.

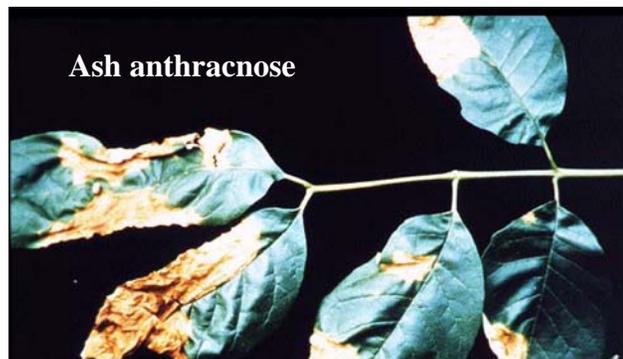


Sherrie Smith
Rick Cartwright



Asters yellows on ash

© photo by Mark Guthmiller, WI DNR



Ash anthracnose

<http://www.treehelp.com/trees/ash/ash-athracnose.asp>

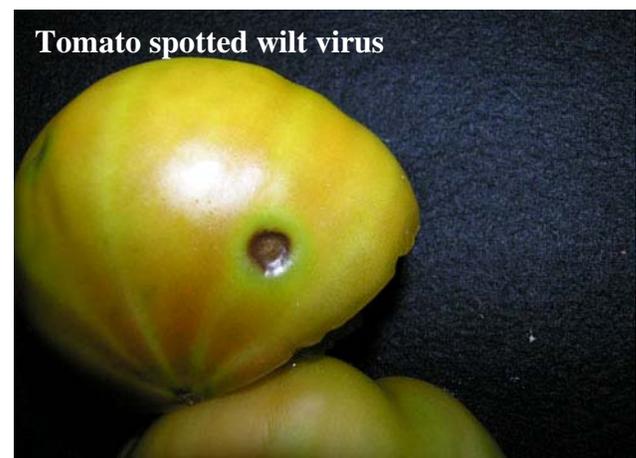
Tomato

Tomato samples continue to come in from around the state with tomato spotted wilt virus. We have discussed in an earlier newsletter the leaf symptoms which include bronzing with dark spots and terminal dieback. An interesting fruit sample came in last week. It didn't have the typical ring spotting, but had dark brown streaks and spots inside the fruit walls, with some sunken brown spots on the outside of the fruit. Since this virus is spread by thrips, infected plants should be destroyed at the first sign of symptoms.



Tomato spotted wilt virus

Sherrie Smith University of Arkansas Cooperative Extension



Tomato spotted wilt virus

Sherrie Smith University of Arkansas Cooperative Extension

UofA UNIVERSITY OF ARKANSAS
DIVISION OF AGRICULTURE
Cooperative Extension Service



Department of Plant Pathology
PLANT HEALTH
CLINIC NEWS



Sherrie Smith
Rick Cartwright