



Sherrie Smith
Rick Cartwright

Arkansas Plant Health Clinic Newsletter

Follow us on social media



[Facebook](#)

Pear and Apple

There are several reasons pear and apple fruit may have Russet-type symptoms on the fruit. The condition is commonly referred to as Russet Ring and can occur when spring frosts have damaged flower buds. This results in a superficial Russet Ring around mature fruit's skin. A virus-like organism, Apple Scar Skin Viroid (ASSVd), may cause similar looking blotches and scarring on apple. In this case, fruit does not ripen properly and remains small and hard with a bad taste. Viroids are not curable, and they are transmitted in apple by seed, pollen, and grafting.

Apple Russet Ring-Freeze injury



Photo by Sherrie Smith, University of Arkansas
Cooperative Extension

Pear Russet Ring-Freeze injury



Photo by Sherrie Smith, University of Arkansas
Cooperative Extension

Turnip, Cauliflower, Broccoli

Downy mildew is an important disease of Brassica crops and is found wherever such crops are grown. This disease, caused by *Hyaloperonospora parasitica*, can infect cabbage, Brussels sprout, cauliflower, broccoli, kale, kohlrabi, Chinese cabbage, turnip, radish, and mustard as well as weeds in the cruciferous family. Downy mildew can kill seedlings outright. On older plants, small, angular lesions develop on leaves and inflorescences. Lesions become larger and irregular, orange to yellow with dense sporulation on the underside of the leaves. Black streaks may develop on stems and brown to gray coloration on heads or curds of affected plants. Black epidermal blotches and

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.



Sherrie Smith
Rick Cartwright

corresponding internal discoloration may develop on turnip and radish storage roots. All crop debris should be plowed under immediately after harvest and a crop rotation of two to three years used between Brassica crops. Fungicides with different modes of action should be alternated to prevent the Downy mildew fungus from developing resistance to a particular mode of action found in a group of fungicides. Amistar, Kocide, Maneb, Manex, and Cabrio are labeled for Brassica crops. The only one of these fungicides labeled for homeowner use is Kocide.

Turnip Downy Mildew- *Hyaloperonospora parasitica*



Photo by Sherrie Smith, University of Arkansas Cooperative Extension

Broccoli Downy Mildew- *Hyaloperonospora parasitica*



Photo by APS Compendium Image Series R.H. Morrison

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.



Sherrie Smith
Rick Cartwright

Broccoli Downy Mildew- *Hyaloperonospora parasitica*



Photo by APS Compendium Image Series, R.H. Morrison

Cauliflower Downy Mildew- *Hyaloperonospora parasitica*



Photo by APS Compendium Image Series, B. Dahl Jensen

St. Augustine

by Micah Doubledee

Gray leaf spot can be a destructive disease on grasses such as St. Augustine, perennial ryegrass, Italian ryegrass, and tall fescue as well as other grasses. Epidemics occur during warm summer months and can continue until

frost. Gray leaf spot is caused by *Pyricularia grisea* (syn. *P. oryzae*). This fungal pathogen also causes blast disease on rice and other cereal grains. Symptoms of the disease on warm-season grass are tiny brown lesions that develop on the leaves and stems. These lesions grow rapidly and turn into elongated round to oblong spots. These spots can cover the entire leaf and leaves that are heavily damaged may die. The leaf spots tend to be tan to gray with purple to brown borders. In hot humid weather, these spots may develop a grayish, felty mass of conidia (spores). Lesions may combine and form irregular shapes and cause blighting of the leaf blade. Leaves that are blighted have a twisted or fishhook appearance. From a distance, this disease may be confused with Pythium leaf blight or dollar spot. Symptoms may also be confused with drought or heat stress. This disease is most severe in warm, humid weather between 82 to 90°F and on newly established plantings. High nitrogen rates also increase the severity of the disease. At the onset of heavy frost sets is usually when the disease subsides. Management practices for gray leaf spot include limiting drought stress, extended periods of leaf wetness, excess nitrogen, soil compaction, herbicide stress, and plant growth regulators. Avoid overseeding turf until cooler weather. If possible, grow a variety of grass that has a fairly high level of resistance to the disease. If disease problems become chronic, preventative fungicides that can be used by commercial growers include Compass 50WG (trifloxystrobin), Banner MAXX (propiconazole), Fungo 50, Cleary's 3336F (thiophanate-methyl), Daconil Ultrex



Sherrie Smith
Rick Cartwright

(chlorothalonil), or Bayleton 50WSP (triadimefon). Home growers can use products that are specific for leaf spot diseases on turf with active ingredients that include trifloxystrobin, or propiconazole, or thiophanate-methyl, chlorothalonil, or triadimefon. Applications should be made at first sign of disease, then at 14-day intervals.

"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."

St. Augustine Gray Leaf Spot- *Pyricularia grisea*



Photo by Micah Doubledee, 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.

St. Augustine Gray Leaf Spot spores-*Pyricularia grisea*



Photo by Micah Doubledee, 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.