



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.

Bamboo

Sooty Stripe of bamboo, caused by the fungus *Papularia arundinis*, enters bamboo culms primarily through wounds. Once the fungus enters the plant tissue, the disease spreads downwards into the main stem. The affected tissue becomes grayish-brown and dries up. Soon after, linear sori, (structures producing and containing spores), develop on the dead tissue. Sori may coalesce into linear stripes. They are erumpent exposing masses of dark spores which are dispersed by wind and water. The sori resemble rust or smut structures and are often confused. However, the spores themselves do not look like smut or rust spores. Mature *Papularia* spores are ovate-elliptic to spherical, chocolate-brown, and thick-walled, with a light lenticular stripe. They measure 7.5-11.5 μ . Bamboos are aggressive growers and spreaders, making chemical intervention usually not necessary. Damaged canes should be removed at ground level. If infections are severe, homeowners may use Fertilome Broad Spectrum Lawn and Garden Fungicide, (chlorothalonil), or Hi-Yield Vegetable, Flower, Fruit, and Ornamental Fungicide, (chlorothalonil) or Ortho Maxx Garden Disease Control, (chlorothalonil), or Ortho Disease B Gon Garden Fungicide, (chlorothalonil), or Garden Tech Daconil Fungicide, (chlorothalonil), or Bonide Fung-onil Multipurpose Fungicide, (chlorothalonil), or Spectracide Immunox Plus, (myclobutanil & permethrin), or Bonide Rose Rx Systemic Drench, (tebuconazole), or Bayer Advanced Garden-Disease Control for Roses, Flowers, Shrubs, (tebuconazole), or Bayer Advanced Garden-All-in-One Fungicide/Insecticide/Fertilizer, (tebuconazole & imidacloprid), or Fertilome 2-N-1 Systemic Fungicide, (tebuconazole & imidacloprid), or Bonide Infuse Systemic for Turf and Ornamentals, (thiophanate-methyl), or Ortho Rose and Flower Insect and Disease Control, (triticonazole & acetamiprid).

Bamboo Sooty Stripe-*Papularia arundinis* syn. *Arthrinium arundinis*



Sherrie Smith, University of Arkansas Cooperative Extension



Bamboo Sooty Stripe sori- *Papularia arundinis* syn. *Arthrinium* *arundinis*



Sherrie Smith, University of Arkansas Cooperative Extension

Bamboo Sooty Stripe spores- *Papularia arundinis* syn. *Arthrinium* *arundinis*



Sherrie Smith, University of Arkansas Cooperative Extension

Orchardgrass

Brown stripe, caused by the fungus *Cercosporidium graminis* (*Scolecotrichum graminis*), has been reported on over 140 species of grasses and cereals including Orchardgrass, Fescue, Timothy, Bluegrass, and Bentgrass, wheat, oats, and rye among others. Symptoms begin between leaf veins and progress towards the leaf tips as oblong brown lesions. The spore producing bodies of the fungus may be seen within the lesions as parallel rows of tiny black to gray dots. Although Brown stripe can develop throughout the growing season, cool, wet conditions in spring and fall are the most favorable for disease development. Spring infections can result in the premature loss of leaves as they die from the tips downward. Forage quality and quantity as well as seed production and quality and quantity may be seriously impacted. There are no chemical controls recommended. Growers may practice controlled burning of dead grass in early spring. This reduces severity in the following crop. Heavy fall grazing also helps reduce the amount of fungal inoculum. The excessive use of quick acting nitrogen fertilizers, can contribute to the severity of Brown stripe. Adequate levels of potassium and phosphorous are essential. If possible, rotate at least two years with a non-grass crop. Plow under all debris at the end of the season and practice good weed control.

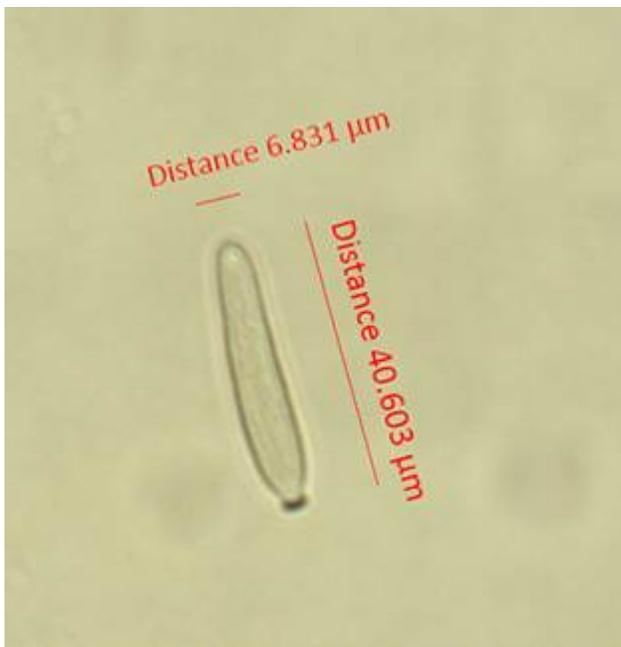
Orchardgrass Brown stripe- *Cercosporidium graminis* (*Scolecotrichum* *graminis*)



Sherrie Smith, University of Arkansas Cooperative Extension



Orchardgrass Brown stripe spores- *Cercosporidium graminis* (*Scolecotrichum graminis*)



Sherrie Smith, University of Arkansas Cooperative Extension

and American ash (*F. americana*) are less susceptible than green ash (*F. pennsylvanica*) and Chinese ash (*F. chinensis*). Preventative fungicides may be applied at bud swell in the spring followed by a second application two weeks later. Products containing chlorothalonil, or copper may be used.

Ash Anthracnose-*Discula fraxinea*



Sherrie Smith, University of Arkansas Cooperative Extension

Ash Anthracnose-*Discula fraxinea*



Sherrie Smith, University of Arkansas Cooperative Extension

Ash

Susceptible cultivars of Ash are prone to Ash Anthracnose during cool, wet springs. This is a fungal disease caused by *Discula fraxinea*. The fungus overwinters on infected twigs, bud scales, and leaf litter. In the spring the spores are carried by rain and wind to newly emerging leaves and tender new twigs. Symptoms are black blotches on the leaves, leaf distortion, and small purplish-brown spots on the leaves. Premature leaf fall can be dramatic when petioles are infected. The tree will re-foliate almost immediately, but year after year of infection followed by having to produce another crop of leaves eventually weakens the tree and permits readier access for insects and other pathogens. Control begins with good sanitation. All fallen leaves and twigs should be raked up and removed. Resistant cultivars should be used when possible. Blue ash (*Fraxinus quadrangulata*) is very resistant. Pumpkin (*F. tomentosa*)



Maple

Cool, wet weather in the spring is also favorable for outbreaks of Maple anthracnose, caused by the fungus *Gloeosporium apocryptum*. Symptoms are brown to black lesions along the veins of newly opening leaves. The lesions expand and can cover large areas of the leaves. Buds, leaves, twigs, and branches up to an inch in diameter may be killed. The infected leaves fall from the tree, causing the tree to expend additional energy to re-foliate. Yearly infections by can weaken maple trees, predisposing them to other diseases and to insects. Good sanitation is critical in anthracnose control. All fallen leaves and twigs should be raked up and removed from the planting. If the tree is small enough to make pruning practical, infected twigs should be pruned out of the canopy. A product containing chlorothalonil or mancozeb or copper may be applied at bud swell in the spring, and twice afterwards at 10-14 day intervals.

Maple Anthracnose- *Gloeosporium apocryptum*



Sherrie Smith University of Arkansas Cooperative Extension

Maple Anthracnose- *Gloeosporium apocryptum*



Sherrie Smith University of Arkansas Cooperative Extension