



Vermont Forest Health

Anthracnose Disease

Department of Forests, Parks & Recreation
June 2011
vtforest.com

Thanks to wet spring conditions, anthracnose diseases of hardwoods, caused by a number of related fungi, are now obvious and prevalent in parts of Vermont. Trees that were sporting lush, green leaves last week may suddenly be displaying foliage with dark spots and discoloration along the veins and mid-rib. We've recently received reports and samples of maple, ash, sycamore and oak anthracnoses from locations throughout Vermont. Elm, birch, beech, hickory and other hosts can also be attacked, each by its own species-specific fungus.



Characteristic brown spots on red maple leaves caused by anthracnose.

(Photo: G. Cook)

Symptoms

Anthracnose diseases are typified by leaf disorders, including the appearance and irregular spread of brown/dead areas on leaves, lesions that follow the leaf veins, and shriveling of young leaves. Flowers and fruit may also develop dark lesions. On oak, sycamore, and ash, young shoots may be killed, and dieback of twigs and branches may occur. Wet weather and moderate temperatures can perpetuate the development of the fungus. Although the fungi can complete several cycles of disease in a single year, young, newly-emerging leaves are more susceptible. Browning that shows up later in the season is usually the result of spring infections that are manifest as damaged leaves dry out.



Typical appearance of leaves infected with anthracnose.

(Photo: D. Dillner)

Life Cycle

In Vermont, the fungal pathogens that cause anthracnose diseases overwinter on fallen leaves. In oak, sycamore, and ash they may also overwinter in twig lesions or cankers. In the spring, new infections are initiated when spores are released from overwintering sites. Cool, wet weather slows the development of trees and can make them susceptible to the disease pathogens for prolonged periods. On the other hand, dry, hot conditions slow down the disease advancement.

Unsightly, but Not a Killer

Though diseased trees may be unsightly, anthracnose is usually not a serious concern. Trees affected early in the season may re-foliate. Infected trees are rarely killed, though they may be weakened and predisposed to other types of damage. Leaves may fall prematurely.



Anthracnose lesions may appear as water-soaked spots.
(Photo: S. Wilmot)



Infection in the spring may kill young leaves and shoots on ash and other hosts.
(Photo: S. Wilmot)

Managing Anthracnose

With shade and ornamental trees, raking and destroying leaves in the fall may afford some protection by reducing potential exposure the following spring, and measures may be taken to maintain tree vigor. Management is not practical in forested settings.



**For more information,
contact the Forest
Biology Laboratory
at 802-241-3606 or:**

Windsor & Windham Counties.....
Bennington & Rutland Counties.....
Addison, Chittenden, Franklin & Grand Isle Counties.....
Lamoille, Orange & Washington Counties.....
Caledonia, Orleans & Essex Counties.....

Springfield (802) 885-8845
Rutland (802) 786-0060
Essex Junction (802) 879-6565
Barre (802) 476-0170
St. Johnsbury (802) 751-0110

Forest health programs in the Vermont Department of Forests, Parks, and Recreation are supported, in part, by the US Forest Service, State and Private Forestry, and conducted in partnership with the Vermont Agency of Agriculture, Food, and Markets, USDA-APHIS, the University of Vermont, cooperating landowners, resource managers, and citizen volunteers.