

at a glance

- Aspen and poplar leaf spot are caused by several species of *Marssonina* fungi.
- Dead spots on leaves start out as brown to bronze specks, sometimes with yellow margins, then turn black.
- Specks coalesce into larger, brownish-black areas that are bounded by the leaf veins.
- Fungi may invade and kill succulent new shoots.
- Severe infections cause leaves to drop in early August.
- This disease survives on infected fallen leaves, causing infection the following year.
- Disease is generally more severe during warm, wet weather.
- Cultural control includes burning infected leaves and keeping trees dry.
- Fungicide applications provide effective control but need to be made in the spring before symptoms appear.

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Leaf Spot of Aspen and Poplar

Causal Agent and Hosts

Leaf spot is a common and occasionally serious disease of aspen and poplar trees. Several species of fungi in the genus *Marssonina* cause leaf spot disease, which is often referred to as Marssonina leaf spot. Many trees in the genus *Populus*, which includes aspen, cottonwood, and hybrid poplars, are affected.

In Idaho, Marssonina leaf spot is most commonly a problem on aspen trees. Trees rarely die from Marssonina leaf spot unless they are repeatedly infected, causing them to be more susceptible to branch dieback or to be attacked by other diseases or insects. However, leaf spot can seriously disfigure affected trees.

Disease Life Cycle

Fungal spores from the previous year's infected leaves, carried by wind, land on newly emerging leaves in the spring. The spores germinate and infect the leaves, causing symptoms to appear. The fungi may also invade small shoots. Mature fungal spores survive on infected leaves and twigs that fall to the ground at the end of the growing season, thus completing the life cycle and creating a source of infection the next spring.

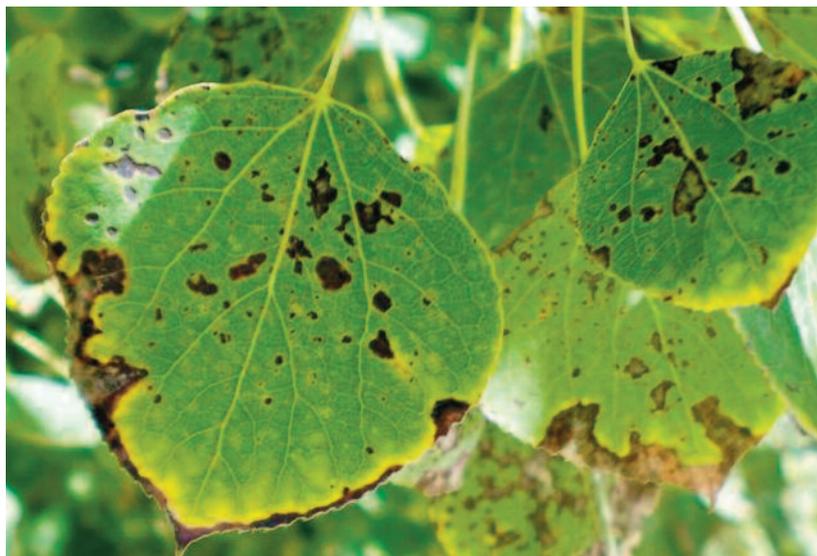


Figure 1. Marssonina leaf spot on aspen. Photo by William H. Bohl.

Symptoms

Depending on the species of tree infected, brown, bronze, or reddish-brown specks form on the leaves (figure 1). Again depending on tree species, some of the specks may have yellow margins. These specks eventually coalesce into larger blotches but do not cross leaf veins. The spots may involve nearly the entire leaf. Marssonina leaf spot is generally more severe during periods of wet, warm (70 to 75°F) weather.

Control

Cultural management

Aspen and poplar clones vary widely in susceptibility to Marssonina leaf spot, with some trees being resistant or immune. Poplar trees purchased from nurseries generally are not labeled as to their susceptibility to Marssonina leaf spot. Before purchasing, ask if the poplar trees have resistance to this disease. For aspen trees, the degree of resistance is very seldom known. If resistant trees are unavailable, then implement other cultural management practices:

- Properly prune branches.
- Space trees far enough apart to maintain good air circulation to keep leaves dry.
- Do not allow sprinklers to wet even the lower leaves.
- Collect leaves and twigs in the fall and burn them if burning is permitted.

Chemical control

Susceptible trees that have been repeatedly infected even after the use of cultural control practices may benefit from a fungicide application. Apply a fungicide labeled for use on aspen, poplar, or ornamental trees and also labeled to control Marssonina leaf spot. The pesticide label may list the disease simply as leaf spot.

The most commonly sold homeowner products for leaf spot control contain the active chemical ingredient chlorothalonil. There may be other effective active ingredients, but be certain the product is labeled for use as mentioned above. Begin treatment in the spring at bud break and repeat applications, if necessary, according to label directions.

ALWAYS read and follow the instructions printed on the pesticide label. The pesticide recommendations in this UI publication do not substitute for instructions on the label. Pesticide laws and labels change frequently and may have changed since this publication was written. Some pesticides may have been withdrawn or had certain uses prohibited. Use pesticides with care. Do not use a pesticide unless the specific plant, animal, or other application site is specifically listed on the label. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

Trade Names—To simplify information, trade names have been used. No endorsement of named products is intended nor is criticism implied of similar products not mentioned.

Groundwater—To protect groundwater, when there is a choice of pesticides, the applicator should use the product least likely to leach.

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