

A2562

Mountain ash disorder: Fire blight

M. F. HEIMANN and G. L. WOLF

Although fire blight sometimes causes dramatic and serious damage, it does not affect a large number of mountain ash trees in Wisconsin. Other common hosts of fire blight include varieties of apple and flowering crab, cotoneaster, and other members of the family Rosaceae.

Symptoms and effects

This disease blights and blackens leaves and either the vegetative shoots or blossoms of affected branches. Symptoms develop suddenly during warm periods in spring, turning the affected parts brown and then black. This blight

usually infects individual branches only. However, the disease produces cankers that can advance into major branches and sometimes into the trunk. Cracks eventually develop between the dead bark of the canker and the surrounding healthy wood, though these are not present immediately after the first symptoms appear. A yellow or brown sticky ooze emerges occasionally from the cankered or diseased areas, especially during wet periods. This ooze contains bacteria, which spread the disease.

Field identification of fire blight is possible, but consider sunscald and other canker problems when you diagnose the disorder. The sudden onset of the disease, the infection of branch or twig tissue, the dark cankering, and the bacterial ooze are the best clues to a correct field diagnosis of fire blight. Laboratory diagnosis can aid field identification, especially if affected branches are submitted soon after symptoms appear. Contact your county Extension office for help in submitting a specimen.



When fire blight attacks a mountain ash, multiple branches suddenly turn brown while unaffected areas of the tree remain green. This tree is badly infected but healthy. Removing the diseased parts will halt the infection.

Cause

A bacterium, *Erwinia amylovora*, causes fire blight on mountain ash.

Control

Cultural

Succulent, rapidly growing tissue is most susceptible, so to prevent fire blight, avoid using excessive nitrogen-containing fertilizer. If the disease develops anyway, place the tree on a low-nitrogen program. You should also prune affected branches. On a sunny day, cut them off at a point well below the place where external symptoms appear. Clean, then sterilize the pruning tools between cuts. Use a solution of 1 part liquid household bleach to 5–10 parts water for 1 minute, or dip tools in rubbing alcohol or another acceptable sterilant for 1 minute.

Chemical

For increased protection from fire blight, spray the diseased tree every 3–4 days during flowering with antibiotics that contain streptomycin, such as Agrimycin. This may work better if applied at night. Repeat the treatment the following spring at flowering. Always follow the manufacturer's current directions.

References to products in this publication are for your convenience and are not an endorsement of one product over other similar products. You are responsible for using chemicals according to the manufacturer's current label directions. Follow directions exactly to protect the environment and people from chemical exposure.

^{UW}Extension

Authors: M.F. Heimann, O.S.F., is distinguished outreach specialist of plant pathology and G.L. Worf is professor emeritus of plant pathology, College of Agricultural and Life Sciences, University of Wisconsin-Madison and University of Wisconsin-Extension, Cooperative Extension. Produced by Cooperative Extension Publications, University of Wisconsin-Extension.

University of Wisconsin-Extension, Cooperative Extension, in cooperation with the U.S. Department of Agriculture and Wisconsin counties, publishes this information to further the purpose of the May 8 and June 30, 1914 Acts of Congress; and provides equal opportunities and affirmative action in employment and programming. If you need this material in an alternative format, contact Cooperative Extension Publications at 608-262-8076 or the UWEX Affirmative Action Office.

This publication is available from your Wisconsin county Extension office or from Cooperative Extension Publications. To order, call toll free 877-WIS-PUBS (947-7827) or visit cecommerce.uwex.edu.

A2562 Mountain Ash Disorder: Fire Blight (1995)

SR-05-95