

Fire Blight 2020 _ Statewide

Our rainy days followed by temperatures above 75°F are ideal for fire blight infection and old cankers are beginning to seep bacteria as the pathogen grows.

Symptoms: Fire blight is a bacterial pathogen that infects flowers of pear, apple, crab apple and other members of the Rosaceae family. Symptoms include dead branches, water-soaked blossoms, light brown to blackened leaves, discolored bark, black "shepherd's crook" twigs (Figures 1 & 2). The development of the shoot blight is dependent upon the existence of wounds at the shoot tips and the dissemination of the fire blight pathogen to those tips. The initial symptom of shoot infection is flagging or wilting of the shoot tips.



Figure 1: Brown/black leaves and branch dieback caused by fire blight. Source: wikimedia.org

The bacteria can rapidly spread through the plant killing both the scion and the rootstock of susceptible cultivars and rootstocks. Young trees are particularly vulnerable to the disease (Figure 2) which thrives under warm (75-90°F) and humid conditions.

Control: The key for backyard growers to control fire blight is to follow cultural practices that prevent infection or discourage its growth. Chemical sprays are often unnecessary and should be used only as a last resort as the most effective options are antibiotics which the bacteria can become resistant to.



Figure 2: Fire blight damage on an apple tree.
Source: ohioline.osu.edu

To avoid fire blight, backyard growers should plant resistant varieties of apples, pears, crab apples and other susceptible species. Additionally, they should avoid irrigation during bloom, keep fertility to a minimum especially in young trees and for susceptible varieties of young trees remove blossoms by hand thinning. In cases where fire blight was present in previous years a dormant copper spray can provide sanitation, but should only be used if fire blight was previously in the area. If trees are infected, early identification to prune out infections is crucial.

For more information visit [Fire Blight Management in Montana Orchards](#). This resource includes links to several fire blight resources for identifying and controlling the pathogen including a [tool to assess your fire blight risk](#).

Sincerely,

Katrina Mendrey (katrina.mendrey@montana.edu) and Eva Grimme (eva.grimme@montana.edu)

Disclaimer:

These recommendations are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. Due to constantly changing labels and product registration, some of the recommendations given in this writing may no longer be legal by the time you read them. If any information in these recommendations disagrees with the label, the recommendation must be disregarded. No endorsement is intended for products mentioned. The authors and Montana State University assume no liability resulting from the use of these recommendations.