

Fireblight in Fruit Trees



Fireblight disease attacks a variety of trees but primarily apple, crabapple and pear trees and other trees and shrubs in the rose family. It can attack cotoneaster (*Cotoneaster* spp.), hawthorn, and mountain-ashes (*Sorbus* spp.) and occasionally the saskatoon (*Amelanchier* spp.), spirea (*Spires* spp.), rose and raspberry. Different species of trees are affected by fireblight in varying degrees.

Symptoms

Leaves near the growing tips and the flowers suddenly wilt, turn brown to black and appear to have been scorched by fire. Blackened new growth is often curled at the tip (shepherd's crook). A slimy bacterial ooze may be noticed on newly wilted shoots. In some varieties of apple and crabapple, only the blossom spurs are affected. The twigs and sometimes the larger branches are blighted. Cankers can develop on the trunk and branches.

Cause

Fireblight is caused by bacteria called *Erwinia amylovora*. It is spread from tree to tree by bees, flies, other insects and splashing rain. Under favourable conditions, bacteria multiply rapidly contaminating hundreds of blossoms quickly. The bacteria penetrate and infect the blossoms, then continue down the fruit spurs, twigs and even branches, killing the tissue along the way.

Control

Blighted twigs should be pruned at least 25 cm (10 inches) below the infected area and burned to eliminate most of the bacteria. Prune trees carefully to avoid infecting the healthy branch areas. Tools must be sterilized after each cut with a solution of 10% (regular) bleach (label should read 6% sodium hypochlorite) or use 70 per cent ethyl alcohol or hand sanitizer.

Preventative Measures

On ornamental crabapples, mountain ash, cotoneaster and hawthorn a fungicide containing copper can be applied as a preventative measure during blossom and summer when weather is warm (18°C). Fungicide activity continues for about 72 hours after application. If rain occurs during this period reapplication is required. Fireblight can be very severe following hailstorms particularly in May & June.

For control options of fireblight in apples and crabapples see [Fruit - Apples - Bearing - Fire blight- Ontario Crop Protection Hub](#)

Additional treatment will be necessary to control cankers developing on the trunks and branches of larger trees. Cankers should be removed by cutting into the healthy bark about 10 cm (4 inches) around the canker while the tree is dormant. Cut out the bark within the cut zone. Disinfect the resulting wound with a bleach solution that is one part bleach to four parts water. This treatment works well on small cankers but is not recommended for larger

cankers, that extend around more than half of the affected branch. The best procedure for a larger canker is to completely remove the affected branch.

Effective control for fireblight is achieved only when the disease is detected and treated in the early stages.

References

[Province of Manitoba | agriculture - Apple Production in Manitoba](#)