

Fireblight

Erwinia amylovora (Burr.) Winsl. *et al.*

Plant Pest Information Note

What is it?

Fireblight is a serious disease of trees and shrubs caused by the bacterium *Erwinia amylovora*. It damages fruit trees such as apples and pears and ornamental trees and shrubs such as mountain ash/rowan and cotoneasters. As it also affects whitethorn/hawthorn, it has the potential to harm our varied wildlife that rely so heavily on hedgerows for shelter and food. It poses no risk to human or animal health. There are a few findings of it in Ireland each year, which are promptly eradicated.

What are its Hosts?

Fireblight has a well-defined set of host plants (listed below) and it only affects these species.

<u>Botanical Name</u>	<u>Common Name</u>
<i>Amelanchier</i>	June/Service Berry
<i>Chaenomeles</i>	Flowering Quince
<i>Cotoneaster</i>	Cotoneaster
<i>Crataegus</i>	Hawthorn/Whitethorn
<i>Cydonia</i>	Quince
<i>Eriobotrya</i>	Loquat
<i>Malus</i>	Apple
<i>Mespilus</i>	Medlar
<i>Pyracantha</i>	Firethorn
<i>Pyrus</i>	Pear
<i>Sorbus aucuparia</i>	Mountain Ash/Rowan
<i>Sorbus aria</i>	Whitebeam
<i>Photinia davidiana</i>	



Typical Wilt Symptoms (Courtesy of EPPO)

Why should we be worried about it?

Any trees that are infected by Fireblight may be killed. As a lot of its hosts are found in Ireland, especially our extensive field network of whitethorn hedgerows, it is something that we should be concerned about. It would have very serious environmental impacts if it were to become established in Ireland. Within the EU, Ireland currently has a Protected Zone status for this disease. This means that any host plants being sold into Ireland must originate from specially monitored nurseries to ensure that they are free from it.

What are its symptoms?

Fireblight can affect all aerial parts of the plant. Primary infection usually occurs in the spring through blossoms and wounds in young shoots. Symptoms vary according to the host but usually start with wilting and death of flower clusters. Wilting and death of young shoots follows. The dead leaves and blossoms dry up, become dark brown in colour and usually remain attached to the plant. Sunken cankers may form and if conditions are favourable the canker can spread along the branch very rapidly (about 2 inches/day) (the tissue under the bark of cankers is often a reddish-brown colour). Fruits and leaves on the infected branches die and turn brown but remain attached to the tree. In most cases the tip of the shoot bends to form the characteristic 'shepherds crook' associated with Fireblight infection.

How does it spread?

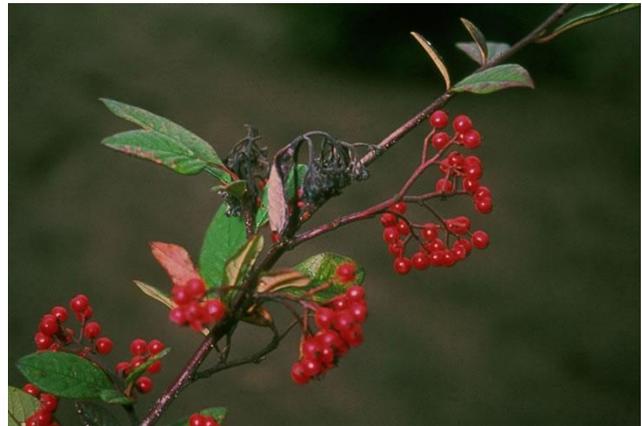
Fireblight can be spread in the following ways:

Movement of infected host plants, that may or may not display symptoms, can transmit Fireblight over long distances

Rainsplash - Bacteria emerge from infected material in the form of sticky ooze and droplets harden on drying. However they readily dissolve in water and can be spread by rain splash from an infected host to adjacent host material

Wind - Fine strands of ooze may be extruded especially from young tissue and these become brittle on drying and are

dispersed by wind. **Insects** can spread the pathogen from over-wintering cankers to early blossoms and between blossoms



Infected Cotoneaster (Courtesy of EPPO)

Action in the event of suspect cases

People who have host plants in their nurseries, garden centres and gardens or who have responsibility for parks and other public areas are requested by the Department to examine their host plants regularly for signs and symptoms of the disease. Staff of the Horticulture and Plant Health Division of the Department regularly inspect trees and shrubs for any signs of this disease and take samples for analysis. The disease can only be confirmed through laboratory analysis.

If you see suspicious symptoms please contact your local plant health inspector or the Plant Health Division Headquarters at the number below.

Horticulture and Plant Health Division,
Ground Floor, Block 1,
Department of Agriculture, Fisheries and Food,
Backweston Campus, Young's Cross,
Celbridge, Co. Kildare
Phone: 01-5058885
Fax: 01-6275994
Email: planthealth@agriculture.gov.ie

Further information and symptoms on this disease can be viewed on the website of the European and Mediterranean Plant Protection Organization (EPPO) by clicking on the links below.

[Fireblight Data Sheet](#)

[Fireblight Pictures](#)