



Fireblight - *Erwinia amylovora* History and Advice on; Identification, Management and Disposal.

History

Fireblight is a serious disease caused by the bacterium *Erwinia amylovora*, affecting apples, pears, and related trees and shrubs in the family *Rosaceae*.

Origin and Introduction:

- Fireblight is native to North America and was introduced to Europe in the 1950s.
- The first UK finding occurred in a pear orchard in Kent in 1957.
- It spread across Wales, south and central England, and even reached as far north as Banff in Morayshire.
- In England, it moved along hawthorn hedges planted alongside railways, motorways, and main roads.

European Spread:

- During the 1960s, separate introductions occurred in the Netherlands, Denmark, and Poland.
- By April 2005, fireblight had been reported in most of the 25 EU Member States, including Cyprus, Sweden, Greece, and Poland.
- Beyond the EU, it also spread to numerous countries including Armenia, Egypt, Israel, Jordan, Lebanon, Norway, Romania, Switzerland, Turkey, and Ukraine.

Jersey will NOT attempt to eradicate Fireblight and will revoke its Protected Zone Status

- From the number and distribution of detections of disease during the June 2024 survey (66 cases island-wide), it is reasonable to assume that fireblight is now established within Jersey rather than in small, isolated pockets that might have been managed manually in the past.
- Costly eradication efforts in other EU Member States teach us that eradication of this pathogen is not possible under this scenario.
- Eradication would involve the grubbing out of infected plants and the laborious task of pruning and destroying all infected material across the island.
- Finally, a comprehensive island-wide survey of all host plants (EPPO report a total of 62 – see link [here](#)) including those in private gardens would be needed with subsequent destruction orders on infected host plants.

- If adopted collectively, these courses of action would have major resource implications, and even if completely effective, Jersey could be re-infected from the Continent or an import from the UK the following season.

Specific information for Importers and Retailers.

- Fireblight host plants for import to Jersey no longer need to be sourced from buffer zone nurseries.
- Fireblight restrictions at import were dropped in Jersey on Tuesday 16th July.
- Contact the Food and Plant Security Team plantpassports@gov.je for further information.

Specific Information for Commercial Orchards

- Most commercial fruit growers will be aware of the risk of fireblight and will already be producing fruit using fireblight-resistant stocks and varieties.
- Orchard owners should also employ strict monitoring measures, ensuring plants and trees are checked regularly.
- Any symptomatic portions should be removed and disposed of.
- It is not known whether traditional Jersey cider apple varieties have fireblight resistance or not, although it is probably unlikely.
- Orchard managers may wish to have a detailed conversation about fire blight management.

For more information contact either Stephen Thompson or Tom Dixon at Natural Environment Biosecurity – T: 441600

General Information

Hosts

The most important fireblight hosts to Jersey are:

- *Malus sp* (Apple), *Malus domestica* (Common apple)
- *Pyrus sp* (Pear)
- *Crataegus sp* (Hawthorn), *Crataegus laevigata* (Midland hawthorn), *Crataegus monogyna* (Common hawthorn)
- *Cotoneaster sp*
- *Rosa sp*
- *Sorbus sp*
- *Cydonia*, *Eriobotrya*, *Mespilus*, *Pyracantha*, and *Stranvaesia*.

Symptoms

- The name of the disease is descriptive of the characteristics: the brown to black necrotic appearance of twigs, flowers, and leaves, as though they have been burned by fire.
- Flowers appear water-soaked, then droop and shrivel, turning brown or black.
- Fruits darken and shrivel.
- Another important characteristic is the 'shepherd's crook' of terminal shoots.



Management

Spread

- Fireblight bacteria overwinter in cankers on the trunk or branches of infected hosts. In spring, once the weather warms (average temperature above 15°C), bacteria begin to multiply.
- Fireblight causes the most damage when the weather in spring and early summer is wet and warm as the bacteria can be spread on water droplets from infected leaves onto healthy foliage.
- The bacteria are released from lesions and cankers as sweet, sticky substances known as bacterial ooze.
- Insects, including pollinators, are attracted to the sweetness and carry the bacteria to the flowers of other host plants. Bacteria can also spread by splashing of water e.g. from irrigation or rainfall, especially during times of strong wind.
- Bacteria can be spread on tools and machinery, so it is important to clean tools after each use to avoid spreading fireblight.

Dealing with Infected Plants

If your hedges or trees have been affected or killed by fireblight, here are some steps you can take:

- Prune out and burn infected material
- Using a knife, cut and peel back the bark to reveal the reddish-brown staining caused by the disease. Work down the branch until you find clean wood, then cut back 30cm lower down the branch to healthy wood in smaller branches and 60cm in larger ones.
- If the entire plant is affected, remove it.
- Burning is permitted if it occurs at the same site.
- Please contact the Jersey Fire and Rescue Service in the case of larger bonfires.
- Ensure that a nuisance is not caused by smoke.
- Smaller prunings can be placed into domestic waste for incineration
- Prunings should not be composted at home or taken to green waste recycling.
- Ensure you wipe down pruning tools between cuts with a 10% household bleach-based solution to avoid spread.

It is important to note that, as far as practical, material should not be transported away from the infected site as this can help spread fireblight. Material should be burned in situ.

Can I get plants tested?

Yes - If you are unsure whether a plant is affected by fireblight, you can bring a portion to be tested at the Howard Davis Farm Laboratory. Please bag and seal the sample before bringing it in for testing.

If you have any questions or require further advice, please call Natural Environment on – 441600.