

Questions and Answers

Phytophthora ramorum on Japanese larch in Ireland.

What is Phytophthora ramorum?

In the mid-1990s, it was reported that significant numbers of trees and other plant species were being damaged or killed in California and other parts of the western United States by a newly described disease, commonly known as Sudden Oak Death, caused by a new species of fungus like organism named *Phytophthora ramorum*. The same organism had also been found in a number of European countries including Ireland, on the shrub species *Rhododendron* and *Viburnum spp.*

What is the status of Phytophthora ramorum in forests in Ireland?

In forest surveys carried-out by the Forest Service since 2003, *Phytophthora ramorum* has been detected on *Rhododendron* in 8 forestry locations. At the end of July 2010 The Forest Service detected from surveys the first findings of *Phytophthora ramorum* on Japanese larch tree, which was showing extensive dieback from the crown and down the stem. Subsequently another location with Japanese larch which is dying back due to the presence of *Phytophthora ramorum* has been identified. In addition there are three confirmed findings of *Phytophthora ramorum* in Japanese larch forests in Northern Ireland.

What are the symptoms of Phytophthora ramorum on Japanese larch?

Dead and dying partially flushed trees in groups or scattered throughout the stand
Partial or whole crown discolouration, (reddish brown or grey depending on level and stage of infection)
Affected trees may show needle wilt, branch and shoot dieback, abnormal shoot growth
Shoot dieback from tip back along shoot.
Resin bleeding on branches and trunk
Excessive side shoot growth and heavy cone production may be observed

How did these trees become infected?

Experience from the USA suggests infection can spread from rain, mist & air currents. The transport of infected plant material and contaminated soil on machinery and boots of forest workers and users is recognized as significant means of spread of infection. Current evidence is that the disease can spread rapidly and can have a rapid impact on Japanese larch.

Why is this finding so significant?

- *Phytophthora ramorum* findings in a forest context in Ireland have always been associated with the presence of Rhododendron. Up to now *Phytophthora ramorum* would have been regarded as a disease of broadleaved trees.
- Japanese larch is an important commercial and landscape forest species in Ireland accounting under inventory data for 3.4% of forest area.
- From the evidence to date, *Phytophthora ramorum* appears to be causing primary damage on Japanese larch - similar to that described by the Forestry Commission in the UK.
- Not only is it strongly suspected that *Phytophthora ramorum* appears to be causing primary damage it is understood that, *Phytophthora ramorum* sporulates at a rate far in excess of that known to occur on rhododendron – its main host up to now – thus acting as a very significant source for further spread of the disease.
- Ireland is now only the second country with a finding on Japanese larch.

What is being done about this outbreak?

- The Forestry Plant Health Contingency Plan, and the EU Technical Guidelines on Control Measures for *P. ramorum* are being applied.
- DAFF will continue to liaise closely with landowners in order to ensure everything possible is being done to contain and eradicate this harmful organism.
- Further intensive field surveys in the affected areas are on-going in order to gather a greater understanding of the extent and severity of the outbreak and the potential management options.
- Extensive national surveys to include aerial and ground components have commenced.
- The landowner of the infected sites is required to clearfell the infected area as a matter of urgency in order to attempt to contain its further spread. All forest trees which have tested positive have been felled.
- Secure & hygienic protocols are being put in place in order to minimize the risk of spread of the disease through the harvesting, haulage and processing of timber from the infected sites.
- Other hygiene protocols in infected areas, for forest visitors & users are in place.
- DAFF is liaising with UK Forestry experts and availing of its experience in dealing with this disease.