

Phytophthora ramorum

A Practical Guide for the Nursery Stock and Garden Centre Industry

What to do if *P. ramorum* is suspected

If you know or suspect that species of *Camellia*, *Rhododendron*, *Viburnum* or any other known host plant are affected by the disease, notify the Plant Health & Seeds Inspectorate (PHSI) immediately. The disease is notifiable and this is a legal requirement. PHSI will specify what to do under Statutory Notice. In the meantime:

- Do not handle or move the plants elsewhere.
- Inspect all other susceptible plants for symptoms and keep under observation. Include nursery perimeters with trees or likely hosts such as 'wild' *Rhododendron* and *Viburnum*.
- Do not apply anti-*Phytophthora* chemical treatments (e.g. fungicide products based on etridiazole, fosetyl-aluminium or propamocarb hydrochloride) to plants where *P. ramorum* infection is suspected. Such fungicides are likely to suppress *P. ramorum* and seriously compromise the management of the disease.
- Restrict or, where practical, avoid the use of overhead watering with plants known or suspected to have *P. ramorum* infection.
- Obtain and provide PHSI with all necessary documentation and records including supplier details, cultural history and plant passport information.

What to do if *P. ramorum* is confirmed

If *P. ramorum* is confirmed, PHSI will issue a Statutory Notice detailing the action required. Ensure all the required actions including the stipulated removal and destruction of plant material, containers and associated soil or growing media are implemented as soon as possible and by the deadline laid out in the Statutory Notice. PHSI may also specify the following actions:

- For container grown plants, disinfect the bed or bench surface on which the plants were standing.
- Do not use anti-*Phytophthora* chemical treatments on any plants held under Statutory Notice.
- Cease or minimise the use of overhead irrigation during the holding period stipulated by the Notice.

With field grown nursery stock, take appropriate measures to prevent re-infection of the site. These measures may include:

- Not planting susceptible plants within a 4m radius around an infected plant for three years or,
- Removal and deep burial of soil (0.5m depth from 4m radius around infected plant) or,
- Based on results with other *Phytophthora* species, steam or chemical treatment may be attempted as an alternative to removal.



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Phytophthora ramorum

Minimising Risk and Disease Prevention

What **You** Can Do

Good cultural practice on nurseries and garden centres is the key to effective control of *P. ramorum*: follow these simple, practical steps when dealing with **susceptible plants** to reduce disease risk:

- **Monitor** – familiarise yourself with the disease and its host range so that you are able to recognise symptoms promptly. Ensure staff are trained and briefed to report any suspected problems at an early stage.
- **Quarantine** – establish a quarantine area to isolate and hold bought in plants away from the main production or retail area. Ensure this is at least 10m from any susceptible genera. Check plants carefully and monitor weekly.
- **Hygiene** – implement routine hygiene measures to reduce the risk of disease spread by contaminated soil / growing media, tools, equipment or staff. Remove and destroy all plant and leaf debris housing susceptible material on a regular basis.
- **Waste management and old stock** – minimise waste as much as possible: don't harbour old stock or unsaleable plants as they are a common source of disease problems. The Defra *Plant Health Code of Practice for the Management of Agricultural and Horticultural Waste* describes measures for minimising plant health risks from waste and is a useful source of reference.
- **Water management** – wherever possible, overhead watering should be avoided or minimised: splash dispersal by water of disease spores is one of the principal means of disease spread. Spot water where appropriate and consider low level watering systems such as capillary sand-beds or capillary matting. For larger containers, use drip irrigation. With known host plants, avoid night-time irrigation. Ensure plants are not standing in water for any length of time by providing good drainage.
- **Plant spacing** – good air movement combats disease spread: avoid setting plants down 'pot thick' and space them wherever possible.
- **Fallen plants** – stand plants up promptly if they have fallen over to avoid or minimise contact of plant foliage with standing areas that may be contaminated.

Further details of recorded hosts and appropriate control measures can be found in the accompanying guide '*Phytophthora ramorum* – A Practical Guide for the Nursery Stock and Garden Centre Industry'.



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