



Phytophthora and Shooting and Conservation Activities

Many shoots have an area of woodland where they carry out much of their shooting and gamebird releasing. It is important that shoots are aware of the existence of a disease of trees and shrubs which, left unchecked, can have a devastating effect on their activity. This disease is commonly known as "Sudden Oak Death".

PHYTOPHTHORA

Phytophthora is a fungus-like organism which is capable of causing serious damage to a number of native British plant species and in most cases it is fatal to those trees. There are two types of organism which are the main causes of concern which can infect different plant types such as the rhododendron, oak, beech, alder, Japanese larch, yew and bilberry. These are *Phytophthora ramorum* and *P. kernoviae*.



P. ramorum and *P. kernoviae* have the potential to kill some species of native British trees and are a serious threat to the environment. A major epidemic amongst native trees would have debilitating consequences for the horticultural industry, the wider landscape and biodiversity in general. The impact across many aspects of local economies for example would be significant, particularly in terms of lost revenue from tourism in some areas.

The ability of *P. ramorum* to spread quickly is a particular concern. Although *P. kernoviae* has, to date, only been found at a limited number of sites, early observations suggest it causes more a serious disease on *Rhododendron* than *P. ramorum*. *P. kernoviae* also appears to have a more limited range of plants it can infect in comparison with *P. ramorum*. Both diseases occur mainly in the South West, Cornwall in particular, and South Wales.

SYMPTOMS

The symptoms to look out for on shrubs such as rhododendron include leaf-blackening, wilted shoots and die back. The blackening of the stalks extends through the leaf to the veins and also at the tip. This can happen very rapidly causing the shoots to wilt and the leaves to hang down.



In trees the common symptoms are lesions (bleeding cankers) where fluid seeps from infected bark which looks black and dries to a crust. Under the outer bark the inner bark is usually found to be dying and discoloured. When the lesions are extensive across the trunk the tree will die.



SPREAD

Evidence suggests that spores from infected trees and plant can be spread via rain, wind (air currents) and mists and can cover areas of several miles. However, there is some evidence that *P. ramorum* and *P. kernoviae* can be transmitted from infected sites on footwear of people walking in infected areas as well as on dog's paws, bicycle tyres, tools, vehicles and other equipment.

Where rhododendron and other trees are growing in close proximity to each other spread can be fairly extensive.



A joint Defra and Food and Environment Research Agency (Fera) guidance booklet '*Phytophthora ramorum - A Practical Guide for Established Parks & Gardens, Amenity Landscape and Woodland Areas*' states:

"shooting parties should also be made aware of their duty of care and follow the necessary biosecurity measures where appropriate. Potentially, such parties (including dogs) are a source of disease spread especially when straying 'off path' away from the main garden/woodland areas. As such, they must show particular regard to necessary hygiene measures, including the routine cleaning and disinfection of footwear/tools/vehicles etc."

CONTAINMENT

There is currently no cure or treatment for the disease so good biosecurity measures need to be put in place.

Removal and destruction of affected plants such as rhododendron helps to halt the spread of the disease. Destruction by controlled burning or deep burial, at an approved landfill site, of contaminated plants are the recommended methods.

FURTHER PRECAUTIONS

When gamekeepers or other shoot personnel, such as beaters, are working in an area known to be infected or if they come into contact with infected plants

they should ensure that before they leave the site all tools, footwear, clothing and machinery are free from soil or plant debris.



In areas where the disease is confirmed by Fera or Forest Research a Statutory Notice be served by a Plant Health Inspector which will outline exactly what steps need to be taken and what precautions must be put in place.

Dog's paws need to be cleaned of mud before leaving the site - simple washing in clean, soapy water will suffice. (They should not be washed in a stream or other watercourse, which itself could serve to spread spores).

Occasionally rerouting of footpaths is necessary to prevent additional spread of the disease.

ADDITIONAL INFORMATION

Game taken from infected woodlands is safe to eat as the disease has no effect on humans or animals. Any waste materials can be disposed of in the normal manner. There is no evidence to suggest that shot quarry poses a risk of spreading the disease and therefore there are no special precautions needed.

It is recommended that clothes should be washed on the hottest cycle appropriate to the clothing immediately after being worn and certainly before being worn in another woodland area.

Specific licences are required in order to move and process wood from trees affected with *Phytophthora ramorum*. For more information about the licences and specific conditions please call 01626 890666 or see the Forestry Commission website <http://www.forestry.gov.uk/forestry/infd-849e4r>.

If you suspect an outbreak of the disease in woodland you must notify the Forestry Commission (Plant Health Service) on 01546 602382.

This is a legal requirement. (The Plant Health (*Phytophthora ramorum*) (England) Order 2004 as amended - similar legislation applies to Wales, Scotland and Northern Ireland)

FURTHER READING

Further details on the disease and guidance can be obtained by clicking on the following links

Defra/Fera guidance

<http://www.fera.defra.gov.uk/plants/publications/documents/factsheets/pramparks.pdf>

Forestry Commission guidance

<http://www.forestry.gov.uk/pramorur>

<http://www.forestry.gov.uk/website/forestry.nsf/byunique/infid-868egu>
[http://www.forestry.gov.uk/pdf/fcreplantingrecommendations.pdf/\\$FILE/fcreplantingrecommendations.pdf](http://www.forestry.gov.uk/pdf/fcreplantingrecommendations.pdf/$FILE/fcreplantingrecommendations.pdf)

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