

Xylella fastidiosa – Bacterial leaf scorch



Xylella fastidiosa is a bacterium which causes disease in a wide range of woody plants, such as citrus and olive trees and in grape vines. Whilst not known to be present in the UK yet, it has the potential to infect several species of broadleaf trees widely grown here.

Xylella fastidiosa restricts or blocks the movement of water and nutrients through the plant with serious consequences, including death for some host plants. The pathogen is exclusively transmitted by xylem-fluid feeding insects. There are several species of insects in the UK which could spread *Xylella fastidiosa*, including the common froghopper.

There are four known sub-species of the bacterium. In the UK the strain which would cause most concern is *Xylella fastidiosa* subspecies *multiplex*, which has the potential to infect the widest range of host plants, including Britain's native pedunculate oak and wych elm, as well as plane and northern red oak.

(Photo: John Hartman, University of Kentucky, Bugwood.org)



Don't give
pests and
diseases
an easy ride



If you think you have spotted a new case of this disease in a tree, then report it through the Forestry Commission's online Tree Alert form: [forestry.gov.uk/trealert](https://www.forestry.gov.uk/trealert)

Although *Xylella fastidiosa* is not known to be present in the UK, there is a heightened risk of it being accidentally introduced since it was discovered in Italy in 2013, and then in Corsica and mainland France in 2015.

You can help to slow the spread of this disease by practising good biosecurity.



Think kit

The cleaning and disinfecting of any tools used on trees, especially those suspected to be affected by a serious tree pathogen, is considered to be good practice.



Think transport

Regulations are in place which restrict movements of specified host plants from the infected regions within the EU, and from countries outside the EU, to reduce the risk of entry.



Think trees

Landings of host species such as plane, elm, prunus species and oak, must be pre-notified to the Animal and Plant Health Agency (APHA) in order to enable inspection.

Symptoms Guide: *Xylella fastidiosa* spp. *multiplex*

Symptoms vary depending on the host plant species and its degree of susceptibility.



Leaf margins

The characteristic leaf symptoms, which are visible in summer, include browning at the leaf margins.

(Photo: John Hartman, University of Kentucky, Bugwood.org)



Central veins remain

The last part of the leaf to be affected are the central veins.

(Photo: Theodor D. Leininger, USDA Forest Service, Bugwood.org)

Yellow halo

Can be distinguished from other scorch-like symptoms by the presence of a yellow halo between the area of marginal leaf necrosis and green leaf tissue.

(Photo: John Hartman, University of Kentucky, Bugwood.org)



Dieback

Severe infections in some of the most damaging combinations of host plant and *Xylella* sub-species can result in dieback, stunting and eventual death.

(Photo: John Hartman, University of Kentucky, Bugwood.org)



A number of other disorders can produce symptoms similar to those caused by *Xylella fastidiosa*, including:



Anthracnose of Plane

Anthracnose on plane trees caused by the fungus *Apoignomonium veneta*, which results in twig death and leaf blight.



Guignardia aesculi

Infection of horse chestnut trees by the *Guignardia aesculi* fungus, causes a brown leaf blotch with a yellow halo.

For more details, please visit www.forestry.gov.uk/xylella