# <u>Detailed guide: Identify a tree pest</u> or disease: overview

Monitoring tree health and protecting our trees, woods and forests from pests and diseases is an increasingly important part of sustainable tree and forest management. This means you need to be able to identify specific pests and diseases to tackle any obvious problems. Once you know what's affecting your trees, you can find advice on what action to take.

## Specific tree pests and diseases

If you know the name of the tree pest or disease affecting your trees, see the Forestry Commission guidance giving detailed information on specific tree pests or diseases known to be present in the UK. You can also find out about those that pose a potential risk to the UK but are not present yet.

## Identify by tree species

If you're unsure what's causing the problem, use the alphabetical table below to narrow down the options for the relevant tree species and find out which pests and diseases can affect it.

Once you've found the likely culprit for your tree species, you can read Forestry Commission guidance giving detailed information on that specific pest or disease and how to deal with it.

Α

#### Tree species

Alder (Alnus)
Apple (Malus domestica)
Ash (Fraxinus species)

#### Pest or disease names

Asian longhorn beetle, Phytophthora alni Citrus longhorn beetle Asian longhorn beetle, chalara ash dieback, emerald

R

#### Tree species

Beech (Fagus species)
Birch (Betula species)

#### Pest or disease names

ash borer

Asian longhorn beetle, Citrus longhorn beetle, Phytophthora kernoviae, Phytophthora ramorum Asian longhorn beetle, Citrus longhorn beetle

C

Tree species

Cedar (Cedrus species)

Pest or disease names

Pinewood nematode, Sirococcus blight

#### Tree species

Pest or disease names

Cherry (Prunus species)

Asian longhorn beetle, citrus longhorn

beetle

Citrus trees (Citrus species)

Xylella fastidiosa

Common ash (Fraxinus excelsior)

Asian longhorn beetle, chalara ash dieback, emerald ash borer

Corsican pine (Pinus nigra)

Dothistroma needle blight

Cypress (Cupressus species)

No significant threats

D

Tree species

Pest or disease names

Douglas fir (Pseudotsuga menziesii)

Phytophthora ramorum, pine-tree lappet moth

Ε

Tree species

Pest or disease names

Elder (Sambucus nigra)

No significant threats

Elm (Ulmus species)

Asian longhorn beetle, citrus longhorn beetle, Dutch elm disease, elm zig-zag sawfly, Xylella fastidiosa

F

Tree species

Pest or disease name

Field maple (Acer campestre) No significant threats

G

Tree species

Pest or disease name

Grand fir (Abies grandis) No significant threats

Н

Tree species

Pest or disease names

Hawthorn (Crataegus monogyna)

No significant threats

Hazel (Corylus species)

Asian longhorn beetle, citrus longhorn beetle

Hornbeam (Carpinus species)

Asian longhorn beetle, citrus longhorn

beetle

Horse chestnut (Aesculus

Asian longhorn beetle, citrus longhorn beetle, horse chestnut leaf miner,

hippocastanum)

Dhystankthana mamanin

Phytophthora ramorum

J

Tree species

Pest or disease name

Juniper (Juniperus communis) Phytophthora austrocedri

#### Tree species

Larch (Larix species)

Lawson cypress (Chamaecyparis lawsoniana)

Lodgepole pine (Pinus contorta)

#### М

#### Tree species

Maple (Acer saccharum)

Mountain ash or rowan (Sorbus aucuparia)

#### N

#### Tree species

Narrow-leaved ash (Fraxinus angustifolia)
Noble fir (Abies procera)

Norway spruce (Picea abies)

#### 0

#### Tree species

Oak - holm (Quercus ilex)

Oak - northern red (Quercus rubra)

Oak — pedunculate or 'English' (Quercus robur)

Oak - sessile (Quercus
petraea)
Oak - turkey (Quercus
cerris)
Olive (Olea europaea)

#### P

#### Tree species

Pear (Pyrus species)
Pine — Corsican (Pinus nigra)

#### Pest or disease names

Phytophthora ramorum, pinewood nematode, pine processionary moth

Phytophthora austrocedrae, Phytophthora lateralis

Dothistroma needle blight, pinewood nematode, pine processionary moth

#### Pest or disease names

Asian longhorn beetle, citrus longhorn beetle, sweet chestnut blight

Asian longhorn beetle

#### Pest or disease names

Asian longhorn beetle, chalara ash dieback, emerald ash borer

No significant threats

Great spruce bark beetle, 8-toothed spruce bark beetle, pine-tree lappet moth, pinewood nematode

#### Pest or disease names

Sweet chestnut blight, oak pinhole borer, oak processionary moth, Phytophthora kernoviae

Xylella fastidiosa

Acute oak decline, Asian longhorn beetle, sweet chestnut blight, oak pinhole borer, oak processionary moth, Phytophthora kernoviae, Xylella fastidiosa

Sweet chestnut blight, oak pinhole borer, oak processionary moth

Phytophthora ramorum

Xylella fastidiosa

#### Pest or disease names

Citrus longhorn beetle Dothistroma needle blight

#### Tree species

Pine - lodgepole (Pinus
contorta)
Pine - Scots (Pinus

sylvestris)

Plane (Platanus species)

Plum (Prunus species)

Poplar (Populus species)

#### Pest or disease names

Dothistroma needle blight, pinewood nematode, pine processionary moth

Dothistroma needle blight, pine-tree lappet moth, pinewood nematode

Asian longhorn beetle, citrus longhorn

beetle, Xylella fastidiosa

Asian longhorn beetle

Asian longhorn beetle, citrus longhorn beetle

R

#### Tree species

#### Pest or disease name

Rowan or mountain ash (Sorbus aucuparia) Asian longhorn beetle

S

#### Tree species

Scots pine (Pinus sylvestris)

Spruce - Norway (Picea abies)

Spruce - Sitka (Picea
sitchensis)

Sweet chestnut (Castanea sativa)

Sycamore (Acer pseudoplatanus)

#### Pest or disease names

Dothistroma needle blight, pine-tree lappet moth, pinewood nematode

Great spruce bark beetle, 8-toothed spruce bark beetle, pine-tree lappet moth, pinewood nematode

Great spruce bark beetle, 8-toothed spruce bark beetle, pine-tree lappet moth, pinewood nematode, Phytophthora ramorum

Sweet chestnut blight, Oriental chestnut gall wasp, Phytophthora ramorum

Asian longhorn beetle

W

#### Tree species

Western hemlock (Tsuga heterophylla) Western red cedar (Thuja plicata)

Willow (Salix species)

#### pest or disease names

Sirococcus blight Sirococcus blight

Asian longhorn beetle, citrus longhorn beetle

Υ

#### Tree species pest or disease name

Yew (Taxus baccata) Phytophthora lateralis

Note: this list of trees is not exhaustive.

### Request a diagnosis

The information in the table above is not exhaustive. You may discover a different pest or disease attacking your trees and you should <u>report it</u> or

request a diagnosis from Forest Research's <u>Tree Health Diagnostic and Advisory Service</u>. There might be a fee for this service.

## <u>Detailed guide: Report a tree pest or</u> disease: overview

## Understand which tree pests or diseases are notifiable

Some tree pests and diseases are notifiable, which means that, in England, they must be reported to the Forestry Commission or the <u>Animal and Plant</u> <u>Health Agency (APHA)</u>.

Notifiable tree pests and diseases are the ones that have the potential to cause the greatest damage to our trees, woods and forests. See <a href="the-downloadable matrix">the downloadable matrix</a>
(PDF, 201KB, 2 pages)

to find out which ones are notifiable. The matrix also includes a quick guide to how each pest and disease is spread, and whether disinfectant should be used after working with affected material.

Anyone can report a notifiable pest or disease. Reports from the public are valuable. They supplement the Forestry Commission's annual surveys.

The preferred way to make a report is with <u>Tree Alert</u>, the online pest and disease reporting tool. Note that Tree Alert requires you to upload good quality photographs.

You can use Tree Alert to report suspected pests and diseases found anywhere in the UK. Reports from Scotland and Wales will be passed to <u>Forestry</u> <u>Commission Scotland</u> and <u>Natural Resources Wales</u> for follow-up.

Report suspected cases in Northern Ireland to the Northern Ireland Forest Service using <a href="TreeCheck">TreeCheck</a>, the all-Ireland pest and disease reporting tool.

Note that reports of tree pests and diseases in trade locations, such as nurseries, should be reported to the <a href="Animal and Plant Health Agency">Animal and Plant Health Agency</a> (APHA).

## What to expect if you make a report

The report will be acknowledged and you may be contacted again if further detail is required. If a notifiable pest or disease is confirmed, the

Forestry Commission's response will be one of the following:

- plot the location so it can inform local tree and woodland managers of its presence, and advise them how best to manage it
- take action to prevent or minimise spread of the pest or disease to other areas
- take action to eradicate the pest or disease before it can become established and spread

## Get involved in monitoring tree health

Visit <u>Observatree</u> if you would like more information about monitoring the health of the UK's trees. You can only join Observatree if you're selected to do so but you'll find a range of helpful resources available on their website.

## <u>Detailed guide: Manage a tree pest or</u> disease: overview

*Updated:* Incorrect text summarising one of the strategies. Replaced with summary of strategy paper.

There's a lot you can do to help prevent or minimise the introduction, establishment, spread and impacts of tree pests and diseases.

The threat to our trees, woods, forests, parks and gardens from damaging insect pests and organisms such as bacteria and fungi is significant. Some organisms can damage or kill dozens of different plant species, including trees. They can be spread in many ways. such as:

- in the movements of plants, wood, and wood products
- by wind and water
- on vehicles, clothing, footwear, equipment and tools

As well as causing economic losses for the forestry, timber and plant-based industries, they can disrupt other sectors, such as tourism, and threaten woodland biodiversity, ecosystems and native species. The gardens of private homes are also under threat from tree pests and diseases, and private homeowners can help minimise the impact of tree diseases.

The following documents explain the approach to preventing and managing tree pests and diseases:

## **England tree health management plan**

This document covers a range of diseases and gives specific examples. It sets out management approaches to tackling a range of important pests and diseases. It also provides a framework for managing future threats, and the strategy underpinning the approaches.

## **England tree health resilience strategy**

This strategy builds on the Tree Health Management Plan and explains how the government will improve protection against pests and diseases, and how it will work with the industry and others to build resilience in our trees.

## Plant Biosecurity Strategy for Great Britain

Overview of the activity that Defra and the devolved administrations are undertaking to improve plant biosecurity.

#### Useful resources

See the <u>UK Plant Health Information Portal</u>, a hub for plant health information, data and resources.

Use the <u>UK Plant Health Risk Register</u>, a tool to help guide action against pests and diseases that threaten our crops, trees, woods, forests, gardens and countryside.

## Tree health funding

If your woodland has been affected by a pest or disease, you might be eligible for <u>funding to improve tree and woodland health</u>.

## Wood and timber products: import and export

Importing and exporting wood, timber and wood products provides information about the plant health regulations governing the import, export and some inland movements of wood and wood products.

# Form: Register to apply for a phytosanitary certificate

When we receive your original signed registration form, we will email you a unique customer reference number and instructions for using the system.

## <u>Detailed guide: Tree health</u> <u>legislation</u>

Relevant plant health forestry legislation is listed below. In many cases, the initial legislation is subsequently updated by amending statutory instruments, which should be consulted as well.

### Plant Health (Forestry) Order 2005

#### **Includes**

Unofficial Consolidation January 2018
(PDF, 683KB, 87 pages)

, incorporating amendments:

- SI 2006 No. 2696
- SI 2008 No. 644
- SI 2009 No. 594
- SI 2009 No. 3020
- SI 2012 No. 2707
- SI 2013 No. 2691
- SI 2014 No. 2420

<u>SI 2016 No. 1167</u> (PDF, 103KB, 20 pages)

• SI 2017 No. 1178

#### This order:

- prohibits the landing of specified tree pests, trees and 'relevant material' (defined as wood and bark, soil, growing medium or used forestry machinery)
- lays down the conditions under which other relevant material may be permitted entry
- sets out the protected zones for various pests, and prescribes the conditions for entry into and movement within the zones for relevant material
- prohibits the keeping, storage, sale or release of tree pests
- sets conditions for sending relevant material to other Member States
- sets rules for registration of importers, forestry traders and producers
- sets rules for the issue of plant passports to accompany certain relevant material circulated in trade
- sets out the powers of inspectors to enter premises (other than private dwellings) and to undertake examinations etc, or order remedial action

to be taken

• prescribes offences and penalties for failing to comply with the order

The order is the principal instrument in Great Britain implementing the plant health requirements in the European Union in respect of forestry material, as set out in Council Directive 2000/29/EC.

## <u>The Plant Health (Forestry) (Wood Packaging Material Marking) Order 2006</u>

This order formalises the procedures for becoming accredited within the programme in Great Britain. It makes it an offence for any person to apply a mark to wood packaging material without the authority of the Forestry Commission. It also gives inspectors powers to enter premises (other than private dwelling houses) without a warrant where they believe wood packaging material is being fraudulently marked, or is being stored, to:

- seize marking equipment
- require any marks found on wood packaging material present there to be obliterated or removed

The order also prescribes the fees payable on application for a certificate and for renewal of certificates, which will no longer be subject to VAT.

## <u>The Plant Health (Export Certification) (Forestry)</u> (Great Britain) Order 2004

This makes provision for the issue of phytosanitary certificates and reforwarding phytosanitary certificates for export of relevant material (any tree, wood, isolated bark, soil or growing medium, non-manufactured wood or used forestry machinery) to third countries to satisfy the requirements of those countries' phytosanitary regulations.

## <u>The Dutch Elm Disease (Local Authorities) Order</u> 1984

Subsequent amendments include <u>SI 1988 No. 604.</u>

This order sets out the powers available to certain local authorities, as listed in the schedule to the order, to take steps to prevent the spread of Dutch elm disease. Each local authority may exercise the powers only in respect of their own area. Officers (appointed by the local authority) who suspect the presence on any premises of elm trees infected by this disease may, on production of their authority (if so required), enter on any land to inspect trees and to take samples. Where the disease is present the officer may either take action himself, or he may require the owner or occupier to do so, to prevent the spread of the disease by destroying the tree, usually by burning on site. Exceptionally, the officer may authorise the removal of the tree to another place for destruction. The order also prescribes offences and

penalties for failing to comply with a notice served.

### Plant Health Act 1967

The primary legislation governing plant health in Great Britain is the Plant Health Act 1967 (c.8). This prescribes the Forestry Commissioners as the "competent authority in Great Britain as regards the protection of forest trees and timber".

The Act empowers the Forestry Commissioners to:

- make orders to prevent the introduction and spread of forestry pests and diseases
- require local authorities to undertake certain work to prevent the spread of specified pests or diseases

It also makes provision for the creation of offences and imposition of fees for certain work.

The Forestry Commissioners are also designated under section 2(2) of the European Communities Act 1972 (c.68) in relation to measures relating to the Common Agricultural Policy of the European Union in respect of forestry.

### **European Plant Health Review**

The European Union plant health regime was set up to protect the union from harm caused by the introduction and spread of pests and diseases affecting plants, including trees. Although this has largely worked well over the years, a full evaluation was conducted to ensure that it continues to be able to meet its objectives. The evaluation set out a number of options to improve the regime, concluding that the best way forward was to:

- simplify the legislation converting it from a directive to a regulation
- increase prevention by introducing a new category of high-risk plant materials that will require completion of a risk analysis before entry, and by the removal of passenger luggage exemptions for such material
- implement further obligations for surveillance and contingency planning to be introduced

It's expected that these changes will take several years. Read about current progress.