



DOVE
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Information

***Chalara fraxinea* – ash dieback**

Ash dieback is caused primarily by the fungal disease *Chalara fraxinea*. Symptoms range from leaf drop through to crown dieback which can ultimately lead to the death of the tree.

The number of infected trees in Europe has risen over the past few years, partly due to wet summer weather. Affected trees have been found in parks, gardens, garden centres, in forest stands and on commercial nurseries. This disease has contributed to the decimation of around 90% of Denmark's ash tree population.

Ash trees were first recorded dying in large numbers from this form of ash dieback in Poland in 1992. It then spread rapidly to other European countries. It took until 2006 before the fungus's asexual stage, *Chalara fraxinea*, was first discussed as the potential culprit and in 2010, its sexual stage *Hymenoscyphus pseudo-albidus* was identified.

Symptoms

Symptoms include damage to leaves, stems and large branches. At high infection levels, the crown of an affected tree can die out and shoot re-growth can be seen further down the plant as it tries to stay alive. Brown/black spotting can be seen on leaves along with wilt symptoms – damage usually starts from the leaf tip downwards.

Small brown spots can be found on stems and branches which extend to form large cankers leading to dieback. Wood is stained brown or grey under the canker sections and beyond into what can look like good wood.

Chalara fraxinea has been isolated from the roots of symptomatic trees as well as from leaves, shoots and branch/stem cankers.

UK official discoveries

February 2012: found in a consignment of infected trees sent from a nursery in the Netherlands to a nursery in Buckinghamshire.

June 2012: found in ash trees planted at a car park in Leicestershire, supplied by a nursery in Lincolnshire

July 2012: FERA confirmed cases on nursery sites West and South Yorkshire and Surrey

September 2012: disease reported on a nursery in Cambridgeshire.

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Also found at four recently planted sites: Forestry Commission Scotland woodland at Knockmountain, west of Glasgow; a car park in Leicester; a college campus in South Yorkshire; a property in County Durham and is suspected at a Woodland Trust site in Hertfordshire.

Further sites have since been identified as being infected.

As a result of the recent Pest Risk Analysis and the number of confirmed cases on young imported trees as well as established trees in East Anglia, legislation is now in force (as at 29th October 2012) restricting all ash imports (plants and seeds) into the UK and movement within the UK until your site has been officially inspected and given a disease-free status. Garden Centres should, at this present time, avoid selling ash trees to customers.

Northern Ireland and the Republic of Ireland passed similar legislation on the 26th October 2012.

Typical symptoms on ash



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Research work

Fraxinus excelsior has been found to be the most commonly affected species with *F.* ‘Pendula’ and *F.* ‘Jaspidea’ being particularly susceptible. *Fraxinus angustifolia* has also been reported as a host. On-going work in Denmark suggests that *Fraxinus* ‘Altena’ is more tolerant of the disease and further promising results have been obtained on trials with *Fraxinus americana* and *Fraxinus pennsylvanica*.

Young plants are much more vulnerable to this disease than mature specimens. However, larger plants can be infected but symptoms tend to show through more slowly. It is unclear how the disease spreads but local spread may be from rain splash or from insect feeding. Long distance spread is most likely due to the movement of diseased ash plants and the movement of logs or wood from infected trees.

Work in Germany has also shown that products applied preventatively may have some control effect in the spring months. A 50% reduction in infection occurred from applying Torch Extra and a 66% reduction in infection was found using products such as Octave, Plover, Difcor 250EC and Switch. Torch Extra can only be used by forest nurseries using an EAMU (2012-1680).

There are other disorders of ash trees that may be mistaken for *Chalara fraxinea* infection including:

1. ‘Ash dieback’ in which mature trees show severe crown dieback with new shoots being produced lower down on the plant. This ‘dieback’ is usually associated with root disturbance on trees growing in arable situations.
2. Stem cankers from infections by *Nectria galligena* and feeding damage from the bark beetle *Leperisinus varius* which both cause bark damage and dieback.
3. The activities of the ash bud moth (*Prays fraxinella*) in spring – moth larvae mine into the base of shoots causing them to wilt and die.
4. Physical issues including frost and drought can cause similar damage i.e. dead shoots and dieback.

The Statutory Instrument laid before parliament can be downloaded at:

www.dovebugs.co.uk/ashnotice.doc

Any symptoms must be reported to one of the following offices:

The Forest Research Disease Diagnostic Advisory Service

T: 01420 23000

E: ddas.ah@forestry.gsi.gov.uk

The Forestry Commission Plant Health Service

T: 0131 314 6414

E: plant.health@forestry.gsi.gov.uk

FERA Plant Health and Seeds Inspectorate

T: 01904 465625

E: planthealth.info@fera.gsi.gov.uk

FERA has produced a series of videos on disease symptoms and how to take samples from suspect trees. Go to www.youtube.com/user/FeraUK1?feature=guide.

Information in this sheet has been adapted from the Forestry Commission’s factsheet on *Chalara fraxinea*, information from the Woodland Trust and research work from Denmark and Germany.

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