Managing Chalara Ash Dieback in Kent

Britain's trees are under unprecedented threat from new pests and diseases, including **Chalara dieback of ash,** a serious disease caused by the *Chalara fraxinea* fungus. By working together we can reduce its impact, and slow its spread.

Kent is among the first areas of England to be badly affected by Chalara Ash dieback. Since 2012 woodland managers have witnessed a well established infection in East Kent and have subsequently found more infection further west. Today, natural regeneration in heavily infected woodlands is highly compromised and mature ash trees are showing susceptibility to secondary infection.

Local councils, highways authorities, private contractors, and tree and woodland owners can help by taking action to safeguard the long-term future of our ash trees.

Advice on the Forestry Commission website at **www.forestry.gov.uk/chalara** outlines how to manage ash trees now that Chalara is present.

Most of the advice is applicable to a wide range of circumstances, but some will need local adaptation. This advice note does not replace any of the advice at the above website or at **www.forestry.gov.uk/biosecurity**.

It gives practical advice for local councils, highway authorities, private tree and woodland owners, and contractors in Kent, to help slow the spread, minimise impacts on biodiversity, protect economic return from timber production, safeguard the public, and comply with legislation.

The national advice isn't exhaustive or prescriptive, and is likely to develop and change as knowledge and understanding increases. You can help by being aware of Chalara symptoms and reporting them for investigation using the Tree Alert app or on-line form at **www.forestry.gov.uk/treealert**.

CAUTION!

There are other pests and diseases present in Kent, most notably Phytophthora ramorum.

This can be spread in mud, so adopting biosecurity measures is sensible practice, especially for those who travel to multiple sites over a wide area.

Guidance is available at www.forestry.gov.uk/biosecurity

Chalara in Kent Key Information

Ash is the most common tree in Kent (almost a fifth of all trees). This, combined with the observed rate of spread and the high level of infection already present, make eradication of Chalara impossible.

However, the Forestry Commission and its public and private–sector partners have placed a lot of importance on protecting ash trees and researching their genetics to find resistant varieties. Meanwhile, land owners and managers should be working to reduce the impact and slow the spread of Chalara.

What should I expect to see?

- Chalara is systemic and infects coppice regrowth from an infected tree or stool.
- Young trees, whether planted or naturally seeded, are often killed quickly.
- Coppice regrowth is quickly killed, from new infection or infected stools.
- Larger ash trees can survive infection, but some decline rapidly and become prone to other factors that can kill weakened trees.

How is Chalara spread?

Chalara is spread by spores dispersed from small fruiting bodies which develop on the stalks of infected leaf litter during late spring and summer of the year after leaf fall.

Transporting loads of leafy material therefore poses the greatest risk of human-assisted spread, but it can also be moved on unclean vehicles and footwear.

How can I limit the spread of Chalara?

Basic precautions include:

- Clean machinery, tools and vehicles before moving them from high-infection areas to less-infected or uninfected areas;
- Do not move leafy brash from an infected to an uninfected area; and
- Clean footwear and outerwear frequently, ensuring they are visually free from leaves and soil.

Is it safe to move timber?

There are no restrictions on timber movement within England, Wales and Scotland unless a Statutory Plant Health Notice has been served. When moving timber, ensure that it is cleaned of twigs, leaves and leaf litter. Stacking timber on bearers can help avoid soil and leaf litter being picked up during lorry loading.

Should I plant alternative species?

Yes. Diversifying species can help make woodlands and urban forests more resilient to climate change, and pests and diseases.

What alternative species are available?

Choices will vary according to factors such as soil, climate, management objectives and designations such as ancient woodland, SSSI and AONB. Trees growing from naturally introduced seed are a key resource.

Alternative species in woodland could include field maple, small-leaved lime, large-leaved lime, hazel and hornbeam. Advice is available at **http://apps.rhs.org.uk/plantselector** or **www.forestry.gov.uk/england-resilience**

TOP TIP!

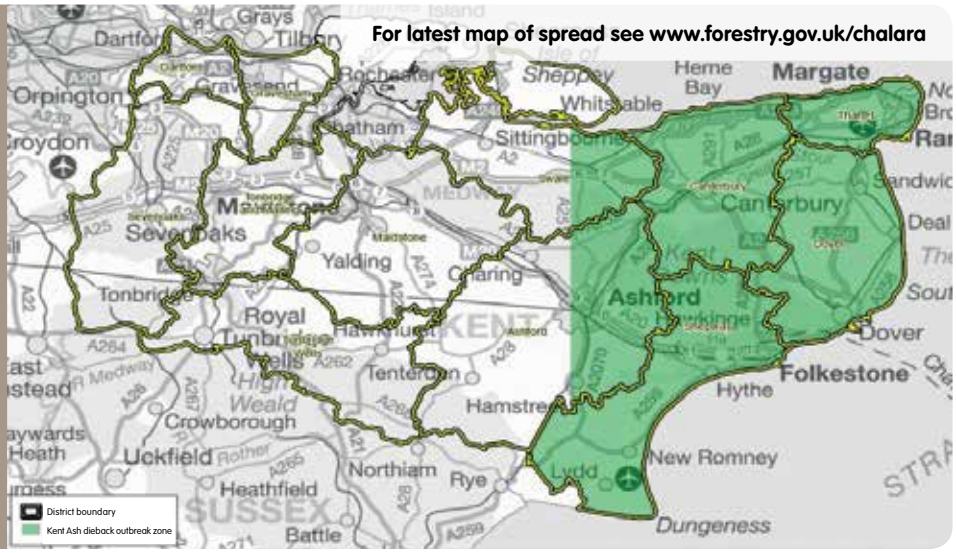
When selecting replacement or new trees, consider the impact of planting on the adaptation capacity of forest and urban forest ecosystems. Choose the nursery and stock carefully, and look for stock grown from seed in the UK.

Where is Chalara in Kent?

The presence of Chalara in Kent can be divided into two areas, roughly east of Ashford (shown in green)/west of Ashford.

- east of Ashford, Chalara is frequently found in a lot of trees in woods, open spaces and gardens. This is seen as a high-infection area in this guide.
- west of Ashford, Chalara is present in some ash trees in some woods, open spaces and gardens. This is seen as a low-infection area in this guide.

Spread in the high-infection area is likely to be steady rather than rapid, but pockets of low infection can spread over greater distances.



Woodland Ash Management

The principles of the national guidance are:

- Maintaining the values and benefits of ash woodlands and iconic trees;
- Securing an economic return where timber production is a key objective;
- Reducing the presence and rate of spread of Chalara;
- Maintaining as much genetic diversity in ash trees as possible with the aim of ensuring the presence of ash in the long term; and
- Minimising impacts on associated species and wider biodiversity.

The primary aims of woodland management should be to maintain the structure and value of the woodland and avoid speeding up any decline in condition.

When modifying management plans to take account of Chalara, you should consider the:

- Increased demand for timber and woodfuel;
- Impacts of climate change;
- Conservation requirements for woodland ecosystems; and
- Need to reduce management costs.

Dead ash regeneration

Taking action

High-infection areas
(East of the Ashford line)

DO NOT:

- Rush to fell or coppice because Chalara is present;
- Remove recently planted ash trees. This will have no benefit, and you might remove some resistant trees;
- Kill ash coppice stools where Chalara is widespread: some might continue to grow if left.

DO:

- Monitor natural regeneration for signs of resistance to Chalara;
- Consider planting suitable alternative native species soon after felling;
- Thin woodlands as usual to encourage canopy development, and in mixed stands favour the retention of species other than ash;
- Select trees for thinning which show symptoms of Chalara. This should be done while in full leaf to help ensure infected trees are selected. If possible, burn the lop and top on site.

Further guidance for coppiced areas:

- Avoid carrying out a traditional coppice operation in woods where ash forms more than 30% of the canopy;
- Carry on with planned work, or consider cutting areas containing species other than ash first;
- Retain as many ash trees in the canopy as practicable to encourage seed production;
- In coppice leave about 50-70% cover by maintaining some canopy of ash and other species and retaining standards and maidens.

Low-infection areas
(West of the Ashford line)

DO NOT:

- Bring forward coppicing of ash. This will make new growth and stools more vulnerable to Chalara.

DO:

- Carry on with planned work, and consider modifying coppice management as you would in high-infection areas;
- Thin woodland as usual in high forest, to maintain tree vigour and keep a full canopy; and
- Select trees for thinning which show symptoms of Chalara. This should be done while in full leaf to help ensure infected trees are selected. If possible, burn the lop and top on site;
- Remove recently planted or naturally seeded trees if small numbers are infected, and burn or bury them on site.

Further guidance for coppiced areas:

- Consider singling some stems from stools, or leave all the stems on some stools uncut;
- In areas already coppiced, if there are low numbers of infected stools – perhaps 1 or 2 in a coupe – consider killing the stool. If practical, remove or destroy the leaf litter, which will reduce spore production the following year;
- In coppice, leave about 50-70% cover by maintaining some canopy of ash and other species and retaining standards and maidens.

Urban & Suburban Ash Management

What approach should I take to managing ash trees infected with Chalara in urban areas?

Ash trees infected with Chalara in the urban environment should be managed in line with national guidance and best practice principles, which are to:

- Aid the identification of trees which might show genetic resistance or other ability to recover;
- Maintain the values and benefits associated with ash trees;
- Reduce the rate of spread of Chalara;
- Maintain as much genetic diversity in ash trees as possible, to encourage continued long-term presence of ash;
- Minimise the impacts on associated species and wider biodiversity; and
- Allow more time for replacement tree species to grow, to give a more gradual transition of dominant landscape species.

Ash trees should be retained wherever possible. Where there are no over-riding management objectives, works to infected ash trees should be limited to those necessary to meet the above objectives.

The deadwood in infected trees may present a risk to health and safety. Public safety must be prioritised in all cases, but unnecessary pruning or felling, including deadwood removal, should be avoided. A balanced and proportionate approach should be taken to tree safety management. Advice is available at **www.forestry.gov.uk/safetreemanagement**

Where public access exists close to infected trees, consider using site notices to let people know about attempts being made to minimise the spread of the disease. You can also use these notices to encourage the public to support the biosecurity measures in place. **www.forestry.gov.uk/biosecurity-visitoradvice**

Dieback effects on leaves

Wilting on natural regeneration

NOTE!

The likelihood of infection with Chalara is not a justification to fell or prune ash trees.

REMEMBER...

Although deadwood might present a hazard, it is also a vital ecological asset. Many species require deadwood for the whole or part of their life cycles, and those species are in turn part of the food chain for many other species.

Classic winter stem lesion

Taking action

Ash protected by tree preservation orders (TPOs) and conservation areas (CAs)

Applications and notices seeking consent to prune or fell infected or uninfected trees should be judged on their merits, with consideration given to the tree's potential resilience to the disease, and its biodiversity value as the ash population diminishes.

NOTE! Potential for a tree to become infected with Chalara should not be a significant consideration when dealing with applications and notices to prune or fell protected ash trees.

Ash trees on development sites

As part of any tree survey intended to support a planning application, trees should be categorised using the criteria shown in Table 1 of British Standard 5837:2012. This will identify the quality and value of the existing tree stock, and inform decisions about retention or removal.

Current knowledge does not provide clarity on the impact of Chalara on the ash population, or on the life expectancy of individual ash trees. Current guidance is to retain ash in the hope that genetically-resistant individuals might exist. On these grounds it would be unreliable and premature to downgrade an ash tree in accordance with the categorisation process of BS5837 simply because of the risk of infection and the presumption that life expectancy will be shortened.

Where planting is required, movement of ash planting stock is banned under a Plant Health Order. There is also a ban on moving ash nursery stock. This means substitute species will be needed to fulfil landscaping conditions. If an ash tree planted before the ban dies, an alternative replacement species will be required.

Ash trees on and adjacent to highways

Safety considerations will be at the discretion of the relevant highways authority (Kent County Council or Medway Council), and will take priority in the management of ash trees close to highways.

The frequency and timing of monitoring regimes might need to be modified within infected areas. Privately owned trees next to highways might impact on local government's responsibilities to ensure highway users' safety.

Ash trees in parks, public open spaces and heritage sites

Safety considerations will be at the discretion of the local authority. The frequency and timing of monitoring regimes might need to be modified within infected areas.

Ash trees on private property (not woodland or protected by a TPO or CA)

Tree owners should check that their tree surgeon is familiar with the contents of this guide, and ensure that they adhere to it and any additional advice they receive from their local council tree officer.

Owners could consider removing ash litter from around ash trees, especially those of merit, in the autumn. This will help to protect them from infection.

Ancient, veteran and heritage trees

Leaf litter around ancient, veteran or isolated ash trees of merit and any adjacent ash trees should be disposed of to help protect them from infection.

Ash in an urban environment

Biosecurity: Dealing with leaves and other tree debris

You must take sensible biosecurity precautions to avoid fruiting bodies and spores being transmitted via infected leaves.
Biosecurity advice is given at **www.forestry.gov.uk/biosecurity**.
Specific advice for arboricultural work is as follows:


Infected coppice re-growth

For all sites...

- If felling or pruning infected trees, aim to do so after leaf fall.
- Place rakings from a mixed-species site into the ash load and deal with them in line with this guidance.
- Where it is not practical or permissible to burn or bury leaf litter, or brushwood containing leaf litter, minimise the risk of infection to healthy ash trees by composting:
  - cover with a 10cm layer of soil;
  - leave the heaps undisturbed for at least 1 year to allow spores to die; and
  - use as a mulch near the infected source after composting.
- Sheet and, if necessary, dampen loads from gully emptying and dedicated street sweepings to avoid any leaves blowing out during transportation.
- There are currently no controls over the movement of timber or cordwood.
- Clean vehicle tyres, chippers, payload areas and work boots, paying particular attention to the removal of ash leaves, after working on infected trees and before moving into areas with no or minimal signs of infection.

Infected trees INSIDE a high-infection area...

(see map on page 2)

- Do not remove ash leaf litter or wood chip from high-infection areas into areas where there is no significant outbreak.
- Compost leaf litter on site or, where it is not practical to retain leaf litter on site, collect as usual during the course of grounds maintenance and/or routine highway works and take to a suitable composting site inside the high-infection area.

  This does not apply to gully emptyings and dedicated street sweepings.
- Chip and compost brushwood containing leaf litter on site or, where this is not practical, chip and take to a suitable composting area inside the high-infection area.
- Composting areas should be as close as possible to the source of the material.
- Take reasonable measures to restrict the movement of contractors working on infected ash trees from high-infection areas into low-infection areas.

Infected trees OUTSIDE a high-infection area...

(see map on page 2)

- Take all possible steps to retain leaf litter and chipped brushwood containing leaf litter on site and compost. Where this is not possible, collect as usual during the course of grounds maintenance and/or routine highway works and take to a suitable composting site in a closed or covered vehicle. This does not apply to gully emptyings and dedicated street sweepings.
- Do not move ash leaf litter or chipped brushwood containing leaf litter any further than is absolutely necessary.
- Compost heaps should be located as far as possible from uninfected ash trees.


West Park Farm Country Park near Epsom

Trees, woodlands and forests are a precious national asset which offers extensive social, economic and environmental benefits. We must safeguard this asset from threats such as climate change, pests and diseases. This means that the range and diversity of tree species in our urban forest and woodlands need to change so that they are more resilient to current and future threats.

This document represents collaborative guidance from the Forestry Commission, Arboricultural Association, Kent Downs AONB, and Kent County Council. Together, we play a vital role in protecting, improving and expanding our urban forests and woodland for the people who enjoy them, the businesses which depend on them, and for the wildlife which flourishes in them. We are working alongside a wide range of public and private-sector partners to achieve these goals.

Partners

Forestry Commission England

Arboricultural Association 50 years and still growing trees.org.uk

KENT DOWNS Area of Outstanding Natural Beauty kentdowns.org.uk

Kent County Council

Printed on paper certified under the mixed sources label. Please recycle after use.

This publication was funded by the EU-ERDF via the ADAFOR Interreg (Channel) project.