

## **CHALARA ACTION PLAN – SCOTLAND (2013/14)**

### **Context**

Actions for the health and biosecurity of Scotland's trees, woods and forests are set within the overarching, sustainable forest management principles set out in the UK Forestry Standard<sup>1</sup> and the Scottish Forestry Strategy<sup>2</sup>.

Sound evidence is a prerequisite for tree health actions. Scotland is well placed to provide this through its existing research providers and through the Scottish Government's support for joint strategic research initiatives such as the LWEC Tree Health and Plant Biosecurity Initiative<sup>3</sup>.

This Action Plan is part of a coordinated approach to the management of Chalara in GB and aligns with the objectives of Defra's Chalara Management Plan<sup>4</sup> for England. It is set within the context of the Forestry Commission's Interim Tree Health Biosecurity Strategy<sup>5</sup> and the Defra/Forestry Commission Action Plan for Tree Health and Plant Biosecurity<sup>6</sup>. It relates primarily to common ash (*Fraxinus excelsior*). Its delivery will be dependent on a wide range of partners in the state and private sectors, NGOs and the third sector.

The Plan will be reviewed annually (or earlier if disease progression escalates significantly in-year).

### **Current situation**

*Chalara fraxinea*, a fungal pathogen associated with dieback of ash trees, has caused widespread damage to ash tree populations in continental Europe since it was first reported as an unknown new disease in Poland in 1992. It affects mainly common ash (*Fraxinus excelsior*), including its 'Pendula' ornamental variety, but narrow-leaved ash (*F. angustifolia*) is also susceptible. Spread can be rapid e.g. it first appeared in Denmark in 2001-2 and had affected all ash stands by 2005. The disease is particularly destructive on young ash plants but older trees may survive for many years before succumbing to secondary infections. Chalara was discovered for the first time in the UK

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<sup>1</sup> [www.forestry.gov.uk/ukfs](http://www.forestry.gov.uk/ukfs)

<sup>2</sup> [www.forestry.gov.uk/sfs](http://www.forestry.gov.uk/sfs)

<sup>3</sup> [www.lwec.org.uk/node/512](http://www.lwec.org.uk/node/512)

<sup>4</sup> [www.defra.gov.uk/publications/2013/03/26/pb13936-chalara-management-plan/](http://www.defra.gov.uk/publications/2013/03/26/pb13936-chalara-management-plan/)

<sup>5</sup> [www.forestry.gov.uk/pdf/TreehealthStrategyMinisters.pdf/\\$FILE/TreehealthStrategyMinisters.pdf](http://www.forestry.gov.uk/pdf/TreehealthStrategyMinisters.pdf/$FILE/TreehealthStrategyMinisters.pdf)

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in a nursery in Buckinghamshire in February 2012. As at 27 March 2013, infections had been confirmed in the UK (figures for Scotland in brackets) at: 19 (2) nurseries; 249 (79) new planting sites; and 172 (10) locations in the wider environment. The FC website<sup>7</sup> hosts further information on the disease, including key scientific facts and the current extent of known infections.

The net extent of ash in Scotland is 13,500 ha but the gross area of native woodland with ash trees present is some 150,000 ha. An assessment of the potential impacts of Chalara in Scotland is set out in a report<sup>8</sup> commissioned by Forestry Commission Scotland. The highest impacts include: the potential loss of ash in woodland management and silviculture; a reduction in Scotland's current biodiversity; financial costs to owners; and landscape and societal costs in rural and urban environments.

### **Strategic objectives**

In common with the wider GB approach to the management of Chalara, the main objectives in Scotland are to:

- Reduce the rate of spread of the disease;
- Develop resistance to the disease in the native ash population;
- Encourage landowner, citizen and industry engagement and action in tackling the disease and avoiding negative consequences from inappropriate actions;
- Build economic and environmental resilience in woodlands and associated industries.

### **Action Plan**

#### ***Research***

Support work to:

- learn from the European experience of managing Chalara e.g. via FRAXBACK (EU COST Action)<sup>9</sup>.
- develop a better understanding of the etiology, pathology and epidemiology of Chalara in Scottish conditions including spore production, dispersal and longevity.
- identify resistant ash trees in Scotland that could aid molecular work on resistance and which might provide future breeding potential for 'resistance durability'.
- assess the feasibility of an ash seed-bank resource for Scotland.

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<sup>7</sup> [www.forestry.gov.uk/forestry/inf-d-8udm6s](http://www.forestry.gov.uk/forestry/inf-d-8udm6s)

<sup>8</sup> 'An Assessment of the potential impacts of ash dieback in Scotland' : Rick Worrell, January 2013 ([www.forestry.gov.uk/pdf/WorrellReport-ChalaraImpacts.pdf/\\$FILE/WorrellReport-ChalaraImpacts.pdf](http://www.forestry.gov.uk/pdf/WorrellReport-ChalaraImpacts.pdf/$FILE/WorrellReport-ChalaraImpacts.pdf))

<sup>9</sup> [www.fraxback.eu/](http://www.fraxback.eu/)

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- consider biological controls for Chalara and resistance enhancements for ash.
- identify and provide guidance on adaptation to Chalara, including biodiversity considerations, such as the use of appropriate alternative species, hybridisation with resistant ash species (non-native), potential 'analogues' for common ash and mitigating the impact on ash-dependent species.
- identify/develop the potential for cost-effective treatments for Chalara on veteran and specimen ash trees of high social value.
- determine time-scales for timber deterioration.
- investigate cost-effective disease detection techniques, particularly for mature trees, and including spore trapping.
- with key stakeholders, identify and publish maps of important<sup>10</sup> ash woodland.
- further develop GB Chalara modelling to support spatial disease management recommendations in Scotland.

### ***Detection***

- Continue current trace-forward surveys of plants received from potentially infected nurseries and follow-up reports of other potential infections, with priority given to areas where Chalara has not yet been detected.
- With key stakeholders, review official survey needs, priorities and resources for 2013/14 (by mid-April).
- Help develop a network of trained people to support official surveillance and detection, including the potential use of Genie LAMP assay machines.
- Assess effectiveness of helicopter surveillance in detecting infections in the wider environment.
- Continue nursery inspections in Scotland.

### ***Precautionary measures***

- Destruction of infected plants at nurseries.
- Support continuation of the ban on the import and movement of ash trees for a further year and consider legislation to introduce a statutory import notification scheme for specified genera of trees, including ash.
- Provide advice and support to nurseries on minimising disease risk and on transition to alternative species.
- Withdraw support measures for the planting of ash in Scotland.
- Consider financial support measures for disease management (including opportunities in next SRDP).
- Based on current knowledge of spore dispersal, disease progression and known infections, delineate the north and west of Scotland as a 'sheltered area' (with a buffer zone) and implement precautionary actions as set out in *Annex 1*.
- Provide guidance to the forestry sector on wider resilience measures for ash woodlands.

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<sup>10</sup> Includes ash woodland of high nature conservation value, including ancient woodland where ash is a significant component (and 7ha or greater in extent).

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### *Dealing with infected stands*

- Implement the interim approach to the management of Chalara-infected trees in Scotland as set out in *Annex 1*.

### *Awareness-raising*

- Align Chalara within a refreshed FCS communication strategy for tree health issues in Scotland.
- Support regular tree health seminars in Scotland to raise awareness of this and other tree pests and diseases.
- As and when new evidence emerges, update web-based silvicultural guidance on the management of ash (in the context of Chalara).
- Promote proportionate biosecurity measures for Chalara.
- Explore the potential for citizen science in the field of tree health through active engagement with the LWEC programme 'UK Environmental Observation Framework'<sup>11</sup>, the ObservaTREE concept, and through participation (via the Forest Education Initiative) with the OPAL<sup>12</sup> project, and the JNCC/CEH web-based recording system for volunteer naturalists.
- Support ICF and the Confor nursery group in the development of a 'Charter Mark' for plants of UK origin and consider the scope for its extension to the horticultural sector.
- Consider developing a public exhibition resource on ash dieback (and other emerging tree health threats) for use at key locations and events such as 'Gardening Scotland' and the Royal Highland Agricultural Show.
- Look to enhance biosecurity messaging through TV programmes such as the Beechgrove Garden.
- Contribute funding towards the biosecurity-themed garden at the RHS Centenary Chelsea Flower Show and help develop an accompanying media campaign.

**Forestry Commission Scotland**  
**27 March 2013**

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<sup>11</sup> [www.ukeof.org.uk/index.aspx](http://www.ukeof.org.uk/index.aspx)

<sup>12</sup> [www.opalexplornature.org/](http://www.opalexplornature.org/)

## Chalara actions in Scotland (2013/14)

	Sheltered area	Buffer area	Near (1km)/on sites of high nature conservation value	Adjacent to veteran and specimen trees of high social value	Other areas
<b>Surveys</b>	<ul style="list-style-type: none"> <li>• Target for trace forward surveys.</li> <li>• Investigate all wider environment reports.</li> <li>• Priority for spore trapping.</li> <li>• Enhanced vigilance during aerial tree health surveys.</li> </ul>	<ul style="list-style-type: none"> <li>• Target for trace forward surveys.</li> <li>• Investigate all wider environment reports.</li> <li>• Priority for FR spore trapping.</li> <li>• Enhanced vigilance during aerial tree health surveys.</li> </ul>	<ul style="list-style-type: none"> <li>• Target for trace forward surveys.</li> <li>• Investigate all wider environment reports.</li> <li>• Spore trapping if resources permit.</li> <li>• Maintain vigilance during aerial tree health surveys.</li> </ul>	<ul style="list-style-type: none"> <li>• Cease FC surveys at 31 March 2013.</li> <li>• Follow-up ad hoc reports subject to resource availability.</li> <li>• Maintain vigilance during aerial tree health surveys.</li> </ul>	<ul style="list-style-type: none"> <li>• Cease FC surveys at 31 March 2013.</li> <li>• Follow-up ad hoc reports subject to resource availability.</li> <li>• Maintain vigilance during aerial tree health surveys.</li> </ul>
<b>New planting</b>	<ul style="list-style-type: none"> <li>• Statutory action requiring the removal/killing of <u>all</u> recently planted ash trees on infected sites: <ul style="list-style-type: none"> <li>- uproot, burn/deep bury; or</li> <li>- cut, burn/deep bury and treat stumps;</li> </ul> </li> <li>• Annual review to kill re-growth.</li> </ul>	<ul style="list-style-type: none"> <li>• Statutory action requiring the removal/killing of all <u>symptomatic</u> recently planted ash trees on infected sites: <ul style="list-style-type: none"> <li>- uproot, burn/deep bury; or</li> <li>- cut, burn/deep bury and treat stumps;</li> </ul> </li> <li>• Annual review to detect further disease expression.</li> <li>• Encourage voluntary removal of remainder of recently planted ash trees on infected sites.</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage voluntary removal/killing of recently planted ash trees where infection has been detected.</li> <li>• Commence adaptation measures in high nature conservation value woodland.</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage voluntary removal/killing of symptomatic, recently planted ash trees.</li> </ul>	<ul style="list-style-type: none"> <li>• Voluntary approach to removal/killing of recently planted ash trees.</li> </ul>

	Sheltered area	Buffer area	Near (1km)/on sites of high nature conservation value	Adjacent to veteran and specimen trees of high social value	Other areas
<b>Wider environment</b>	<ul style="list-style-type: none"> <li>Consider statutory action requiring the removal of symptomatic ash trees if area of infection &lt;0.5 ha and the incidence of such infections remains rare.</li> </ul>	<ul style="list-style-type: none"> <li>Consider statutory action requiring the removal of symptomatic ash trees if area &lt;0.5 ha and the incidence of such infections remains rare.</li> </ul>	<ul style="list-style-type: none"> <li>Discourage automatic felling of symptomatic trees.</li> <li>Promote FC silvicultural guidance.</li> <li>Commence adaptation measures in high nature conservation value woodland.</li> </ul>	<ul style="list-style-type: none"> <li>Discourage automatic felling of symptomatic trees.</li> <li>Promote FC silvicultural guidance.</li> </ul>	<ul style="list-style-type: none"> <li>Discourage automatic felling of symptomatic trees.</li> <li>Promote FC silvicultural guidance.</li> </ul>
<b>Nurseries</b>	<ul style="list-style-type: none"> <li>Statutory destruction of all ash plants at nurseries where Chalara has been detected.</li> <li>Encourage use of existing Scottish nursery stock in 'resistance' trials.</li> </ul>				
<b>Urban trees</b>	<ul style="list-style-type: none"> <li>Discourage automatic felling of symptomatic trees.</li> <li>Promote FC silvicultural guidance.</li> <li>Promote FC guidance on the management of leaf litter and chipped material from infected trees.</li> </ul>				
<b>Timber/ firewood movement</b>	<ul style="list-style-type: none"> <li>No restrictions on movement of timber and firewood.</li> <li>Promote good biosecurity practice.</li> <li>Promote FC guidance on the management of chipped material from infected trees.</li> </ul>				
<b>Ash plant movement</b>	<ul style="list-style-type: none"> <li>Maintain movement restrictions on all ash plants for planting during 2013/14.</li> </ul>				
<b>Leaf litter</b>	<ul style="list-style-type: none"> <li>No special measures required.</li> </ul>	<ul style="list-style-type: none"> <li>No special measures required.</li> </ul>	<ul style="list-style-type: none"> <li>No special measures required.</li> </ul>	<ul style="list-style-type: none"> <li>Promote FC guidance on the management of leaf litter.</li> </ul>	<ul style="list-style-type: none"> <li>No special measures required.</li> </ul>



