

Pest and disease threats to plants

Technical Information Note 01/2015

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This Information Note aims to provide a selection of resources to assist the practitioner with promoting plant health in the landscape.

1. Introduction

1.1 Over time Ash die-back is expected to lead to the loss of most of our ash trees and significant alterations to the landscape character of many areas. Chalara is, however, only one of a rapidly growing number of pests and diseases threatening the urban and rural landscapes of the British Isles. Early government policy development has been heavily focussed on forestry and woodlands, both in terms of the threats to production and the impacts on ecology, but there are equally implications for non-woodland trees which are of key concern to the landscape professional.

1.2 The aim of this Technical Information Note is to provide an accessible summary of current sources of further information which should be of use to practitioners as they seek to better recognise and understand pests and diseases and modify their practice appropriately.

1.3 This Technical Information Note is based on work by members of the Biosecurity working group of the Landscape Institute (LI) Technical Committee. The Biosecurity working group was established by Roger Kent FLI and Colin Moore CMLI in June 2012 and at the date of publication also included Tim Arkell CMLI, Annabel Downs CMLI, Sally Visick CMLI, and Simon Watkins CMLI.

1.4 As a Technical Information Note, the contents are for information only. Whilst efforts have been made to ensure the usefulness and accuracy of any information contained it is the responsibility of the reader to establish its suitability for the reader's own purposes.

1.5 The intention is that this note will be updated as necessary, but additional information will also be found from time to time on the [Landscape Institute's Biosecurity – Tree and Plant Health webpages](#).

2. Current legislation

Please refer to: www.fera.defra.gov.uk/plants/plantHealth/statutoryLegislation.cfm

3. Identifying pests and diseases

3.1 General:

Forestry Commission: Top tree pests and diseases: www.forestry.gov.uk/pestsanddiseases

Forestry Commission Tree threats – an overview: www.forestry.gov.uk/forestry/infid-9cde2

Forestry Research diagnostic and advisory service: www.forestry.gov.uk/fr/ddas

Fera: Plant Health Risk Register: <https://secure.fera.defra.gov.uk/phiw/riskRegister/>

The Invasive Species Compendium: www.cabi.org/isc/datasheet/108083

Opal (Open air laboratory) citizen science www.opalexplornature.org

3.2 Chalara

Chalara management plan Defra March 2013 (superseded):

www.gov.uk/government/uploads/system/uploads/attachment_data/file/221051/pb13936-chalara-management-plan-201303.pdf

UK Plant Sciences Federation: <http://treehealth.plantsci.org.uk/about-ash-dieback/>

FC video on identifying **Chalara** in spring: http://www.youtube.com/watch?v=UuU8_e0Vw8Q

Joint Nature Conservation Committee on Chalara: <http://jncc.defra.gov.uk/page-6322>

3.3 Phytophthora

Fera www.youtube.com/watch?v=JDN7eQann2k&feature=youtu.be

RHS advice www.rhs.org.uk/advice/profile?PID=329#3

4. Protection, management and good practice for trees and diseases

4.1 Role of the landscape practitioner

Landscape practitioners have been recognised by Defra as key agents involved in transcontinental movement of plant material. Defra believes they have an important role in helping to combat disease introduction and spread, by adopting responsible practices in the specification and sourcing of plant material, promoting good biosecure site management and having the appropriate knowledge to assist in the detection and management of outbreaks.

4.2 Best practice sources

Fera Parks and Gardens best practice protocols:

www.fera.defra.gov.uk/plants/plantHealth/documents/pgProtocol.pdf

Forest Research: Protecting trees – including info on the Tree Health Diagnostic and Advisory Service (DDAS): www.forestry.gov.uk/fr/infd-5stc8a

Fera: www.fera.defra.gov.uk/plants/plantHealth/treeHealth/

4.3 Specifying and importing plants:

Fera Nurseries, Retailers and Landscapers Best Practice Protocols

www.fera.defra.gov.uk/plants/plantHealth/documents/nrlProtocol.pdf

Fera, Plant Quarantine and Biosecurity Guidance

www.fera.defra.gov.uk/plants/plantHealth/documents/biosecurityGuidance.pdf

Fera Plant passporting and marketing

www.fera.defra.gov.uk/plants/plantHealth/plantPassporting.cfm

4.4 Government strategy and management documents:

Defra: Tree Health Management Plan April 2014: www.gov.uk/government/publications/tree-health-management-plan

Defra: Plant Biosecurity Strategy for Great Britain April 2014:
www.gov.uk/government/publications/plant-biosecurity-strategy-for-great-britain

4.5 Examples of tree management strategies

Dutch elm disease management in East Sussex- lessons for other tree management schemes
March 2013 Stockholm Environment institute and FERA:

www.york.ac.uk/media/sei/documents/publications/Final%20report%20-%20Dutch%20Elm%20Management%20in%20East%20Sussex%20-%2018th%20Oct%202013.pdf

Kent CC Managing ash dieback in Kent:

www.kentdowns.org.uk/uploads/documents/Ash_Dieback_Kent_Guidance_web_version.pdf

4.6 Assessing impact of loss of Ash

JNCC Distribution of important ash in GB http://jncc.defra.gov.uk/pdf/important_ash.pdf

JNCC The potential ecological impact of ash dieback in the UK Jan 2014:
jncc.defra.gov.uk/pdf/JNCC483_web.pdf

JNCC Ash dieback long term monitoring of impacts on biodiversity Jan 2014
http://jncc.defra.gov.uk/pdf/484_web.pdf

4.7 Urban Forestry

The i-tree London project www.ltoa.org.uk/news/227-the-releaf-london-i-tree-eco-tree-and-woodland-survey-2014

The Trees and Design Action Group (TDAG) brings together a pioneering group of individuals, professionals and organisations from wide ranging disciplines in both the public and private sectors to increase awareness of the role of trees in the built environment.

<http://www.tdag.org.uk/>

Torbay's Urban Forest, assessing urban forest effects and values, a report on findings from UK i-Tree Eco pilot project: <http://www.treeconomics.co.uk/wp-content/uploads/Torbay-Paper.pdf>

Trees, People and the Built Environment I Birmingham 2011: download pdf from Institute of Chartered Foresters: <http://www.charteredforesters.org/icf-events/national-conference/tpbe/>

Trees, People and the Built Environment II: see talks online:

<http://www.charteredforesters.org/icf-events/national-conference/tpbeii-resources/>

5 Other concerned organisations include (but are not limited to):

British Association of Landscape Industries
Department for Environment, Food and Rural Affairs
Food and Environment Research Agency
Forestry Commission
Horticultural Trades Association
Joint Nature Conservation Committee
Royal Botanic Gardens (Kew)
Tree Council
The Royal Horticultural Society,
The Woodland Trust,
The National Trust and
The Ancient Tree Forum

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