apse membership resources

Briefing 20-01 January 2020

Ash Dieback Guidance – Information for Tree Owners, Managers, Contractors and Consultants – Arboricultural Association 2019.

To: All Chief Executives, Senior Policy Officers Main Contacts and APSE Contacts in England, Scotland, Wales and Northern Ireland

Key issues

- Ash dieback – a fatal disease of Britain's native ash trees (*Fraxinus excelsior*) – is one of the worst tree disease epidemics the UK has ever seen. The disease is caused by a fungus that originated in Asia but is thought to have arrived in Europe on exotic plants in the early 1990s, where it has devastated native ash species which have very little natural immunity.
- It is estimated at least 75% of the UK's ash population could be lost and that whilst 5% of the UK ash trees may have some degree of tolerance or immunity, it may take up to 50 years for ash numbers to fully recover, at a time when there is a national drive to increase tree numbers to combat climate change and carbon emissions.
- The management of ash die back is proving a real challenge for tree managers as to whether trees should be felled, or allowed to stand, in order to develop resistance to the disease and protect species which are reliant upon the ash for their home. There is also the issue of public safety with regards to falling branches, a symptom of the disease.
- This short briefing note hopes to provide some assistance for members with regards to providing background to the disease but also identifying the wealth of advice which is available to help tree managers.
- A final point is the growing importation of exotic plants and trees which may be called upon to meet the UK's tree planting targets, if this is so, then the issue of ensuring properly funded and effectively enforced biosecurity measures are in place to avoid a repeat of ash dieback type diseases in other species.

Even in these times of austerity, Parks Managers and arboriculturalists across the UK, are used to dealing with trees, through carrying out regular inspection or undertaking remedial management.

Recently both Government and various organisations have announced plans to massively increase the number of trees intended to be planted to help alleviate the effects of climate change and soak up the thousands of tonnes of carbon dioxide being emitted each year by the UK. It is estimated that UK woodland cover needs to increase from 13 per cent to 17 per cent – the equivalent of 1.5 billion new trees in order to meet its pledge to reach net zero emissions by 2050, and it needs to happen quickly.

However, whilst making plans to plant all these new trees there is a disease spreading across the UK which may result in the loss of virtually all of Britain's ash trees due to a fungal disease that arrived in the UK in 2012. The disease commonly known as ash dieback is also known as Chalara is caused by a fungus called *Hymenoscyphus fraxineus* (The fungus was previously called *Chalara fraxinea*, hence the name of the disease.)

This disease will cost more than just lost habitats for wildlife (there are estimated to be 955 species associated with ash trees of which 45 are believed to have ever only been found on ash) and treasured woods for recreation. A new estimate of the economic cost of ash dieback, puts the price tag at £14.8 billion. That's about three times as much as estimates for the Dutch elm disease crisis in the 1960s and 70s, largely because there are far more ash trees. Ash trees are the third most common tree in Britain after oak and birch - there are estimated to be around 150 million ash trees in the UK.

Ash dieback has spread ferociously throughout Europe due to airborne spores and trade in ash saplings which have no visual symptoms of the disease. When the disease was confirmed in the UK, it was eventually shown to have been imported on saplings which were then planted at multiple sites across the country. The disease is now found throughout the UK and there is no cure and very few trees are showing signs of long term resistance.

Therefore with a mortality rate of up to at least 75% in natural forests, potentially the loss in tree numbers could be around 112 million trees, this is at a time when more trees are needed to combat the effects of climate change and carbon emissions.

However there are signs that 5% of the ash population may be genetically tolerant to ash die back and site conditions and local tree cover can also play a significant role in the extent to which trees are affected, with isolated trees, trees growing in open areas such as parks or in hedgerows, being far less affected than those in forest environments, possibly due to spores from the fungus being diluted over wider areas.

" The impact of the disease on trees outside of woodlands is less predictable. While many will decline, many will persist indefinitely"

Forestry Commission/Defra – *August 2019*

This is particularly important to remember when considering new areas for tree planting and the species proposed, as most of the new tree planting will be based around forest development such as the Northern Forest.

It is thought this genetic tolerance and the continuation of ash in more isolated areas will eventually lead to more tolerant trees and the eventual re-establishment of ash in forests.

Dealing with infected trees can be problematic as many argue that felling live ash trees should be avoided due to the impact on amenity and biodiversity. But this needs to be measured against those infected trees which are in areas of high public access and the potential risks posed by falling branches, a symptom of ash die back.

By allowing trees to continue to grow it is hoped greater levels of tolerance will be developed and natural selection will promote healthier trees in the future.

However as a precautionary note, there is the view that local authorities should perhaps consider planning ahead and budget for any felling that may be required.

Therefore there is a great deal of advice being offered to tree managers and arborIculturalists, but one of the most recent is the guidance document produced by the Arboricultural Association entitled, ***Ash Dieback Guidance for Tree Owners, Managers, Contractors and Consultants*** by Michael Sankus. (modified Nov 2019). https://www.trees.org.uk/Trees.org.uk/media/Trees-org.uk/Documents/eBooks/AshDieback-GuidanceNote-web.pdf.

The document highlights issues relating to ash dieback including how to identify the disease, tacking action, TPO'S, trees on development sites and planning conditions, felling licences, replacing diseased trees, and future biosecurity measures.

There is a great deal of further guidance included in the document which tree managers will find useful.

APSE Comment

It is now known that ash dieback is caused by a fungus which originated in Asia. It does not cause much damage on its native hosts of the Manchurian ash and the Chinese ash in its native range as these have developed with the fungus over time. However, its introduction to Europe about 30 years ago has devastated the European ash because our native ash species did not evolve with the fungus and this means it has no natural defence against it.

The fungus overwinters in leaf litter on the ground, particularly on ash leaf stalks. It produces small white fruiting bodies between July and October which release spores into the surrounding atmosphere. These spores can blow tens of miles away. They land on leaves, stick to and then penetrate into the leaf and beyond. The fungus then grows inside the tree, eventually blocking its water transport systems, causing it to die. The tree can fight back, but year-on-year infections will eventually kill it.

However, there is hope on the horizon. Initial findings suggest that we might have some trees that are tolerant to ash dieback, meaning that the population could eventually recover over time (likely to be over 50 years). With these facts in mind, a great deal of

responsibility will fall upon local authority tree managers to ensure everything possible is known about the disease, in particular, how to identify it and then have the understanding as to how to take necessary but proportionate action.

Guidance notes such as those highlighted will be of considerable use, particularly as over the next few decades, tree planting in the UK will increase significantly and diseases such as ash dieback, may just be the tip of the iceberg as trees from outside the UK are likely to be imported to meet the extremely challenging targets set by government and like-minded organisations.

Therefore, managing current diseases and inspecting the wide range of trees we already have, will be difficult enough, but the previously mentioned issue of exotic disease is not a problem limited to ash trees. People move plants – and unwittingly, their diseases – around the world at rates that far outstrip natural disease spread. The international trade in plants, travel and climate change are all contributing to an acceleration in the rate of new tree diseases emerging and spreading. More tree pests and diseases have arrived in Britain in the last 40 years than at any time before then. As more native species are threatened, the effects will combine and multiply.

The health of native trees, in fact of all wildlife, needs to be valued far more highly than the trade in these items. We must recognise not only the essential benefits that the natural environment provides for us, but how severe the consequences are for society when new pathogens are spread.

Therefore having the correct biosecurity measures in place to prevent the future importing of tree and plant diseases will be critical if we are to ensure we can guarantee the future health of our trees and woodlands.

APSE will continue to search for the most up-to-date information on the fight against ash dieback and the most effective management methodologies being successfully used and share its findings with members via briefing notes, advisory groups and seminars.

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