



Association for Public Service Excellence

# Plant biosecurity:

The role of councils in  
delivering a healthier  
future for plants and trees

Matt Ellis, APSE Principal Advisor



## Plant Biosecurity

The role of local councils in delivering a  
healthier future for the UK's plants and trees



# Outline:

- 🌱 Importance of plants
- 🌱 What do we mean by “Biosecurity”?
- 🌱 Threats – Pests, Diseases and Non-native Invasive Species
- 🌱 Existing legislation (UK and Wales)
- 🌱 APSE survey on local authority awareness
- 🌱 Preventative measures and resources available to green space teams



## Plant Biosecurity

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# The Importance of Plants

98% of the oxygen we breathe is produced by plants



80% of the world's terrestrial species of animals, plants and insects live in forests



1.3 billion kg of air pollutants are removed by plants in the UK each year



over a third of the 454 native tree species in Europe are considered threatened



80% of the food we eat is provided by plants



Half of the world's population rely primarily on natural medicines for their health care



15,000 litres of water can be intercepted by a mature evergreen tree each year, mitigating flood risk






Up to 74% of the social costs of greenhouse gas emissions could be avoided by having a greater plant based diet

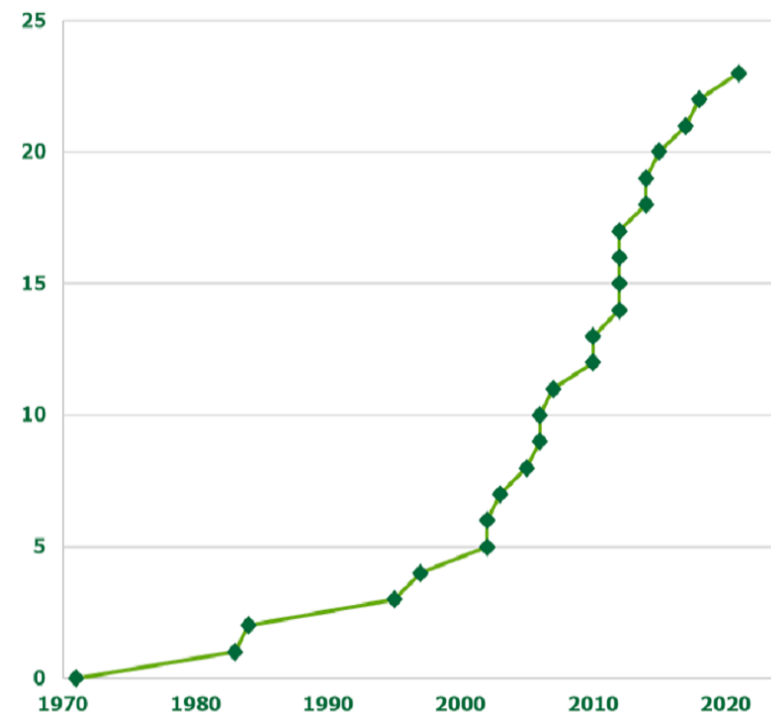


# What do we mean by biosecurity?

- 🌱 “Biosecurity” was mainly used in defence terms, in particular, regarding the control of biological weapons.
- 🌱 Defra defines biosecurity as: ***‘the prevention of disease-causing agents entering or leaving any place where they can pose a risk to farm animals, other animals and humans’***
- 🌱 The primary goal of biosecurity is to protect against risks posed by diseases and organisms.
- 🌱 The primary tools of biosecurity are exclusion, eradication and control, supported by expert system management, practical protocols, and the rapid and efficient securing and sharing of vital information.

# What do we mean by 'plant' biosecurity?

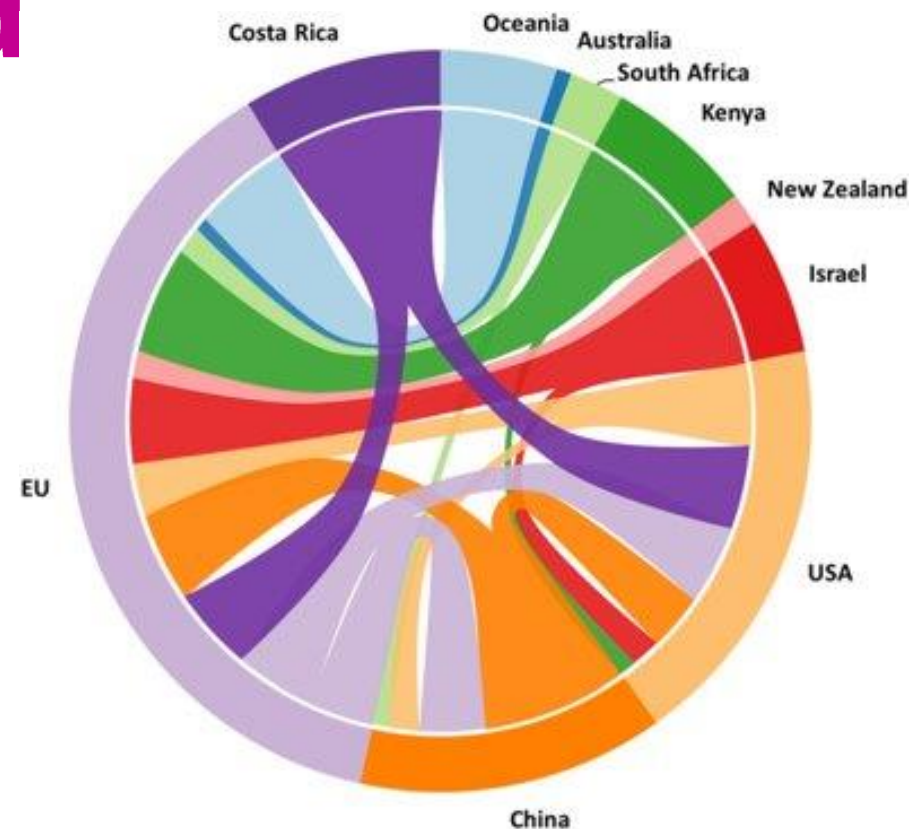
-  Plant Biosecurity refers to a set of precautions that aim to prevent the introduction and spread of harmful organisms. These include non-native tree and plant pests, such as insects, and disease-causing organisms, called pathogens, such as some bacteria and fungi.
-  Within this definition many include non-native invasive species (NNIS)
-  The spread of pests of cultivated and wild plants globally, including forest pests, pose potentially high impacts for natural capital, food security, livelihoods, medicines, and trade.



The increase in the number of new pests and disease outbreaks affecting trees since 1971 (Source Forestry Commission)

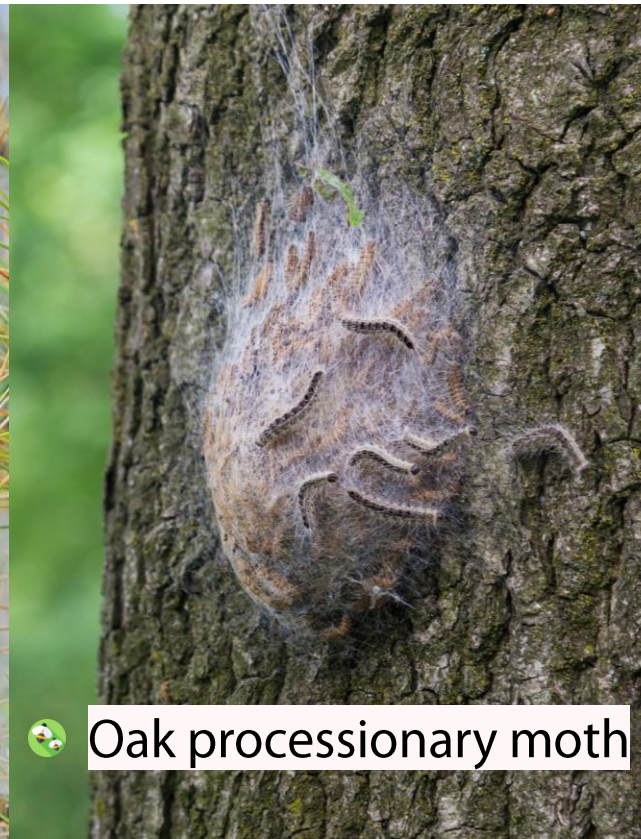
# Threats: Causes and spread

- 🌿 Transmitted in a variety of ways:
  - Air
  - Water
  - Animals and
  - Humans (such as the worldwide trade in plants)
  
- 🌿 Shifts in the geographic distributions of pest pathogens in response to climate change - more frequent and severe




**Trade of plants and plant parts:** widths are proportional to 2015 import and export values.

# Threats: Tree pests and diseases



# Threats: Tree pests and diseases



 Asian Longhorn Beetle



 Citrus Longhorn Beetle

o MASPERO

*Anoplophora chinensis* (ANOLCN) - <http://>



 Emerald Ash Borer



 Colorado Potato Beetle



# Threats: Non-native Invasive Species




Rhododendron

ponticum




 Giant Hogweed



 Japanese Knotweed



 Himalayan Balsam



# Existing Strategies

## Plant biosecurity strategy for Great Britain (2023-2028)

- Outcome 1: World class biosecurity regime
- Outcome 2: Society that values healthy plants
- Outcome 3: Biosecure plant supply chain
- Outcome 4: Enhanced technical capability

## Great Britain Invasive Non-native Species strategy (2023-2028)

- The aims and actions for addressing the threats posed by invasive non-native species.
- A framework to deliver the most effective response to preventing, eradicating, and managing invasive non-native species.
- To improve co-ordination and co-operation by government, stakeholders, land managers and the public against invasive non-native species, across Great Britain.



# APSE Biosecurity Survey

Questions included:

- 🌱 Awareness of national strategies on plant biosecurity
- 🌱 Whether plant biosecurity was considered in operational practices
- 🌱 Personal level of understanding on the subject.
- 🌱 What pests, pathogens and NNIS species were a cause for concern
- 🌱 What actions had been taken to address NNIS and pests and pathogens relating to plants
- 🌱 Whether the use of chemicals had been reduced and what had been the effects
- 🌱 Does the council have a specific plant biosecurity plan or policy.
- 🌱 Is training provided to raise awareness/improve plant biosecurity actions.

## HortWeek

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### Knowledge of plant biosecurity 'relatively sparse' in local authorities according to APSE's research

APSE has published Plant Biosecurity: The role of local councils in delivering a healthier future for the UK's plants and trees.

17 April 2024



Credit: APSE



# APSE Biosecurity Survey

**64%**

**"No"**

"Are you aware that DEFRA has produced a Plant Biosecurity Strategy 2023-2028?"



# APSE Biosecurity Survey

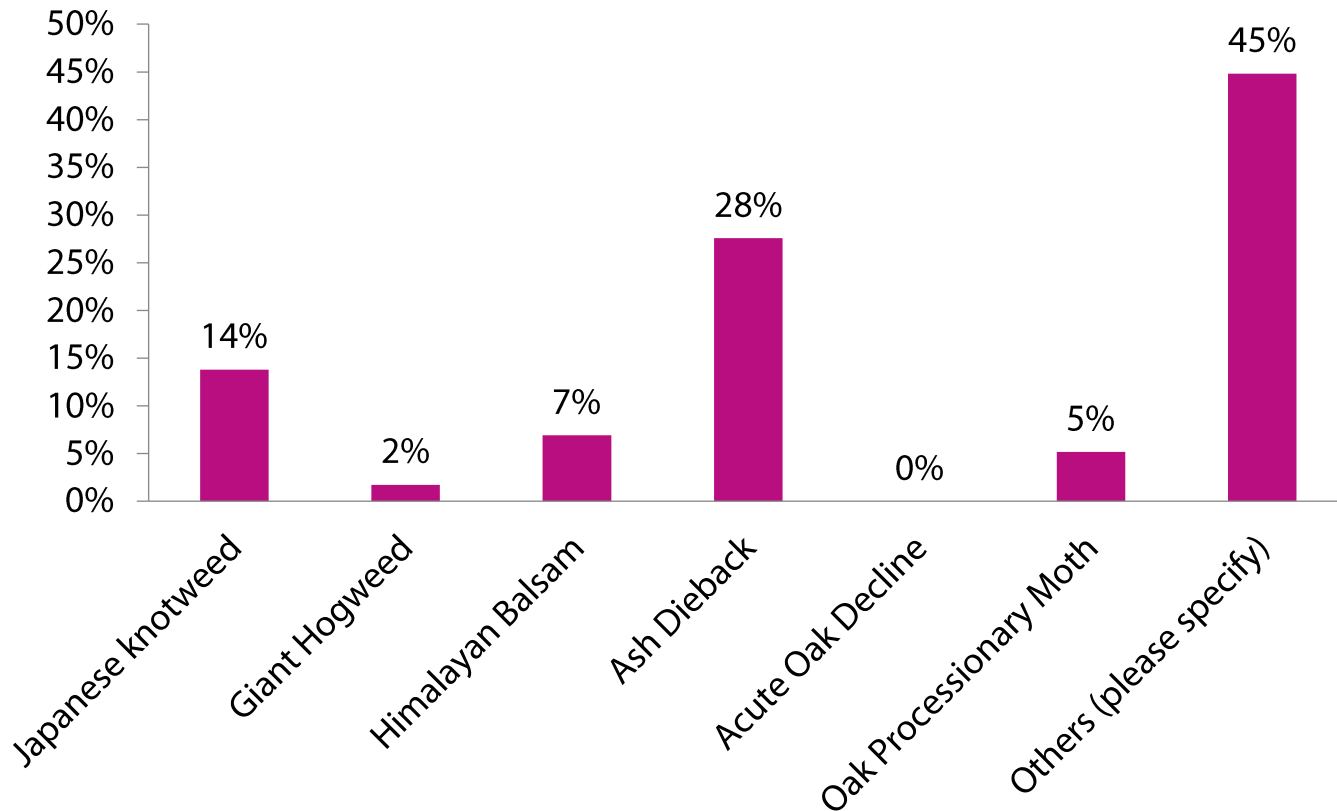
**42%**

*"No"*  
*"Not sure"*

"Does your service currently consider plant biosecurity as an issue regarding their operational practices?"



# APSE Biosecurity Survey

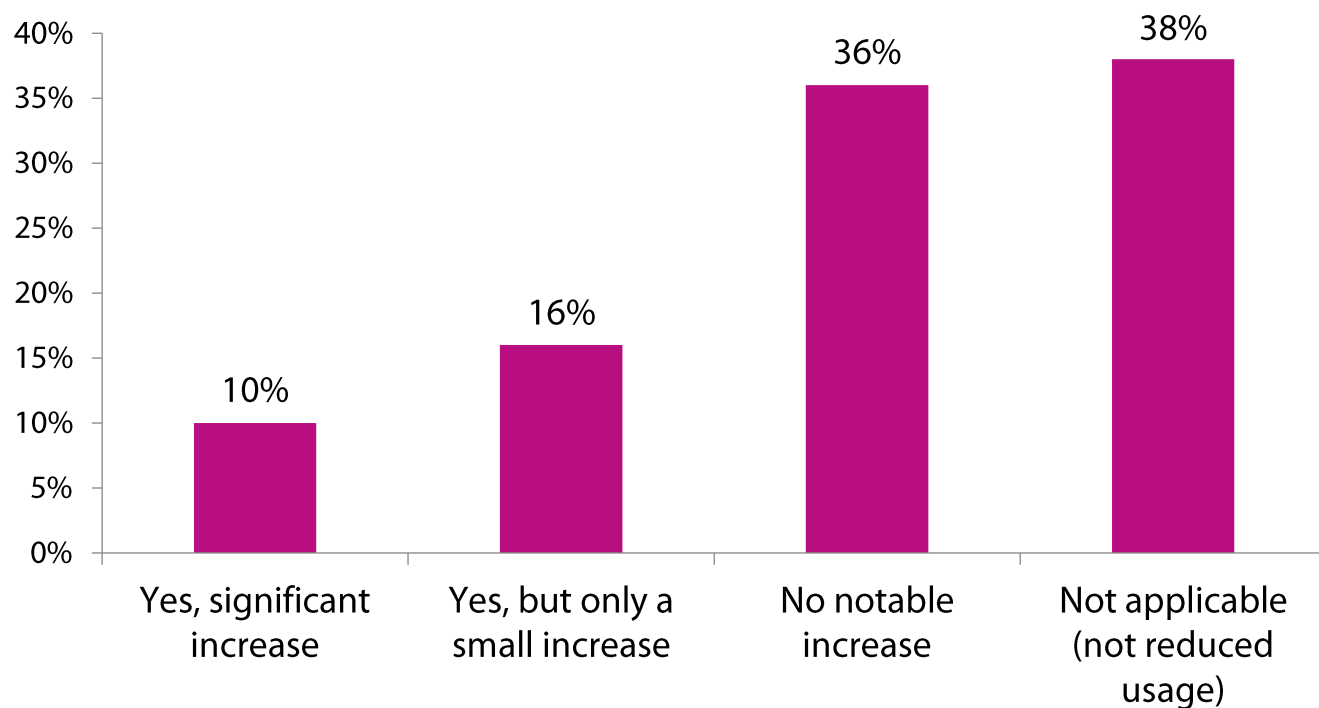


“Do you currently have any issues relating to invasive plant species, diseases or pests in your parks and greenspaces?”

**28%**  
“Ash dieback”



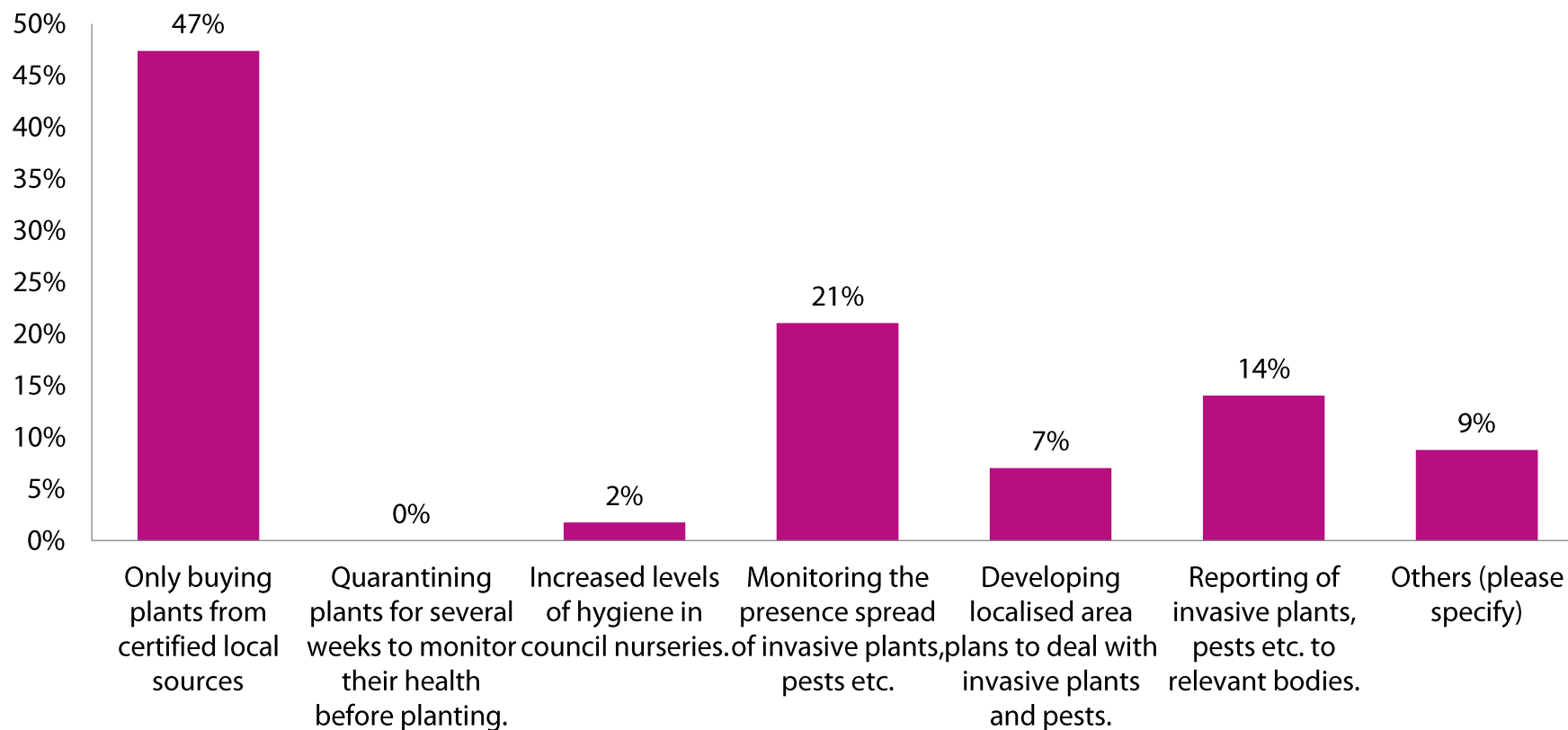
# APSE Biosecurity Survey



“If you have reduced pesticides and herbicides, have you noticed an increase in any specific types of invasive plants, diseases or pests because of the reduction?”



# APSE Biosecurity Survey



“Do you take any specific actions to address the issue of biosecurity?”



# Prevention – Kit





- 🌿 Make sure all equipment, including boots, clothing, ropes and saws, are free from soil and organic material before entering and leaving a site.
- 🌿 Only take the required amount of equipment on site.
- 🌿 Regularly clean ropes as per the manufacturer's guidance or use dedicated ropes for particular sites.
- 🌿 Clean and disinfect chainsaws, pruning saws and other cutting tools as part of routine maintenance, and before using them on a new site.
- 🌿 Have a plant biosecurity kit



# Prevention – Kit

- 🗑️ Bucket
  - 🗑️ Boot pick
  - 🗑️ Brush
  - 🗑️ Disinfectant
  - 🗑️ Hand sanitiser
  - 🗑️ Water container or large reused water bottle
- 🗑️ It is important to remember, that when applying disinfectant make sure it is to a clean surface, as disinfectant may not work on soiled surfaces so brush or wash off organic material before application

# Prevention – Sourcing

-  Responsibly source planting stock through nurseries or suppliers that adhere to national standards such as the Plant Health Management Standard.
-  Source planting stock from pest and disease-free areas.
-  Keep accurate, up-to-date records of all purchases and supplies to assist with tracing exercises in the event of an outbreak.
-  Regularly monitor plant and tree stock for signs of ill-health, and report any suspect symptoms using TreeAlert.



# Prevention – Sourcing

- 🌱 If you're responsible for importing or moving plants, check your plant passport and registration requirements with APHA before doing so.
- 🌱 Source landscaping materials from pest-and-disease-free areas only.
- 🌱 Be aware of any restrictions in place, or phytosanitary (plant health) measures and treatments required when importing certain materials or their packaging.
- 🌱 Specify British-grown plants when sourcing planting stock, to reduce the risk of an accidental introduction of invasive non-native pests or diseases.



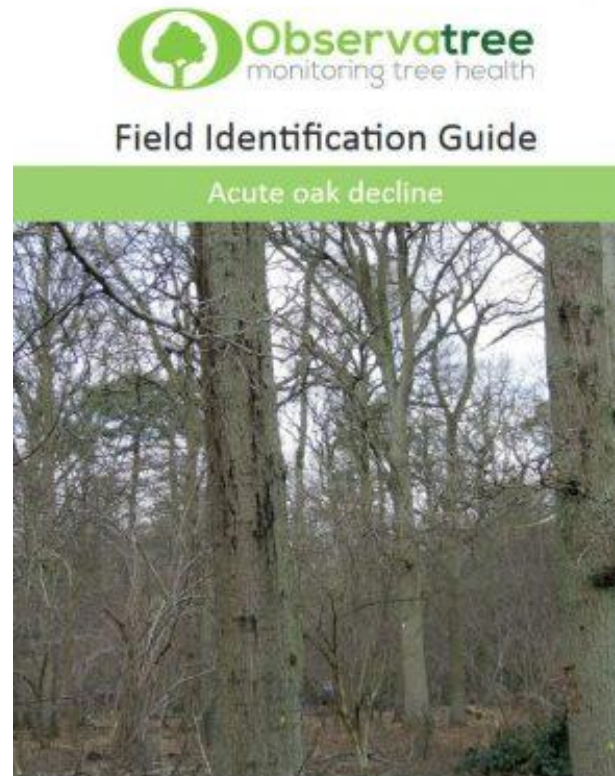
# Prevention – General public

- 🌍 Drive and park your vehicle only on hard-standing surfaces such as tarmac
- 🌍 Before you leave: clean mud, organic material and water off your boots, bikes and buggies, and check over your dog because fungi, bacteria and insects can get everywhere.
- 🌍 'Don't risk it!': please don't bring any plant or tree products back from trips abroad, these might be carrying harmful non-native tree pests or pathogens.
- 🌍 Report any trees that you suspect are in ill-health to the Forestry Commission, Scottish Forestry and Natural Resources Wales using TreeAlert.



# Resources available

- 🌿 Risk Register and Plant Health Portal - Defra
- 🌿 TreeAlert – Forest Research
- 🌿 Woodland Trust / Coed Cadw
- 🌿 Animal and Plant Health Agency
- 🌿 Plant Healthy
- 🌿 Observatree





Plant Healthy  
**Certificate of Conformity**

**Awarded to:** E.W. Burrow Nursery Ltd.

**Address:** Herrings Lane, Cross in Hand, Heathfield, E Sussex, TN21 0UG

**Standard:** Plant Health Management Standard version 1.0 - issued January 2019.

**Scope:** Plant Nursery

Registration Number:	PHCS-0011-UK
Date of Evaluation:	17 <sup>th</sup> December 2020
Certification Date:	23 <sup>rd</sup> December 2020
Certification Expiry Date:	22 <sup>nd</sup> December 2021
Certificate Issue Number:	0011-01



Technical Manager  
Grown in Britain



This certificate is the property of Grown in Britain and must be returned immediately on request.  
To check validity contact: Grown in Britain, 19 Common Road, Hanham, Bristol, BS15 3LL  
Tel: +44 (0) 7584 169094 Email: enquiries@growninbritain.org.



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