



Animal &
Plant Health
Agency

Biosecurity future threats to plants and trees

APSE - Parks in a changing climate

Harrogate

March 2015

Biosecurity future threats to plants and trees

- Highlight how plant pest and disease threats are increasing
- The work being done to protect the country from such threats
- How parks and green space managers can help reduce threats

Increasing threat

Today trees and plants are suffering from unprecedented attacks from pests and diseases:

- Increased globalisation of plant trade
- ‘Love of the New’ - tourism, gardening television programmes, press articles, internet etc
- Demand for instant landscapes
- Climate change

31 July 2010 Last updated at 13:20



Asian pest beetle found at Rutland school

A beetle from Asia that poses a threat to the UK's native plants has been found at a Rutland school.

The citrus longhorn beetle, discovered at Langham Church of England Primary near Oakham, Rutland, devours broadleaved trees and shrubs.

An outbreak could threaten horticulture and forestry, according to the the Food and Environment Research Agency (Fera).



The beetle is often accidentally imported in trees

Busy lizzy shortage due to disease

Britain's gardens and hanging baskets may look rather less colourful this year due to a shortage of busy lizzies that mean garden centres, including B&Q and Homebase, will no longer be selling the perennial favourite.



Busy Lizzies: The flower is not available at B&Q or Homebase Photo: Stephen Lock/Telegraph

Toxic caterpillar warning as infestation of oak moths spreads

The warm weather may be welcome but it has caused toxic caterpillars to emerge, sparking fears the creature will spread further than ever this summer.



Ash dieback 'could affect 75% of trees in worst-hit areas'

Deadly fungus will infect most ash trees in the south and east of England by 2018, government models suggest



What does Government do?

Plant Health Service in England is:

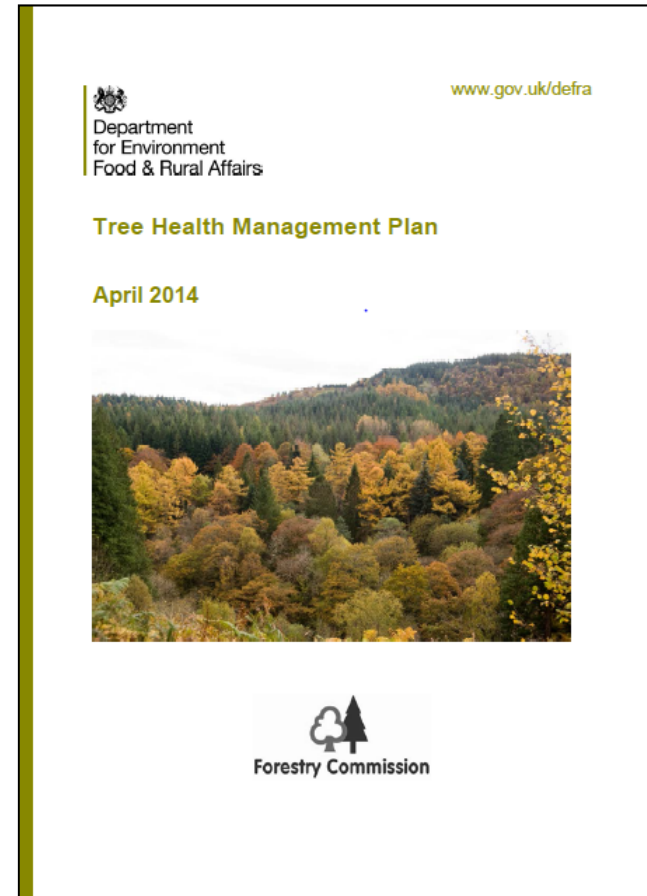
- Department for Environment, Food and Rural Affairs (Defra)
- Animal & Plant Health Agency (APHA) - primarily the Plant Health & Seeds Inspectorate (PHSI)
- Food and Environment Research Agency (Fera)
- Forestry Commission England (FCE) including Forest Services and Forest Research (FR)
- Forestry Commission (Cross Border) (FCCB)



GB Plant Biosecurity Strategy



England Tree Health Management Plan



Government Strategy



1. Strengthening science & evidence to identify risks and to deal with outbreaks.
2. Creating a common approach to assessing risk across Defra and its network
3. Increased vigilance & prevention of risk material entering the UK
4. Better enforcement and responses to threats, to minimise the potential impact of disease and pest risks.
5. More public awareness and engagement with biosecurity.

Recent actions

- Chief Plant Health Officer -
Professor Nicola Spence
- Risk Register publically available
at
[https://secure.fera.defra.gov.uk/p
hiw/riskRegister](https://secure.fera.defra.gov.uk/p
hiw/riskRegister)



Search for a Pest or Organism

752 pests in the Risk Register

Preferred Name

Synonym

Common Name

Host



[Advanced Search](#)

[Download Entire Risk Register](#)

About

The UK Plant Health Risk Register is a major step in implementing the recommendations of the independent Task Force on Tree Health and Plant Biosecurity. It is a tool for government, industry and stakeholders to prioritise action against pests and diseases which threaten our crops, trees, gardens and countryside. The Register is publicly available.

Risk Register News

New Entries on the Risk Register 06/02/2015

The following pests have been added to the Risk Register this month:...

[View More](#)

Recent Additions and Updates 20/01/2015

The following pests have been added to the UK Plant Health

Example Searches

Show pests marked as a priority for...

Which entries are pests of *Fraxinus*?

Which entries are pests of *Solanum*?

About Plant Health

[What's New](#)

[Latest PRA consultations](#)

[Legislation](#)

[Licensing of non-native biocontrol agents](#)

Recent actions

- Chief Plant Health Officer - Professor Nicola Spence
- Risk Register publically available at <https://secure.fera.defra.gov.uk/phiw/riskRegister>
- Contingency planning
- Increased inspections
- Advisory Forums
- Research

Likelihood & Impact

Likelihood –
High/Medium/Low

Plant purchases & source
Visitor numbers
Location
Use of volunteers or
contractors
Type of plants in garden

Impact – High

Loss of valuable plants
Effect on landscape
Cost of control measures
Restrictions on visitor
movements/closure of an
area
Staff time

Biosecurity – protecting your parks, gardens and green spaces from plant pests & diseases

Biosecurity

SOURCING PLANTS - Suppliers

Use known suppliers

- Use “approved” suppliers.
- Use nurseries and garden centres that have been have a proven track record.
- Visit them and check them out. Don't be afraid to ask searching questions – you are the customer!
- Specify exact requirements on your purchase order forms
- If there is a specific need for plants from a doubtful supplier, then they should go through ‘quarantine’ on arrival.



SOURCING PLANTS - Origin

Plant origin

- Wherever possible, seek to purchase plants that have been propagated and produced within the country
- Minimises distance travelled
- Reduces chances of introducing an alien pest or disease



For example:

- Citrus longhorn beetle arrived on cheap, traded *Acers* from China
- Chalara ash dieback arrived on ash saplings from Continental Europe

SOURCING PLANTS – Plant type

Plant type

- Wherever possible, avoid large, ready-made trees; often produced on the Continent
- Large, instant specimen trees pose a very high risk of introducing pests and diseases

For example,

- Oak processionary moth (*Thaumetopoea processionea*) suspected to have arrived into West London on large oaks from the Netherlands.



QUARANTINE – on arrival

- Inspect all plants carefully on arrival
- Only accept the delivery if you are content that the plants are free from pests, diseases and weeds
- Check all necessary documentation – compliance to your order, if necessary its plant passport number

EC Plant Passport UK/EW 12345

- If you are not happy, reject them - *“Just say no!”*



QUARANTINE – holding period

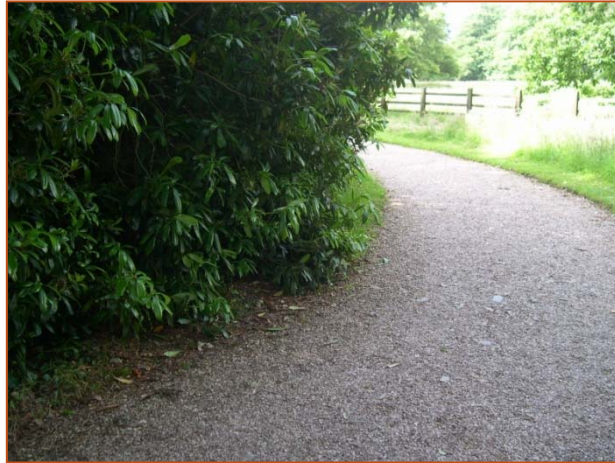
- Hold plants in a “quarantine area”
 - Separate - away from rest of garden.
 - Secure – restrict staff, visitors and animals.
 - Hygiene – clean footwear, tools
 - Separate tools
- Hold for 6 weeks if possible
- Monitor regularly for pests and diseases.



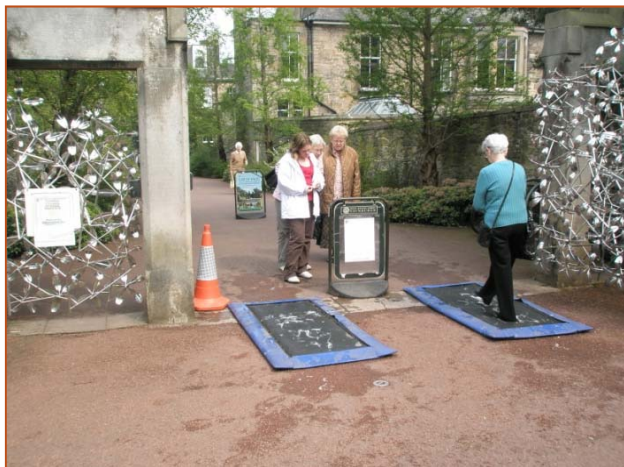
MANAGEMENT - Plant culture



MANAGEMENT - Infrastructure



MANAGEMENT - Hygiene



MANAGEMENT - Water



MANAGEMENT - Waste



TRAINING & MONITORING



Posters & other information

TURNING OVER A CLEAN LEAF

How to protect your nursery or garden centre from pest and disease invaders

- Plants coming in:** is the main method by which many pests and diseases move between premises!
What can you do?
 - Source plants from suppliers with a good record of supplying disease-free stock
 - Check whether your supplier belongs to an official accreditation scheme
 - Nurseries - if possible, propagate from your own stock plants
- Plants on arrival** need careful inspection.
Remember to:
 - Check for compliance with purchase order and any plant passport or phytosanitary certificate required
 - Keep accurate records of all bought-in material
 - Only accept delivery if you are sure that the plants are healthy
 - If there are any problems, inform your supplier immediately
- Quarantine areas** should be isolated from production and retail areas.
What more can you do?
 - Restrict access to the area
 - Be scrupulous about hygiene
 - Use dedicated tools
 - Hold new arrivals for an appropriate period and monitor frequently
- Clear Information** helps keep customers and visitors informed and aware. **How can this be done?**
 - Display a notice to site visitors about the risks of introducing pests or diseases
 - Clearly identify quarantine areas to prevent visitors entering
 - Increase consumer confidence by informing them of the methods used to minimise pest and disease risk
 - Consider providing information on pests and diseases, e.g. at help desks.
- Day-to-day hygiene:** it's all too easy to spread pests and diseases through poor hygiene!
It's important to:
 - Regularly clean and disinfect tools, machinery, clothes and boots
 - Protect hands from contamination
 - Use new pots and trays wherever possible
 - Cover items (e.g. pots, compost storage areas) that could be contaminated by plant or soil debris
 - Have regular 'clean-ups' of standing areas
 - Bag up pest or disease-affected plants before removal
 - Cover skips & other disposal areas and locate them downwind from production/retail areas
 - Practice scrupulous hygiene in propagation areas



Concept by David Staveon and Designed by Touchwood Design



TURNING OVER A CLEAN LEAF

How to protect trees from pests and diseases when working in woodlands and forests

- Nursery stock** should be clean and free from pests and diseases
 - Get to know your supplier. Specify in your plant order: provenance, size, age of plant and where it will be grown
 - On arrival, check that the young trees are healthy and free from pests and diseases
 - Check any documentation carefully and keep accurate records of everything you have bought and planted
- Avoid spreading pests or diseases from site to site**
- People**
 - When leaving the site remove plant material and soil from boots - use disinfectant if you have visited a high risk site
 - Use sub-irrigation if possible
 - Don't overhead irrigate
 - Ventilate greenhouses
 - Space plants well
 - Protect aerial parts from sc**
- Good plant husbandry**
- What can you do?**
 - Avoid plant stress caused by
 - Handle plants with care at
 - Avoid prolonged leaf wetness
 - Use sub-irrigation if possible
 - Don't overhead irrigate
 - Ventilate greenhouses
 - Space plants well
 - Protect aerial parts from sc



- Site**
 - Keep forest roads and tracks in a good condition
 - Operations near watercourses may risk moving disease downstream, so take care to avoid vehicles, timber, soil and branches entering streams
 - Restrict access if there is a high risk of people spreading the pest or disease

- Regular monitoring:** helps you spot problems early and take prompt remedial action
 - Ensure all those that work in the forest recognise pests and diseases
 - If you have a concern or see an unknown problem, report it to the relevant plant health service
 - Share information with your neighbouring woodland owners
- Clear information:** keep all forest workers and users informed and aware
 - Provide clear, visible biosecurity information, also within contract agreements
 - Clearly sign areas of restricted access and provide information as to the reason why
 - Make all contractors and staff aware of their responsibility for hygiene and tree health
- Woodland Management:** good husbandry can increase resilience to impacts of pests and diseases
 - Diversify the forest structure and use a range of species in plantings to increase resilience to pest and disease and to climate change
 - In the event of a serious outbreak, comply with any plant health statutory requirements and produce an outbreak management plan



TURN OVER A CLEAN LEAF TODAY

Help protect our trees and plants from pests and diseases

- Our trees and plants are under an increasing threat from new pests and diseases
- When enjoying the outdoors, there are things that each of us can do to prevent these pests and diseases spreading from site to site
- MUD** can carry pests and diseases
 - Clean your boots and shoes
 - Wash down the tyres of bikes and vehicles after off-roading
 - Keep to obvious paths
 - Keep an eye out for information on notices



- PLANTS** and **LEAVES** may already be home to pests and diseases
 - Avoid taking plants or cuttings from the countryside
 - Resist planting out your garden plants in the countryside
 - Avoid dumping garden waste in the countryside
 - Familiarise yourselves with common plant pests and diseases

For more information, contact:
The Food and Environment Research Agency (FERA)
<http://fera.defra.gov.uk/plants/plant-health/>
 Telephone: 01904 486625
 Email: planthealth.info@fera.gov.uk

The Forestry Commission
 Telephone: 0845 3873787
<http://www.forestry.gov.uk/pestanddiseases>
 Email: enquiries@forestry.gsi.gov.uk



Don't panic! An outbreak is not the end of the World!



Case study – Citrus Longhorn Beetle

