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LWEC Early Detection – November 2016

Plant Health

Protect and maximise the value of plants to society and enhance productivity and growth in forestry and crop sectors

- Minimise the impacts of 'regulated' pests and diseases
- Enable businesses to grow by trading in healthy plant material
- Foster a resilient natural environment
- Enhance societal well-being

**Expert
Taskforce
Report
2013**



**Plant
Biosecurity
Strategy
2014**



**Tree Health
Management
Plan
2014**



Prevention

- Horizon Scanning
- Risk Identification & Assessment

**Prevention
Detection
Control**

Detection

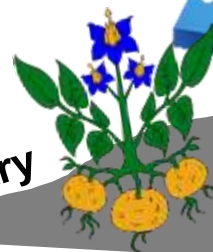
- Inspection, Surveillance, Monitoring
- Control
- Eradication,
- Containment
- Resilience**
- Adaptation



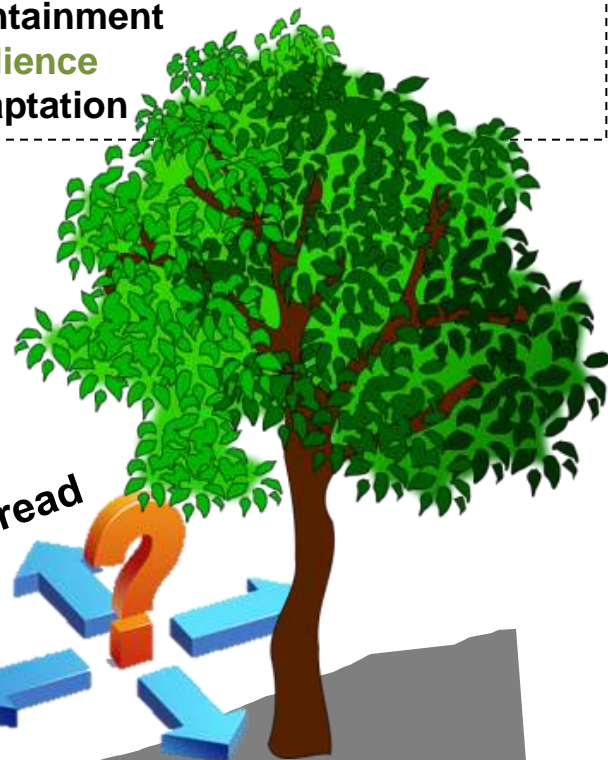
Pest moves towards UK



Entry



Spread



Pest moves towards UK
→



UK border

Optimising inspections

Entry



Spread

Management Strategies
Decision Making Framework

Cost and responsibility sharing
Stakeholder engagement

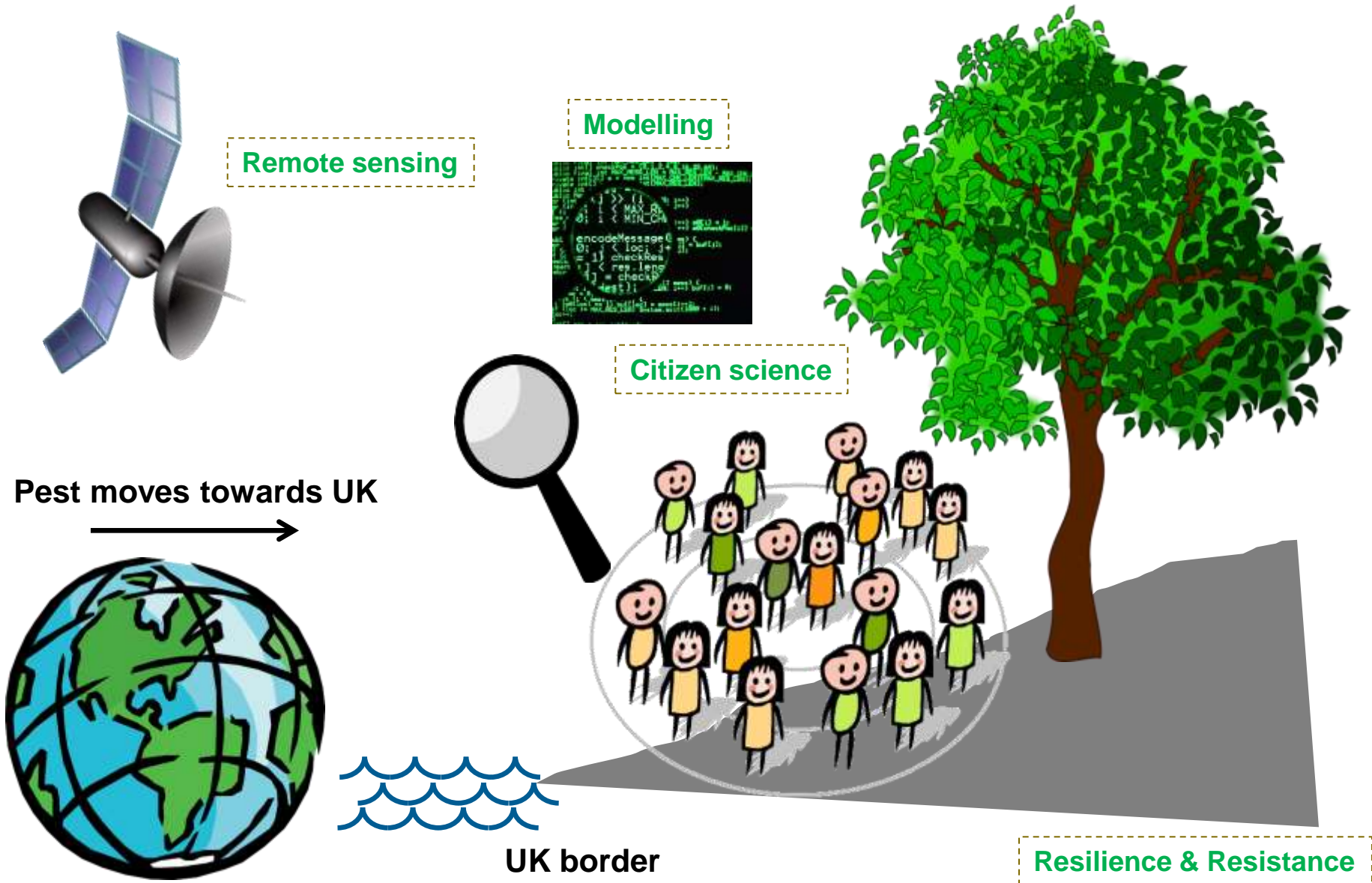


Control

Valuation



Developing and testing contingency plans



Evidence needs

How can we better identify, assess risks and prevent new pests arriving?

A. PREVENTION
(PRE-BORDER)

How can we better detect the arrival of new pests?

B. DETECTION
(PRE-BORDER, AT BORDER, POST-BORDER)

How can we better control and minimise the impact of new pests (eradicate, contain, manage)?

C. CONTROL
(POST-BORDER)

How can we build systems that are resilient to new pest introductions?

D. RESILIENCE
(POST-BORDER)

Prevention

How can we better PREVENT new pests arriving through improved NETWORKING, HORIZON SCANNING, RISK ANALYSIS and REGULATION? (PRE-BORDER)

How can we better assess and manage risks from **KNOWN THREATS to support policy and regulation?**

How can we better identify and manage risks from **UNKNOWN THREATS and reduce risks through regulation?**

How can we develop and practice a **CULTURE OF BIOSECURITY?**

What improvements can be made to pest prioritisation and risk analysis methods?

What biological, economic, data, methods or frameworks are needed?

How can we better identify, assess and manage risk pathways and commodities?

How can we improve horizon scanning and identify new threats?

How can we influence public/industry/stakeholder behaviours?

What intervention measures can we put in place to increase our biosecurity?

Plant Health Risk Register

- Available on line
<https://secure.fera.defra.gov.uk/phiw/riskRegister/>

The screenshot shows the UK Plant Health Risk Register website. At the top, there is a brown header with the text "UK Plant Health Risk Register" and a home icon. Below the header, the text "Department for Environment, Food & Rural Affairs" is displayed next to the DEFRA logo. The main content area features a search bar with the placeholder text "Search for a Pest or Organism" and a "703 pests in the Risk Register" indicator. The search bar contains the example text "e.g. Asian longhorn beetle" and a "Search" button. Below the search bar, there are four tabs: "Preferred Name", "Synonym", "Common Name", and "Host", each with a checkmark icon. To the right of these tabs is a gear icon. Below the tabs are two buttons: "Advanced Search" and "Download Entire Risk Register". The bottom section of the page is divided into four columns: "About", "Risk Register News", "Example Searches", and "About Plant Health". The "About" column contains a paragraph about the register and a link to "Plant pests not yet on the Risk". The "Risk Register News" column has two news items: "Additions to the Risk Register – March 2015" and "Review of Risk Register Entries". The "Example Searches" column has three search boxes with example queries. The "About Plant Health" column has four buttons: "What's New", "Latest PRA consultations", "Legislation", and "Licensing of non-native biocontrol agents".

UK Plant Health Risk Register

Department for Environment, Food & Rural Affairs

Search for a Pest or Organism 703 pests in the Risk Register

e.g. Asian longhorn beetle Search

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.

Plant pests not yet on the Risk

Risk Register News

Additions to the Risk Register – March 2015 26/03/2015

The following pests have been added to the Risk Register...
[View More](#)

Review of Risk Register Entries 23/03/2015

The following pests have had their Risk Register entries revised in light of new information...

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

Risk Register entry for *Agrilus planipennis*

UK Plant Health Risk Register

Department for Environment, Food & Rural Affairs (DEFRA) | <https://secure.fera.defra.gov.uk/plhw/risk/register/view/risk/register.cfm?riskref=25310>

UK Risk Register Details for *Agrilus planipennis*

Common Names

- Emerald Ash Borer

Scenario and Pathways

Scenario for Risk Register

- Pest is introduced

Pathway Assessed for Entry to UK

- Firewood

Common Pathways

This section is currently being developed as part of the next phase of the Risk Register.

Risk Ratings and Current Mitigations

Mitigation	Status
Regulation	✓
Surveillance	✗
Industry Scheme	✗
Contingency Plan	✓
Awareness	✓
Research	✓

Unmitigated Risks

Metric	Value
Likelihood [1 - 5]	5
Spread [1 - 5]	4
Impact [1 - 5]	5
Value at Risk [1 - 5]	5
Likelihood x Impact [1 - 25]	25
UK Relative Risk Rating [1 - 125]	125

Mitigated Risks

Metric	Value
Likelihood [1 - 5]	3
Spread [1 - 5]	4
Impact [1 - 5]	5
Value at Risk [1 - 5]	5
Likelihood x Impact [1 - 25]	15
UK Relative Risk Rating [1 - 125]	75

Risk Register

Proposed actions for *A. planipennis*

Proposed Actions

Proposed Actions	show / hide
Regulation	✘
Deregulation	✘
Management By Industry	✘
Targeted Survey	✔
PRA	✘
Contingency Plan	✘
Publicity	✘
Research	✔

Risk Register

Further information for *A. planipennis*

Further Information

Forest Tree Pests and Pathogens

[show / hide](#)

- Broadleaved

Questions

[show / hide](#)

Is it a pest of protected crops?:

- No

PRA

[show / hide](#)

PRA Availability

Fera (2004), EPPO (2004, 2013)

EU and EPPO Listing

[show / hide](#)

EC IAI, EPPO A2

Actions Indicated

[show / hide](#)

Action

Statutory action against findings: Improved preparedness, including awareness raising and research.

General Comments

Damaging pest of ash, spreading in Russia
Regulated at the EU level, which will help mitigate risks associated with movements in trade, but risks associated with firewood movements need to be further assessed. Europe wide surveillance is needed, especially in countries in the eastern fringe of the EU and non-EU EPPO countries.

What tools do we have?

- **PREVENTION**
 - Horizon scanning
 - Risk Assessment
 - PLANT HEALTH RISK REGISTER
 - Regulations

What tools do we need?

- **PREVENTION**
 - Horizon scanning
 - LARGE VOLUMES OF INFORMATION ABOUT POTENTIAL PLANT PESTS AND DISEASES
 - Pathway assessment
 - METHOD FOR IDENTIFYING AND ASSESSING RISK PATHWAYS
 - New Regulations ?

Detection

How can we **DETECT** the arrival of new pests (earlier) and survey, monitor & diagnose pests to give best policy outcomes (cost-benefit)?

(PRE-BORDER, AT BORDER, POST-BORDER)

What is the best out-come focussed
DETECTION STRATEGY?

How do we most cost-effectively and efficiently
INSPECT?
(includes both Monitoring and Surveillance, EU and non-EU material)

How can we most effectively and efficiently
DIAGNOSE?

How can we best integrate both inspection and diagnostic components?

How can we involve others in surveillance and monitoring activities?

Where are diagnostic tools best deployed?

What technologies or approaches can the inspectorate employ cost-effectively?

How, where and for what should the inspectorate target surveillance, monitoring and inspections?

What threats need inspection and diagnostic tools?

What existing or new technologies can improve inspection and diagnosis?

What performance, data and levels of precision are needed for diagnostic tests?