

# Implementing the Plant Biosecurity Strategy for Great Britain Nicola Spence Chief Plant Health Officer





## **Defra's five-year strategy**

#### **Purpose**

Unleashing the potential of food and farming, nature and the countryside, championing the environment and protecting us all from natural threats and hazards.

#### **Objectives**



A cleaner, healthier environment which benefits people and the economy



A world-leading food and farming industry



Excellent delivery, on time and to budget and with outstanding value for money



A nation protected against natural threats and hazards, with strong response and recovery capabilities



A thriving rural economy, contributing to national prosperity and wellbeing



An organisation continually striving to be the best, focused on outcomes and constantly challenging itself

#### **Themes**

**Boosting UK productivity** Data availability and utilisation **Better domestic regulation** Delivering our priorities internationally (including EU reform, US and China)

## **Plant Biosecurity Strategy**



Expert
Taskforce Report
2013

Plant Biosecurity Strategy 2014





Tree Health
Management Plan
2014

- An overall approach to tree health in England
- Management approaches for Chalara, Phytophthora and OPM
- A framework for managing future threats to tree health in England

## The Plant Biosecurity Strategy

Overarching principles

Risk-Based Decision Making

Increased awareness and stakeholder involvement

Biosecurity Continuum

**Actions** 

Pre-Border

Border

Inland

International working

**Better** protection by EU regime

Share information on pathways and threats

Risk-based inspections

**Detection** and identification

Collaborate with border force

**Targeted** surveillance

Contingency plans

**Build** resilience

**Underpinning** Requirements Evidence

Skills, Capability and Capacity

## Protecting GB from plant and tree threats

#### Numerous challenges

- Increasingly globalised trade
- Increasing imports of nursery stock, trees, mature plants and wood packaging
- Increasing risks from pests and diseases
- Direct sales internet, post
- Pressures on industry to minimise costs and losses

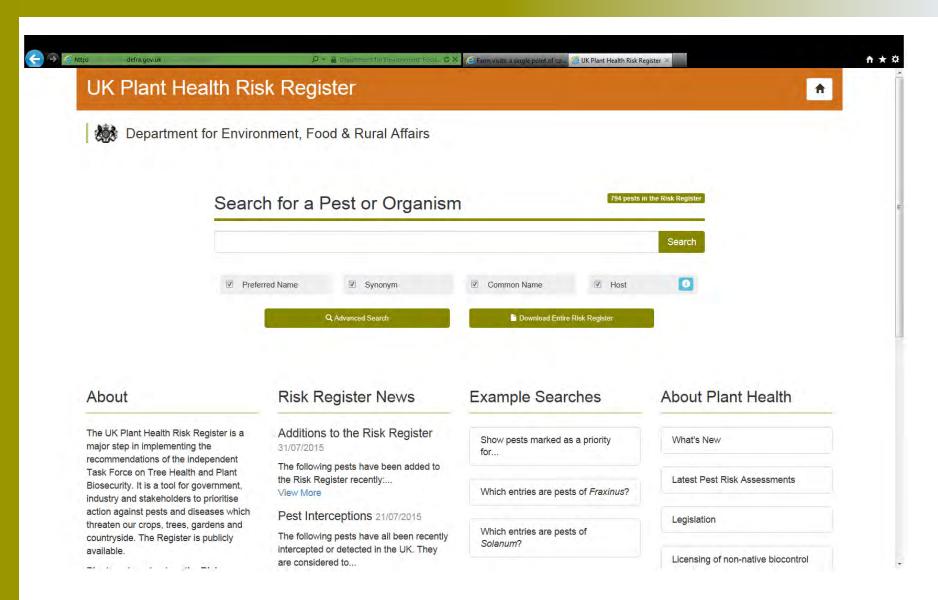
## Collaborative work as part of our published strategies and

- Work with suppliers and exporting countries to tackle pests at source to minimise their risk of arriving in GB
- Support the supply of cleaner plants and plant material
- Increase awareness with trade and public

## A strengthened EU Plant Health Regime

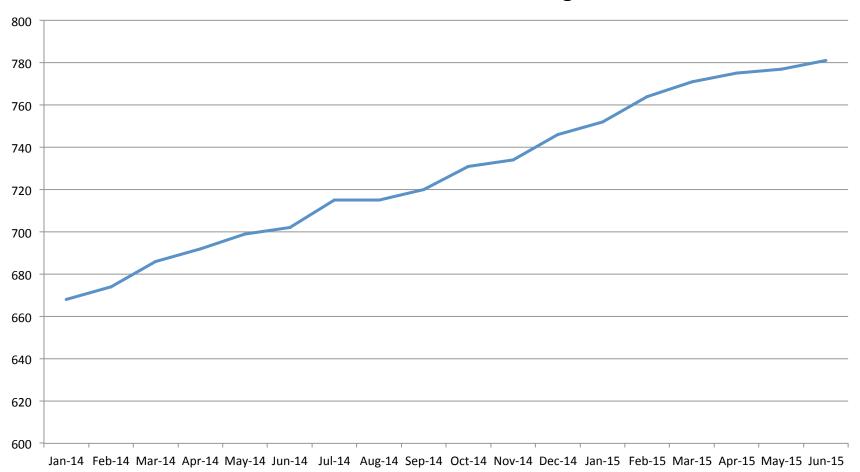
- 1. Faster decision-making (to get ahead of new pests)
- Better risk targeting including:
  - More focus on higher risk plants for planting
  - New requirements to assess risk from new trades before they start
  - Registration of all plant traders
  - Strengthened plant passporting regime
  - Better practical collaboration between plant health services (plant health / inspectorates / customs) and simpler passenger baggage controls
- 3. More controls on direct sales
- 4. Shared responsibility and joint working with UK Plant Health Advisory Forum

## Risk-Based Decision Making



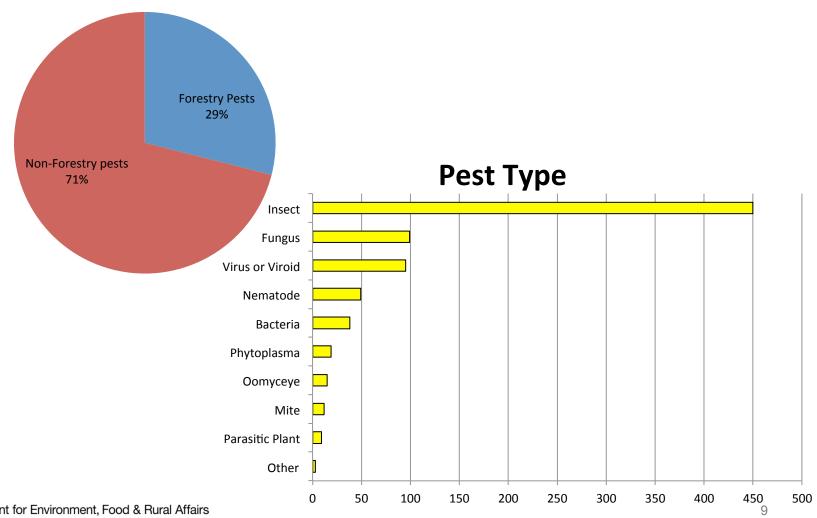
## Risk register progress

#### **Number of Pests on the Risk Register**



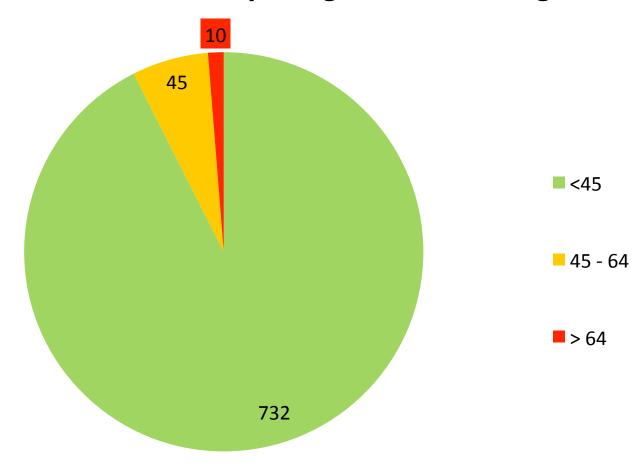
## **Priority pests**

#### **Forestry versus Non-Forestry**

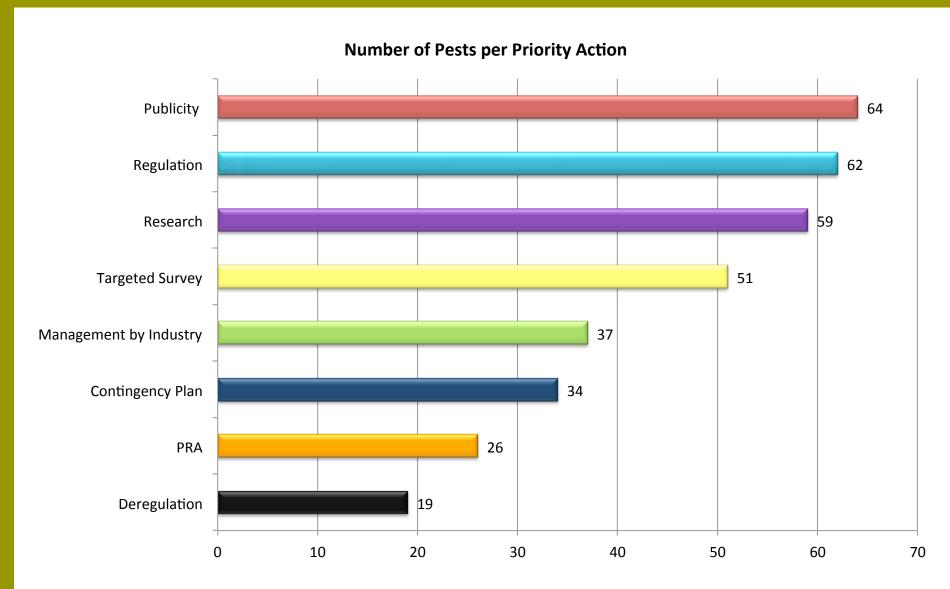


## Risk ratings 0 - 125

#### **Number of Pests by Mitigated Risk Rating**



## **Priority actions**



## **Targetted Surveillance**



## Surveillance technology









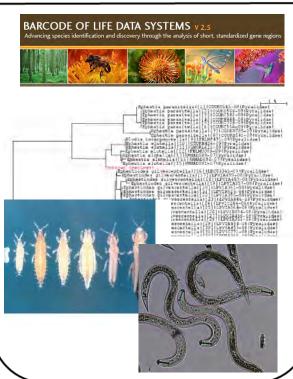
## **Detection and diagnosis methods**

Real-time PCR = high throughput

DNA barcoding = identification

LAMP - Genie = on-site







## Detection at point of inspection



## LAMP for Ash die back

LAMP is now being performed routinely by FC inspectors for Chalara fraxinea

#### http://www.bbc.co.uk/news/uk-20217453



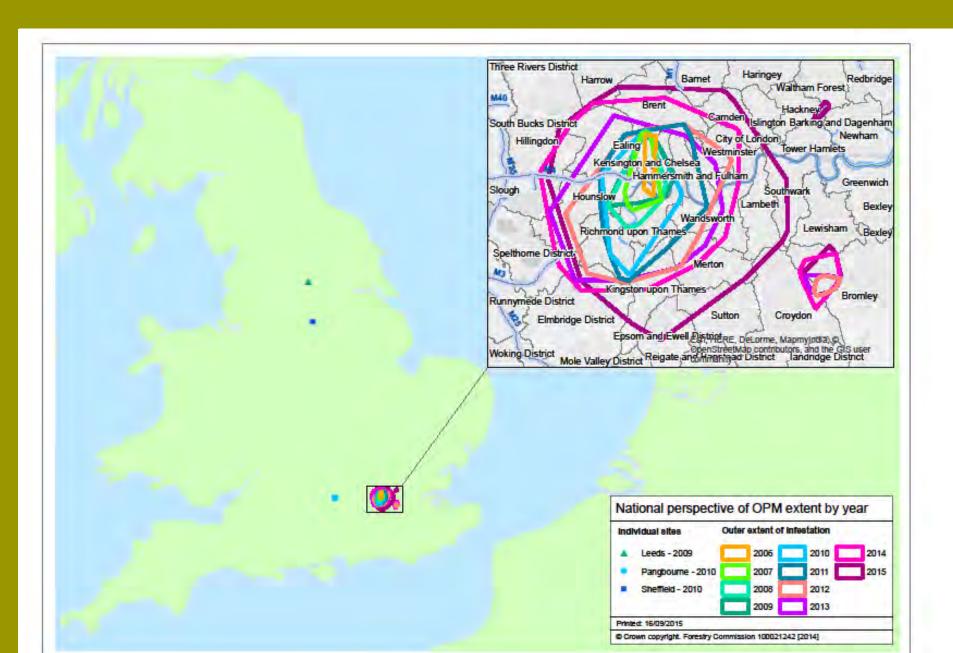


## Oak Processionary Moth

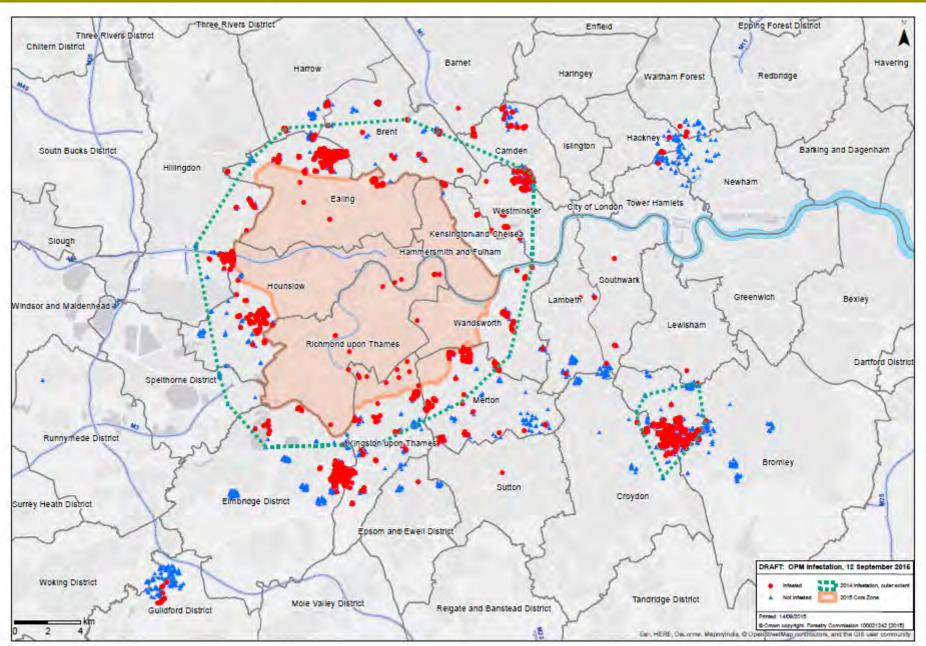
- Caterpillars feed on oak trees, and can weaken the tree.
- Additional risks as hazard to human and animal health
- In 2014 UK obtained protected zone status to help manage threats from the pest.
- 3 year pilot control programme led by Forestry Commission is in operation
- Current strategy based on mixed approach of containment and eradication
- Management through chemical treatment, nest removal, surveys and surveillance (inc. pheremone



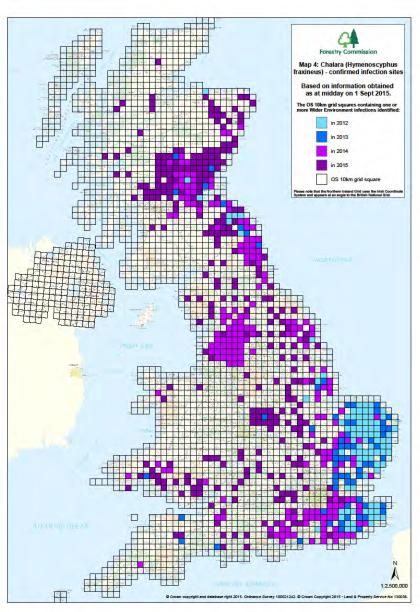
## **OPM National situation**



## **OPM** outbreak



## Chalara fraxinea distribution



10 Km grid squares with one or more infections in the wider environment

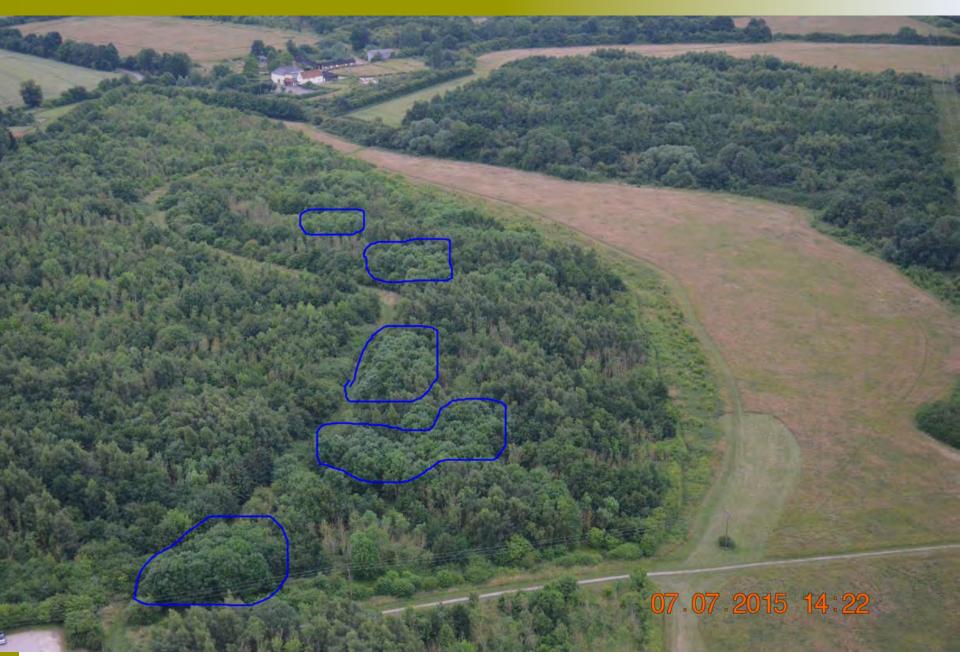
	2012	2013	2014	2015	Total	% of squares
Scotland	7	5	33	120	165	15
England	82	60	162	137	441	30
Wales	0	1	6	24	31	11.7
ΝI	0	0	0	0	0	0.0
UK (total)	89	66	201	281	637	22.5

## **Ash tolerance trials**





## Fraxinus americana in Suffolk



## Kent 15 June



## Unusual galls on sweet chestnut



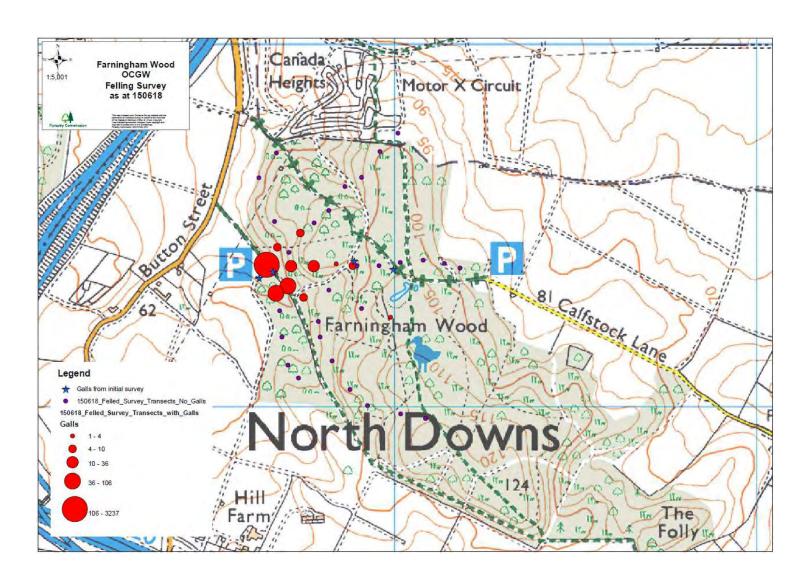
## Identification 17<sup>th</sup> June



## Oriental chestnut gall wasp: Dryocosmus kuriphilus

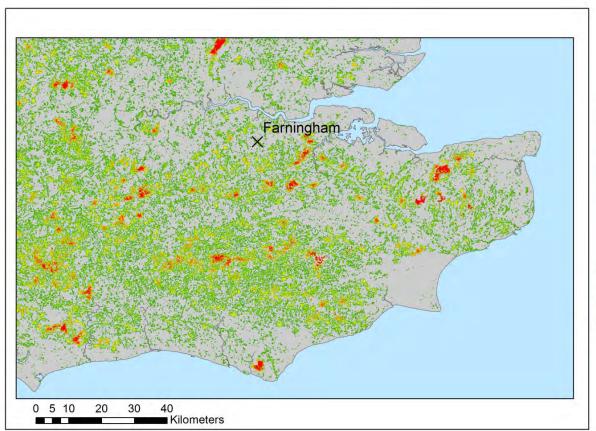


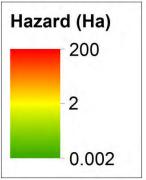
## **Distribution**



## Modelling and surveillance

Epidemiological Hazard Map (250m cells)





Note the significant non-linear scaling of the colour ramp.



## 24 June



## **Action 24 June**

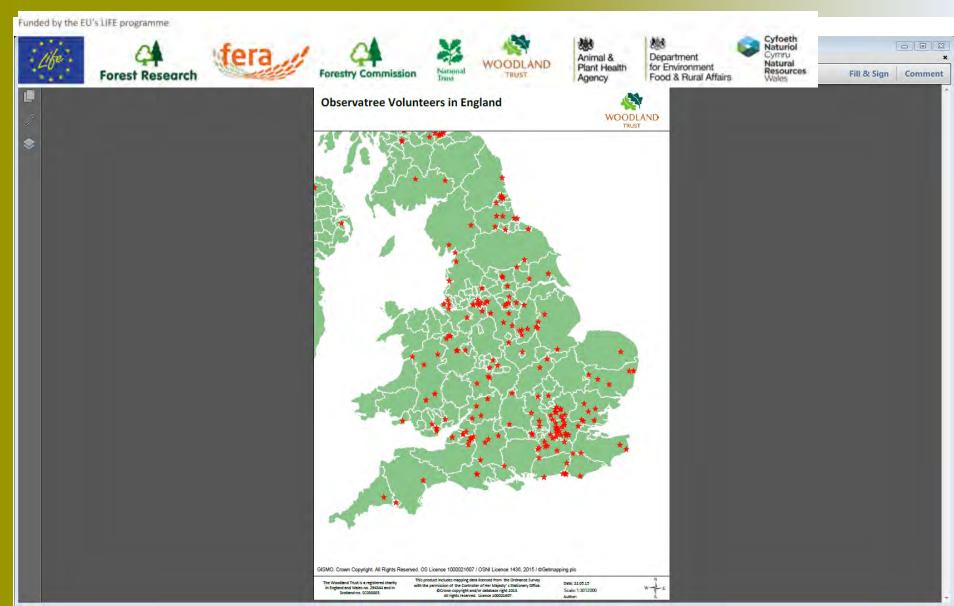


## Farningham 23 July





## Citizen science - Observatree



## St Albans 24 June



## 2 July



## **Parasitoids**





## Chelsea Flower Show 'Beyond our Borders'











The Daily Telegraph DAILY EXPRESS

Approx. 60-70% of visitors had heard of at least one plant pest or disease vs. less than 20% of visitors in 2013.

#### **HorticultureWeek**



Approx. total news media reach: 34 million









Visible Plant
Health
career
pathway
established

Plant health science is a 'valued' and an attractive career

National
Plant
Biosecurity
Curriculum

Plant health science is a 'valued' and an attractive career

## Plant Health Skills and Careers

- 1.Plant Health taught in GCSE Biology Sept 2015
- 2. Careers Education, Information, Advice and Guidance to promote plant health as a desirable career
- 3.Internship portfolio to stimulate work based learning for current graduates to experience career opportunities and encourage graduate entry into plant health
- 4. National Plant Biosecurity Curriculum to identify and help meet stakeholders' skills' requirements
- 5.Plant Biosecurity training modules in collaboration with Harper Adams University and regional workshops hosted by the HDC in Plant Biosecurity for 2016
- 6.Plant Health Professionals register underpinned by the Royal Society of Biology launch in Sept 2015

## Future priorities and actions

- Independent evaluation of OPM control by Spring 2016
- Review of options for OPM for 16/17 and beyond
- Review of Phytophthora ramorum control
- Review of National Measures for Chalara and deployment of tolerance
- Suppression of Oriental Chestnut Gall Wasp
- Revise Tree Health Policy in England with future management approaches for key tree pests and diseases.

## Thank you for your attention

