

Ash Dieback: Local Action Plans

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Jon Stokes: The Tree Council

13th September 2017





Future Proofing Plant Health

- A £5m programme of research over 5 years started in November 2014
- Co-designed, commissioned and delivered in partnership with the Defra network

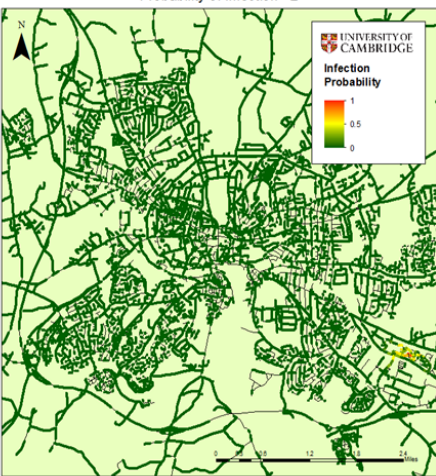


- Involves external expertise from universities, research institutes and SMEs
- Work packages led by science and policy/operations representatives

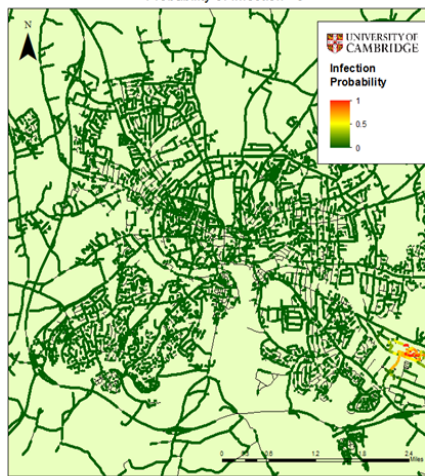
Selection of tasks from FPPH

- Review of Phytoplasmas
- Xylella diagnostics
- Risks from traded large trees
- Pathway analysis
- Horizon scanning – Twitter, text mining
- Modelling pest outbreaks in urban areas
- Cost and responsibility sharing
- Understanding the origins of a pest
- Remote sensing for host tree identification
- Assessing compliance for wood packaging treatment
- Stem injections in urban and high value trees
- ***Urban trees – local action plans***

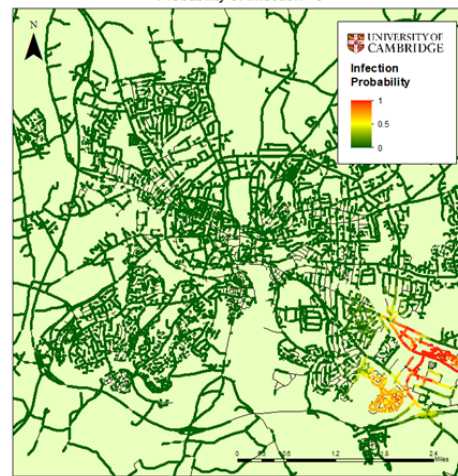
Probability of Infection - 2



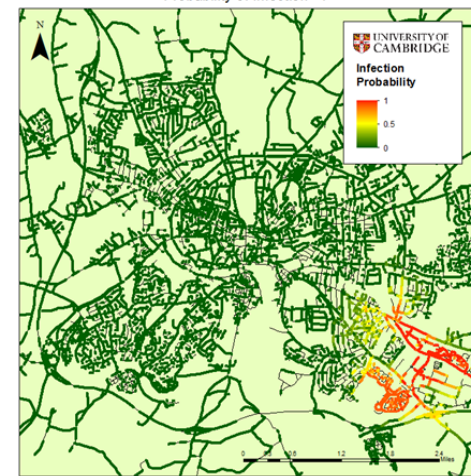
Probability of Infection - 3



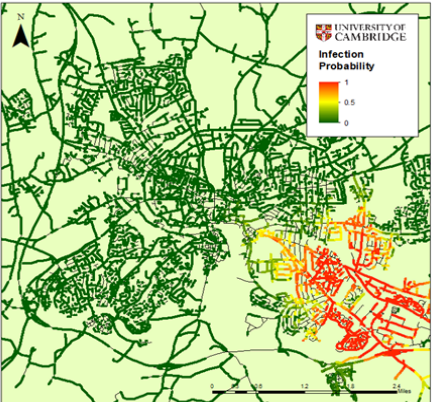
Probability of Infection - 6



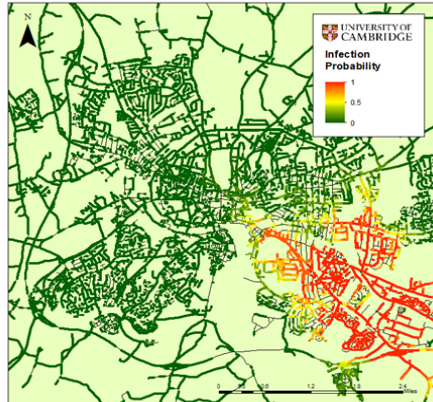
Probability of Infection - 7



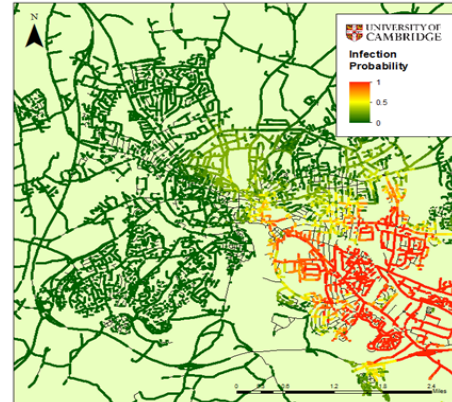
Probability of Infection - 10



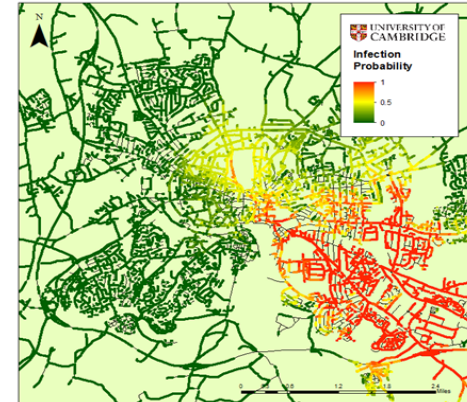
Probability of Infection - 11



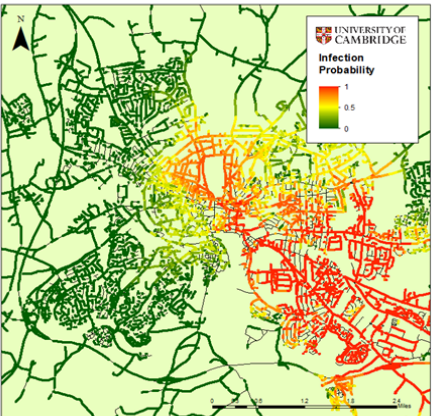
Probability of Infection - 12



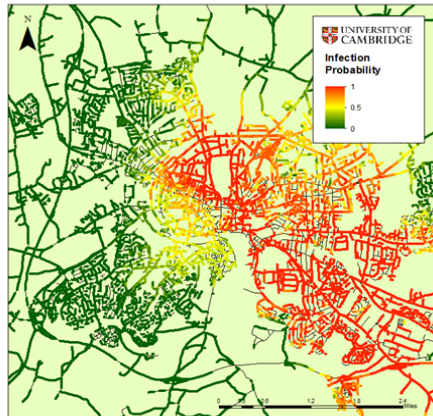
Probability of Infection - 13



Probability of Infection - 14

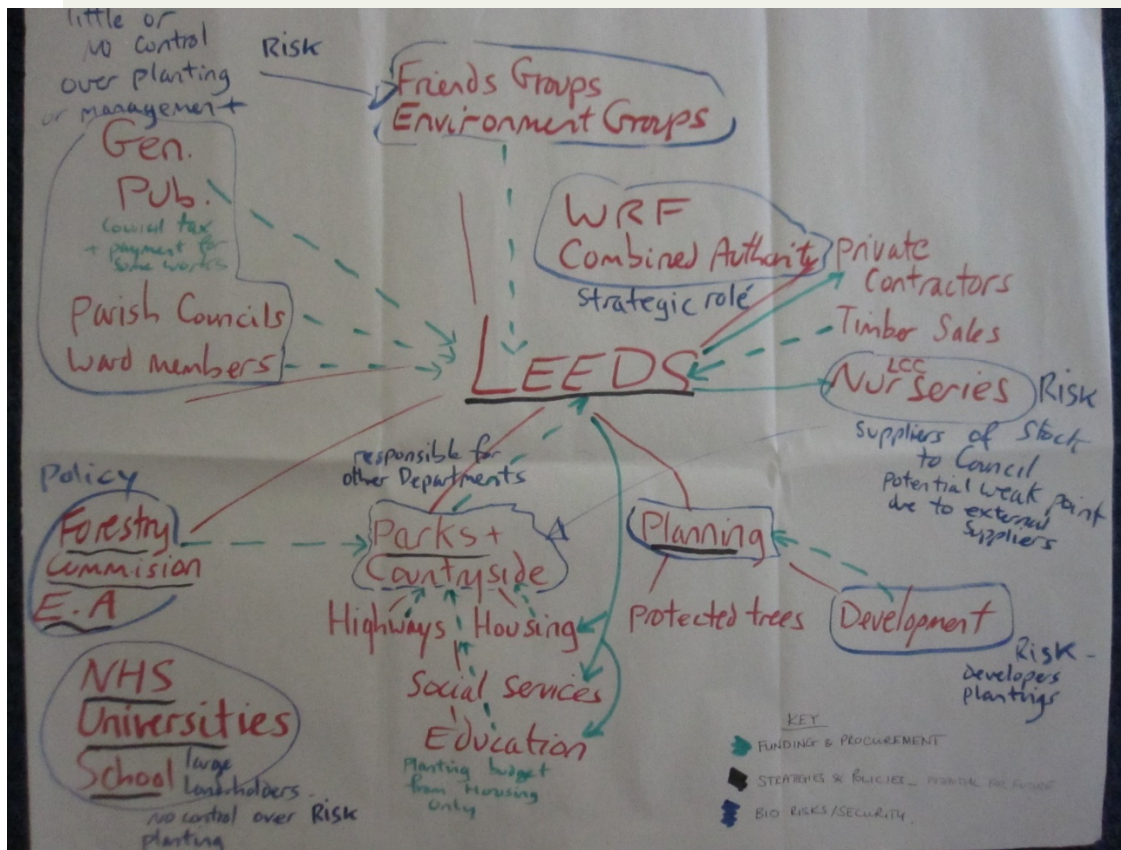


Probability of Infection - 15

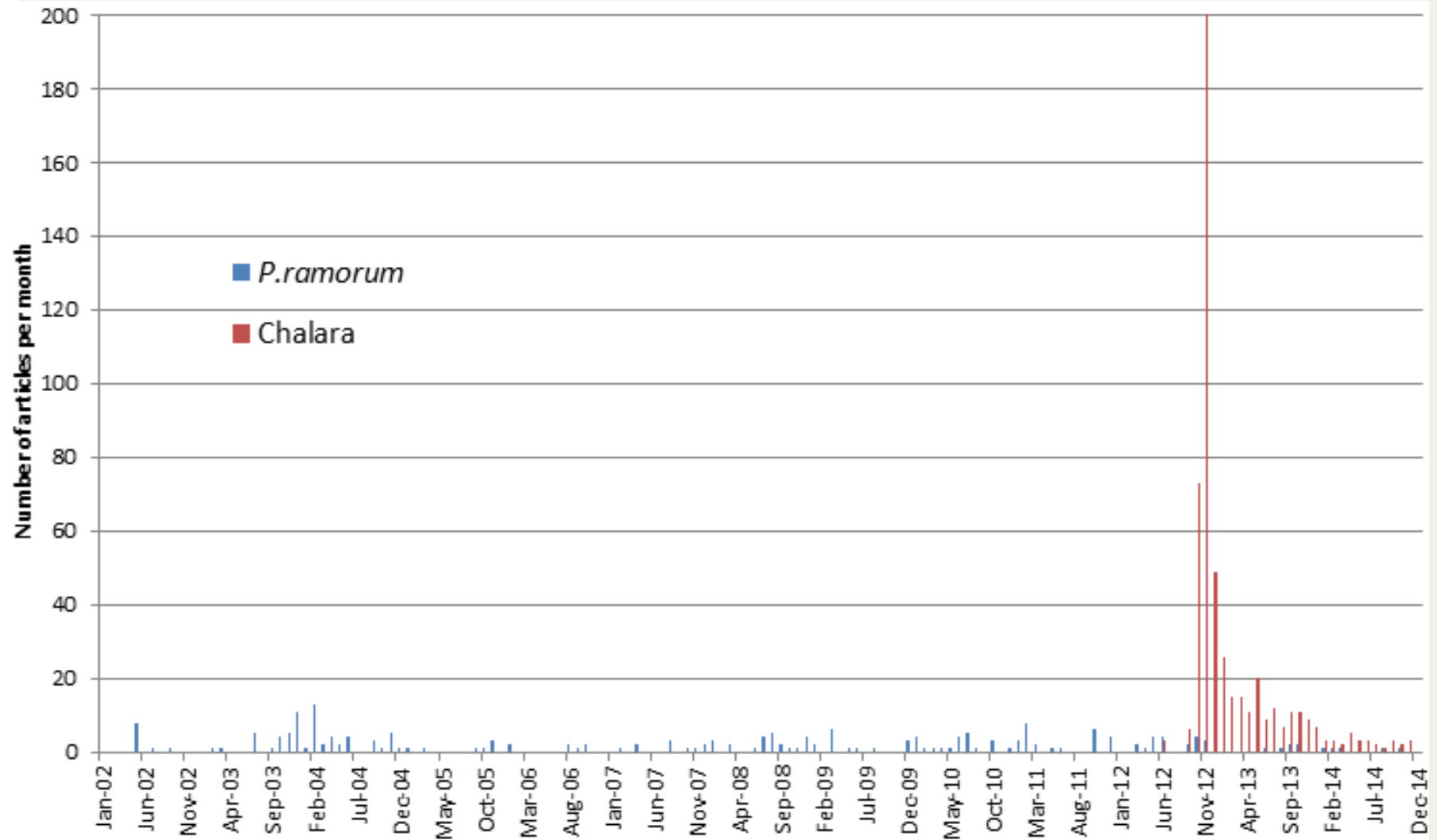


Modelling urban tree health

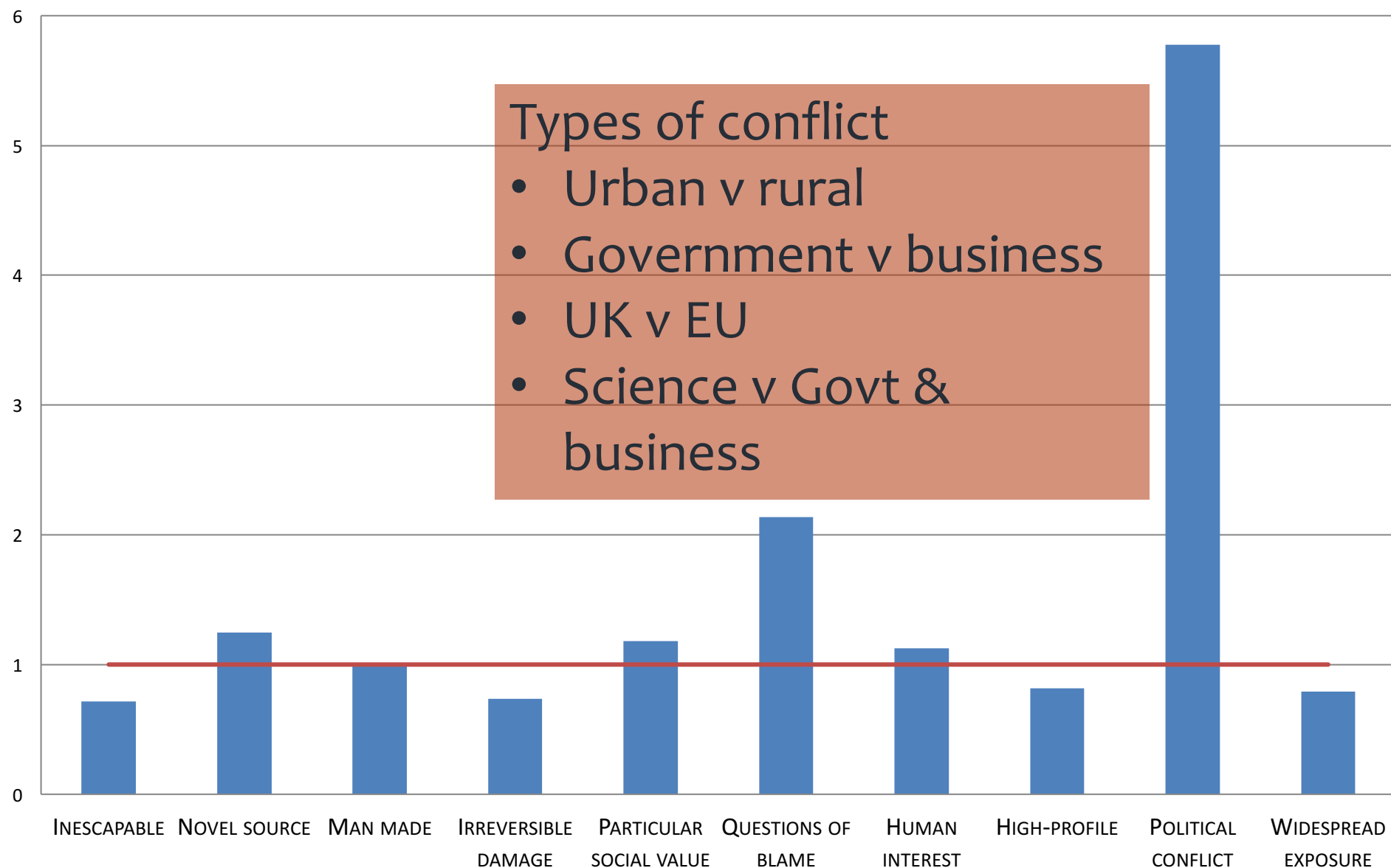
Local councils: procurement and biosecurity



P. ramorum v chalara: Number of newspaper articles



Chalara v *P. ramorum* intensity of Fright Factors and Media Triggers



Ash Dieback media headlines



Mighty oaks will fall

'Ash trees 'cannot be saved from deadly fungus'

The Government is in conflict with the natural world.

If we lose the ash tree, we'll lose culture as well as nature

Telly Al 'a muppet'

**CATASHTROPHE!
ASHMAGEDDON!**

Ash dieback plans

	Number		
Sector	Yes	No	Total
Central Govt	4	3	7
Education	1	3	4
Housing	0	5	5
Infrastructure	1	2	3
Local authority	22	47	69
Private	1	7	8
Voluntary	8	10	20
Total	37	77	116

Urban trees: Ready for yesterdays battles?



Pests and diseases	Plan	%
Ash Dieback (<i>Hymenoscyphus fraxineus</i>)	36	31
Oak processionary moth (<i>Thaumetopoea processionea</i>)	22	19
Dutch elm disease (<i>Ophiostoma ulmi</i>)	21	18
Horse chestnut leafminer (<i>Cameraria ohridella</i>)	21	18
Sudden oak death (<i>Phytophthora ramorum</i>)	16	13
Massaria/London Plane disease (<i>Splanchnonema platani</i>)	14	12
Acute oak decline	10	8
Red band needle blight (<i>Dothistroma septosporum</i>)	9	7
Sweet chestnut blight (<i>Cryphonectria parasitica</i>)	5	4
Oriental sweet chestnut gall wasp (<i>Dryocosmus kuriphilus</i>)	5	4
Great spruce bark beetle (<i>Dendroctonus micans</i>)	4	3
Asian longhorn beetle (<i>Anoplophora glabripennis</i>)	2	1
Citrus longhorn beetle (<i>Anaplophora chinensis</i>)	2	1
Emerald ash borer (<i>Agrilus planipennis</i>)	2	1

Ash Dieback in non-woodland trees



Department
for Environment
Food & Rural Affairs

www.defra.gov.uk

Chalara Management Plan

March 2013



Chalara fraxinea



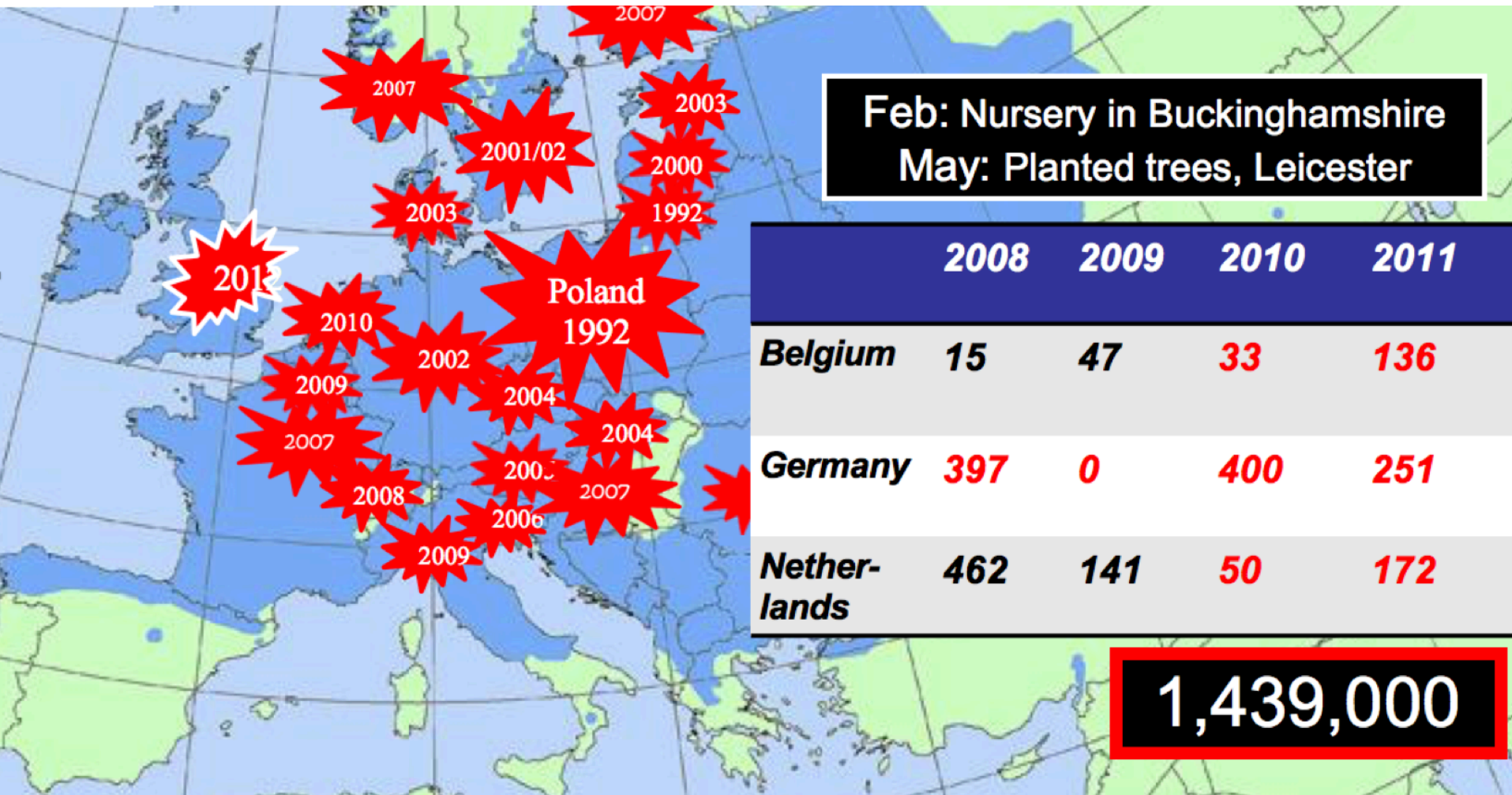
Hymenoscyphus
pseudoalbidus



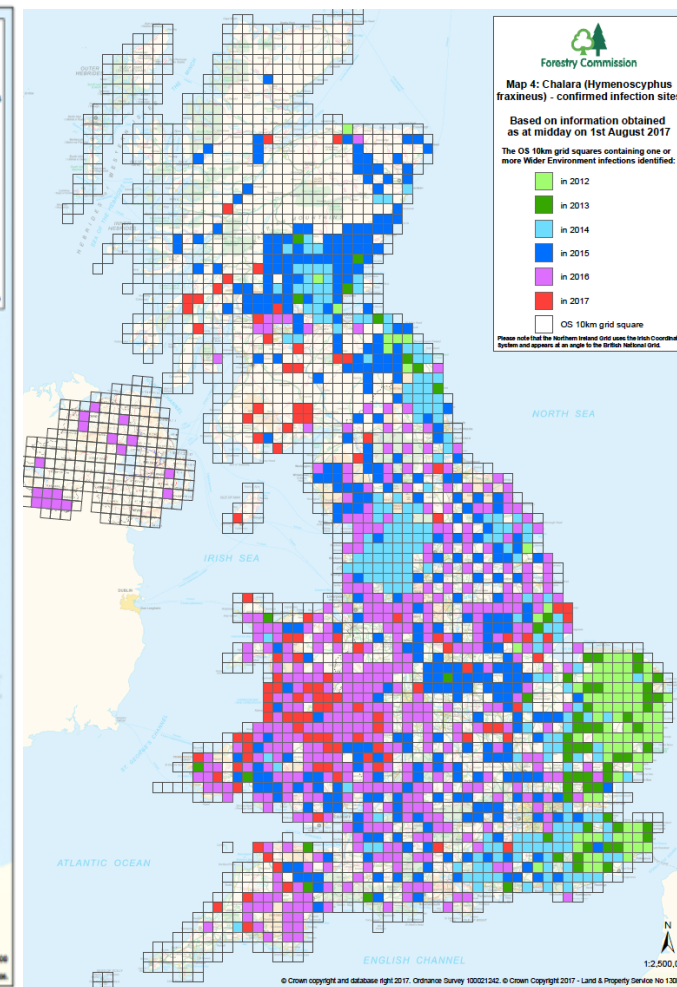
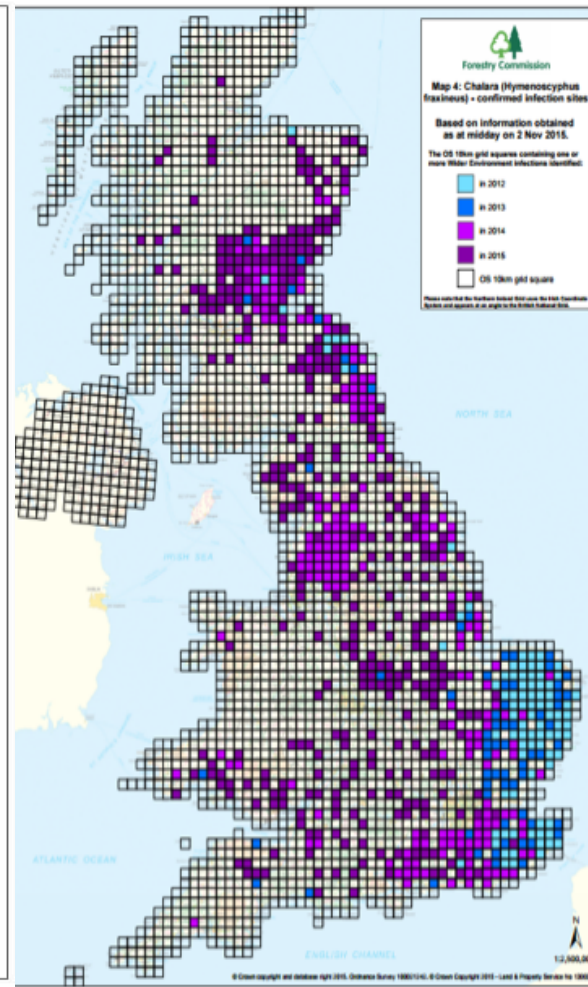
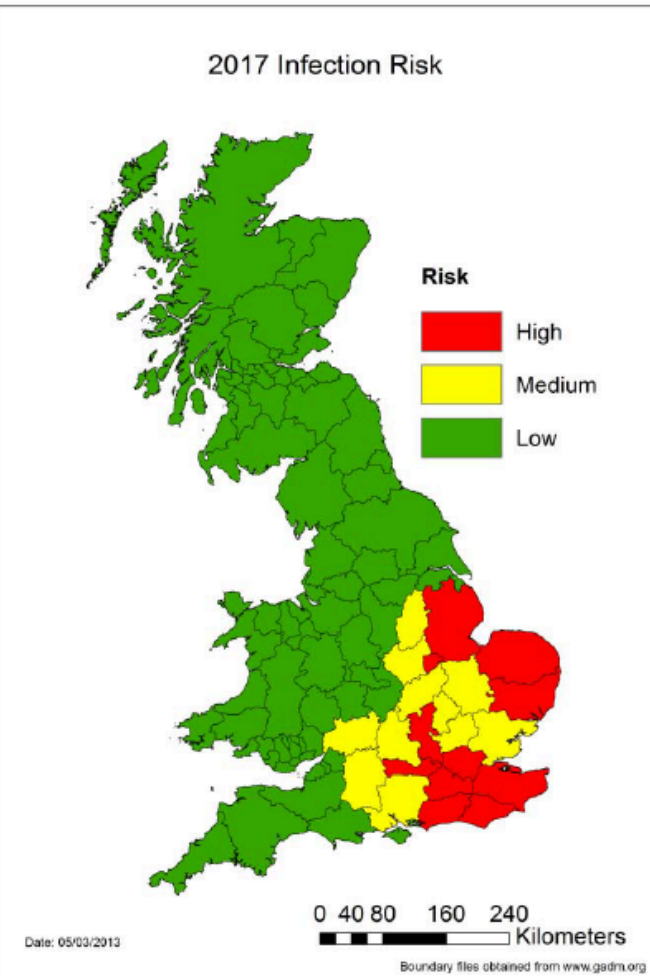
Hymenoscyphus fraxineus

(Baral et al. 2014)

Ash Dieback spread

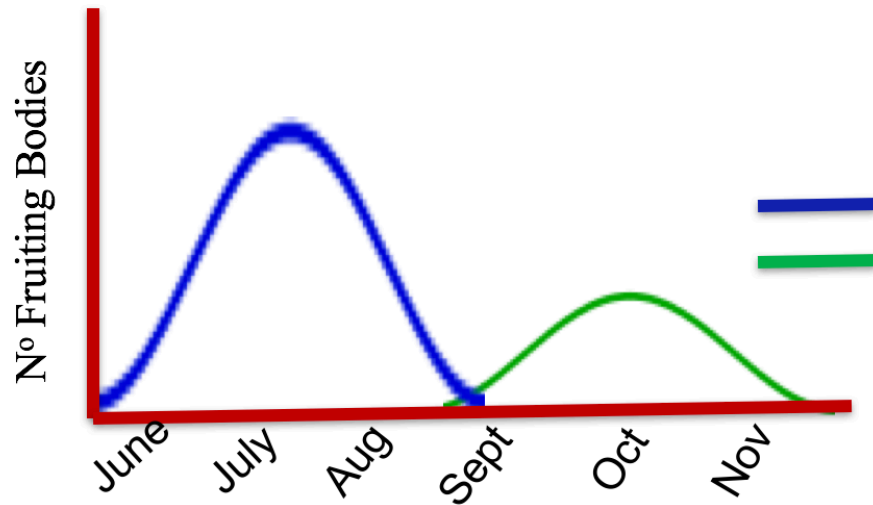


The Distribution



Pictures courtesy of Defra/ Forestry Commission

Ash Dieback Fruiting



H. fraxineus
H. albidus

Ash headlines



Ash population -
1,725,000,000 trees and
saplings in woods

61,453 miles of hedges and
lines of trees which are ash
dominated

Ancient ash trees in
Cotswolds, Cumbria,
Yorkshire Dales



The Tree Council

Numbers non-woodland ash

Available figures suggests that there are for example:

- 17 - 34 million ash in small woodland and plantations
- 5.4-19.7 million ash in hedgerows in the UK
- 4 million + ash on Highway Agency Land
- 3.6 - 4 million ash in Britain's towns and cities
- 1.2 -2.3 million ash in the wider agricultural countryside

The Tree Council therefore estimates there are between 27.2 and 60 million ash trees in non-woodland situations (greater than 4cm diameter at breastheight) plus 400 million seedlings and saplings



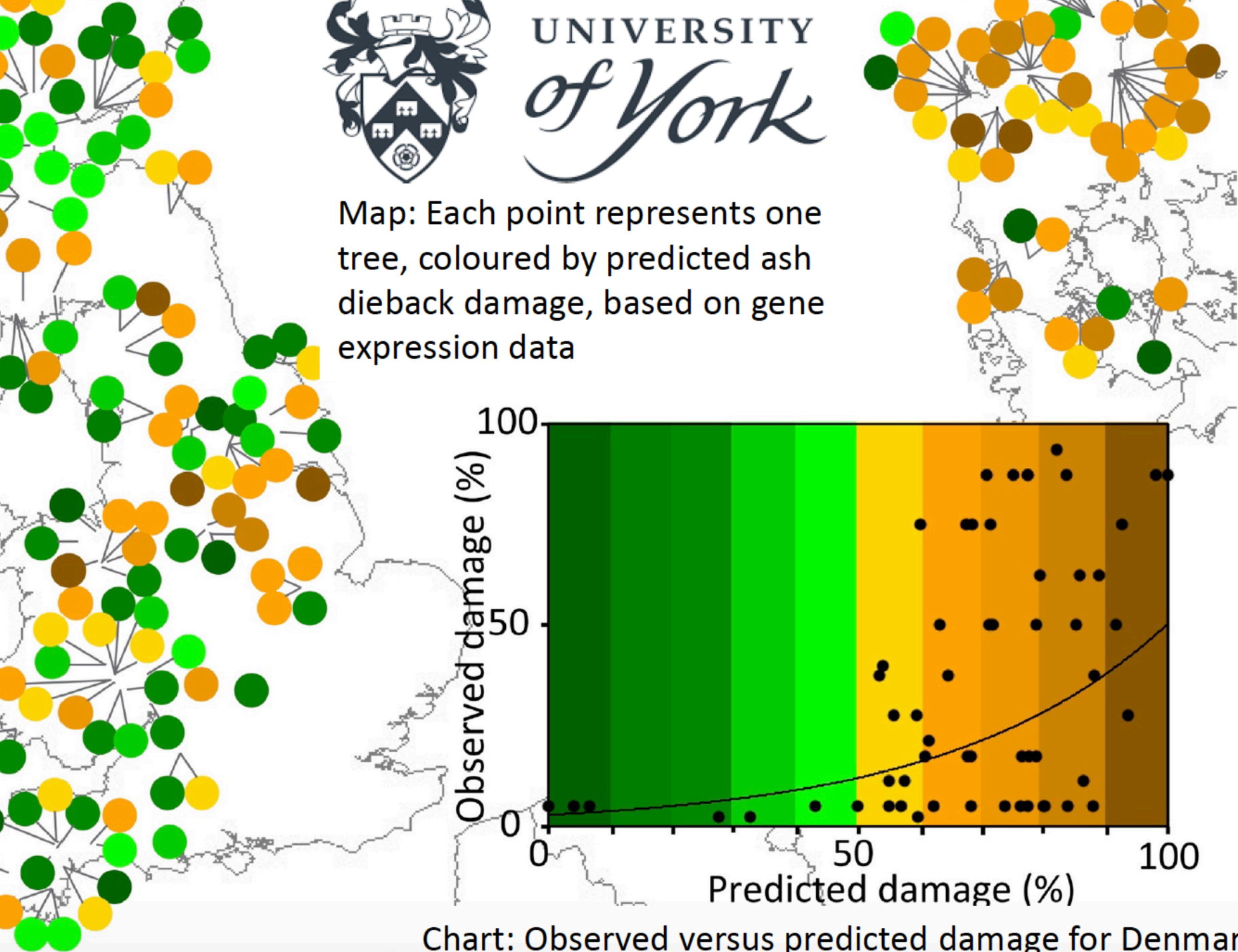






UNIVERSITY
of York

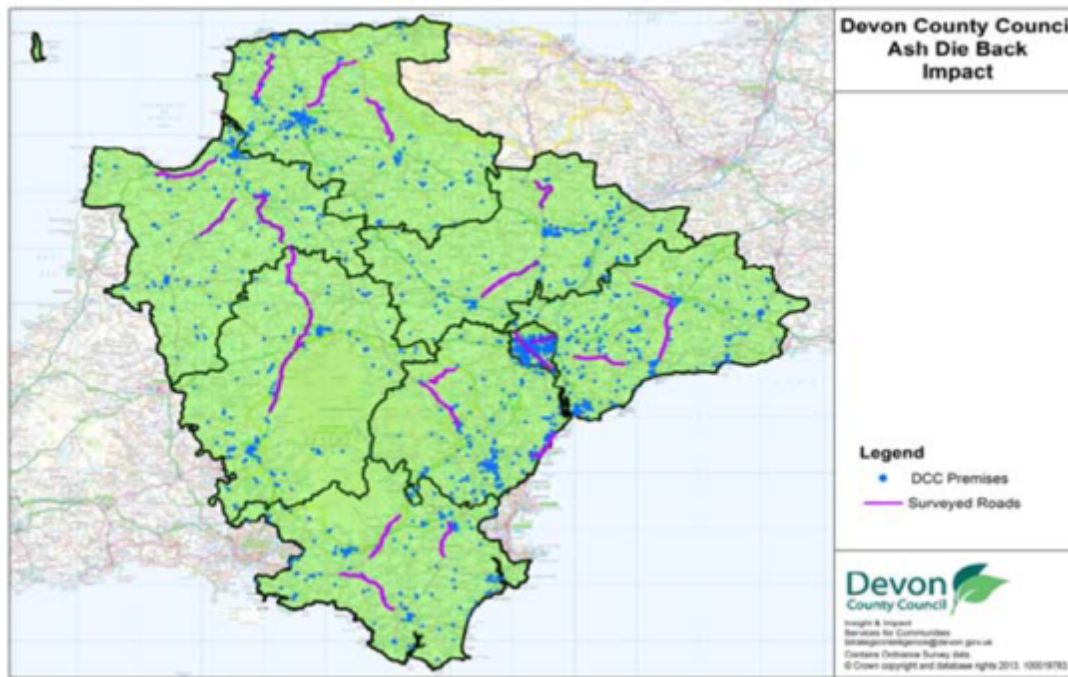
Map: Each point represents one tree, coloured by predicted ash dieback damage, based on gene expression data







Numbers non-woodland ash



Summary of highway ash trees:
By District

District	Total Number of Ash	Ash / km
South Hams	30811	16
West Devon	74487	50
Torridge	49532	29
North Devon	45284	22
Mid Devon	58527	33
East Devon	103644	53
Teignbridge	85028	51
Exeter	325	8
Total	447639	263

By category of road

District	Average number of trees / km
Category A road	12
Category B Road	21
Category C road	36
Unclassified Road	33

Numbers non-woodland ash

	Devon Districts/ Ash Trees per KM	West Sussex Districts/ Ash Trees per KM
Cat A Roads	12	15.88
Cat B Road	21	15
Cat C Roads	36	19.33
Unclassified	33	7.33



Appendix D: Preliminary Data

Percentage of Ash Dieback in the Highway Maintenance Boundaries

West

Average Height: 9.7m

Tree count: 2585

Distance surveyed: 68km

North

Average Height: 10.8m

Tree count: 8995

Distance surveyed: 137km

East

Average Height: 9.8m

Tree count: 1622

Distance surveyed: 77km

South

Average Height: 8.9m

Tree count: 5106

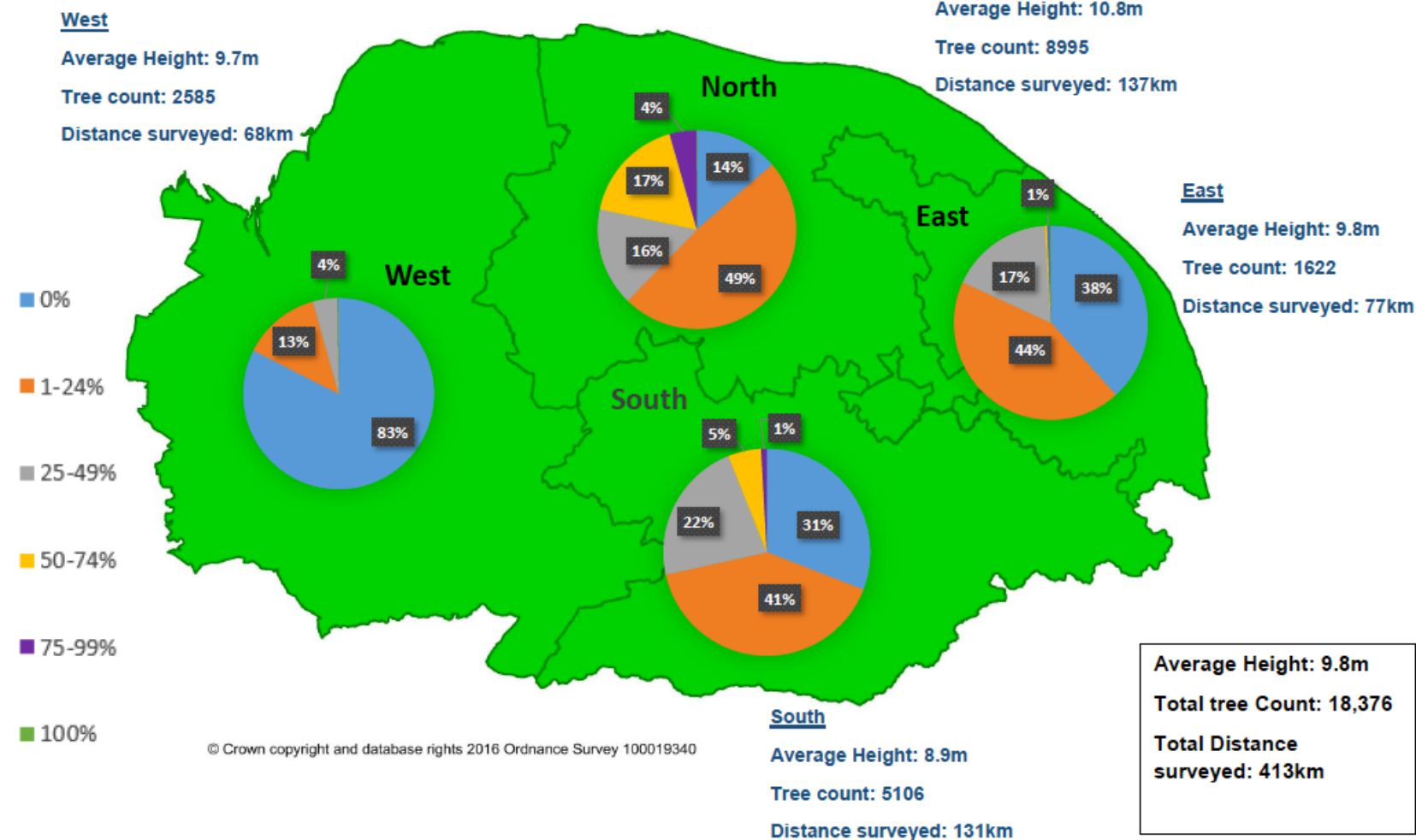
Distance surveyed: 131km

Average Height: 9.8m

Total tree Count: 18,376

Total Distance surveyed: 413km

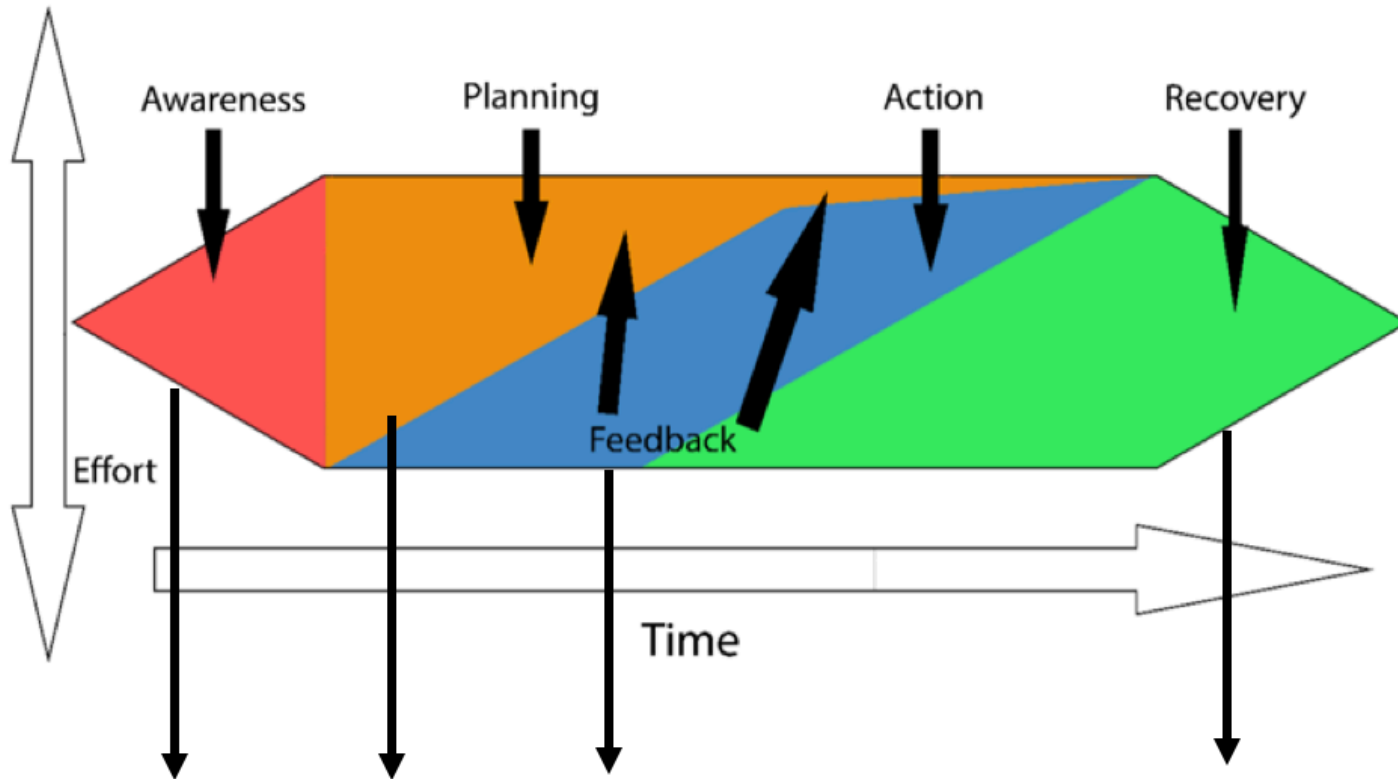
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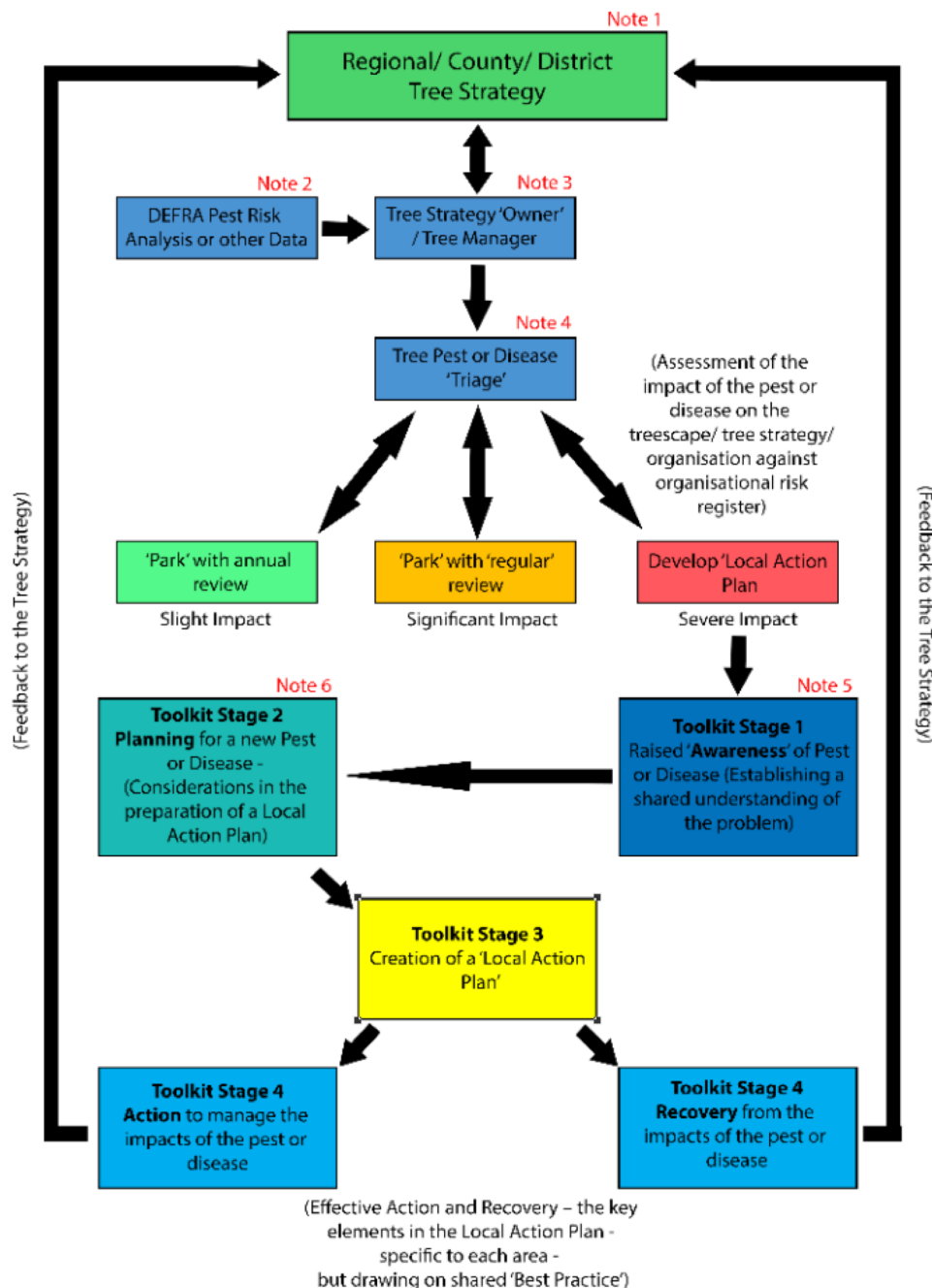


'Action Plan' Process for Pest or Disease

Develop 'Action Plan'
related to 4 Phases



Toolkit resources for the 4 phases of the Action Plan



Tactical Toolkit



In response to the requests of local authority officers throughout this project – this toolkit has been developed to:

- be a **national** ‘Local Action Plan’ framework for Ash Dieback;
- be **adaptable** so that it can be amended for other pests or diseases;
- work for a county (but could be used on any **scale**);
- focus around the ‘**tactical**’ issues that a local authority may face but incorporates the need to deal with the ‘**strategic**’ impact of the disease;
- tackle the lack of **understanding** of the issue in local politicians and senior local authority staff;
- directs users to baseline **survey methods** for non-woodland trees including Ash;
- directs users to guidance on a tree species **replacement strategy**;
- move away from ‘silo’ working to a more **collaborative** cross organisational method of working
- to incorporate ‘**case studies**’ and ‘**best practice**’

Next steps – Tool Kit Completion



Toolkit part 1:
Awareness



Core information about
Ash Dieback which is up to
date and updated

Toolkit part 2:
Planning



The process of identifying
the threat to your
organisation/ area

Toolkit part 3:
Creating a Plan



A draft structure for local
completion

Toolkit part 4:
Action and
Recovery



Implementing the Plan:
Case studies and worked
examples of best practice

Next steps – roll out

Launch of the action plan in the new year with regional workshops aimed at council members and directors of service as well as operational managers

Feedback from attendees to evaluate the toolkit

Amend toolkit in light of feedback and roll out nationally next March

So why bother with a Local Action Plan?



The Tree Council



Ash Dieback is not 'business as usual'

- E.g. Devon has an estimated ½ **million** roadside ash within falling distance of the highway. Norfolk has **200k**

If 100k of your ash trees decline rapidly over the next 10 years at c. £800 a tree - do you have the budget/ capacity to cope?

If not – you need a plan!

So why bother with a Local Action Plan?



The Tree Council

Being reactive to the problem is likely be more expensive

- Removing too many trees
- Alienating public and dealing with complaints
- Future resilient treescape - need to replace lost ash – biosecure procurement?

If not – you need a plan!

So why bother with a Local Action Plan?



Ash Dieback is an opportunity!

- Show trees as assets – value to local businesses and communities – tangible (rents, house prices), intangible (health and well-being)
- Create a plan that jointly preserves the values and limits the liabilities
- A plan allows better communication and discussion
- Opportunities for local authority and industry to work strategically together
- A plan could support the development of a comprehensive tree strategy