

Original thinking... applied

Life and Times of a Plant Health and Biosecurity Consultant

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In the beginning.....



Dutch Elm Disease (DED)

Invasive fungal pathogen *Ophiostoma novo-ulmi* Beetle vector *Scolytus spp*.



1970 epidemic

Elms are no longer a common place mature tree in the UK landscape

New pest and disease outbreaks in my lifetime

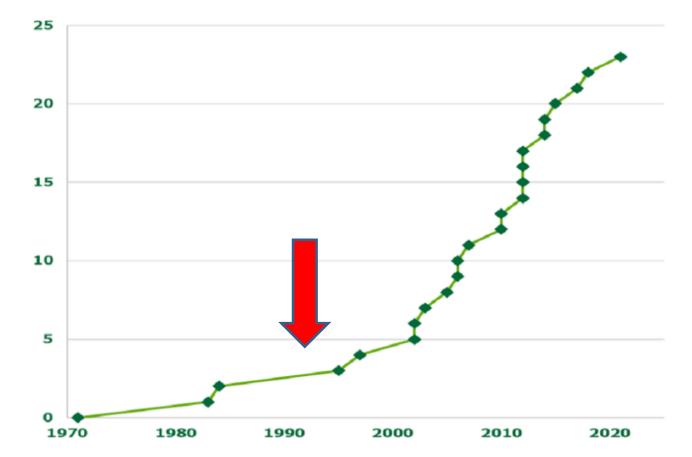
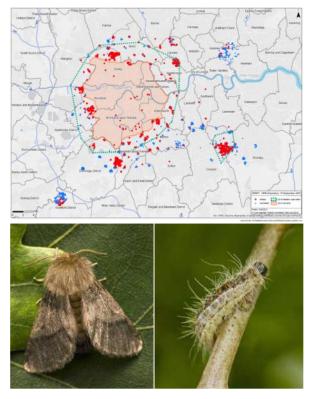


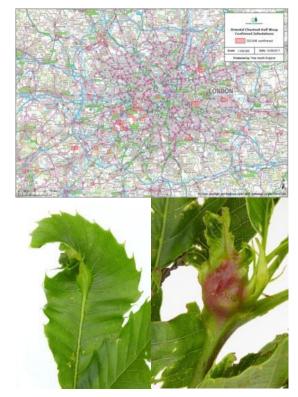
Figure 1: Graph showing a cumulative increase in the number of new pest and disease outbreaks (y axis) affecting trees since 1971 (x axis). The frequency of outbreaks has increased significantly since 2002 (Source: Forestry Commission)

Surveying for targeted pest or disease

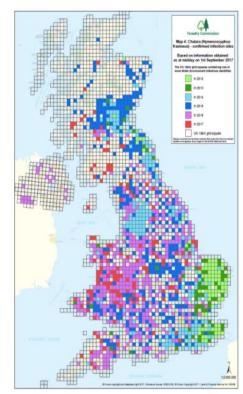
Some survey work is more directed, especially to provide positive and negative findings for modelling P&D spread and monitoring purposes



OPM



OCGW



H. fraxineus

Plant Biosecurity Strategy for GB

Policy paper **Plant biosecurity strategy for Great Britain (2023 to 2028)**

Published 9 January 2023

Applies to England, Scotland and Wales

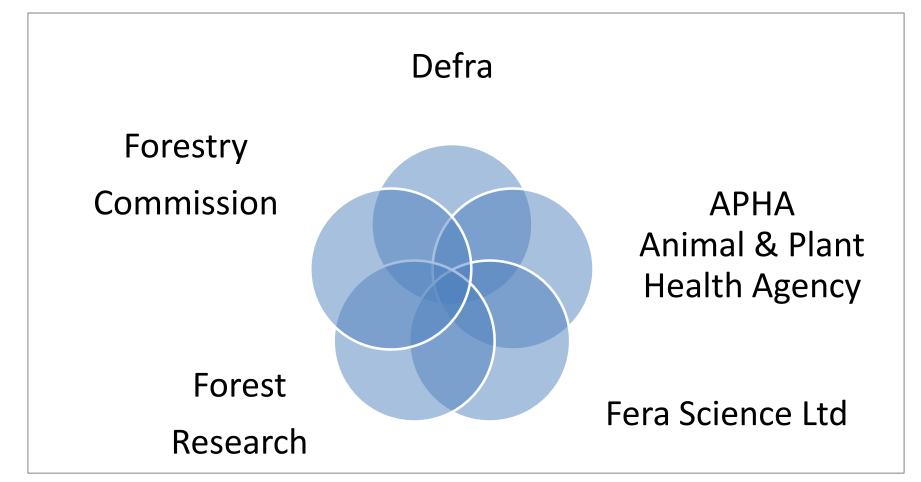
Contents

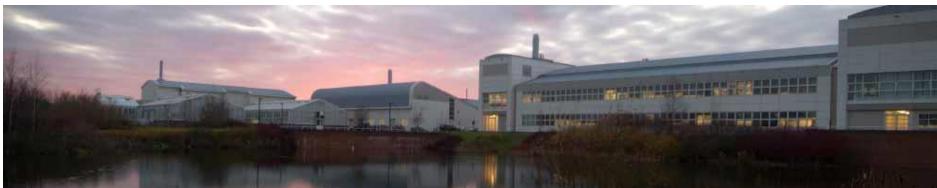
Joint ministerial foreword Executive summary Chapter 1: Introduction Chapter 2: Our vision for plant biosecurity in Great Britain

Joint ministerial foreword

Plants are a crucially important part of our economy, from agricultural and horticultural production to timber, medicines and wider co-benefits including for public wellbeing. The health of our plants and plant products is therefore of vital importance but is increasingly under threat from pests and diseases.

https://www.gov.uk/government/publications/plant-biosecurity-strategy-for-great-britain-2023-to-2028/plant-biosecurity-strategy-for-great-britain-2023-to-2028





Career pathway

Education

A-levels in Science

- Undergrad. BSc Biological Sciences (UEA)
- Post grad. PhD Sheffield University
 Work
- Mycologist
- Mycology Team Leader
- Diagnosis and Surveillance Team Leader
- Plant Health and Biosecurity Consultant

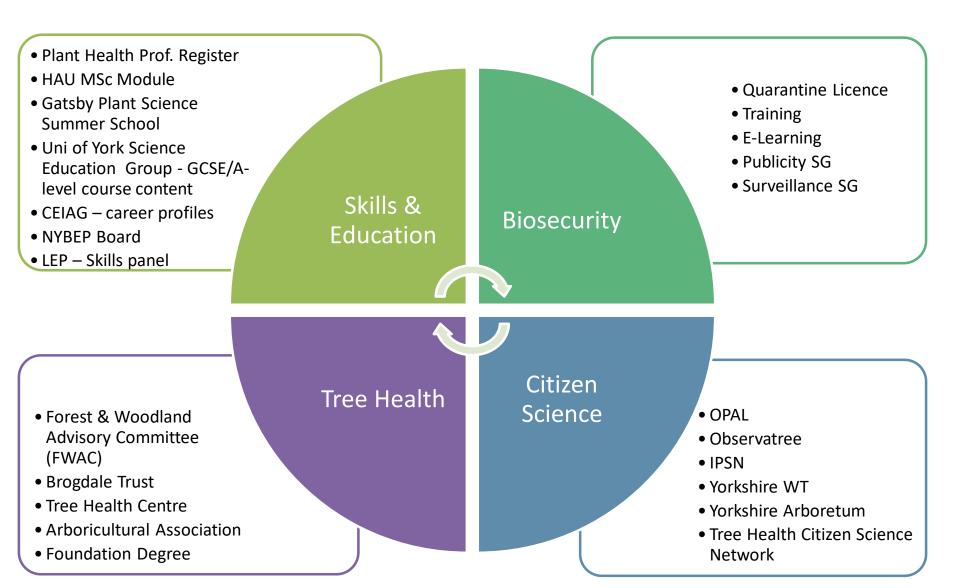
Volunteering

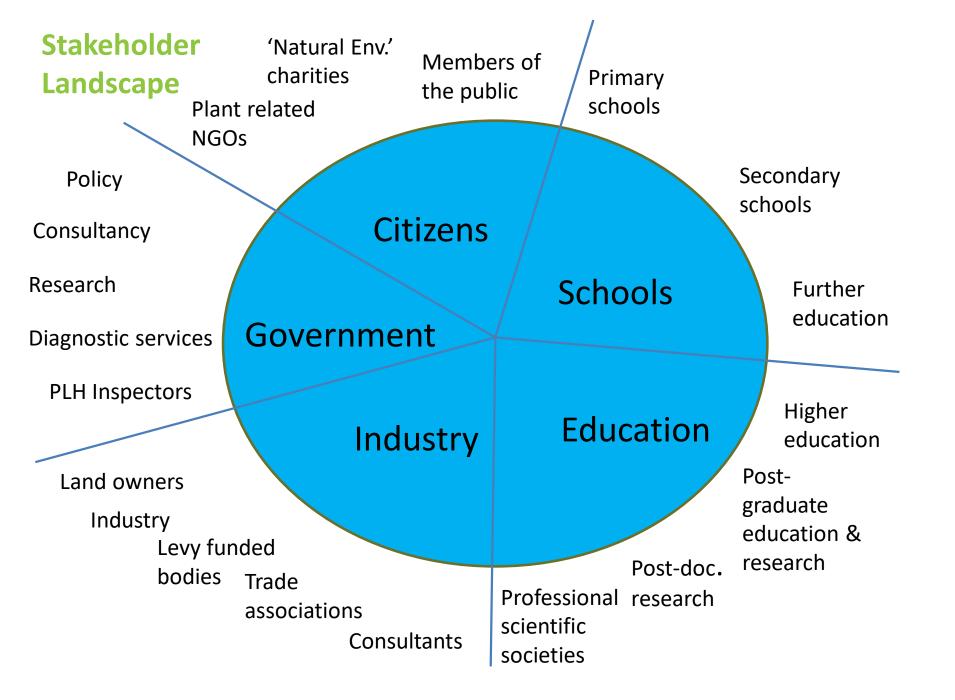
- Yorkshire Arboretum Tree Health Centre
- NYBEP





Roles & Responsibilities





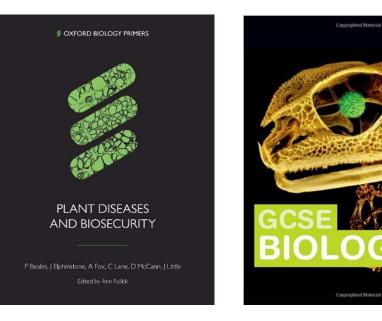
SKILLS & EDUCATION

New resources for GCSE & A-Level

 Plant Pathogens are now included in Biology and Combined Science curriculum

GCSE (16 yrs old) ca 1,000,000 students pa A-level (18 yrs old) ca 65,000 student pa

- Inclusion of Ash dieback
- Working in Partnership with educational advisors to develop new resources:
 Royal Society of Biology
 Science & Plants for schools
 University of York, Science Education Group







THE UNIVERSITY of York SCIENCE EDUCATION GROUP

OXFOR

SCI@nce

RSB Plant Health Professional Register

The Plant Health Professional Register recognises plant health competencies in various workforces and offers CPD opportunities to show compliance with GB Strategy

https://www.rsb.org.uk/careers-andcpd/registers/plant-health-register



BIOSECURITY

High containment facilities management





• Block 29

- CE facilities, insect quarantine unit, soil wash rooms
- Block 34

Glasshouse cubicles, lab, autoclave

• Block 42

Water treatment plant + drainage

• Blocks 02 & 04

Ground and first floor labs and cold stores



TREE HEALTH AND CITIZEN SCIENCE

Plant health surveillance - Triage



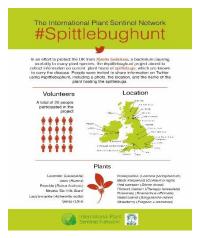
Engaging with Citizen Scientists to survey Tree Health





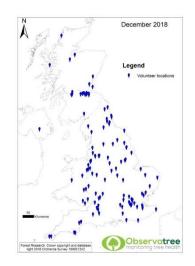
Working with families





Working with Botanic Gardens and Arboreta worldwide





Working with volunteers



A career in plant health

