

PLANT HEALTHY

FEATURE

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A PROACTIVE APPROACH TO PLANT BIOSECURITY Plant Healthy

As rising temperatures and increased movement of goods heightens the likelihood of new pests and diseases entering the UK, Alistair Yeomans MICFor introduces the proactive Plant Healthy Certification Scheme.

Recently, I noticed a tweet that I found unnerving. It read,

“The question is not **whether** invasive pests will come, it is **when** they come and what happens then.”

The tweet went on to encourage readers to

“Build up the capacity to detect and eradicate invasive pests.”

I returned to the tweet several times and eventually realised that the root of my unease was that I both agreed and disagreed with the message. The author, unfortunately, makes a strong point – on recent evidence it is highly likely that more invasive plant pests (including diseases) will come to our shores. I also concur with the call to improve detection systems and ensure eradication methods are as effective as possible, as both are key mechanisms to enhance a nation's approach to plant biosecurity.

However, the tweet reminded me that much of our historic approach to plant biosecurity has been reactive. On occasion, during the course of my career, I have spoken with horticulturalists and foresters who have seemingly accepted that the lengthening queue of damaging exotic plants pests will eventually arrive. It is undeniable that the challenge to halt the spread of exotic pests is mammoth – we only need look to the last 20-years to see that there have been at least 20 new pest introductions into Great Britain.

As foresters we also know that several of these have been highly damaging to our terrestrial ecosystems, with the social, ecological and economic costs to GB being eye watering.

The challenge

It is increasingly recognised that the most common pathway for new plant pests to be introduced to an area is by the movement of live plant material. This is said without ignoring other pathways, for example, certain plant pests can hitchhike on untreated Wood Packaging Material (WPM). The introduction of Asian Longhorn Beetle to woodland in Kent in 2012 is an example of a pest arriving on WPM. Thankfully, this outbreak was eventually eradicated, although it came at a cost of approximately £2 million and required the felling of 2,229 trees.

By far the most common way for plants and plant commodities to be moved is via supply chains. International trade is of particular concern and in 2021, imports accounted for 91.8% of all trade value and 86.7% of net mass of trade in plants and plant commodities¹. We also know that there are now more than 1,400 plant pests and diseases on the UK Plant Health Risk Register, with 22 of these organisms making the list of GB Priority Pests – i.e. organisms that are of most concern given their potential to arrive and the estimated damage that they may inflict on the flora that our lives and livelihoods depend upon.

Bearing in mind the size and nature of the challenge, expedient reactive approaches are of critical importance, however, the

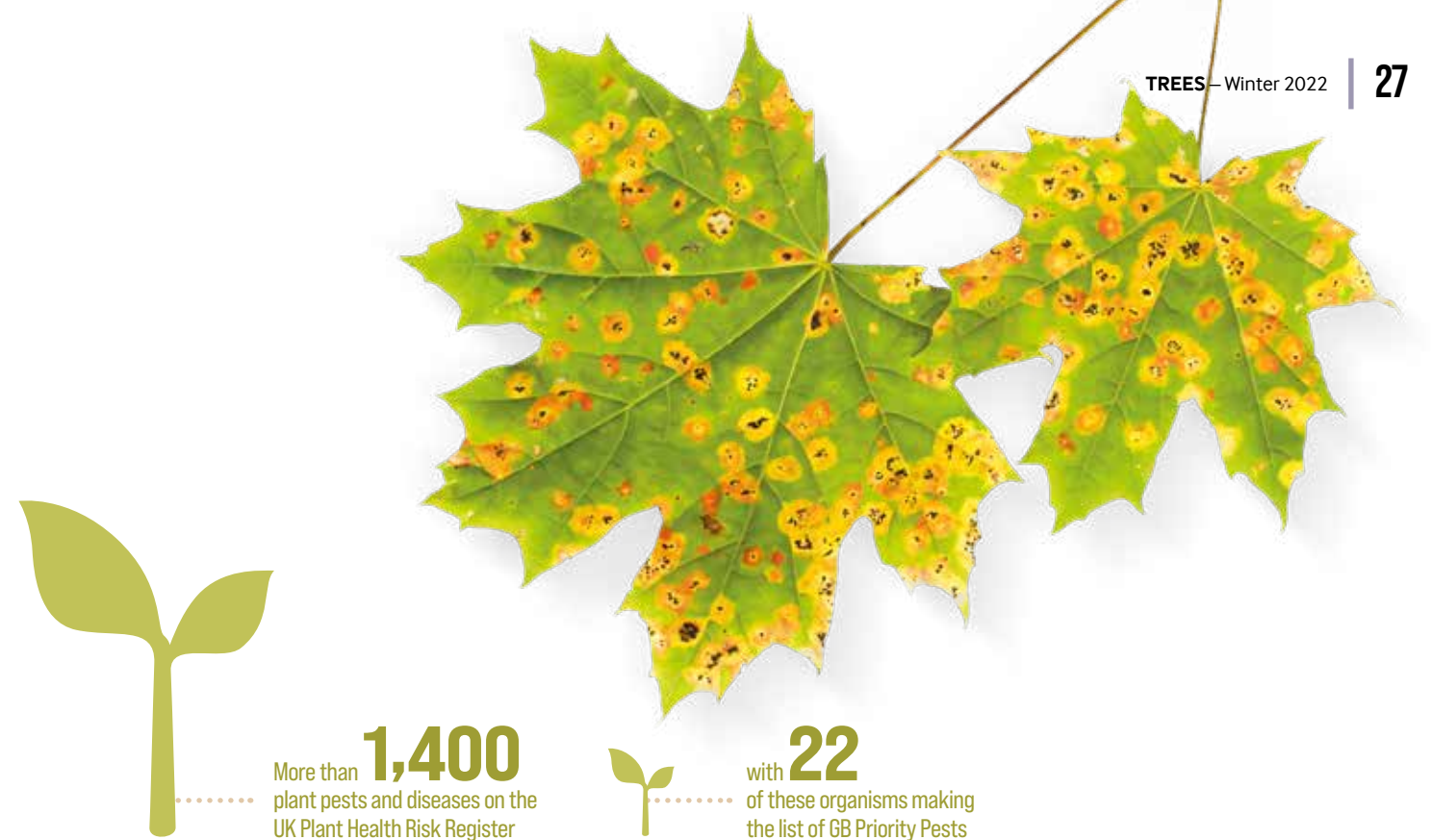
development and implementation of proactive measures and behaviours are more effective and less costly.

Figuratively speaking

What is the difference between a proactive and a reactive approach to plant biosecurity? As a non-technical explanation, I suggest that effective reactive approaches rely on the concept of ‘a stitch in time saves nine’. By monitoring for and identifying introduced pests quickly, there is a chance that a notifiable pest can be contained and eradicated. Proactive approaches fall into the metaphorical category of ‘an ounce of prevention is worth a pound of cure’ – actively identifying what the threats are, sensible precautions can be adopted to minimise the risk of plant pests being moved. Both approaches aim to halt the spread of notifiable pests, it is just that the latter approach minimises the risk of pests arriving in the first place.

Effective biosecurity systems also require cooperation, both between professionals within a sector and between the different sectors that rely on the movement of live plant material. This is due to several notifiable plant pests having broad host ranges, meaning, that as polyphagous organisms, they can infest or infect plant species that are used in agriculture, horticulture and forestry.

In recent years an example of a plant pest that has caused concern in the horticultural trade is the disease *Xylella fastidiosa*. This bacterial pathogen can infect more than 600 plant species. Some hosts are typical garden plants,



such as rosemary, periwinkle and lavender. Other hosts are tree species and include oaks, maples and cherries. The European Commission describes *Xylella* as ‘one of the most dangerous plant bacteria worldwide...with huge economic impact for agriculture, public gardens and the environment’. *Xylella* is not in GB and there is considerable ongoing effort from government agencies and trade organisations to ensure this bacterium does not arrive.

A proactive movement

With the growing awareness of the threats posed by plant pests, several NGOs, industry bodies and government now work together through the Plant Health Alliance. The formation of the Alliance coincided with a group of nurseries taking a lead to set up a voluntary certification scheme for plant biosecurity. Several of these nurseries are members of the Horticultural Trades Association's Tree & Hedging Group and Confor's Nursery Producers Group.

The Alliance, chaired by Sir Nicholas Bacon, agreed to be the Governing Body for the proposed scheme and in 2020 the Plant Healthy Certification Scheme was launched. The Scheme is based on the Plant Health Management Standard. The Standard takes a *systems approach*, which sets out a series of mainly proactive measures, yet also ensures reactive mechanisms are in place in the event of a notifiable pest being intercepted. The Scheme was initially designed to support nurseries; however, it was realised that to establish biosecure supply chains, professionals who manage garden centres and gardens should be included, along with arborists and landscapers who plant and manage our landscapes.

The key tenet of the Scheme is continual improvement. It applies to the ongoing development of the Standard and the Scheme's members. For example, guidance was recently produced to help define what

effective horticultural waste management practices are for plant biosecurity. Funded by the Plant Health Centre for Scotland, the evidence gathered informed and improved the relevant requirements in the Standard. This example is indicative of the general aim of fast tracking the knowledge exchange process by establishing a cycle that identifies issues, seeks evidence and transfers this knowledge to improve practise.

It is now estimated that 80–90% of the trees that are supplied to GB forestry come from Plant Healthy Certified nurseries. The challenge now is to achieve this level of uptake in other sectors, as it is clear that responsibility needs to be shared – only by working together can we be Plant Healthy.

Find out more at planthealthy.org.uk

¹ https://food.ec.europa.eu/plants/plant-health-and-biosecurity/legislation/control-measures/xylella-fastidiosa_en



Discussing how systems approaches can reduce new pest introductions – an event held by the Plant Health Alliance at the recent International Plant Health Conference in London



One of the oldest nurseries in the county celebrating becoming Plant Healthy Certified.

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