

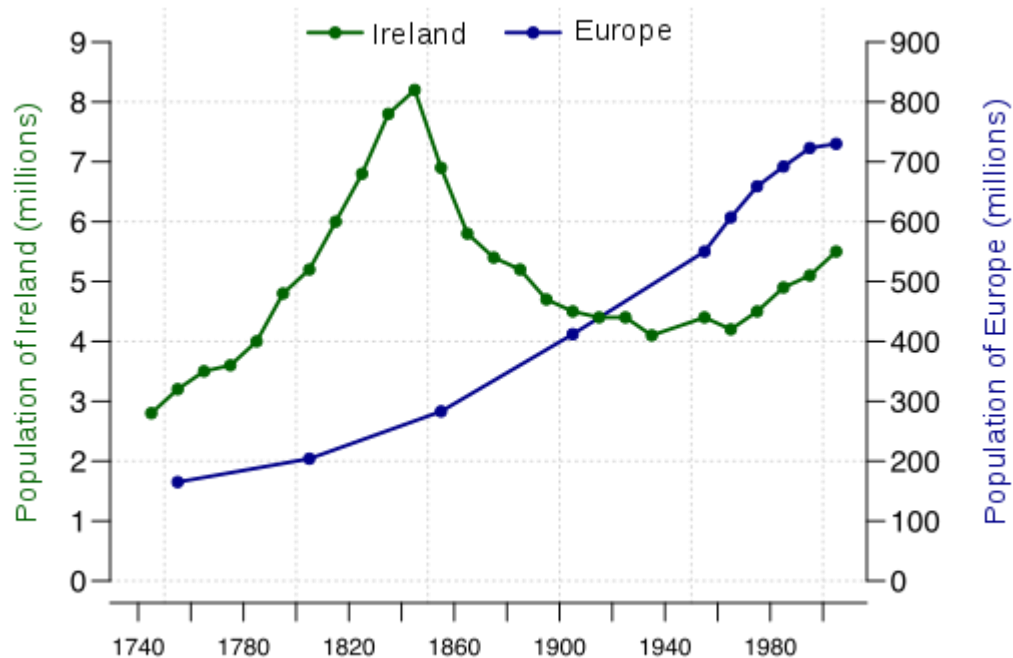
Risk, Horizon Scanning and Pest Risk Analysis

Melanie Tuffen

Overview

- Why do we need to identify pest threats?
- What is PRA?
- Horizon Scanning
- A PRA Scheme for Ireland
 - Pest focused PRA
 - Pathway/commodity focused PRA
- Prioritising Pest Risks

Why do we need to identify plant pest risks?



It's not all about the Irish potato famine!

Why do we need to identify plant pest risks?

- Fall Armyworm (*Spodoptera frugiperda*)
- Native to the Americas and is now in Africa
- Resistant to pesticides
- Real risk of food insecurity



Why do we need to identify plant pest risks?

Outbreaks of pests in the EU are leading to landscape scale changes...



Xylella fastidiosa (left) is killing millions of olive trees in Italy

Why do we need to identify plant pest risks?

...as they are in North America



North American Ash on Brink of Extinction

The latest IUCN Red List update also reveals substantial declines in antelopes and other species, but some level of recovery in populations of snow leopards.

Why do we need to identify plant pest risks?

...as they are in North America



Rose Rosette Virus is devastating roses in gardens and ornamental plantings in the USA

Why do we need to identify plant pest risks?

- All of these pests mentioned were well documented pests
- Could these outbreaks have been prevented?

Impossible to say if outbreaks could have been avoided – but they could have been prepared for!

Why do we need to identify plant pest risks?

- Fall armyworm was able to enter due to a lack of phytosanitary measures in Africa on movement of plant products
- *Xylella fastidiosa* was a regulated pest – but only a few of its known hosts were prohibited from import
- Emerald ash borer is not a pest of Asian ash trees – but it was known to be deadly to American ash in China

What is Pest Risk Analysis (PRA?)

*The process of evaluating biological or other scientific and economic evidence to determine whether an **organism is a pest, whether it should be regulated, and the strength of any phytosanitary measures to be taken against it***

- Identify potential threats and assess:
 - Will they arrive?
 - Will they be able to establish and spread?
 - Will they be damaging?
 - How can we prevent introduction or limit damage?

Why do PRA?

- Legal requirement
 - Under international trade laws, phytosanitary measures must be technically justified
 - The EU will not regulate any new pest/pathway without a PRA

Pest and Pathway PRA

- Pest focused PRA analyses the risk of a single pest to a country or region
- Pathway/Commodity focused PRA analyses all of the pest that could enter on a new commodity
- **EU** takes a *pest* focused approach (but is changing to pathway focused!)
- **USA/Canada/Australia/New Zealand** take a *pathway* focused approach

Horizon Scanning

- Horizon scanning is the process by which pest risk analysts identify potential new threats
- Analysts will monitor many sources of information to monitor developments in plant health world wide
- Interested in new species, new locations and new hosts

Horizon Scanning

- Scientific literature
- Trade Journals
- Media (Google news alerts)
- Interceptions
- Social media



A PRA Scheme for Ireland

- A pest and pathway PRA scheme have recently been developed for Ireland with an associated guidance document
- Ireland is afforded a considerable advantage as an island, with limited capacity for pests to enter by natural spread and it is time to take advantage of it

Preventing Introduction

- Pests that will inevitably enter Europe via Natural Spread can only enter Ireland via trade
- PRA must be used to justify measures on these trades



Polygraphus proximus has jumped from the Far East to European Russia and is causing widespread mortality of fir trees

Preventing Introduction

- Ireland can also identify pests that are a threat to the whole EU and push for regulation via PRA



Lambdina fiscellaria is a major North American defoliator that is not currently regulated

Prioritising Pests

- The EU are creating lists of “priority pests” and “priority pathways”
- Priority pests identified will need to be subject to contingency planning and heightened surveillance
- Ireland needs to come up with a process to prioritise pest risks and actions to take against them

Prioritising Pests

- Several EU Member States now have schemes for prioritising pests:
 - UK Plant Health Risk Register
 - ERIN (Emerging Risks in Norway)
 - FinnPRIO
 - Dutch prioritisation scheme
- These are basically very rapid risk analysis schemes
- These and other schemes have been reviewed for their suitability for use in the Irish context

Summary Slides

- Even in modern times, plant pests are emerging that lead to famine, migration and landscape level changes
- Horizon scanning and pest risk analysis are key tools that we can use to predict risks and prepare for them
- As an island, Ireland has a considerable advantage in preventing the introduction of new pests
- But PRA is needed to justify regulations on trade and help reduce the risk of introduction
- A PRA scheme for Ireland has been developed
- With limited resources, Ireland needs to consider the use of a pest prioritisation scheme