



Department
for Environment
Food & Rural Affairs

Identification of pests of phytosanitary concern

Helen Anderson,
Risk & Horizon Scanning Team (plant health), Defra



Forestry Commission
England



Environment
Agency

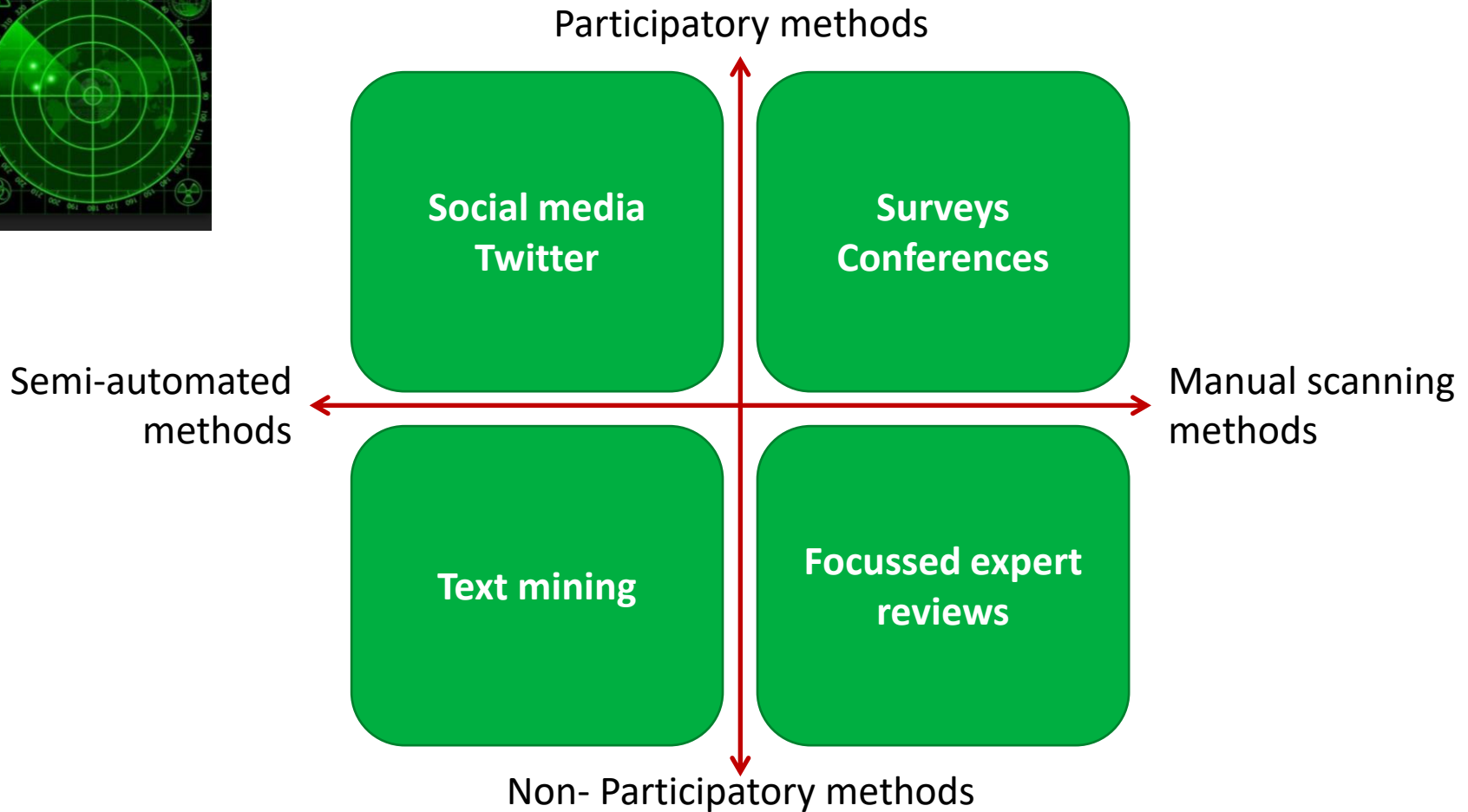
Emerging plant health threats

An emerging plant health threat defined as ...

- An unexpected, new or increased significant probability of introduction and/or spread of a **known** plant pest,
- Significant probability of introduction and/or spread of a **newly identified*** plant pest,
- A new or an increased susceptibility of the host plants to a known plant pest
 - New pests described by science
 - Pests whose incidence is increasing
 - Pests whose geographical range is increasing
 - Pests which increase their host range

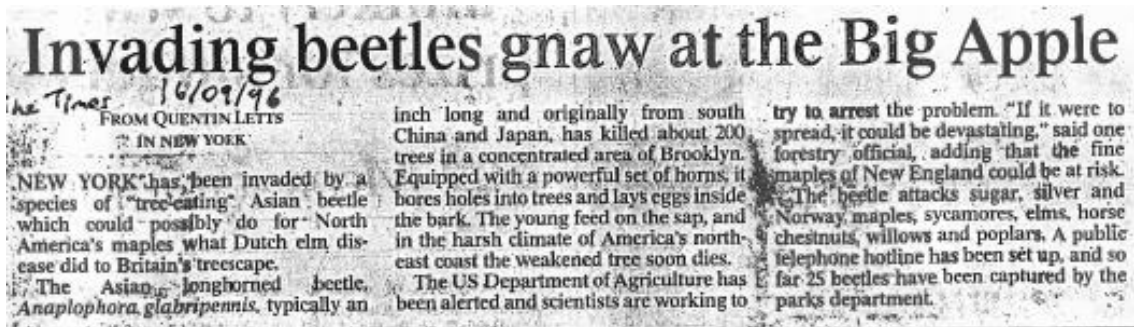
* e.g. an organism not previously regarded as a plant pest

Horizon scanning approaches



Horizon scanning - participatory

- Scientific journals
- Trade journals (grey literature)
- Conferences / personal contacts
- Newspapers
- Twitter



Horizon scanning – non-participatory

- Automated systems to scan internet for Open Source Intelligence (OSINT)

- Google Alerts - key words
- Web of Science – key words

- Alerts with some context

- Automatic links to related features

- Systems that compile knowledge to provide intelligence

- North American Plant Protection Organisation Alert List, CABI Plant wise, ProMED MediSys, ...
- European and Mediterranean Plant Protection Organisation (EPPO) Reporting Service, United States Department of Agriculture (USDA) Pest Lens – provides context

EPPO Reporting Service

No. 2 PARIS, 2009-02-01

CONTENTS Pests & Diseases

- 2009/021 - New data on quarantine pests and pests on the EPPO Alert List
- 2009/022 - First record of *Epirix similaris* in Portugal: addition to the EPPO Alert List
- 2009/023 - *Tuta absoluta* caught in a tomato packing station in the Netherlands
- 2009/024 - Situation of *Toxoptera ciliaris* in Portugal and Spain
- 2009/025 - Situation of *Uliabrotica virgistera* in France in 2008
- 2009/026 - Details on the situation of *Rhynchophorus ferrugineus* in France in 2008
- 2009/027 - Situation of *Rhagoletis completa* in Germany in 2008
- 2009/028 - New species of Cerambycidae identified in Israel
- 2009/029 - First record of Tomato torrado virus in Panama
- 2009/030 - First record of Tomato torrado virus in Australia
- 2009/031 - Tomato torrado virus: addition to the EPPO Alert List
- 2009/032 - Eradication of Tobacco ringspot virus from the Netherlands
- 2009/033 - Potato spindle tuber viroid no longer occurs in Argentina
- 2009/034 - Macroarray detection of potato viruses and Potato spindle tuber viroid
- 2009/035

Horizon scanning & prioritisation

- Depending on National Plant Protection Organisation or organisation, there can be a handful to over 100 staff involved in capturing, evaluating and assessing information on emerging pests
- Key challenges
 - lack of staff for horizon scanning
 - amount and diversity of information
 - filtering relevant information
 - adapting information into the local context
- Prioritisation
 - many pests to consider, which to consider / act on first?
 - way to consult with pest experts (researchers and extension services) for advice
 - develop protocol for ranking pests

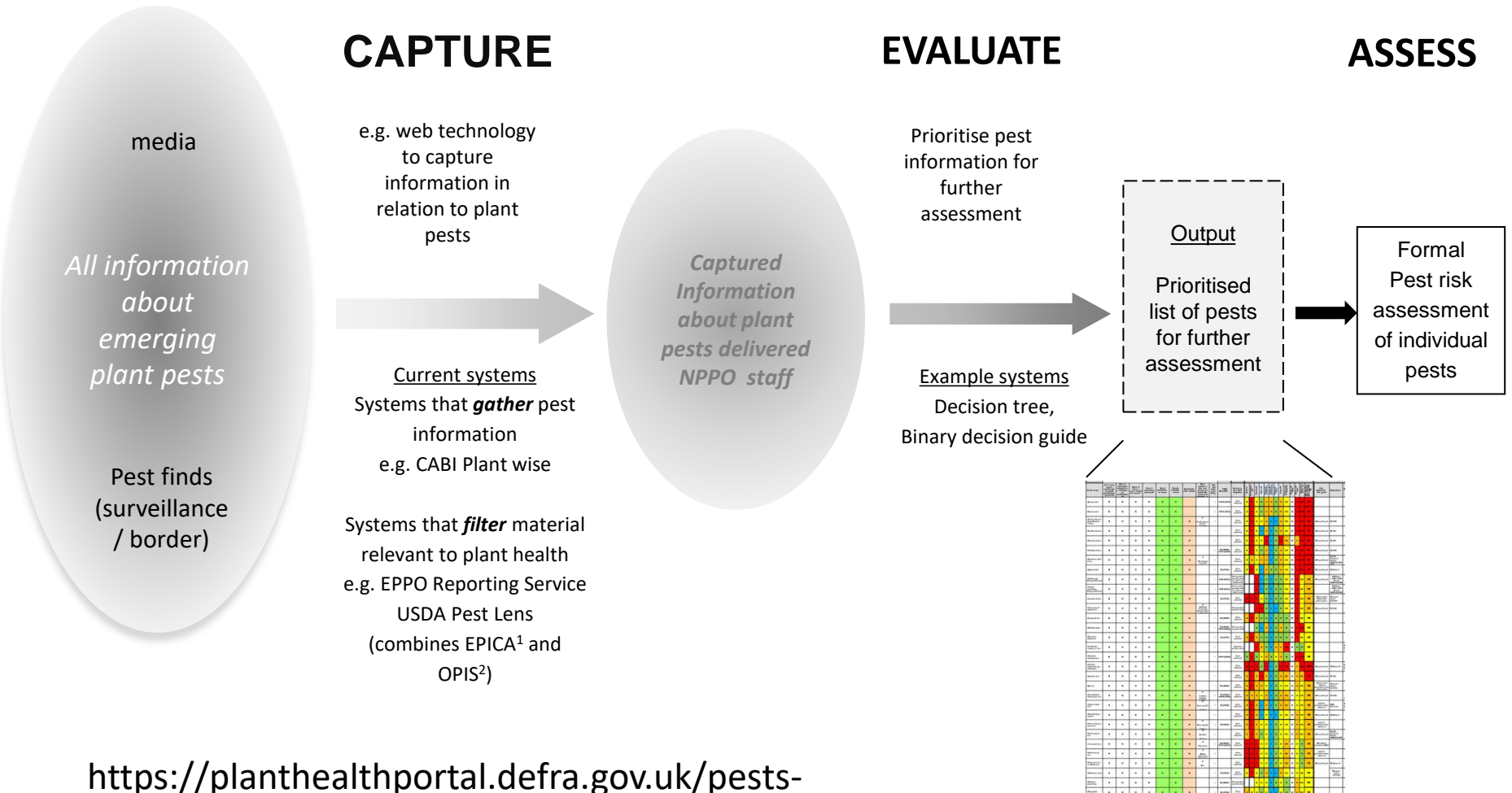
UK Plant Health Risk Register



- Key recommendation of the Tree Health and Plant Biosecurity Expert Taskforce
- The Risk Register uses simple rules to rate the likelihood of a scenario, and the impacts of that scenario happening:
 - Pest is Introduced
 - Pest Spreads to Maximum Extent
- Follows same information used in a pest risk assessment (PRA): entry, establishment, spread and impact but also take into account value at risk
- Takes into account mitigations



Conceptual Horizon Scanning



<https://planthealthportal.defra.gov.uk/pests-and-diseases/uk-plant-health-risk-register/>

¹EPICA = Exotic Pest Information Collection and Analysis (cost USDA \$231,000 annually to operate (2009 costs))

² OPIS = Offshore Pest Information System

Questions

