



# Update on the Emerging Risks and Organism Ranking Systems

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*Growing and Protecting New Zealand*



# Overview

- An Overview of the MPI Emerging Risks and Organism Ranking Systems
- Report back from July workshop with Industry
- Update on Progress

# MPI Emerging Risks System



Psa leaf spotting and an infected vine

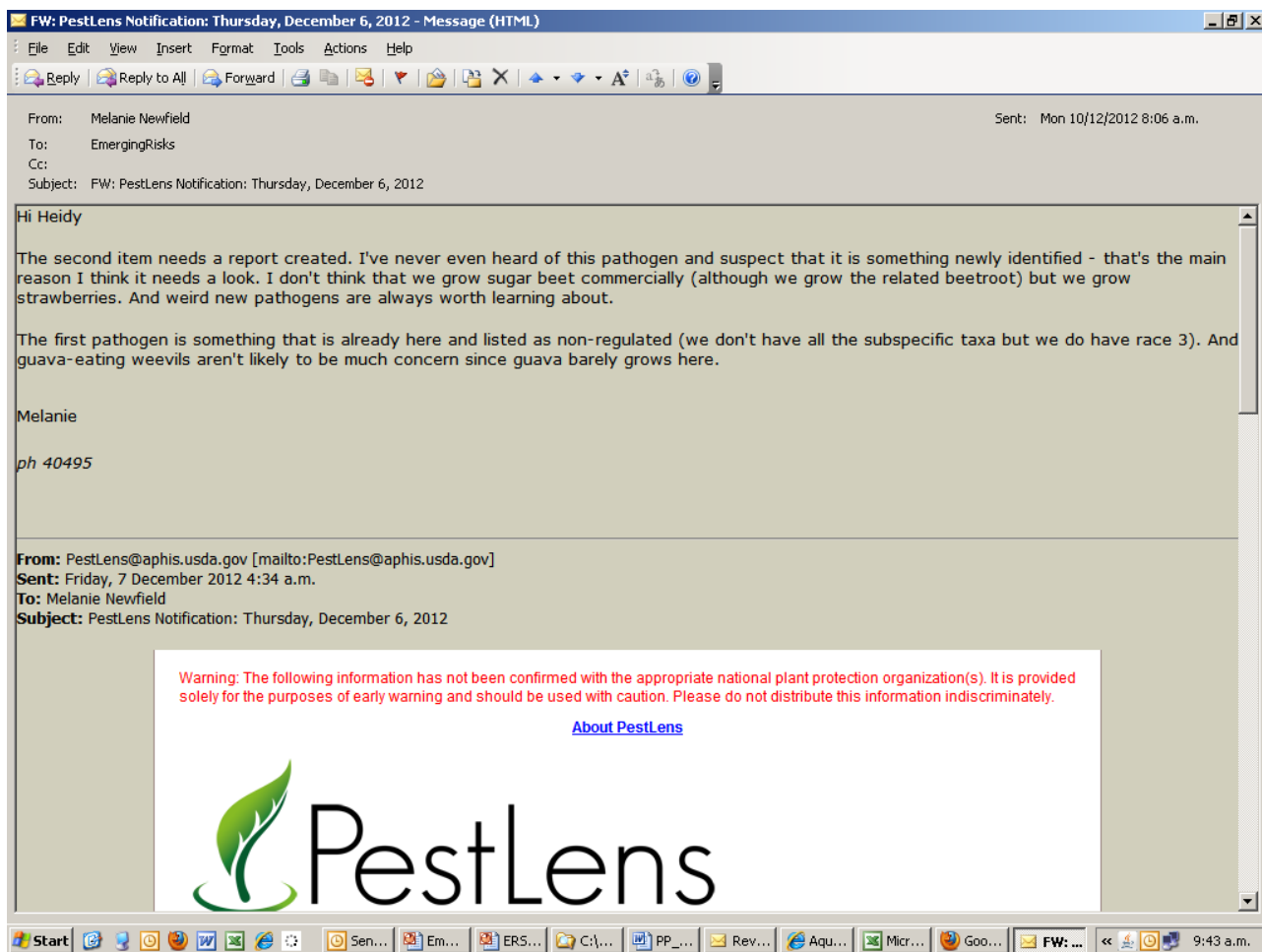


- Interim System implemented August 2012
- Continuous improvement of system

# System Components

- **Active scanning of key emerging risk alert sources**
- **science “filter” (triage)**
- **Internal communication to align MPI risk management action**
- **Monitoring flow and uptake of information**
- **Regular performance reporting**

# Currently using a manual filter, assessment and tracking system



# Activity (31 August 2012 –12 August 2013)

- 461 submissions (779 alerts)
- Approx one third out of scope
- 25 passed to a risk manager for consideration
- Three being monitored for new information
- 60 new alerts since mid July

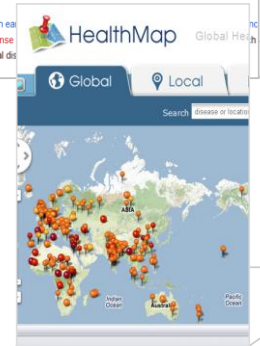
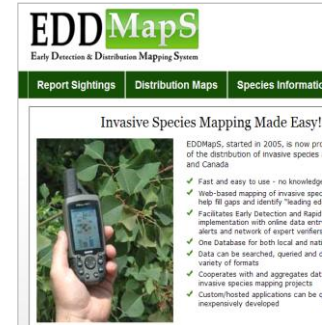
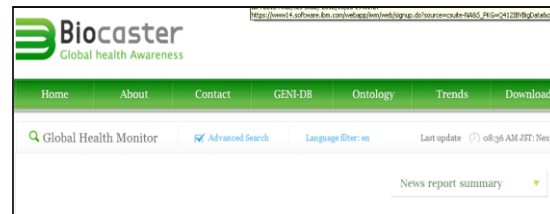
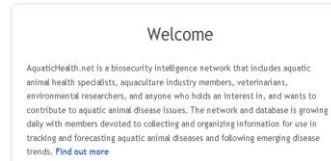


# Alerts from Industry and Scientists



# Next stage of project will look at widening scope, increasing the range of sources and semi-automation

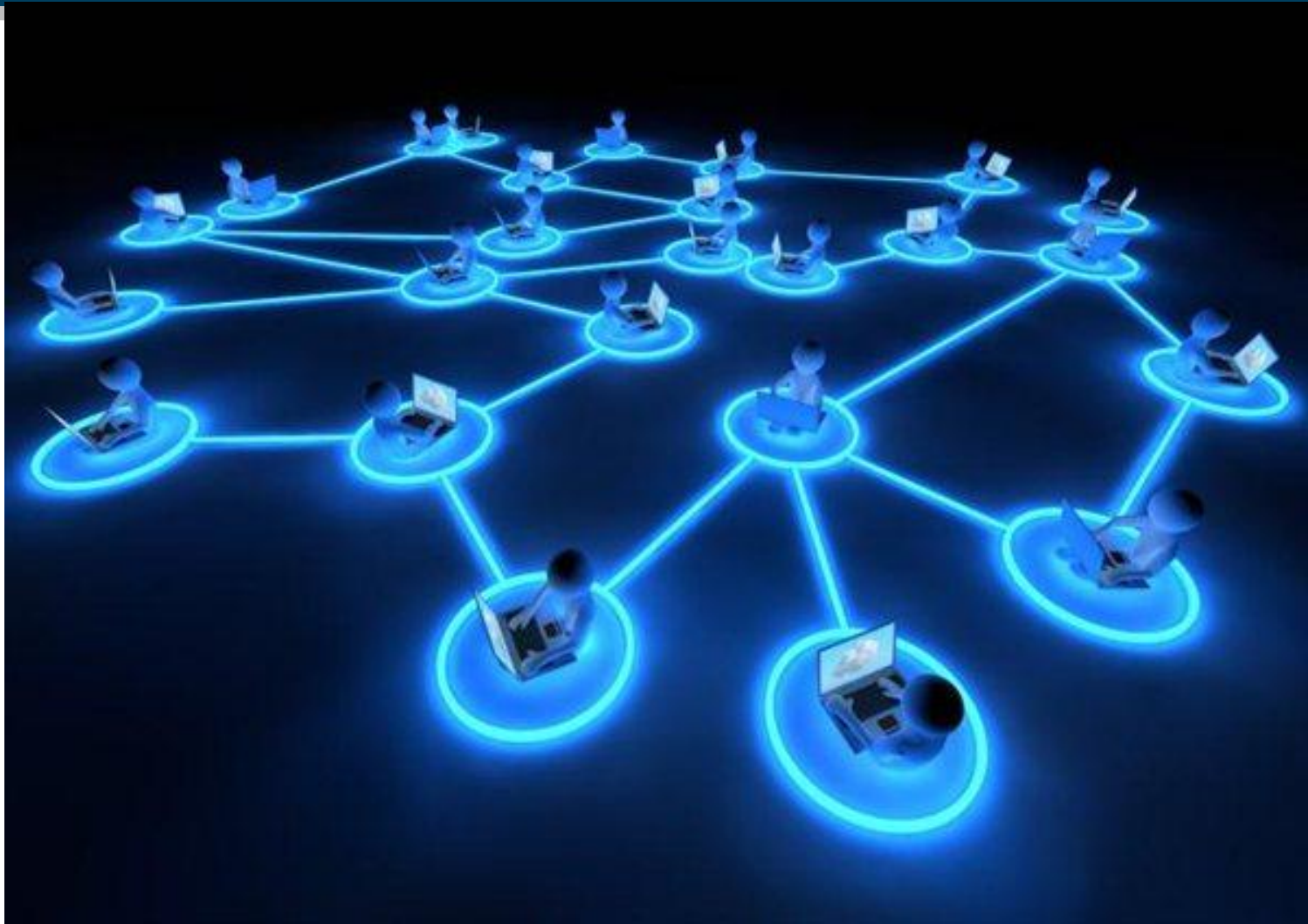
- Expanding system to include:
  - food safety risks
  - significant changes in pathways and impacts
- Building on existing international intelligence networks
- Collaborative project with DAFF / CEBRA : extending the Aquatic health platform into animal and plant health



Open Source Biosecurity–Food–Health Warning Systems around the world



# Work with researchers and industry to expand our network



# What you told us (July)

- Joint MPI – Industry role
- We should all “own” the system and feel a valued part of it
- Early advice on emerging risks is essential to both parties – we need to agree on when and who needs to know

(cont.)

- not just about GIA or biological risks associated with imports – trade issues, reputation and implications for exports relevant and important
- Use of domestic and international industry networks and expertise
- Testing the risk or significance with industry

**(cont.)**

- Need to understand the value and the vulnerability of individual industries
- Transparency of assessment and decision-making
- Providing timely feedback on industry contributions
- Need confidence that concerns are taken seriously and that industry perspectives are considered

## (cont.)

- Easy to access real time information on a secure network portal
- Key contacts should be identified in organizations – maybe multiple contacts
- Awareness needs to be created in organizations to motivate people and build networks
- link the emerging risks system to current work under GIA without doubling up

# Key Contacts

We expect these key contacts would:

- be key touch points for the company/industry for emerging risk alerts and pass these to the system
- Disseminate reports in your organisation and champion the system
- provide us with advice in developing the system further so that it works for you

# What information do we need?

## What is it?

- common name but prefer scientific names.
- one-line description can also help, eg “new virus disease found infecting watermelons in Greece”.

**(cont.)**

## **How did you hear about it?**

- If you have an article/ web page/ photographs from a place you were visiting etc, please include this in your alert.



# (Cont.)

## What has changed?

- eg. a completely new pest or something that was known becoming much more damaging?
- something that we are already worried about reaching a new area or affecting a new host?
- Or is it not necessarily a new situation, but new information about something we may not be aware of?

**(cont.)**

**Why do you think this emerging risk is of concern to New Zealand?**

# Follow-up actions

Other follow-up actions that we are planning to undertake include:

- Building industry requirements for accessing and contributing information in a semi-automated system into longer term information management planning
- link the emerging risks system into other initiatives within MPI that consider non-biological (primarily trade) risks or incidents, or opportunities emerging globally that may benefit NZ industry

# Organism Ranking System – background

- Initial focus - high priority organisms list
- Refocused to: Develop a consistent, systematic, transparent, method to rank organisms that is;
  - Scientifically robust
  - Fit-for-purpose
  - Simple to use and user friendly

# Organism Ranking System

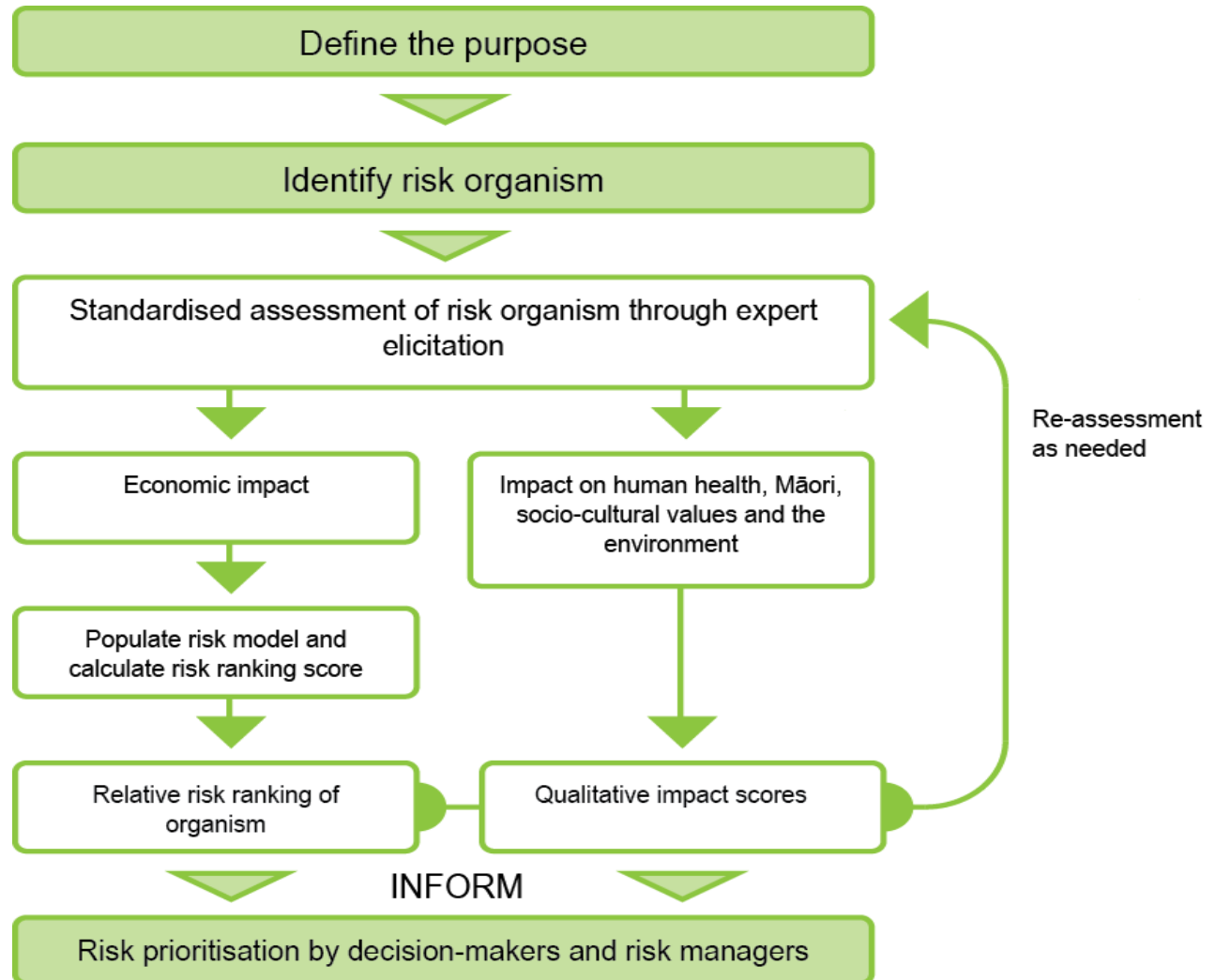
- Separating the assessment of relative risks from prioritisation of activities for risk management
- Provides risk based evidence for context specific lists
- Does not replace Pest Risk assessments to support Import Health Standard development

# ORS – the system

Consists of:

- a model for ranking the organisms (simple Excel-based)
- Method of populating the model
  - Expert opinion elicited at workshops

# Risk ranking



# Probability of Entry

"What is the probability that the organism will enter New Zealand in the next 10 years?"

Please consider

- What are the current pre-border and border controls?
- Are there pathways to introduction for which no import health standards or other management exists?
- How effective do you consider current management practices to be?
- Are there unmanageable pathways to introduction?



# Probability of Entry

## p (entry) - Probability of entry into New Zealand

Description	Range	Score
Negligible	The probability that the organism will enter New Zealand in the next 10 years is less than 1%.	0.01
Very low	The probability that the organism will enter New Zealand in the next 10 years is between 1 – 5%.	0.02
Low	The probability that the organism will enter New Zealand in the next 10 years is between 5 – 20%.	0.10
Moderate	The probability that the organism will enter New Zealand in the next 10 years is between 20 – 50%.	0.32
High	The probability that the organism will enter New Zealand in the next 10 years is between 50 – 90%.	0.67
Very high	The probability that the organism will enter New Zealand in the next 10 years is more than 90%.	0.95

# Probability of Spread to Maximum Extent

"What is the probability that the organism, once present in New Zealand, will spread to its maximum extent in the presence of currently available control/managements options?"

# Immediate Trade Impact

"What is the immediate direct economic trade impact of the organism entering New Zealand?"

# Immediate Trade Impact

ITI	-	Immediate	trade	impact	AND
ECI - Economic impact					
Description	Range				Score
Negligible	Economic impacts are likely to be less than \$ 100,000.				1
Very low	Economic impacts are likely to be between \$ 100,000 and \$ 1,000,000.				10
Low	Economic impacts are likely to be in the order of \$ 1 – 10 million.				100
Moderate	Economic impacts are likely to be in the order of \$ 10 – 100 million.				1000
High	Economic impacts are likely to be in the order of \$ 100 million – 1 billion.				10000
Very high	Economic impacts are likely to exceed \$ 1 billion.				100000

# Economic Impact on Spread

- "What is the direct economic impact of the organism given spread of the organism to its maximum extent?"

# Economic Impact on Spread

- Negligible** Economic impacts are likely to be less than \$ 100,000.
- Very low** Economic impacts are likely to be between \$ 100,000 and \$ 1,000,000.
- Low** Economic impacts are likely to be in the order of \$ 1- 10 million.
- Moderate** Economic impacts are likely to be in the order of \$ 10 – 100 million.
- High** Economic impacts are likely to be in the order of \$ 100 million – 1 billion.
- Very High** Economic impacts are likely to exceed \$ 1 billion.

# Level of Confidence in the Estimates

"Please indicate your confidence in your estimate"

- |                       |   |
|-----------------------|---|
| <b>Unsatisfactory</b> | High uncertainty/conflicting views amongst experts, no experience with previous similar incidents, little evidence                  |
| <b>Satisfactory</b>   | Assumptions based on analogies with similar organisms, general agreement amongst experts, adequate level of evidence                |
| <b>Good</b>           | Experience with previous similar incidents, multiple reliable sources of information, good quality evidence, expert opinion concurs |

# Impacts “flags”

If the organism was introduced into New Zealand, are there likely to be direct impacts on:

- human health
- the environment
- society and culture
- maori values



# ORS – the outputs

- Organisms ranked into groups
- Organisms to be ranked and grouped by
  - Risk
  - Probability of entry
  - Probability of spread to maximum extent
  - Economic impact
  - Immediate trade impact
  - Economic impact

# ORS – the next steps

- Initial list of organisms collated
- Sector-based workshops
  - Using refined questionnaires
  - Include a wider selection of experts
  - Expert consensus
  - Produce example ranked lists

# Questions?

