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Emerging plant health risks: objectives of the Colloquium

Mike Jeger, Chair EFSA PLH Panel

EFSA and emerging risks

“The Authority shall establish monitoring procedures for systematically searching for, collecting, collating and analysing information and data with a view to the identification of emerging risks in the fields within its mission” (art. 34.1Reg. (EC) No 178/2002).

“…an emerging risk (ER) to human, animal and/or plant health is understood as a risk resulting from a newly identified hazard to which a significant exposure may occur or from an unexpected new or increased significant exposure and/or susceptibility to a known hazard.” (EFSA Scientific Committee, 2007).

Emerging plant health risks

“…an emerging risk (ER) to plant health is understood as a risk resulting from a newly identified pest/harmful organism for which a significant likelihood of introduction and spread may occur or from an unexpected new or increased significant likelihood of introduction and spread and/or susceptibility to a known pest/harmful organism .”

Emerging plant health risks

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New plant pest (new species/ new strain)	New/ modified pathway	Increased/ modified crop susceptibility	
	X	X	Listed quarantine pests
	X	X	Pests recorded in other countries not listed as quarantine
X		X	Species not recorded as harmful changing behaviour
X	X	X	Unknown/new species

Priorities and signals

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– EU IAI Quarantine pests & EPPO Alert List
  - changes in “exposure” (probability of introduction and spread), e.g. due to new hosts, modifications of agriculture/forestry practices, spread to new countries, movement on new pathways (high priority)
– EU IAII quarantine pests (Lower priority)
– Quarantine pests in other country lists (Changes)
– Pests on important EU crops in areas with similar climates, areas with new trends of introduction (e.g. East Asia)
– New pests on derogated pathways/new pathways
– Lag phase studies
– Evolving genera (e.g. *Phytophthora*)

Data sources

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- Commodities
  - FAOSTAT, EUROSTAT, national statistics, trade/customs data, FVO
  - Trends and retrospective analysis
  - Difficult to find new information quickly from this
    - Data too aggregated, EUROSTAT/FAOSTAT too late
    - Need trade/customs information
- Pests
  - EPPO/NAPPO information service
  - CABI information services
  - Scientific and technical literature, growers/trade infos
  - Media screening / Google news /Web searches
  - Interception/outbreak/establishment trend analysis

Needs and challenges

- To rapidly, efficiently and robustly identify/predict emerging plant health risks as early as possible.
- To assess emerging plant health risks, under time and data constraints.
- To communicate timely with risk managers and to provide them with sufficient scientific support to put in place effective risk mitigation strategies.

Scientific Colloquium objectives

Following discussion at EFSA Panel on Plant Health plenary meetings, the EFSA Scientific Colloquium 16 on the identification of emerging plant health risks has been organised:

- to openly debate key scientific issues related to the identification of emerging plant health risks;
- to provide inputs for development of EFSA's methodological framework for identification of emerging plant health risks.

Colloquium structure

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Opening Plenary session

Four discussion groups (DG) with focus on drivers of emerging plant health risks at different scales:

- ❑ DG 1 – Changes in pests/vectors/plants and their interactions
- ❑ DG 2 – Changes in agriculture/forestry practices
- ❑ DG 3 – Changes in trade/food consumption/land use
- ❑ DG 4 – Climate change

Discussion groups

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DG 1 – Changes in pests/vectors/plants and their interactions as drivers of emerging plant health risks

Biol Invasions (2008) 10:411–433
DOI 10.1007/s10530-007-9141-x

ORIGINAL PAPER

A virus and its vector, pepper yellow leaf curl virus and *Bemisia tabaci*, two new invaders of Indonesia

Paul J. De Barro · Sri Hendrastuti Hidayat · Don Frohlich · Siti Subandiyah · Shigenori Ueda

CURRENT REVIEW

Emerging Viral Diseases of Tomato Crops

Jan M. Hanssen, Moshe Lapidot, and Bart P. H. J. Thomma

OPEN ACCESS Freely available online — PLoS one

An Extensive Field Survey Combined with a Phylogenetic Analysis Reveals Rapid and Widespread Invasion of Two Alien Whiteflies in China

Jian Hu[1], Paul De Barro[2], Hua Zhao[1], Jia Wang[1], Francesco Nardi[3], Shu-Sheng Liu[1*]

"It scares me to death; it is one pest that could completely bury us." — Larry Antilla

PLANT PATHOLOGY

Sudden larch death

Clive Brasier and Joan Webber

An aggressive and unpredictable fungal pathogen is devastating larch plantations in Britain. Its remarkably broad host range, and the possibility of further geographical spread, give heightened cause for concern.

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Discussion groups

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DG 2 – Changes in agriculture and forestry practices as drivers of emerging plant health risks

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DG 3 – Changes in trade, food consumption or land use as drivers of emerging plant health risks

***Tuta absoluta*, Tomato leaf miner moth or South American tomato moth**

Discussion groups

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DG 4 – Climate change as driver of emerging plant health risks

Discussion groups

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Each discussion group will address the following issues:

- How do we recognise these changes?
- How can we anticipate these changes? Is prediction possible?
- What are the implications of these changes for managing risk?
- Can we learn from the past? Are there any case studies for retrospective analysis?

Final plenary session

The outcome of the four DGs will be presented and discussed in a **final plenary session**:

- To discuss in the plenary session the results of each discussion group
- To integrate the four different scales of the discussions and to formulate conclusions and, as appropriate, recommendations.

Thank you for your attention