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COMMISSION ON PHYTOSANITARY MEASURES

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Special Topics Session
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<i>English only</i>

Special topics

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Location: FAO headquarters

15:00-18:00

EPPO programme on diagnostics: serving the needs of plant pest diagnostic laboratories

Françoise Petter, Madeleine McMullen, Baldissera Giovani

EPPO Secretariat

1. Reliable identification of plant pests and pathogens is one of the key capabilities underlying the work of NPPOs. Since 1998, EPPO has established a specific programme on diagnostics.
2. This programme covers:
 - **The development of pest specific diagnostic protocols** (over 100 diagnostic protocols have been agreed by EPPO's 50 member countries). This includes not only preparing new protocols on emerging pests, but also the revision of approved diagnostic protocols to follow the development of new technologies (e.g. sequencing, on-site detection). EPPO works closely with the IPPC TPDP and when an international protocol is agreed, the EPPO protocol is revised to align it to the IPPC one.
 - **Quality assurance and accreditation.** Accreditation is being promoted and adopted increasingly among regulatory laboratories however harmonization is needed and plant health

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has some specificities that need to be recognized and understood. Guidelines specific to plant health have been prepared to assist laboratories applying for accreditation. In addition EPPO encourages laboratories to share information on performance criteria of tests (often called validation data).

- Supporting **the sharing/maintenance of expertise on diagnostics** within the EPPO region through the organization of conferences and workshops on different topics and the establishment of a database on diagnostic expertise and the collaboration with research teams (e.g. through the Euphresco network).

3. The EPPO programme on diagnostics will be presented as well as the challenges faced when new technologies become available.

New treatment technologies for phytosanitary applications

Ron Sequeira, USDA APHIS PPQ

4. USDA APHIS Plant Protection and Quarantine (PPQ) is responsible for both safeguarding agriculture from pests as well as ensuring and facilitating safe trade in the US. Treatment technologies are a fundamental element in developing strategies to address that two pronged mission statement.

5. Treatments are defined in the IPPC glossary as the “official procedures for the killing, inactivation or removal of pests, or for rendering pests infertile or for devitalization”. Thus, treatments are one kind of phytosanitary measure. They are also considered a kind of risk management measure that can be included in systems approaches. Finally, treatments can also be equated with a risk reduction “option”.

6. Treatment technologies are categorized for the purpose of this presentation as:

- 1) Alternatives to methyl bromide as well as alternatives to conventional chemical agents like organophosphates and carbamates, including products that protect the viability of bee populations
- 2) Integrated phytosanitary measures, including “next generation systems approaches” to reduce the use of conventional chemical agents and maximize the effectiveness of new technologies.

7. The first part of this presentation will describe the latest developments in treatment technology including the use of effective new fumigants, broadcast products, radiofrequency, modified atmospheres and irradiation.

8. The second part of the presentation will focus on how to construct integrated phytosanitary approaches and establish formal criteria to evaluate and compare their effectiveness. The discussion will begin with historical linkages to mortality-linked baselines like probit-9 and the evolution towards a focus on prevention of introduction using integrated phytosanitary measures.

Risk-based inspection systems

Mark Burgman and Andrew Robinson

CEBRA

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9. Inspection systems have multiple objectives. They aim to intercept potentially damaging pests and pathogens on traded commodities, to learn about changes in the abundance of unwanted organisms on pathways, to provide some deterrence against those who wish to circumvent or compromise plant health, and to be alerted to new and emerging threats. In isolation, these objectives could lead to quite different inspection strategies. Data on presence and abundance can be used to guide inspection effort, changes can be used to reallocate effort, and intelligence systems can be used to provide early warning of new and emerging threats. This presentation will outline tools that may be deployed in operational settings to optimise these objectives.