RSPM 40 – the NAPPO concept standard on pest risk management

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Pest risk analysis (PRA) process

- PRA Stage 1: Initiation
- PRA Stage 2: Pest risk assessment
- PRA Stage 3: Pest risk management
**ISPM 2.** 2007. *Framework for pest risk analysis.* Rome, IPPC, FAO. (focus on Stage 1 of PRA, initiation)

**ISPM 11.** 2013. *Pest risk analysis for quarantine pests.* Rome, IPPC, FAO. (focuses primarily on Stage 2 of PRA, pest risk assessment)

**RSPM 40** provides detailed guidance on how to complete Stage 3 of pest risk analysis (PRA): ‘pest risk management’
The purpose of this standard is to provide guidance to assist NPPOs in identifying, evaluating and selecting appropriate risk management measures following the completion of the pest risk assessment stage of a PRA.

The standard includes six components of this process:
1. sources of information
2. identification of measures
3. evaluation of measures
4. selection of measures
5. documentation
6. monitoring and feedback.
What is pest risk management?

According to ISPM 5:

- pest risk management (for quarantine pests)
  Evaluation and selection of options to reduce the risk of introduction and spread of a pest [FAO, 1995; revised ISPM 11, 2001]
A Process Overview for Pest Risk Analysis

Initiation

- Describe the concern which has generated the need.
- Understand the background and expectations.

Identify hazard(s) → Estimate the likelihood of occurrence → Estimate the magnitude of the consequences → Develop conclusions and describe uncertainty

Risk Assessment

Mitigation requires assessment → Risk requires mitigation

Risk Management

- Evaluate mitigation options for:
  - Efficacy
  - Feasibility
  - Impacts
- Identify mitigation options
- Develop recommendations and describe uncertainty
- Evaluate recommendations against current environment and values to select an option.

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Decisionmaking
Identification of mitigation measures...

- inspection / examination
- certification
- treatment
- surveillance and monitoring
- sanitation
- pest-free concepts
- post-entry measures
- systems approaches
- prohibition
When does it apply?

During the production, harvesting, treatment, packing and transport of commodities

**Pre-entry**

- Treatments
- Cultivars
- Certification
- Low prevalence
- PFA´s
- Planting time

**Post-entry**

- Treatments
- Culling
- Sanitation
- Ripeness
- Time of harvest
- Handling

- Treatments
- Inspection
- Sanitation
- Certification

**Shipping**

- Treatments
- Inspection
- Sanitation
- Type of transport

**Distribution**

- Treatment
- Inspection
- Post-entry quarantine

**End use**

- Restrict end use
- Timing
- Location
- Quantity
Evaluating measures

- **Efficacy**
  - Treatment efficacy
  - Alternative treatment efficacies
  - Other measures of efficacy:
    Pest freedom, measures to verify requirements are met

- **Feasibility**
  - Effects of treatment on commodity
  - Availability of facilities, treatments

- **Impacts**
Once potential measures have been identified based on efficacy, feasibility and impacts, specific measures may be selected.

Selected phytosanitary measures should be appropriate to the pest risk and technically justified.
Other things to consider

• Comparing risk management measures
• Cost effectiveness
• Cost-benefit analysis
• Rational relationship of measures to risk
• Consistency and non-discrimination
• Equivalence of phytosanitary measures
• Emergency measures and provisional measures
Uncertainty

Uncertainty is an inherent part of pest risk analysis. It may arise from insufficient information, variability (including natural variation), and imprecision (such as model errors).

Uncertainty due to variability among individuals is inherent in biological systems and should be measured or described. New or additional information will not usually reduce uncertainty arising from variability.

Uncertainty due to lack of knowledge may be reduced by further study and data collection.
Redundancy

Adding measures or extra strength to measures as a means to compensate for uncertainty is sometimes referred to as redundancy. Redundancy may be a type of provisional measure and therefore requires technical justification to be maintained.

Redundancy may be used:

- to compensate for uncertainty
- as a safeguard for lack of experience
- when no less stringent measure is available
- when no single measure is available, or as an alternative to a single more stringent measure (as in systems approaches)
Documentation of the pest risk management stage should include a discussion of all uncertainties considered in conducting the analysis to identify and select the official pest risk management measures.

It is important that risk management documentation clearly informs decision makers of the level of uncertainty regarding the scientific evidence forming the basis for the selection of risk management options.
1. Concludes with the determination that there are no appropriate phytosanitary measures (negative).

2. Concludes with the selection of one or more pest risk management options that lower the pest risk to a level deemed acceptable level.

“The selected pest risk management options form the basis of phytosanitary regulations or requirements”.

The determinations and the process used to derive them must be clearly and thoroughly documented and communicated.
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Thank you