



Food and Agriculture
Organization of the
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International
Plant Protection
Convention



IPPC Global Workshop on Systems Approaches

Santiago, Chile
1 – 4 December 2025

In partnership with:



Australian Government
Department of Agriculture,
Fisheries and Forestry

Characterizing the system: An important step

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Objectives

For a systems approach to be successful, it is important to identify:

- all the characteristics that are relevant to assessing risk (e.g. pest, commodity, production, supply chain, etc.)
- what can be managed through a systems approach.



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Characteristics of Systems Approaches

As per ISPM 14, systems approaches:

- Require 2 or more measures that are independent of each other
- May include any number of measures dependant on each other

Modifying the number and strength of measures allows to address variability and uncertainty

❖ Measures may be applied pre- and/or post-harvest : in the place of production, during post-harvest period, at the packing house, during shipment

❖ Risk management measures designed to prevent contamination or re-infestation and measures that reduce the entry or establishment potential can be included



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Considering all elements of the supply chain



To keep in mind: The use of systems approaches is a starting point for setting up pest-free places of production or pest-free production sites (ISPM 10)



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Pre-harvest: What is being done in the field?

Examples in the place of production: visual pest monitoring, trapping, pesticide sprays, buffer areas





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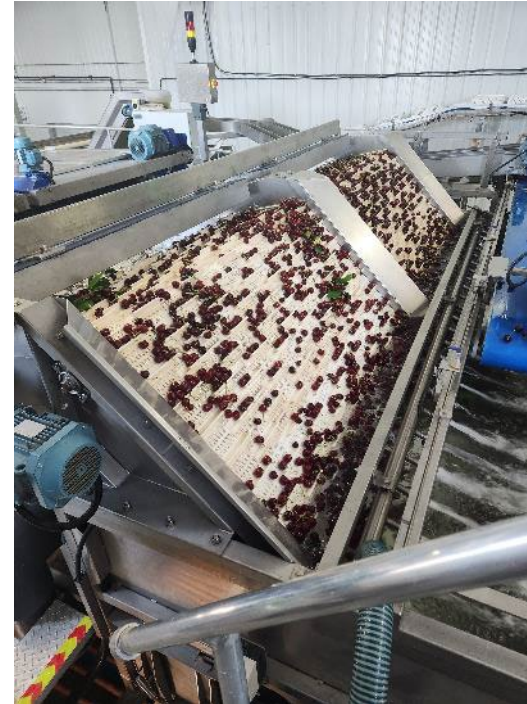
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Post-harvest: At the packing facility

Examples: cleaning, sorting, packaging, visual examination





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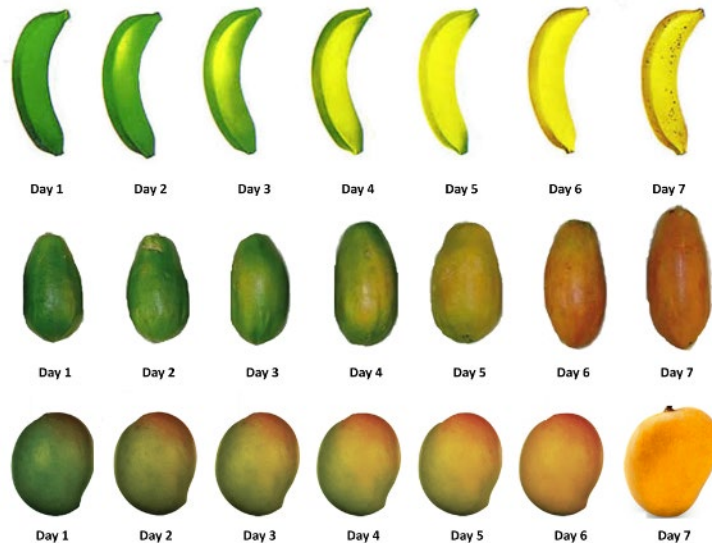
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Other measures that can be in place under commercial conditions: Storage and Transport

Examples: Designated harvest or sampling periods, harvesting based on maturity or colour, use of resistant hosts



Non-resistant

Resistant



Resistant and non-resistant trees (c. Nathalie Delvas, Laval University)





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Independent and Dependent Measures

Example: United States – Canada Greenhouse-Grown Plant Certification Program (GCP)

Independent measures:

Pre-harvest:

Greenhouse structure; plants must be greenhouse-grown

Minimum 3-meter buffer area maintained free of weeds and unmanaged plants

Sanitation and cultural controls.

Dependent measures:

Harvest:

Plants must be grown and monitored for a minimum of 28 days

Inspection of certified plants

Post-harvest treatment and handling:

Safeguarding of export-ready plants through pest-free shipping and storage areas

Transportation and distribution:

Method of packing (eg. shrink-wrapping plants on skids to preclude pests prior to transport)





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Thank you