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# IPPC Global Workshop on Systems Approaches

Santiago, Chile  
1 – 4 December 2025

In partnership with:



Australian Government  
Department of Agriculture,  
Fisheries and Forestry

## Lessons from Australia's Experience

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## Overview

- Australia uses Systems Approaches
  - Several commodities
  - A range of pests
  - Various end uses
- Manage multiple pests on some commodities
  - Single on others
- Pre- and post-harvest components
- Recommended or requested







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## Systems approach...

- More management by the NPPO
- Effective for a similar pest/commodity – however, one size doesn't fit all
  - Customised to suit commodity, pest(s) and the importing country ALOP
- Proven effectiveness of individual measures
- Costly and resource intense with regulatory oversight and assurance







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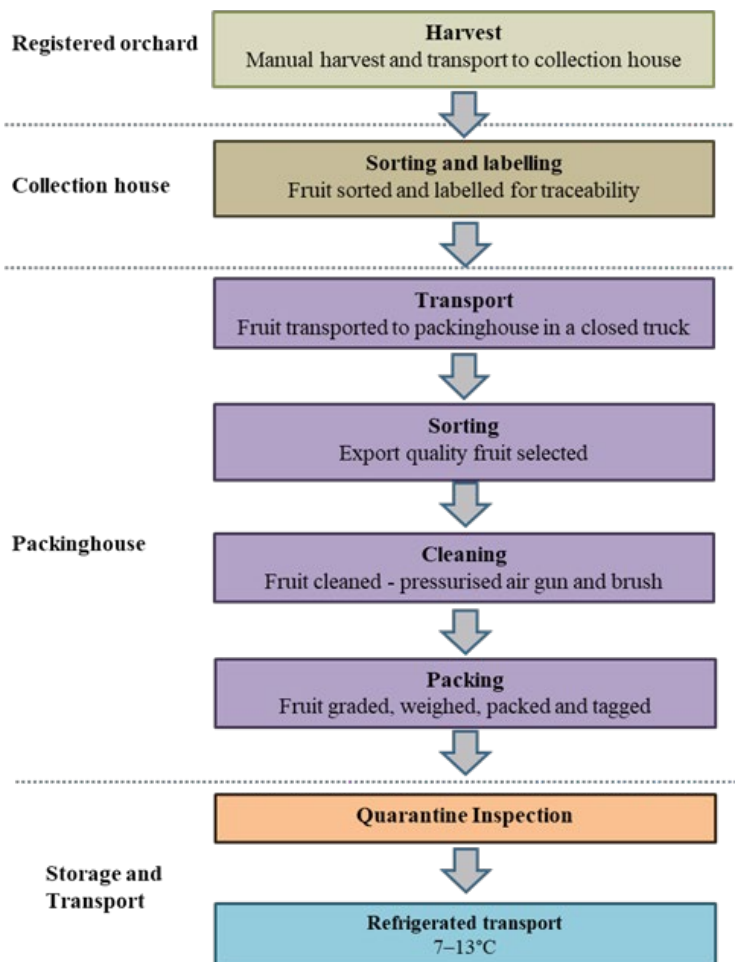
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## Australia's Experience - Mangosteen (*Garcinia mangostana*) from Indonesia...

...11 ants, 13 mealybugs and 1 spider mite needed management!





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## Mangosteen from Indonesia...

- Indonesia proposed a systems approach
  - Register orchards, packing houses and exporters
  - Fruit sorting, grading and cleaning with high pressure air (HPA)
- Did not achieve Australia's ALOP
- NPPOs of the two countries worked together
- An enhanced systems approach achieved ALOP!







## Menu of Measures

### CONSIGNMENT STAGE

#### Production

#### Post-production

#### At- or post-border

#### FOUR RISK REDUCTION OBJECTIVES

#### Minimise exposure to pests when the commodity is vulnerable

##### Pest freedom or low pest prevalence

Pest Free Area (PFA)  
Area of Low Pest Prevalence (ALPP)  
Pest Free Site (PFS)  
Low Pest Prevalence Site (LPPS)

##### Pest management

Pesticides  
Attract and kill  
Biological control  
Hygiene  
Sanitation  
Integrated Pest and Disease Management (IPDM)  
Other pest management tools

##### Pest avoidance

Limit seasonal overlap  
Limit exposure time to pest  
Restricted to poor pest habitat  
Geographical isolation  
Habitat manipulation

##### Pest exclusion

Protected facilities  
Safeguarding  
Protected units  
Maintain buffer zone  
Segregation  
Pest-free inputs

#### Reduce likelihood of entry and establishment

##### Limit propagule pressure

Trade volume  
Consignment and packaging size  
Prevent escape

##### Limit import destinations or use

Poor destination habitat  
Seasonality of imports  
Restricted end-use

#### Minimise vulnerability to infestation

Host or carrier; Developmental stage; Quality specifications; Prohibit parts of commodity; Modify vulnerability

#### Reduce infestation rates

##### Reduce pests in consignment

Treatment (to kill or inactivate the pest):  
heat, cold, drying, irradiation, agrochemicals, high pressure, cold + modified atmosphere etc.  
Physical disturbance and processing  
Surface cleaning  
Remove contaminants

##### Remove infested commodity or carrier units

Symptom grading  
Risk-based grading

##### Remove infested consignments or high-risk pathways

Inspection with remedial action  
Quarantine with remedial action



## Finalising systems approach...

### Measures

	Proposed	Agreed
Registration and auditing of orchards and packing houses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Registration and auditing of collection houses		<input checked="" type="checkbox"/>
In-field pest monitoring and surveillance		<input checked="" type="checkbox"/>
Traps in-field and post-harvest facilities		<input checked="" type="checkbox"/>
IPM and crop hygiene at all orchards		<input checked="" type="checkbox"/>
Preliminary fruit cleaning using HPA at the collection house/receival area		<input checked="" type="checkbox"/>
Packing house sanitation program	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Second fruit cleaning using HPA at the packing house	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Post-cleaning inspection and remedial action - ensuring clean fruit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fruit condition – undamaged/no cracks	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Pre-export phytosanitary inspection and certification	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fruit security (secure packaging and secured prior to shipment)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>







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## Australia's experience...

- Systems approaches are an effective risk mitigation option
  - Identify critical points in the production pathway
    - In-country visit is critical
  - Include impactful measures to the system
  - Ensure measures are auditable
- Systems approach becomes vulnerable
  - Lack of data to support the selection of measure - cannot be validated
  - Measures fail to contribute as expected – understanding the entire system







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# Thank you