



Systems Approaches

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Joint STDF and World Bank webinar

SYSTEMS APPROACH FOR FOOD SAFETY AND PLANT HEALTH

14 July 2021



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Systems Approaches



- Flexible approach to comply with non-tariff measures
- Applied along a production continuum – chain of events along a supply chain
- Opportunities to address health hazards or plant health pest risk
- Best practices - measures address hazards and pest risks
- Cumulative approach, rather than single treatments or end point product testing

Graphic:
Gooch et al 2019



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What is a Systems Approach?

Plant Health Systems Approach



Systems Approach – “A pest risk management option that integrates different measures, at least two of which act independently, with cumulative effect” [ISPM 14, 2002; CPM, 2015]

Based on Pest Risk Analysis (PRA) – method of categorising and estimating risk from pests associated with a pathway or product



HACCP system (production of food)



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Food Safety Systems Approaches

- HACCP (Hazard Analysis and Critical Control Point system) principles for good hygiene practices
 - Food preparation and production
 - Codex Alimentarius 1969
1. Hazard analysis
 2. Critical control points (CCPs)
 3. Critical limits establishment
 4. Establish a system to monitor control of CCPs
 5. Corrective actions
 6. Verification procedures
 7. Documentation and records procedures



Critical Control point

A step at which control can be applied and is essential to prevent or eliminate a food safety hazard or reduce it to an acceptable level

Food Safety Systems Approaches

Farm to table Food Safety

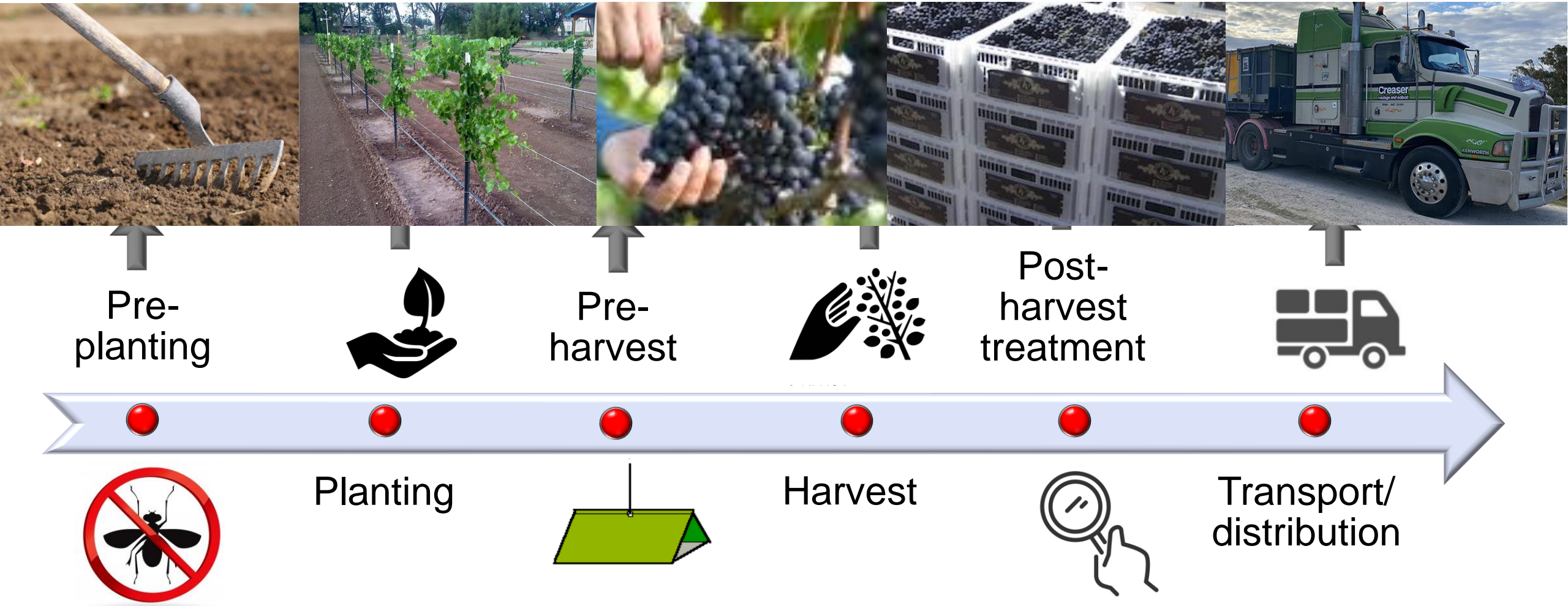
- HACCP principles combined with Farm Good Agricultural Practices



↓
Plant health
systems approach



Examples of measures or procedures



Systems approach – cooperative development

Canada – Egypt

Grapes (*Vitis* spp.)

European grapevine
moth

Lobesia botrana

- Based on good production practices
- Trial period – require import permit and 100% inspection
- Reporting on failure of the system (Notification of non-compliance)
- Continuous improve the system – feed back loop



Photo: ©Andrea Lucchi/
Università di Pisa, Italy



Summary - Why use a systems approach?

- Equivalent to, but less restrictive than other measures
- Innovation and flexibility for managing risk
- Addressing more than one pest or hazard
- Environmental or health issues
- Single measure not economically feasible or available
- Single treatment option may reduce the quality of the product
- Common system applied for many importing countries
- More efficient/ effective than end treatments or end product testing



Resources

ISPM 14 - International Standard –systems approach for pest risk management

RSPM 41 - North American Plant Protection Regional Standard –systems approaches for forest products

Codex Alimentarius

Beyond Compliance – A production chain framework for plant health risk management in trade

EU Exporter Guide for Alternatives to MBr (CFIA)



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