

The International Plant Protection Convention

The use of integrated measures in a systems approach for pest risk management (ISPM14) and the Beyond compliance tool

**2017 IPPC Regional Workshop
Date, City, Country**



Outline

- Achieving safe international trade
- ISPM14 - The use of integrated measures in a systems approach for pest risk management
- Beyond Compliance: a production chain framework for plant health risk management in trade
- A new project - Beyond Compliance Global: integrated systems approach for pest risk management



Achieving safe international trade

Allow movement
of goods and
people

Prevent the
introduction and
spread of pests

- Harmonized justified phytosanitary measures
- National phytosanitary capacities

Achieving safe international trade – ISPM 2 Framework for pest risk analysis

Scope

This standard provides a framework that describes the pest risk analysis (PRA) process within the scope of the IPPC. It introduces the three stages of pest risk analysis:

Stage 1 - Initiation

**Stage 2 - Pest risk
assessment**

**Stage 3 - Pest risk
management**

The International Advisory Group on Pest Risk Analysis (IAGPRA) recognizes that the Pest Risk Management phase is often the weakest.

Achieving safe international trade - trade problems

- Lack of phytosanitary capacities to meet phytosanitary requirements of trading partners
- Lack of negotiation skills - asymmetry in negotiations
- Weak structures in place for liaison between exporting NPPOs and domestic producers on phytosanitary measures
- Weak structure for discussions on systems approach between import and export NPPOs



ISPM 14 - The use of integrated measures in a systems approach for pest risk management

Scope

Guidelines for the development and evaluation of integrated measures in a systems approach as an option for pest risk management under the relevant international standards for pest risk analysis (PRA) designed to meet phytosanitary import requirements for plants, plant products and other regulated articles.



ISPM14 - The use of integrated measures in a systems approach for pest risk management

Purpose:

- Provide an equivalent alternative to procedures/single measures such as treatments or replace more restrictive measures;

OR

- Develop integrated measures when no single measure is available



ISPM14 - The use of integrated measures in a systems approach for pest risk management

Systems approach:

- May be composed of independent and dependent measures
- **Must have at least two independent measures acting independently, with a cumulative effect**
- An independent measure may be composed of several dependent measures.
- Simple combination of independent measures
- Critical control point systems

Systems approach

Challenges

- Describing a system
 - Pest and control models implied in chain
 - Equivalence of measures in a system
- Organising a system
- Maintaining high quality products along the whole system
- Negotiating a system
- Running a system

Beyond Compliance Global: integrated systems approach for pest risk management

Background information - Beyond Compliance: a production chain framework for plant health risk management in trade (first project):

- Confidence and competence to use Systems Approach in trade access in SE Asia
 - Arose out of EC PRATIQUÉ project
 - Funded by STDF/WTO
- Recognises complex issues of Systems Approach
 - Builds on PRATIQUÉ Decision Support System (DSS) for Risk Management
- Creates tools to describe systems, obtains efficacy assessments and model quantified combined measures



Beyond Compliance Global: integrated systems approach for pest risk management

Beyond Compliance approach - Five steps

- I. PRA links from assessment to management
 - Often poor connection in PRA
- II. Stakeholder interaction frameworks
 - Practice, Options and Performance
- III. Production chains
- IV. Decision Support System: Risk Management
- V. Probabilistic modelling at Control Points

Beyond Compliance tools - Production Chain

Separate columns:

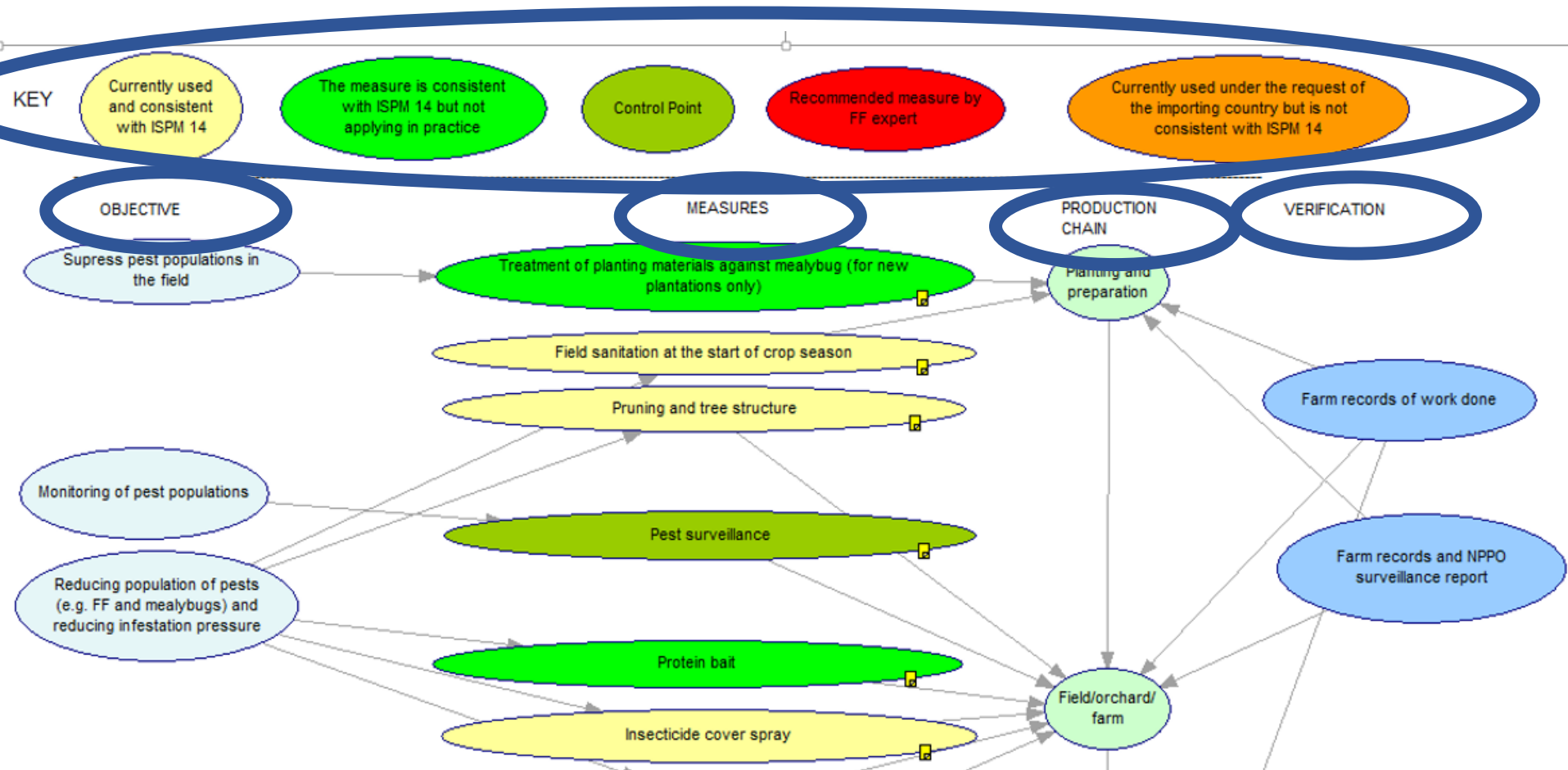
- Time/place/stage in chain
- Objective of the measure
- Measures
- Verification

Colour coding:

- Official or commercial measures
- Currently applied or potential
- In line with least restrictive, or to be discussed for removal
- For risk reduction or verification



Beyond Compliance tools - Production Chain



Beyond Compliance tools – Decision Support System

Efficacy and Implementation

- Systematic evaluation for all measures on common scales

TABLE C1. Description of candidate measures (these may be used alone or with other measures)

Risk management measures available (automatically read in from Table B2)	Efficacy		Graphic	Verification	
	1.1 a) What is its potential contribution to risk reduction?	1.1 b) Uncertainty		1.2 a) The measure can be verified?	1.2 b) Uncertainty
i 3.1 Field sanitation at the start of season	Low	Low		Easy	Low
ii 4.5 Pests surveillance	Medium	Low		Easy	Low
iii 4.6 Pheromone traps/male annihilation technique (MAT)	High	Low		Easy	Low
iv 4.7 Protein bait	High	Low		Easy	Low
v 4.8 Insecticide cover spray	Low	Low		Easy	Low
vi 5.2 Fruit bagging	High	Very low		Very easy	Very low
vii 6.1 Harvested fruit kept in shade, in plastic boxes with insect netting for prompt transportation to processing facility	High	Low		Easy	Low
viii 6.2 Collect dropped fruit and destroy them at each harvest time during fruiting season	High	Medium		With some difficulty	Low
ix 6.3 Sorted by waker for grower or buyer, removal and destruction of damaged and infested fruit by grower	Low	Low		With some difficulty	Low
x 10.1 Harvested dragon fruit are in held in pest-proof covers while awaiting packing	Medium	Low		Easy	Low
xi 10.4 Fruits are VHT'd at 46.5C for 40 minutes. Then cooled down, washed and dried for 30 minutes.	Very high	Very low		Very easy	Very low
xii 11.1 Packing boxes are manufactured to a high standard with ventilation holes are covered in mesh to prevent insects entering.	Very high	Low		Easy	Low
xiii 11.2 Quarantine inspection (before signing phytosanitary certificate)	Very high	Low		Very easy	Low
xiv 12.1 Consignments transported only in sealed, refrigerated vehicles.	High	Low		Easy	Low

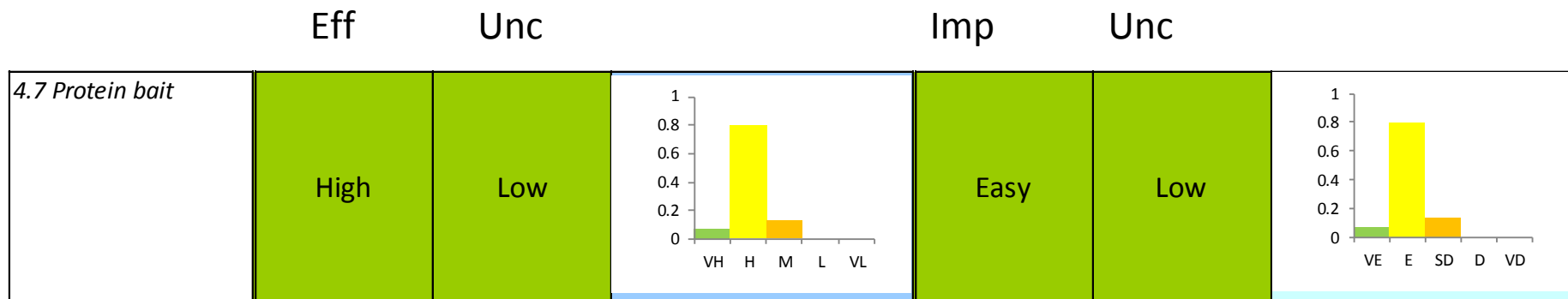
Protecting the world's plant resources from pests

Risk management measures available (automatically read in from Table B2)	Efficacy			Verification		
	1.1 a) What is its potential contribution to risk reduction?	1.1 b) Uncertainty	Graphic	1.2 a) The measure can be verified?	1.2 b) Uncertainty	Graphic
2.1 Avoid cultivating host plants of <i>Thrips palmi</i> around planting area	Medium	Low		With some difficulty	Medium	
2.3 Farm layout and building	Low	Low		Difficult	Low	
2.4 Dipping of stem cuttings against <i>Thrips palmi</i>	High	Low		Very easy	Very low	



Beyond Compliance tools – Decision Support System

Efficacy and Implementation from stakeholder/expert elicitation



Beyond Compliance tools - Control Point Probabilistic Production Chain

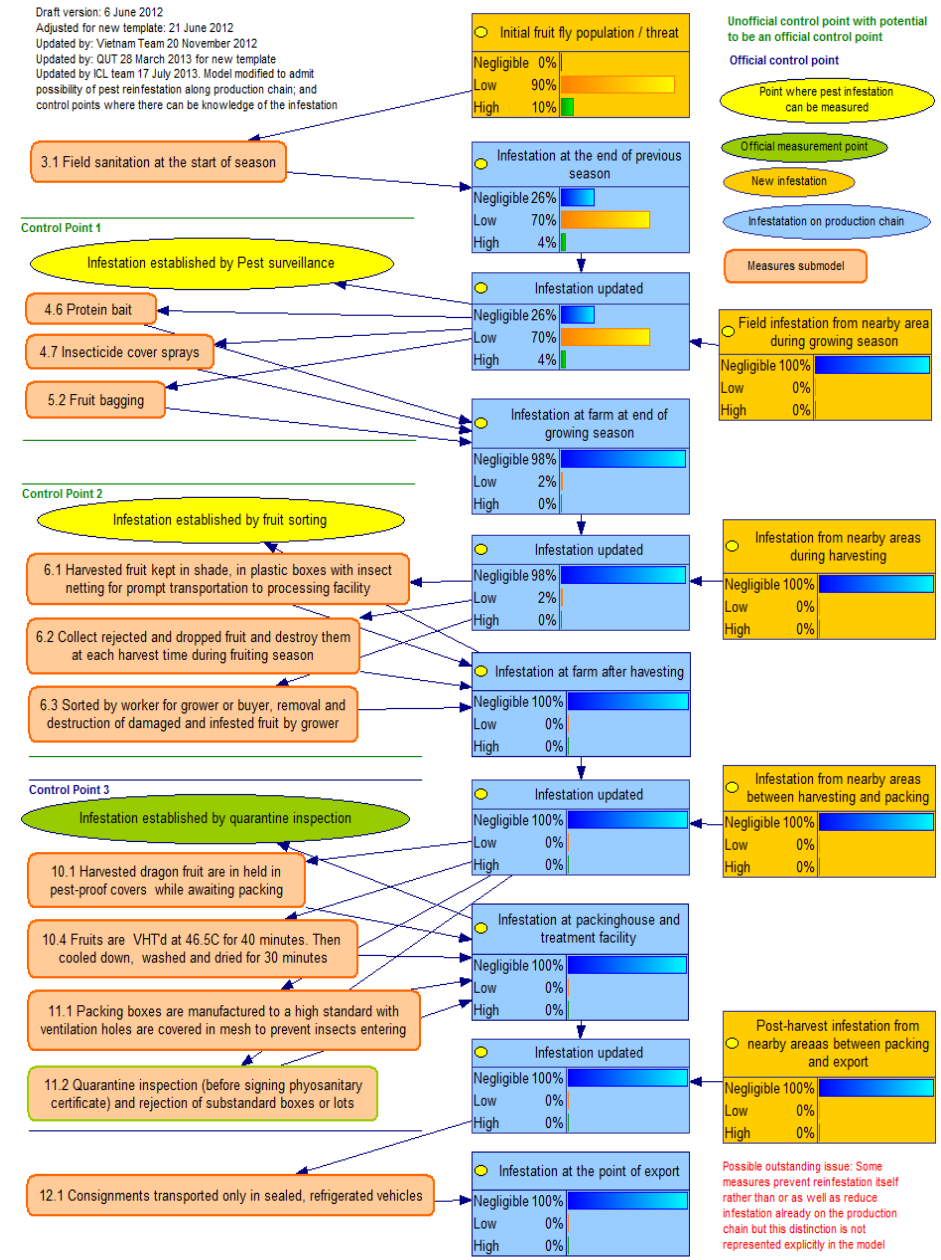
Field measures, with
pest monitoring

Harvest sorting
and hygiene

Inspection and sorting
at packing

Vietnam Dragonfruit BN for Fruit Fly

Draft version: 6 June 2012
Adjusted for new template: 21 June 2012
Updated by: Vietnam Team 20 November 2012
Updated by: QUT 28 March 2013 for new template
Updated by: ICL team 17 July 2013. Model modified to admit possibility of pest reinfestation along production chain, and control points where there can be knowledge of the infestation

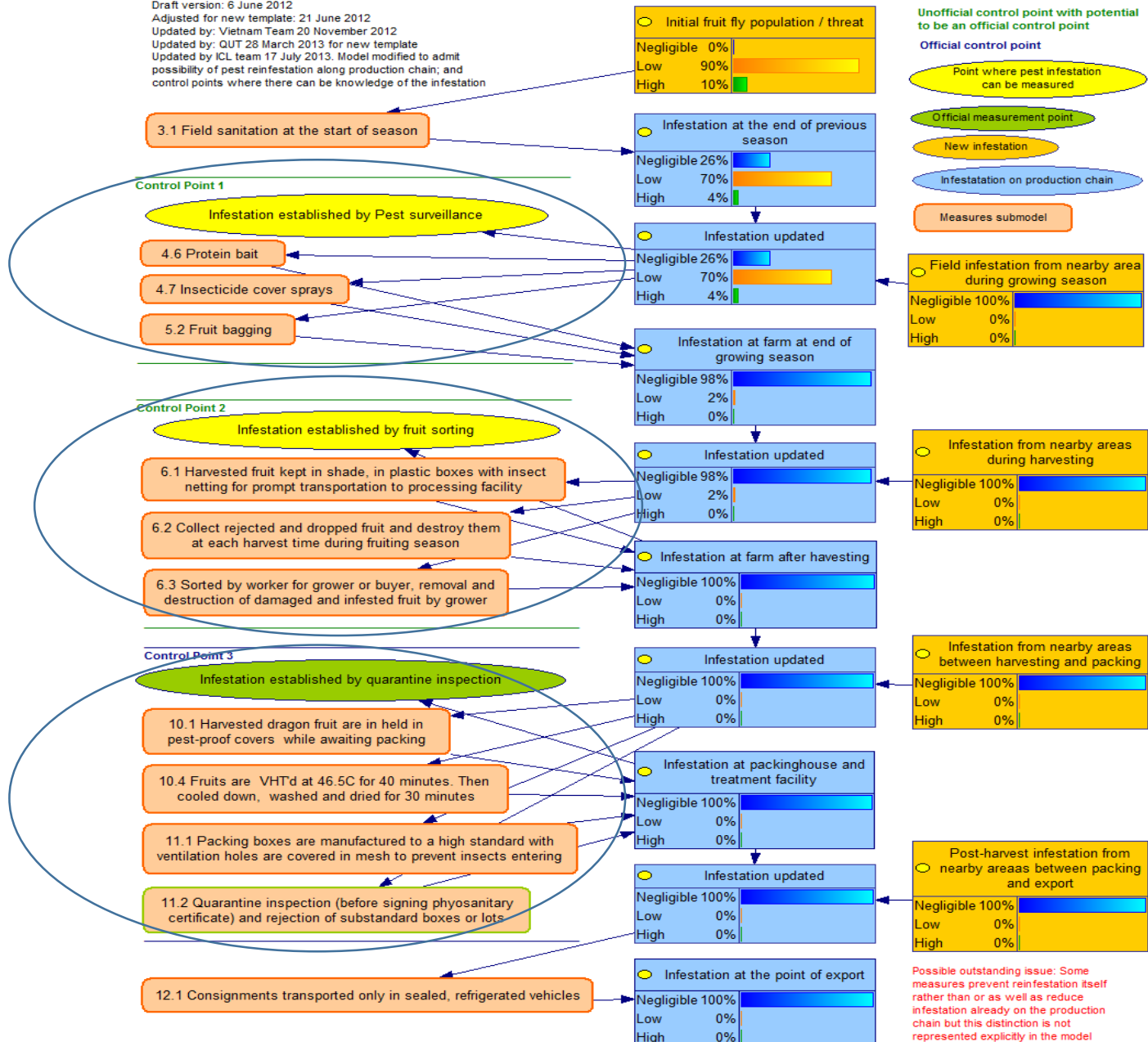


Possible outstanding issue: Some measures prevent reinfestation itself rather than or as well as reduce infestation already on the production chain but this distinction is not represented explicitly in the model

Vietnam Dragonfruit BN for Fruit Fly

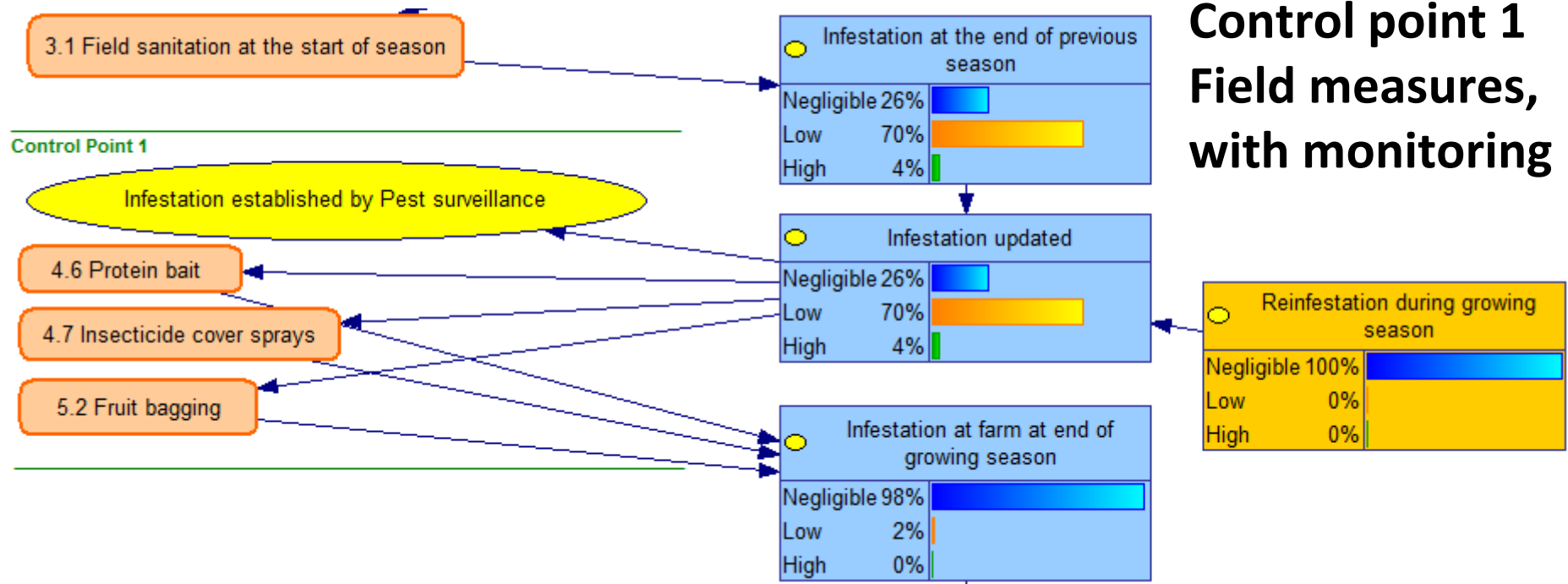
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Key to nodes types



Possible outstanding issue: Some measures prevent reinfestation itself rather than or as well as reduce infestation already on the production chain but this distinction is not represented explicitly in the model

Beyond Compliance tools - Control point Probabilistic Production Chain



Beyond Compliance: a production chain framework for plant health risk management in trade

Commodity	Exporting country	Target importing country/region	Type of case
Dragon fruit	Vietnam	South Korea, Taiwan	Proposed equivalence
Jackfruit	Malaysia	Australia, China	New trade
Banana	Philippines	USA	More measures than needed
Orchid cut flowers	Thailand	Europe	Existing measures not working, possible ban
Additional case with other funding: Tomatoes	Australia	Both domestic and international markets	Due to the upcoming loss of dimethoate pesticide

Beyond Compliance Global: integrated systems approach for pest risk management

The global project aims:

- To disseminate approach and tools further
- To embed expertise in each region
- To accomplish a few more cases
 - From existing export to new markets, or equivalent management measures
 - Cases of new trade
- Translation of materials or book for use towards the above



Beyond Compliance Global: integrated systems approach for pest risk management

Partner selection:

- Criteria for new cases is drafted but would rely on an advisory group, with IPPC Secretariat
- NPPOs, RPPOs or similar bodies could apply
- A range of example cases, representative of regions, would be selected
- Experts to be trained in each region also to be selected in conjunction with the above advisors

Beyond Compliance Global: integrated systems approach for pest risk management

Benefits for NPPOs/ Contracting parties:

- Strengthened national capacities for PRA
- Improved decision making in the pest risk management phase
- Strengthened negotiation skills
- Dispute avoidance
- Gain market access
- Support national and regional objectives to reduce pesticide use and employ integrated pest (IPM) practices

Beyond Compliance Global: integrated systems approach for pest risk management

How to participate:

- IPPC will announce a call for interested parties/partners to apply to participate in the project
- Interested parties/partners can begin discussions in advance to consider potential trade cases

Your participation is welcome!

**More information on Beyond Compliance at
<http://www.standardsfacility.org/PG-328>**



Contacts

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