



# Pathway Management Plan

**Consultation Roadshows**

**September 2020**

# Approach for today



## 1. Introducing the Plan

- Current state and need for change
- Timeline of key dates
- Approach to rules and tools for implementation
- *Questions and discussion at the end*

## 2. Interactive discussion on key elements of the plan

- Post-harvest and processors
- Plants
- Budwood
- Pollen
- People and equipment
- Organic matter inputs



# The importance of consultation

Pathway Plan funded by new Biosecurity Act levy that replaces current National Psa-V Pest Management Plan (NPMP) levy.

Biosecurity readiness and response levy remains in place.

Approval of the Plan:

- Requires demonstration of consultation (and response) to Minister for Biosecurity.
- Does not require grower vote for Pathway Plan approval – but need to show clearly that feedback is taken into account in proposal.
- Requires demonstration that is able to be funded – via new Pathway Plan levy set at KVH Annual General Meeting (AGM).



# HIGH LEVEL OVERVIEW

# Lessons learned from the response to Psa-V

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- Setting aside how it got into New Zealand, some of the costs of Psa-V could have been avoided in all likelihood.
- Factors like the:
  - lack of understanding of bacteria,
  - lack of orchard/pack-house hygiene controls,
  - lack of planning, and
  - lack of use of the right expertise across industry *and* Government.

almost certainly resulted in the impacts of Psa-V being materially greater than what they could have been.

# Lessons learned from the response to Psa-V

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“Efforts should continue to identify best practice management and hygiene practices for the management of not just Psa-V but other potential pests and diseases.

This guidance should emphasise the risks around a new pest or disease being in New Zealand and spreading for some time before it is actually discovered so as to provide a clearer justification for industry players to embed such hygiene practices as business as usual.”

# What's the current state?




National Psa-V Pest Management Plan (NPMP) since 2013:

- Successful in reducing impact and spread of Psa
- Many good practices have come from it
- Only focusses on Psa and KVH works in readiness and response for multiple threats
- Only has a 10 year term

**Any change from the current state is proposed to be fiscally neutral in terms of grower levy**

2013/139



**Biosecurity (National Psa-V Pest Management Plan) Order 2013**

Jerry Mateparae, Governor-General

**Order in Council**

At Wellington this 13th day of May 2013

Present:  
The Right Hon John Key presiding in Council

Pursuant to section 66 of the Biosecurity Act 1993, His Excellency the Governor-General, acting on the advice and with the consent of the Executive Council and on the recommendation of the Minister for Primary Industries given after being satisfied of the matters in section 65 of that Act, makes the following order.

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# What are our objectives?



The proposed Pathway Plan will:

- detect biosecurity threats on kiwifruit industry pathways early, and reduce their spread
- ensure biosecurity threats can be rapidly traced on kiwifruit industry pathways
- improve understanding of kiwifruit industry pathway risks and how they can be cost-effectively managed



2006



2008



2009

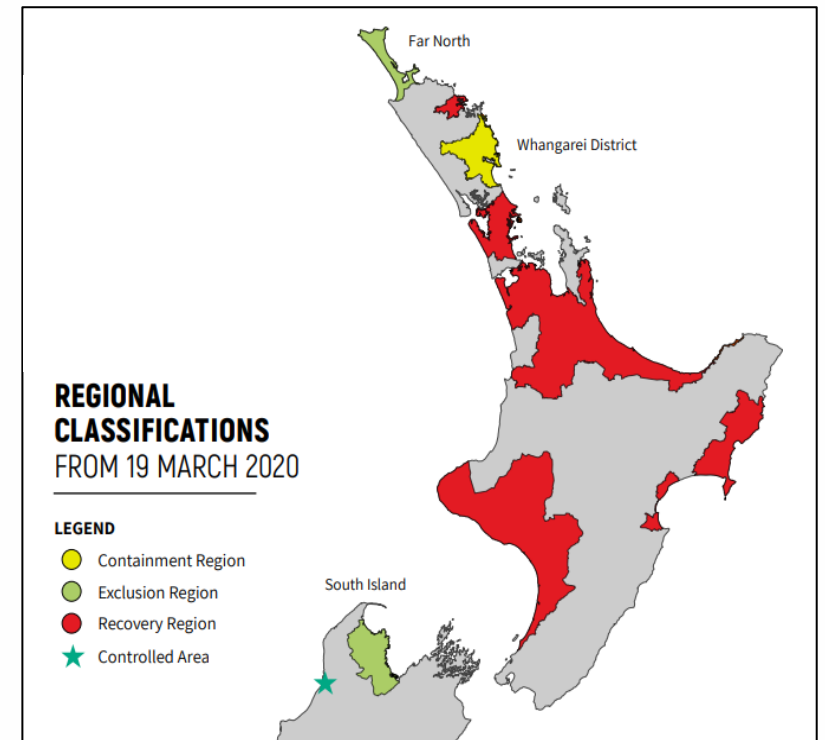




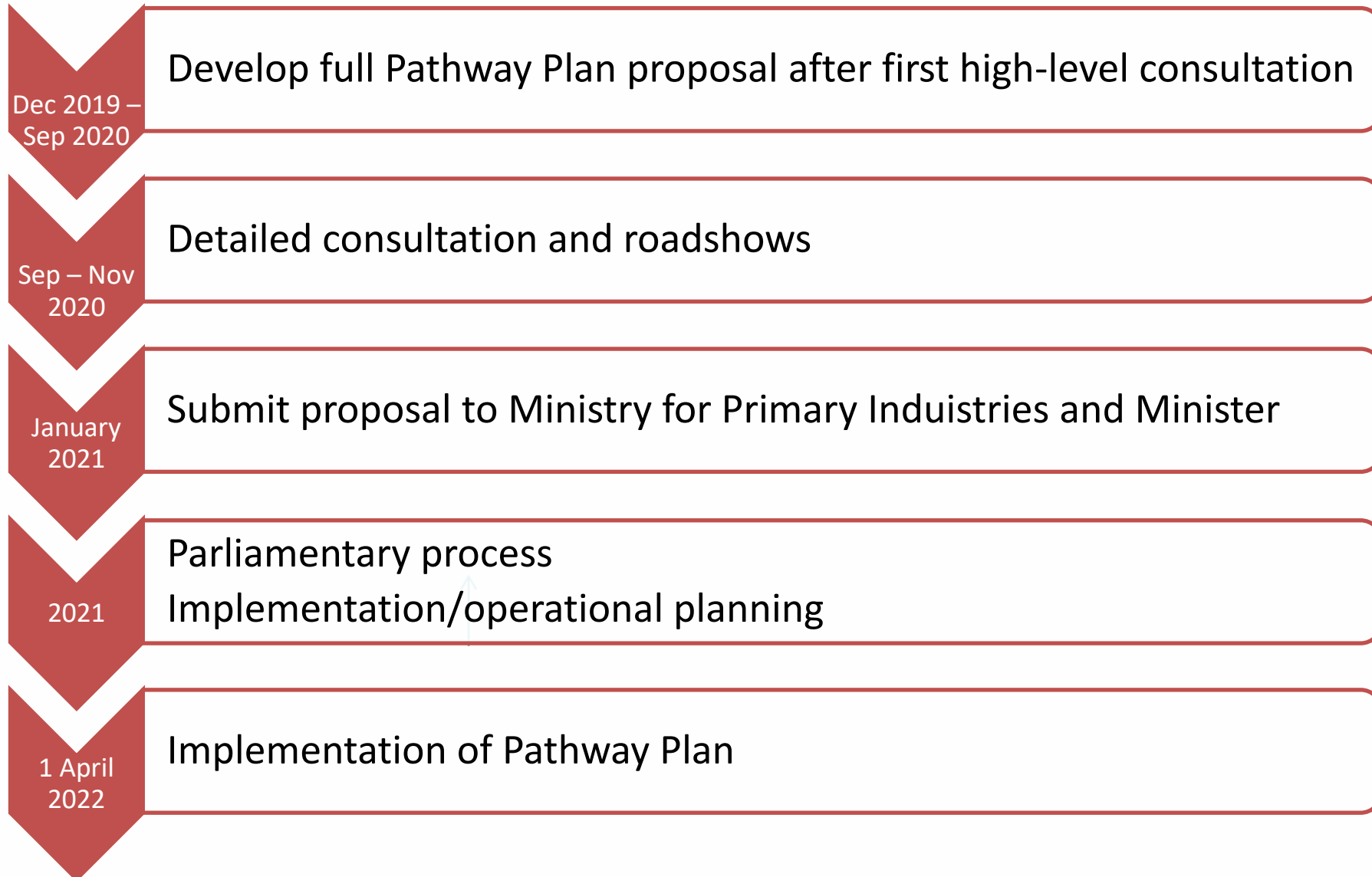
# The Pathway Plan would replace the NPMP

But Psa is still important...

- 1 year overlap to transition from NPMP to Pathway plan
- Pathway Plan to adopt any Psa-specific measures worth retaining, such as:
  - Protection for non-detected growers (Cook Strait boundary retained, but no Exclusion, Containment or Recovery Regions)
  - Measures to prevent spread of new or resistant forms of Psa
  - Measures to ensure movements carry acceptable level of risk
- Shift in emphasis from control at a regional level to the orchard boundary



# Timeline to implementation



# A case study – what could happen without a plan



Readiness and Response Plan for  
*Ceratocystis fimbriata* affecting kiwifruit and  
kiwiberries



March 2019

- *Ceratocystis fimbriata* in Brazil
- 2010: evolved from a native pathogen on an orchard
- Spread through budwood and rootstock
- Up to 50% vine loss
- Kiwifruit no longer viable
- No tolerant cultivars
- No effective agrichemical control



Ministry for Primary Industries  
Manatū Ahu Matua



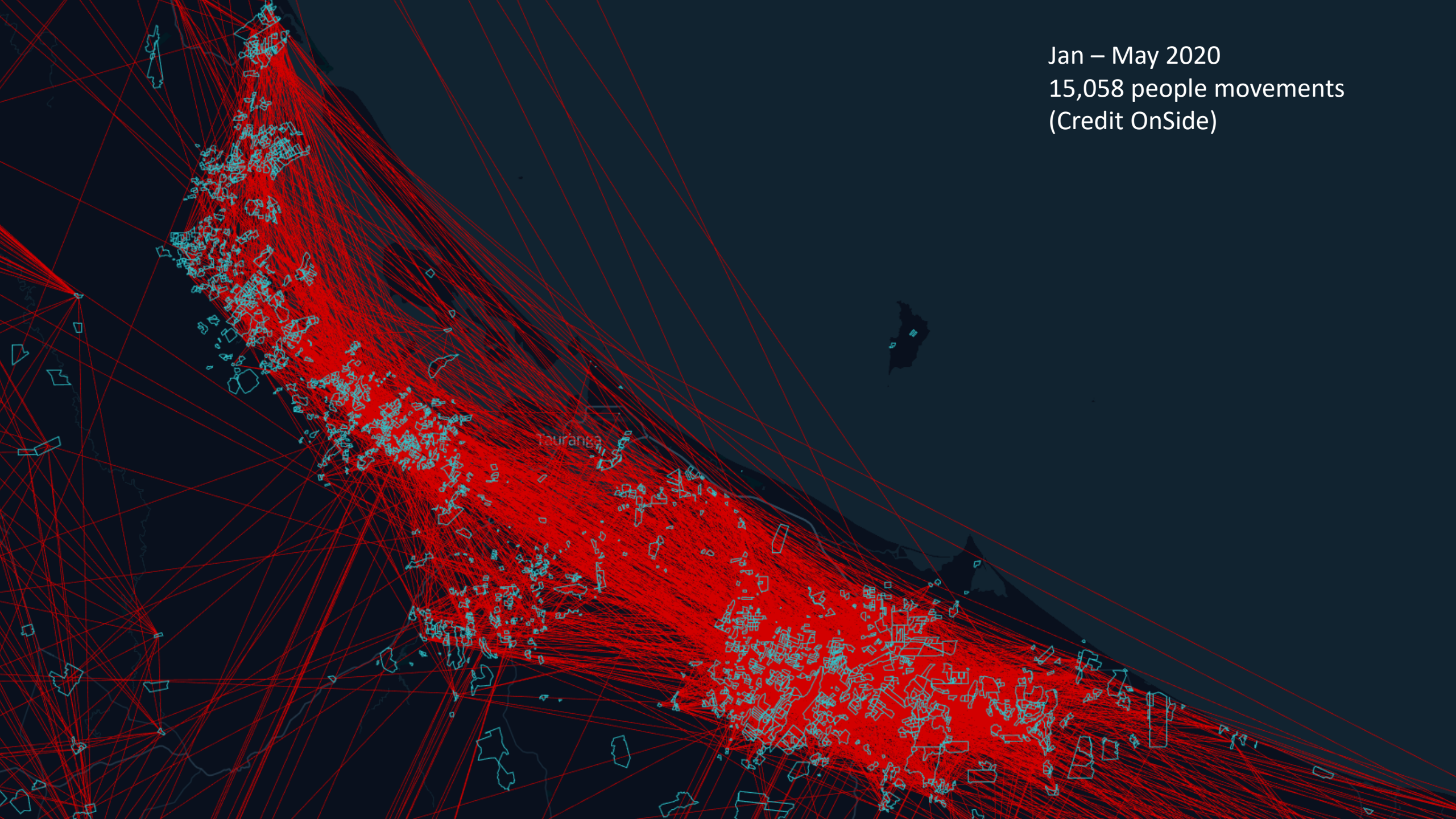
# A case study – what could happen without a plan



- Doesn't spread far naturally: needs humans
- Biosecurity practices reduce likelihood of spread
- **Biosecurity practices need to be in place as normal business**

Spread mechanism	Likelihood of spread	
	Between orchards	Between growing regions
Plant propagative material	High	High
Tools and equipment	High	High
Root graft	Low	Low
Water run-off	Moderate	Low
Vector transmission	Low	Low
Plant fragments, saw dust and frass	Low	Low
Contaminated soil	High	High
Sporulation	Low	Low

Jan – May 2020  
15,058 people movements  
(Credit OnSide)



# A case study – what could happen without a plan



Pathway Plan



Year 10  
20 ha

Voluntary action



4000 ha

No pathway management



13500 ha



# The Plan will include:

1. Obligation to report
2. Provision of information
3. Kiwifruit orchard biosecurity plans
4. Kiwifruit post-harvest and processor biosecurity plans
5. Kiwifruit contractor biosecurity plans
6. Safe movement of kiwifruit plants and shelter plants
7. Safe movement of budwood
8. Safe movement of pollen
9. Safe movement of growing media and organic matter
10. Movement of risk items between North Island and South Island



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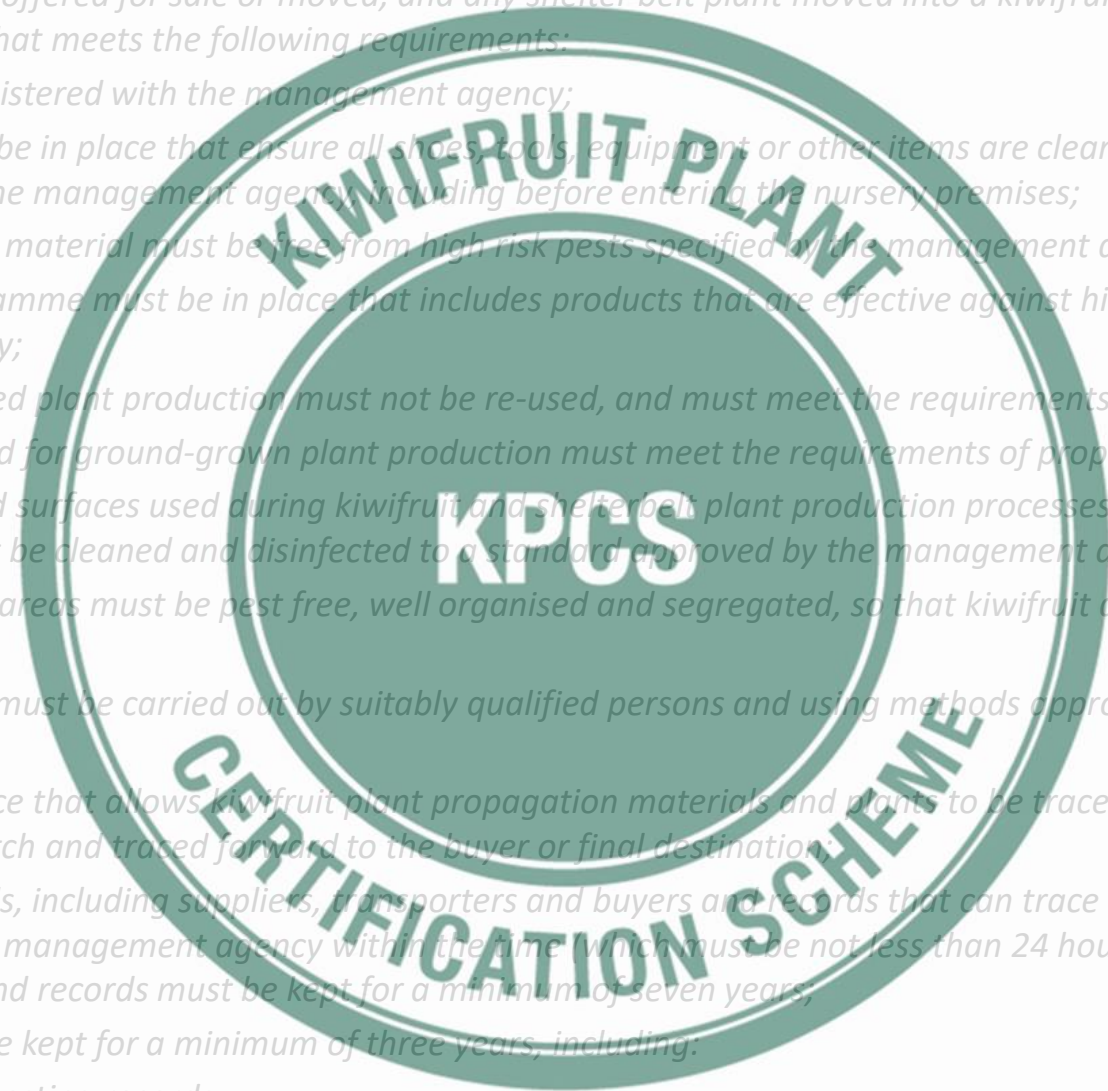
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# Tools to make it easy



- Any kiwifruit plant sold, offered for sale or moved, and any shelter belt plant moved into a kiwifruit orchard, must be produced by a nursery that meets the following requirements:
- The nursery must be registered with the management agency;
- Hygiene practices must be in place that ensure all shoes, tools, equipment or other items are cleaned and disinfected to a standard approved by the management agency, including before entering the nursery premises;
- Incoming kiwifruit plant material must be free from high risk pests specified by the management agency;
- A crop protection programme must be in place that includes products that are effective against high risk pests specified by the management agency;
- Growing media for potted plant production must not be re-used, and must meet the requirements of proposed rule 9;
- Compost and mulch used for ground-grown plant production must meet the requirements of proposed rule 9;
- All tools, containers, and surfaces used during kiwifruit and shelterbelt plant production processes, including grafting and pruning processes, must be cleaned and disinfected to a standard approved by the management agency;
- Production and storage areas must be pest free, well organised and segregated, so that kiwifruit and shelterbelt plant batches are not mixed;
- Monitoring and testing must be carried out by suitably qualified persons and using methods approved by the management agency;
- A system must be in place that allows kiwifruit plant propagation materials and plants to be traced back to the last growing location and to their batch and traced forward to the buyer or final destination;
- Plant traceability records, including suppliers, transporters and buyers and records that can trace the entire chain of custody, must be provided to the management agency within the time (which must be not less than 24 hours) specified by the management agency, and records must be kept for a minimum of seven years;
- All other records must be kept for a minimum of three years, including:
  - monitoring and testing records;





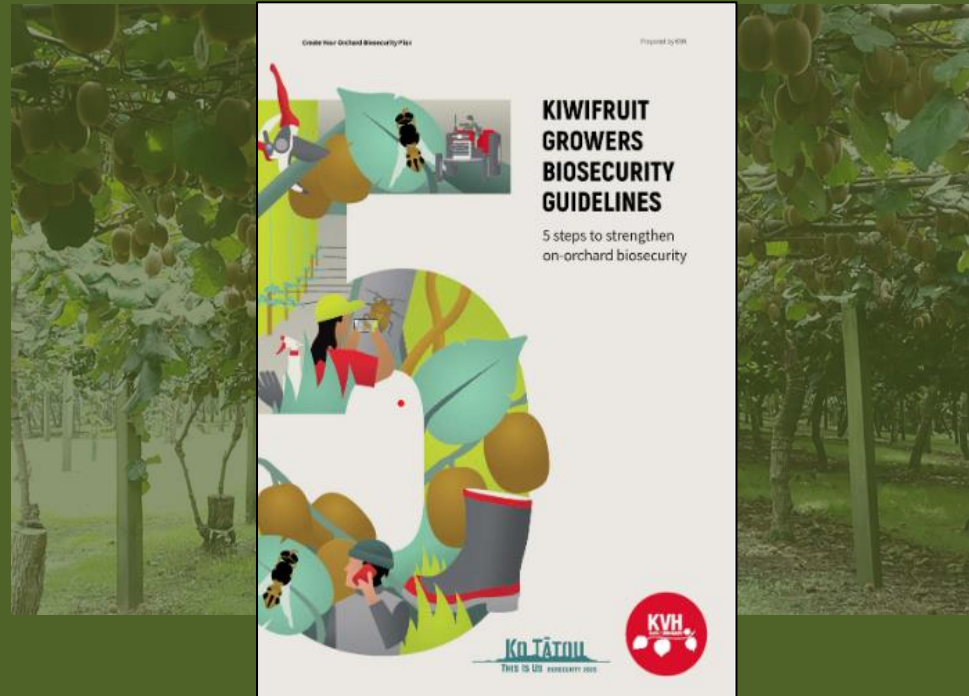
## Plant material

- Rootstock and grafted plants
- Mature plants
- Budwood
- Pollen
- Shelter plants

Organic matter inputs  
Compost, soil and mulch



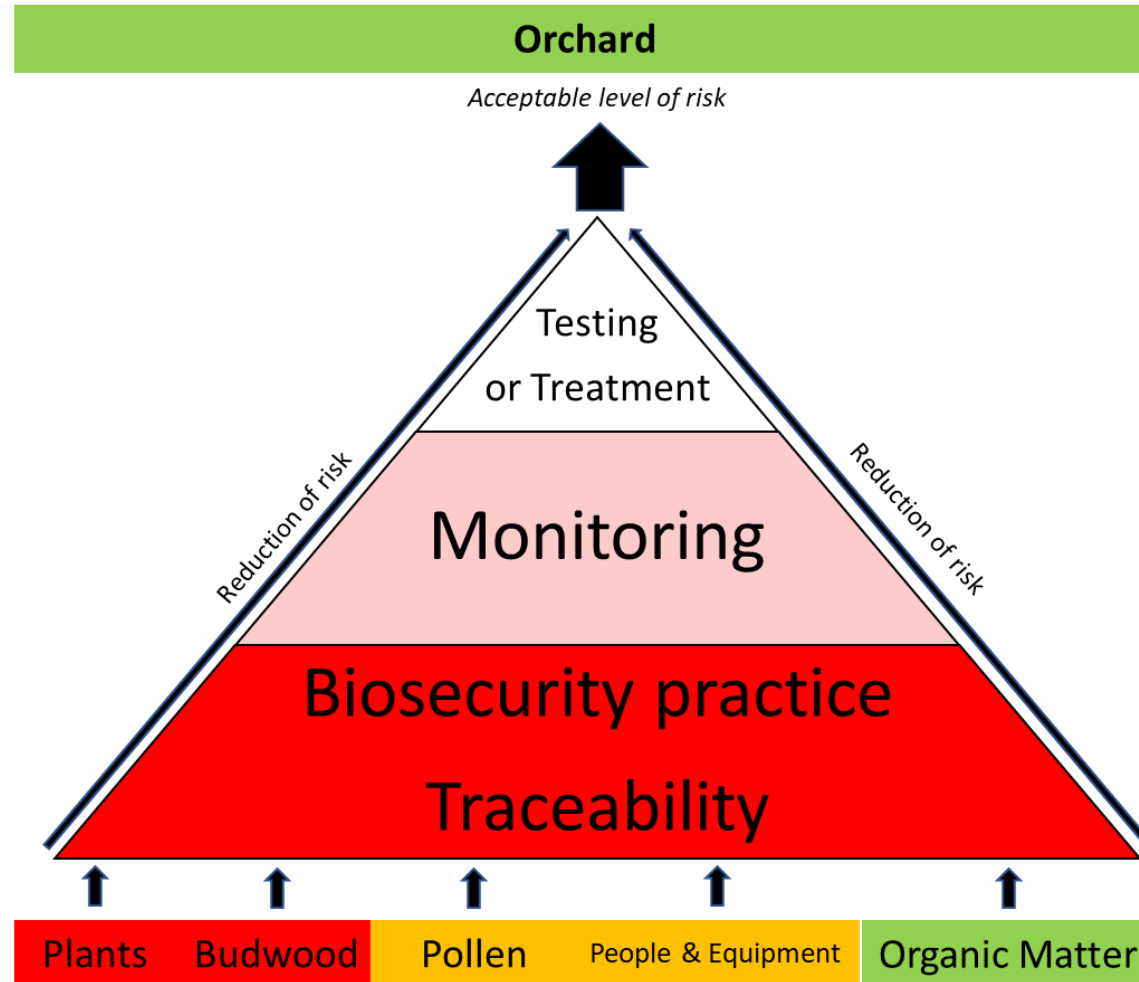
## Kiwifruit orchard



## People and equipment

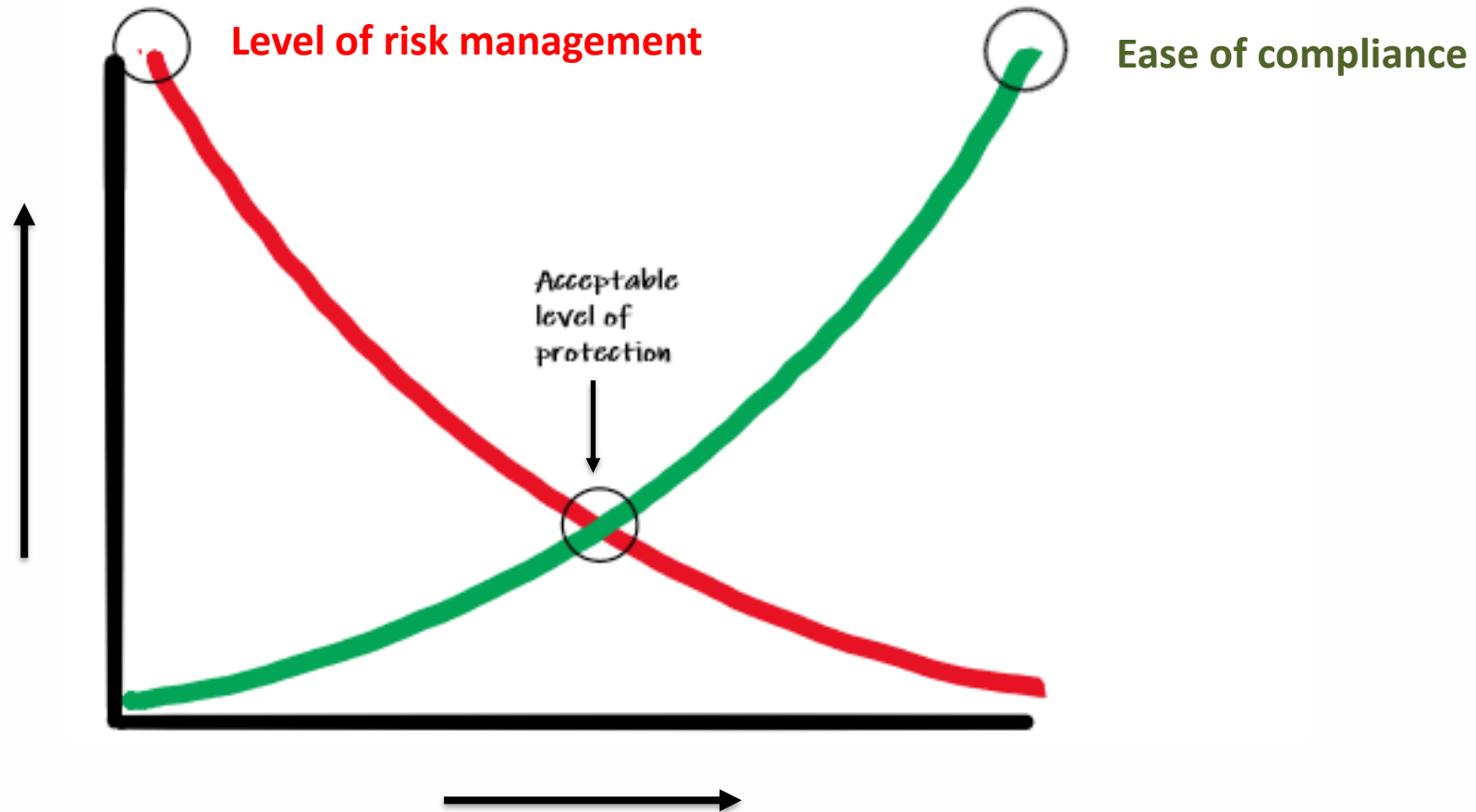
- Orchard management services
- Shelter belt trimmers
- Spray contractors
- Orchard infrastructure
- Harvest crews and bins
- Grafters

# Consistent outcomes across pathways

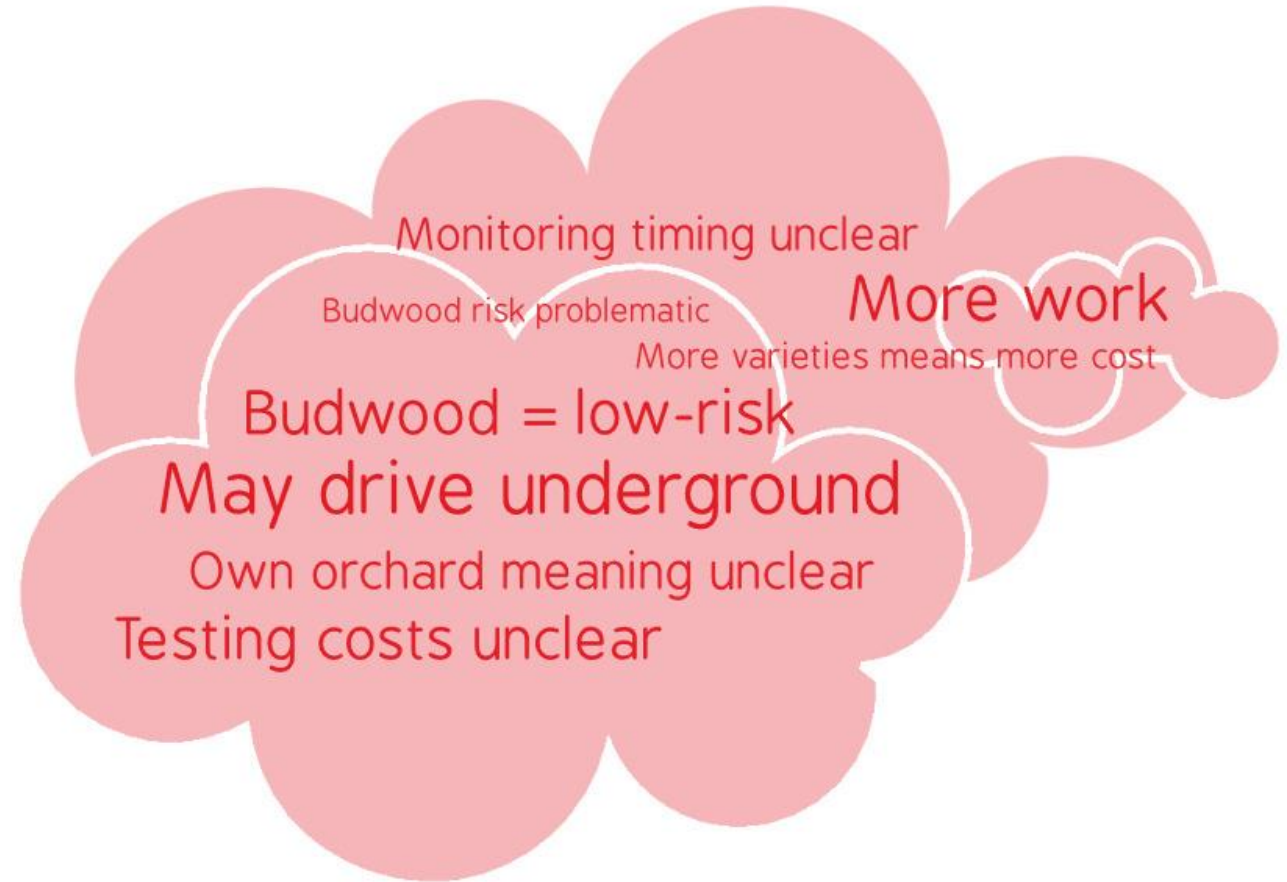


Input pathways and level of risk (unmitigated)

# Appropriate balance of risk management



# We are listening...Budwood



# We are listening...Pollen



Monitor throughout the year to collect data

Do it at processing

Pollen/flower pickers need supervision

Pollen/flower pickers rogue and looking up

Incentivise good behaviour

# Difficult

Certification scheme / Minimum standards

Always relate back to a KPIN

Pollen millers authenticate

More effective with commercial millers





# KEY IMPROVEMENT AREAS

# 1. Orchard biosecurity plans



Growers have and operate to an orchard biosecurity plan



-  **STEP 1**  
Understand your risks
-  **STEP 2**  
Agree what must happen on site
-  **STEP 3**  
Source and trace clean plant material
-  **STEP 4**  
Check and clean
-  **STEP 5**  
Report the unusual





## 2. Post-harvest and processor biosecurity plans

Post-harvest and processors have and operate to a biosecurity plan:

- General hygiene
- Bins – remove contaminants and sanitise
- Avoid contamination in transport
- Traceability
- Biosecurity awareness

*No change from current requirements*

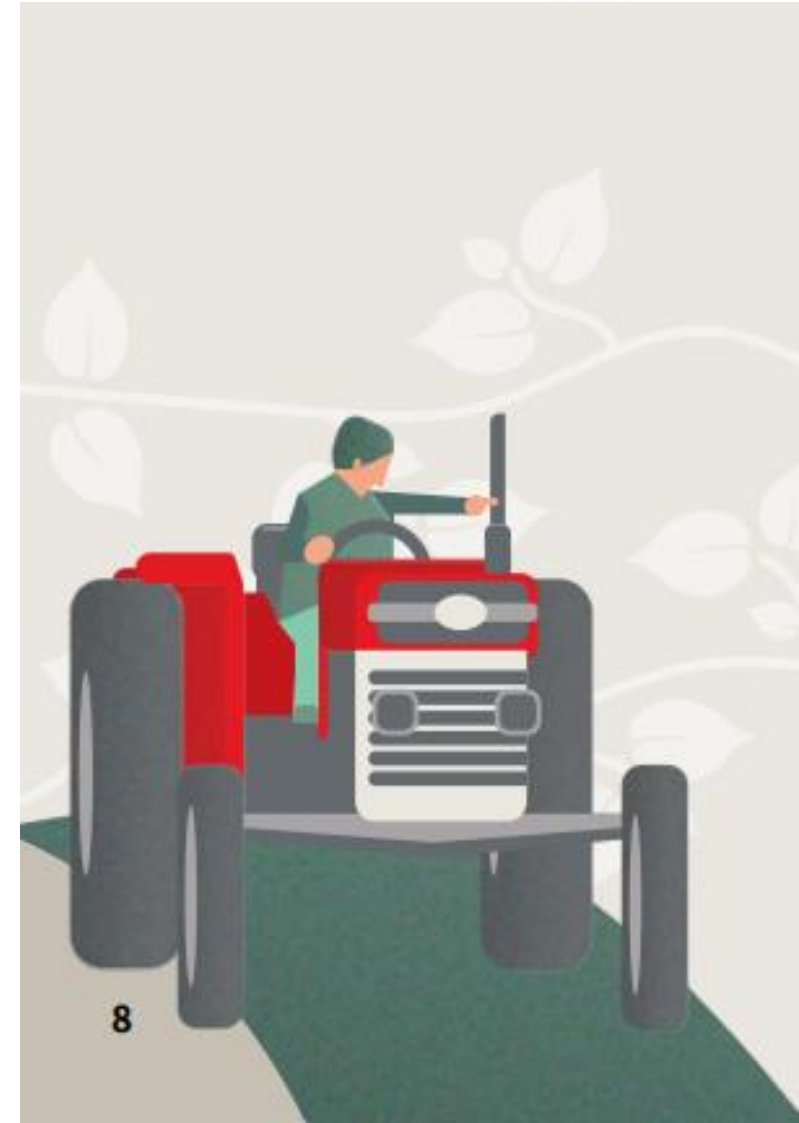


### 3. Orchard contractor biosecurity plans

Register with KVH

Have and operate to a biosecurity plan

- Description of pathway risks to be managed
- How they will manage these risks
- Steps taken to raise biosecurity awareness



# Achieving implementation



## CAV scheme

- Vine work – pruning and other canopy work
- Harvest
- Spray application
- Fertiliser application
- Supply of labour for any of the above activities

## Online portal

- Shelter trimming
- Orchard mapping
- Irrigation
- Infrastructure development
- Orchard mowing
- Pest monitoring
- Maturity clearance staff
- Technical advice
- Beekeepers
- Flower pickers
- Grafters
- Artificial pollen applicators

## 4. Organic matter inputs



1. Freedom from high-risk organisms
2. Traceability



## 5. Safe movement of plants

- Register with KVH
- Traceability and record keeping
- Hygiene practices
- Monitoring
- Growing media requirements apply
- Any specific requirements for high-risk organisms
  - Plant material inputs
  - Testing
  - Crop protection



# What does this mean for me?



If I'm ...	Change from current state
KPCS nurseries selling kiwifruit plants	No significant changes
KPCS nurseries selling kiwifruit and shelter plants	Shelter plants meet KPCS standard
Non KPCS nurseries selling shelter plants to kiwifruit orchards	Meet equivalent level of biosecurity certification
Moving mature plants	KPCS standard, no change from current requirements
Sourcing plants	Source certified plants

# 6. Safe movement of pollen



## Flower suppliers

- Orchard operates to biosecurity plan
- Any specific requirements for high-risk organisms (Psa non-detected orchards)

## Mills

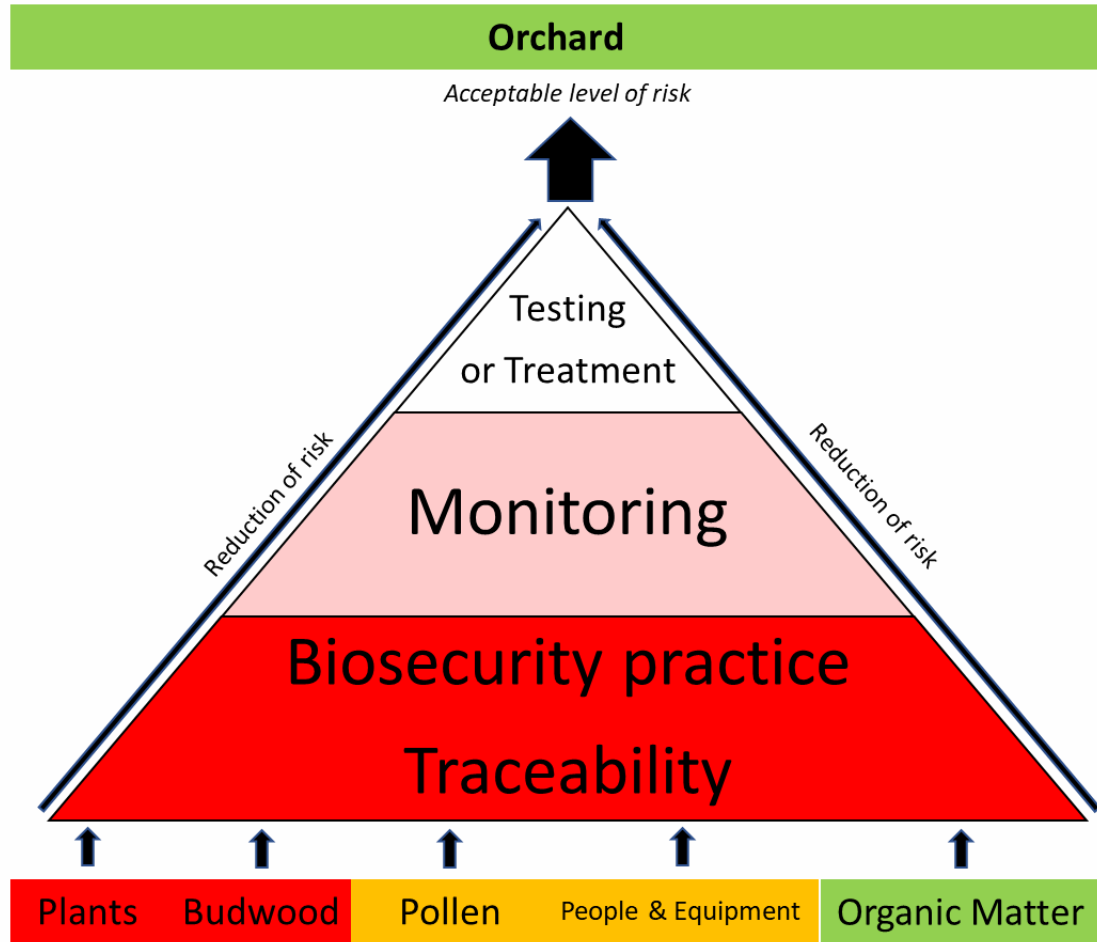
- Register with KVH
- Traceability and record keeping
- Hygiene practices
- Source flowers from compliant suppliers

## Suppliers

- Registration and traceability



# 7. Safe movement of budwood

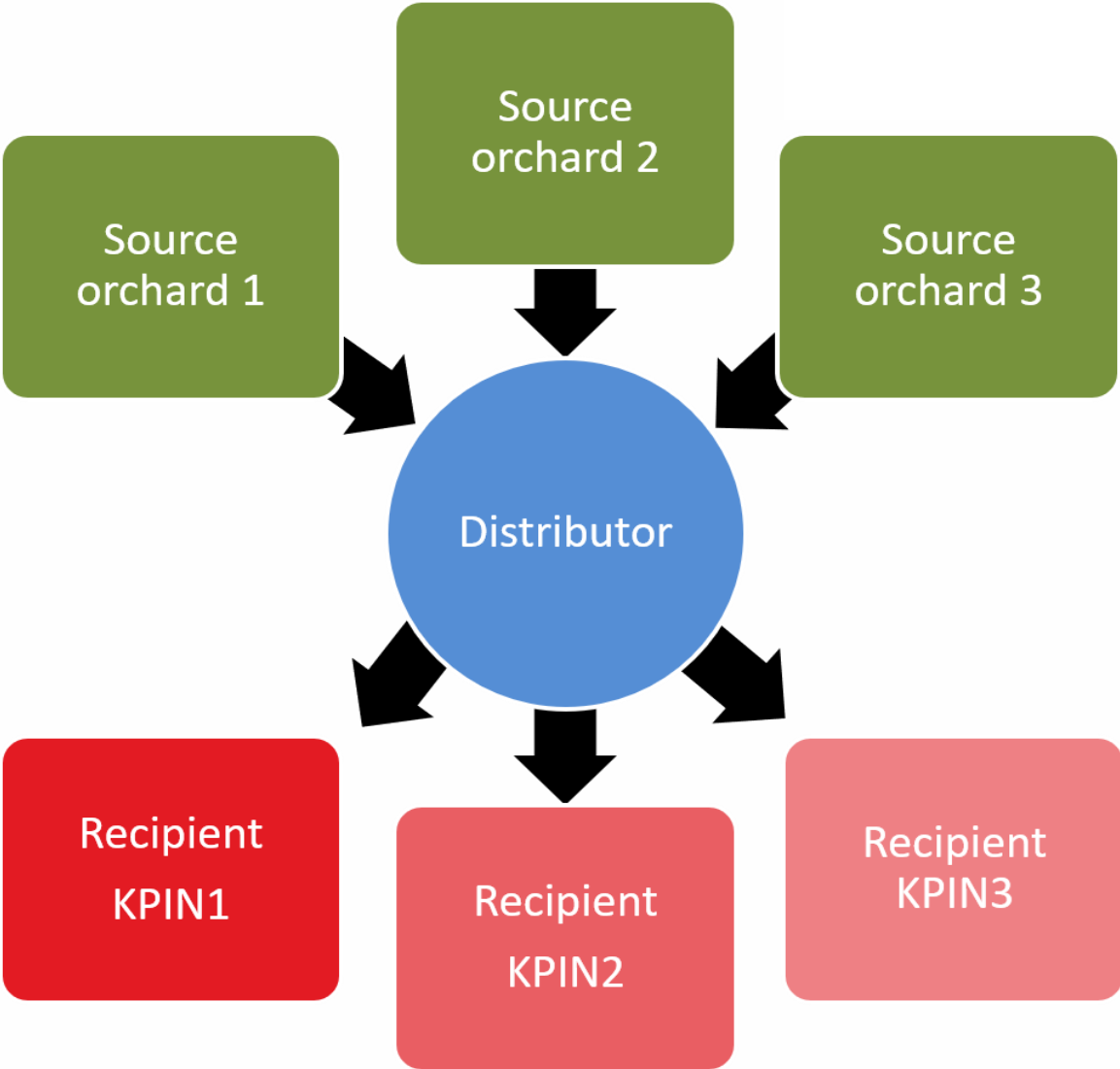
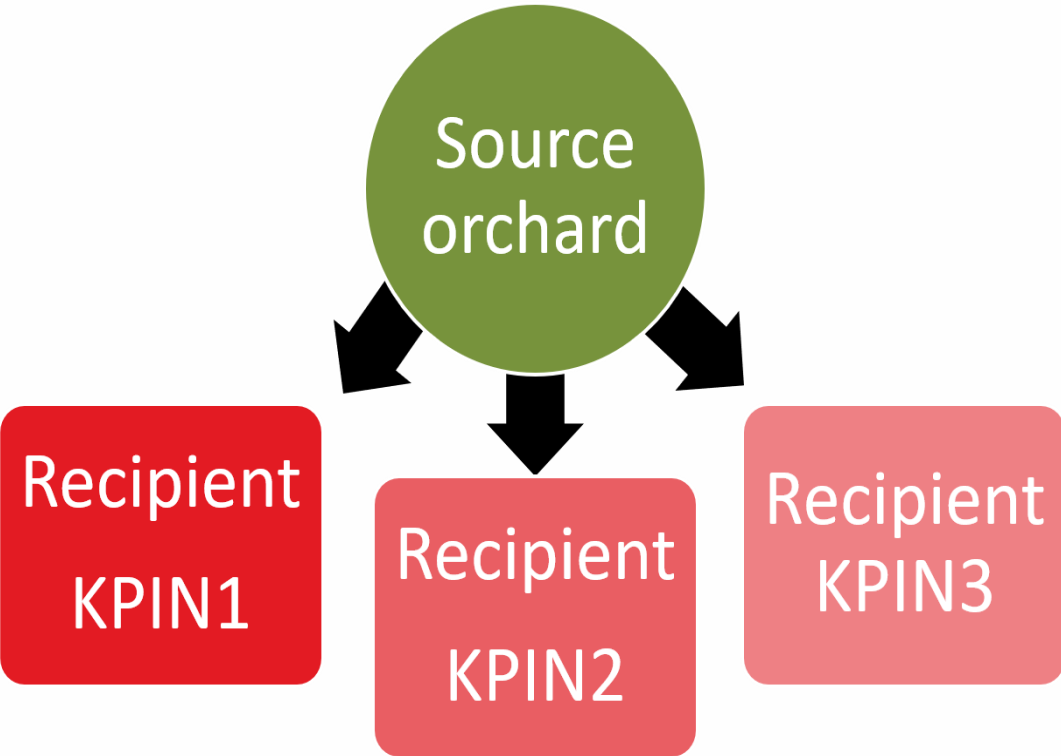


Input pathways and level of risk (unmitigated)

Requirement	Current State (NPMP)	Proposed (Pathway Plan)
Register with KVH	✓	✓
No requirements for use of budwood on same property	✓	✓
Target organisms for monitoring & testing	✓ Psa only	Based on risk & science
Collection from non-symptomatic vines only	✓ Psa based	✓
Tool hygiene requirements	✓	✓
No collection from cuttings on ground	✓	✓
Labelling and storage to prevent mixing	✓	✓
Traceability records	✓	✓
Certification under KPCS	X	✓
Annual testing cost		
• Psa non- detected blocks	\$85 per block	\$85 per block
Audit cost		
• Suppliers	\$0	\$0
• Distributors	\$0	\$200



# Budwood distribution models





Information hub at [kvh.org.nz](http://kvh.org.nz)



Quick and easy read:

Fact sheets  
Case studies  
Information for specific audiences



Detailed documents for those who want them



Available online and printed



Easy to use submission form



What else can we do?

## Getting feedback