

# KVH PROTOCOL



## Nursery Stock & Propagation Material used by Nurseries

### Background

The movement of plant material is considered a high-risk pathway for transporting pests and pathogens over long distances. This includes our known pests and pathogens such as Psa, but also other threats that may be present in New Zealand but not yet detected. Without biosecurity controls on internal pathways, a new pest or pathogen is likely to be widespread by the time it is detected and the window for eradication may have been missed.

Therefore, the kiwifruit industry has introduced biosecurity controls to reduce the risk of pests and diseases being spread through the movement of nursery plants. The Kiwifruit Plant Certification Scheme (KPCS) is a major component of this and ensures all nurseries selling kiwifruit plants are managing biosecurity risk. There are also biosecurity controls for growers to manage the risk associated with smaller volumes of plant movements and to do so in a manner that is not unnecessarily restrictive on orchard operations.

### Scope

For the purposes of this protocol a nursery is defined as “any person or entity that propagates *Actinidia* plant species to any age for sale or movement outside of the property”. This protocol covers all kiwifruit plant movements including any input to plant production.

### Sourcing Plants

Only KPCS certified plants can be bought or sold.

Supplying or sourcing non-certified plants is a breach of the Biosecurity Act 1993 and penalties may apply.

There are **four** options for sourcing and supplying kiwifruit plants;

- 1) **KPCS “Full certification”**: Fully certified plants that meet all testing requirements for all target organisms.  
*Movement*: Can be moved between regions in accordance with KVH movement controls.
- 2) **KPCS “Restricted Certification”**: Plants that meet all KPCS requirements except freedom from Psa-V.  
*Movement*: Movement is restricted to Psa-V positive orchards in accordance with KVH movement controls.
- 3) **“Grow for own use”** – growers may produce plants for use on their own properties.  
*Movement*: Movement of no more than 1000 plants per year is permitted to properties under the same ownership, within the same Psa-V region, and subject to certain biosecurity controls.
- 4) **Mature plants** – growers may apply to KVH for permission to relocate mature plants ( defined as “*Actinidia* plant species producing fruit in an orchard environment) to another orchard.  
*Movement*: Can be moved within Recovery regions only with KVH permission in accordance provided specified conditions are met.

### KPCS Nursery Requirements

KVH introduced the Kiwifruit Plant Certification Scheme (KPCS) to reduce the risk of kiwifruit pests and diseases being spread through the movement of nursery plants and to *enable growers to purchase kiwifruit plants of known plant health status<sup>1</sup>, supporting long term success and future growth of the New Zealand kiwifruit industry.*

<sup>1</sup> levels of freedom from specified pests or diseases

There are two certification standards under the KPCS. Both options have the same Nursery Manual and external audit requirements - the key differences are in the testing and movement controls. KPCS “Restricted Certification” plants may contain the “common” NZ strain of Psa-V but will be tested to ensure absence of non-New Zealand strains and strains resistant to Copper or Streptomycin. Movement from these nurseries will be restricted to Psa-V positive orchards only (see movement controls later in this document.)

Information on the KPCS standard and how to achieve certification, including best practice information, is available on the [KVH website](#).

### 1. KPCS “Full Certification” plants:

There is a high level of confidence that plants certified to this standard are free of all target organisms.

To meet this standard a nursery must:

- a. Meet the requirements of the KPCS Standard.
- b. Complete a KPCS Nursery manual documenting how the KPCS Standard requirements are met and have this evaluated by KVH.
- c. Be independently audited to confirm compliance with the KPCS Standard.
- d. Undergo annual independent monitoring and diagnostic testing for all target organisms, including all forms of Psa.
- e. Plants certified to this standard can be moved between regions as specified in the table below.

### 2. KPCS “Restricted Certification” plants

Plants certified to this standard are free of all target organisms including non-New Zealand and resistant forms of Psa, but not the “common” New Zealand form of Psa-V.

To meet this standard a nursery must:

- a. Meet the requirements of the KPCS Standard.
- b. Complete a KPCS Nursery Manual documenting how the KPCS Standard requirements are met and have this evaluated by KVH.
- c. Be independently audited to confirm compliance with the KPCS Standard.
- d. Undergo annual independent monitoring and diagnostic testing for specified target organisms.
- e. Plants certified to this standard:
  - i. are free of all target organisms including non-New Zealand and resistant forms of Psa, but not the “common” New Zealand form of Psa-V.
  - ii. can only be moved to Psa-V positive orchards as per the “Movement Control” table below.

### 3. Seed and cuttings/budwood for propagation

Nursery requirements are detailed in the KPCS – including mother plant testing for sources of propagation material. Budwood testing and supplier requirements are outlined in the [KVH Protocol: Budwood](#) and these must also be followed.

## Kiwifruit Growers Options and Requirements

### “Grow for own use”

Growers may produce plants for use on their own properties and move plants to other properties under the same ownership in the same Psa-V region under the following conditions:

- a. Meet the [KVH Grow for own use Requirements](#) including
  - i. completing a [KVH Biosecurity Risk Management Plan: Growing rootstock for your own use](#) and provide to KVH.
  - ii. Be available for audit and/or testing if required by KVH.
- b. Plants may not be moved from a positive property to a Not Detected property.
- c. Movement restrictions will apply where new or resistant strains of Psa are identified or other target organisms are present.

### Mature Plant movements

Growers who have double or triple planted their orchards may choose to relocate the extra plants once canopy is established. Growers who choose this option must apply to KVH for permission- this will be reviewed on a case by case basis with the following risk factors being considered:

- General health of orchard plants are moving from
- Location of plants and proposed distance of movement
- Association between the orchards the plants are moving to and from.
- Reasons why mature plants are being sought as opposed to nursery plants.

KVH must be contacted prior to leaf fall (or while there is leaf material suitable for testing.) Plants to be moved will require independent monitoring and a 6 x 100 leaf sample taken by KVH for testing using the KPCS nursery test. When moved they must be lifted by ripping, roots shaken so very little soil is transferred ( like a field nursery). Other conditions may be applied.

## Grower responsibilities

- All growers must follow the movement controls as tabled below.
- Growers must ensure when collecting plants from a nursery:
  - their vehicles and clothing are free of kiwifruit plant material before entering the nursery.
  - the plants are transported covered.
- Records must be maintained of plants moved on and off their property and kept with GAP records.

## Movement Controls

These movement controls apply to kiwifruit rootstock, plants and any part of a kiwifruit plant used in plant propagation (including seed and/or cuttings/budwood used for plant propagation or grafting by nurseries). The following tables summarise the status of nursery stock movements, subject to meeting the Nursery requirements above:

NB: Where authorisation from KVH is required the following information must be provided to KVH before any permission can be issued:

- Orchard KPIN or orchard name, contact name, address and region the plants or propagation material are destined for.
- Quantity and variety of material being supplied.

### 1. KPCS “Full Certification” plants

FROM: (Region where nursery is located)	Within the same region	TO: (Destination Region)		
		Recovery	Containment	Exclusion
<b>Recovery</b>	Allowed		<b>PROHIBITED</b>	<b>PROHIBITED</b>
<b>Containment</b>	Allowed	Allowed	<i>Authorisation from KVH required</i>	<b>PROHIBITED</b>
<b>Exclusion</b>	Allowed	Allowed	Allowed	<i>Authorisation from KVH required</i>
<b>Outside any region</b>	<i>Authorisation from KVH required</i>			

### 2. KPCS “Restricted Certification” plants

FROM: (Region where nursery is located)	Within the same region	TO: (Destination Region)		
		Recovery	Containment	Exclusion
<b>Recovery</b>	Allowed*		<b>PROHIBITED</b>	<b>PROHIBITED</b>

\* Plants may not be moved from a positive property to a Not Detected property.

### 3. “Grow for Your Own” Use plants

FROM: (Region where nursery is located)	Within the same region (to KPINs owned by the same legal entity and no more than 1000 plants per year)	TO: (Destination Region)		
		Recovery	Containment	Exclusion
Recovery	Allowed *		PROHIBITED	PROHIBITED
Containment	Allowed *	PROHIBITED	PROHIBITED	PROHIBITED
Exclusion	Allowed	PROHIBITED	PROHIBITED	PROHIBITED

\* Plants may not be moved from a positive property to a Not Detected property.

### 4. Seed and budwood for propagation

FROM: (Origin of propagation material)	Within the same region	TO: (Destination Region of Nursery)		
		Recovery	Containment	Exclusion
Recovery	Allowed		PROHIBITED	PROHIBITED
Containment	Allowed *	Allowed	Authorisation from KVH required	PROHIBITED
Exclusion	Allowed	Allowed	Allowed	Authorisation from KVH required
Outside any region	Authorisation from KVH required			

\* Budwood may not be moved from a positive property to a Not Detected property.

### 5. Mature producing kiwifruit plants for transplanting between orchards

FROM: (Region where plants are located)	Within the same region	TO: another orchard (Destination Region of transplanted plants)		
		Recovery	Containment	Exclusion
Recovery	Authorisation from KVH required*		PROHIBITED	PROHIBITED
Containment	Authorisation from KVH required*	Authorisation from KVH required*	Authorisation from KVH required*	PROHIBITED
Exclusion	Authorisation from KVH required	Authorisation from KVH required	Authorisation from KVH required	Authorisation from KVH required
Outside any region	Authorisation from KVH required			

\* Plants may not be moved from a positive property to a Not Detected property.

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