

Background

Psa-V can be spread through infected plant material including budwood and rootstock. Presently there is no effective way to 'clean' infected material or guarantee the Psa-V status of any material. Movement of plant material from, or within, areas known to have Psa-V carries added risk.

The establishment of more tolerant varieties in regions with Psa-V, and in particular heavily infected regions, is key to supporting the recovery pathway to commercial kiwifruit production.

In some regions the supply of sufficient budwood from non-infected orchards is challenged, and low-risk opportunities to facilitate movement need to be available.

Scope

Movement controls vary, depending on the nature and level of risk they pose, and status of the regions they are travelling into and out of.

This protocol covers Budwood movement for orchards. Budwood used for plant propagation or grafting by nurseries is covered in the [KVH Protocol: Nursery Stock](#). For movement of other risk items between orchards please refer to [KVH Protocols](#).

Budwood Requirements

1. General Requirements for all budwood

- Movement of infected plant material is not permitted.
- All suppliers of budwood must:
 - [Register](#) on the KVH website or by phoning KVH on 0800 665 825 or emailing info@kvh.org.nz. Registration is to be completed annually before the first budwood collection of that year.
 - Complete a Psa-V/Biosecurity Risk Management Plan: Budwood and hold on file with GAP records. (the template is included at the end of this protocol).
 - Record all budwood movements on the orchard Psa-V/Biosecurity Risk Management Plan.
 - Comply with the Budwood movement controls in the table later in this document.
 - Seek KVH authorisation for any movements which indicate this is a requirement. KVH authorisation may be obtained by phone (0800 665 825) or email to info@kvh.org.nz. In some cases a site visit may be required.
 - Ensure plant variety approval has been obtained from variety owner if required (e.g. for GOLD3 - approval is required from Zespri).
- Budwood shall not be moved off any Psa-V positive orchard except where meeting the requirements detailed below.

2. Requirements for budwood movements from Psa-V positive orchards

- Budwood movements from Psa-V positive orchards to other Psa-V positive orchards are only allowed:
 - **Between properties owned by the same legal entity within the same Psa-V region. (Psa-V regions are defined on the [KVH website](#).)**
- **Outside of the above KVH authorisation may be sought if there are no other suitable options for the grower. Contact KVH for permission in these circumstances.**
- **Budwood shall not be moved off an orchard which has had a strain of Psa resistant to control products identified. Refer to [KVH Protocol: Resistance to Psa control products](#)**
- Budwood shall not be moved to an orchard with a 'Not Detected' status.
- Only budwood from vines showing no Psa-V symptoms shall be supplied.

3. Monitoring and testing requirements

- Not Detected orchards are required to monitor and take samples for testing, for each variety to be collected, to confirm Not Detected status. This must occur within six weeks of budwood collection taking place.
- A 'budwood collection' sample consists of three cane samples (per variety) taken randomly across the budwood collection area.
- Place sample canes in one sealed bag clearly labelled with KPIN and collection date.
- Accompanying lab form should be labelled "Budwood collection samples"

- Send samples to [Hill Laboratories](#) NB: Testing only occurs weekly on a Wednesday so ensure samples are sent to arrive in time.
- NB: KVH will not pay for budwood testing samples from any region.

4. Budwood movement controls:

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 budwood is destined for.
- Quantity and variety of buds being supplied.

FROM (Source Region)	Within the same region	TO: (Destination Region) – if not region of origin		
		Recovery	Containment	Exclusion
Recovery Not Detected orchards only	Allowed	Authorisation from KVH required	PROHIBITED	PROHIBITED
Recovery Psa-V positive orchards	Allowed to Psa-V positive KPINs owned by the same legal entity otherwise KVH authorisation required.	Authorisation from KVH required	PROHIBITED	PROHIBITED
Containment Not Detected orchards only	Allowed	Allowed	Authorisation from KVH required	PROHIBITED
Containment Psa-V positive orchards	Allowed to Psa-V positive KPINs owned by the same legal entity otherwise KVH authorisation required.	Authorisation from KVH required	PROHIBITED	PROHIBITED
Exclusion	Allowed	Allowed	Allowed	Authorisation from KVH required
Outside any region	N/A	Authorisation from KVH required	Authorisation from KVH required	Authorisation from KVH required

5. Controlled area notices:

- There is a controlled area notice currently in place for Whangarei. In this area movement controls apply to all risk items including budwood.
- For further information, refer to www.kvh.org.nz/maps_regional

Budwood Recipients Best Practice:

- Record the source KPIN of your budwood and confirm the Psa-V status of that orchard.
- Ensure KVH movement protocols are observed.
- Inspect material on receipt to confirm freedom from Psa-V symptoms, other pests and diseases.
- Follow KVH best practice for orchard and tool hygiene (refer to [KVH Seasonal Management Guide](#))
- Record destination location on orchard (e.g.by recording location of budwood grafted on your orchard map)
- Notify KVH within 48 hours if Psa-V symptoms are identified on any orchard that is not currently Psa-V positive.
- Retain and file all records with GAP documentation

KVH Psa-V/Biosecurity Risk Management Plan for Budwood

Source Orchard Details

Source KPIN(s) _____

Orchard Psa-V status _____

Orchard address _____

Region _____

Name of person completing form _____

1. Source Orchards

- I have [registered with KVH](#) as a budwood supplier.
 - I have an up to date **Psa-V/Biosecurity Orchard Management Plan** in place.
 - My Psa-V Monitoring records are available (monitoring is within six weeks of budwood collection).
 - My orchard is 'Not detected' and I have taken a 'budwood collection sample' and the lab test result is on file (within six weeks of budwood collection).
 - My orchard is Psa-V positive.
 - Movement is between my own KPINs within the same region (as per the movement control table).**
- OR**
- I have requested and received KVH written permission for my budwood movement.**

2. People hygiene

- Collection staff are trained in hygiene requirements as outlined in my orchard's Psa-V/Biosecurity Orchard Management Plan.

3. Budwood collection

- Budwood collection areas within the orchard are clearly identified (i.e. on orchard map or similar)
- Copper spray has been applied within four weeks of budwood collection.
- Budwood has only been collected from vines showing no symptoms of Psa-V.
- Tools used are sanitised.
- Wounds are sprayed with copper.
- Budwood is placed in a sealed bag and labelled with KPIN, Orchard Psa-V status, date collected, variety and number of buds collected.

4. Transport and storage

- Budwood is transported securely.
Budwood is:
 - stored on the source orchard and collected by the purchaser;

OR

 - stored off-site and returned to source orchard

OR

 - stored at the contractor's storage site and distributed by the contractor or postharvest facility.
- If storing budwood from more than one source orchard separation is maintained for:
 - budwood from Psa-V positive and Not Detected orchards; and
 - budwood from different regions.
 - Hygiene procedures (people and storage areas) are in place.

5. Budwood distribution

- Records of source KPINs, KPINs supplied and budwood quantities supplied are maintained.
- KVH Permissions for inter-regional movements are on file (where required).

- A budwood recall system is in place which notifies KVH (phone: 0800 665 825) within 48 hours of:
 - a 'not detected' orchard testing Psa-V positive after budwood collection has taken place.
 - Psa-V symptoms (or other unusual symptoms) being found on budwood collected from any orchard.
- Plant debris at the distribution site is fully contained and disposed of appropriately.

Distribution Record									
From (KPIN)	Psa-V status	Region	Variety	Type (M/F)	Approx. number of buds	To (KPIN)	Psa-V status	Region	Date of distribution

6. Records and documentation

- Records are retained for 5 years as part of the Psa-V /Biosecurity Orchard Management Plan.
- Records are available for KVH audit.

7. Comments

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