

KVH PROTOCOL



Budwood

Background

The movement of plant material, including budwood, presents the highest risk of spreading Psa and other kiwifruit pathogens. Presently there is no effective way to 'clean' infected material of Psa or guarantee that material is free of other pathogens. Therefore, best practice to reduce this risk is to source budwood from your own orchard. This is KVH's recommendation.

However, should you choose to supply or source budwood from elsewhere this protocol outlines the requirements under the National Psa-V Pest Management Plan (NPMP) and recommended practice for reducing the likelihood of spreading other pathogens.

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 all Budwood movements. For nurseries using budwood for plant propagation or grafting this protocol should be used in conjunction with the [KVH Protocol: Nursery Stock](#) and the [Kiwifruit Plant Certification Scheme Nursery Manual](#). 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.

Source orchards (Budwood suppliers)

- All suppliers of budwood, including those supplying nurseries, 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/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/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).

Monitoring and testing requirements

- Budwood collection areas are to be monitored to ensure symptomatic vines are identified. Monitoring must take place within six weeks of budwood collection.
- Not Detected orchards are required to take samples for testing, for each variety to be collected, to confirm Not Detected status. This testing may be carried out when leaves are present, but if not done then it must occur within six weeks of budwood collection taking place.
- A 'budwood collection' sample consists of either ten leaves or three cane samples (per variety) taken randomly across the budwood collection area.
- Place sample leaves or 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.

Budwood collection

- Apply a copper spray within 4 weeks of budwood collection
- Budwood must not be collected from any vines showing symptoms, including Psa.
- Do not collect budwood from material left on the ground after pruning as this may mean wood from unhealthy vines is distributed to other orchards resulting in disease transfer.
- Sanitise any tools used and protect wounds
- Recommended practice advice to manage risk spreading pathogens;
 - Monitor regularly throughout the year;
 - Tag symptomatic vines so they can be avoided when budwood collection takes place;
 - Avoid collecting material from the vine immediately adjacent in any direction to any symptomatic vines;
 - If symptoms cannot be attributed to a cause, please contact KVH for further investigation

2. Additional requirements for budwood movements from Psa positive orchards

Budwood shall not be moved off any Psa positive orchard except where meeting the requirements detailed below:

- Budwood movements from Psa positive orchards to other Psa positive orchards are only allowed:
 - Between properties owned by the same legal entity within the same Psa region. (Psa regions are defined at www.kvh.org.nz/maps_stats)
- 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 by KVH. 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 symptoms shall be supplied.

3. 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 moving from and 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 | | PROHIBITED | PROHIBITED |
| Recovery Psa positive orchards | Allowed to Psa positive KPINs owned by the same legal entity otherwise KVH authorisation required. | | PROHIBITED | PROHIBITED |
| Containment Not Detected orchards only | Allowed | Allowed | Authorisation from KVH required | PROHIBITED |
| Containment Psa positive orchards | Allowed to Psa 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 | <i>Authorisation from KVH required</i> | <i>Authorisation from KVH required</i> | <i>Authorisation from KVH required</i> |
|---------------------------|-----|--|--|--|

4. Recommended practice for budwood recipients

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- Record the source KPIN of your budwood and confirm the Psa status of that orchard.
- Ensure KVH movement protocols are observed.
- Inspect material on receipt to confirm freedom from Psa symptoms, other pests and diseases.
- Follow KVH best practice for orchard and tool hygiene (refer to [KVH Best Practice 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 symptoms are identified on any orchard that is not currently Psa positive.
- Retain and file all records with GAP documentation.

KVH Psa /Biosecurity Risk Management Plan

Budwood



KVH Psa/Biosecurity Risk Management Plan for Budwood

Source Orchard Details

Source KPIN(s) _____

Orchard Psa 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/Biosecurity Orchard Management Plan in place.
- The collection area has been monitored **and any symptomatic vines tagged**
- 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.
- My orchard is Psa 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/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 **or any other unusual symptoms.**
- KVH has been contacted to investigate vines with unusual symptoms.**
- Budwood has not been collected from cuttings left on the ground after pruning.**
- Tools used are sanitised.
- Wounds are protected (e.g. sprayed with copper)
- Budwood is placed in a sealed bag and labelled with KPIN, Orchard Psa 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 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 positive after budwood collection has taken place.
 - Psa 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 status | Region | Variety | Type (M/F) | Approx. number of buds | To (KPIN) | Psa status | Region | Date of distribution |
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6. Records and documentation

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

7. Comments

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