

### **Desired outcome**

To reduce the risk of Psa-V spreading from abandoned orchards, either by:

- returning the orchard to a situation where it is effectively managed in accordance with Psa-V Orchard Management Plan; or
- removing abandoned vines and kiwifruit plant material, to eliminate Psa-V risk.

### **Background**

Abandoned orchards are potential reservoirs for Psa-V. As these are unlikely to receive any form of crop protection, they are high risk sites for potential establishment, amplification and spread of Psa-V between orchards and regions.

Abandoned orchards with fruit present on vines pose a risk in terms of spread of kiwifruit seeds (for example, by birds), which could lead to establishment of wild kiwifruit populations. Wild kiwifruit populations are high risk sites for potential establishment, amplification and spread of Psa-V [note a reference will be added here to the relevant policy in the Operational Plan on wild kiwifruit]. Wild kiwifruit also threatened indigenous biodiversity values, which is outside the scope of the NPMP but is of significant concern to regional authorities, and the communities they represent (covered below).

### **Relationship with regional authorities and regional pest management plans**

Some regional authorities also have an interest in, and take action to manage, abandoned orchards in order to prevent establishment of wild kiwifruit, as part of a strategy to reduce the impact of wild kiwifruit on indigenous biodiversity values. Increasingly, regional authorities are adding 'wild kiwifruit' as a pest within their Regional Pest Management Plans. This strategic approach recognises that wild kiwifruit is one of the more difficult weeds to control, and a clear case where 'prevention is better than cure'.

Where the interests of KVH and a regional authority align (i.e. KVH 'interest in reducing spread of Psa-V' and regional authority 'interest in reducing impacts on indigenous biodiversity' respectively), KVH will take action in partnership with the regional authority concerned, in accordance with a Memorandum of Understanding (MOU) or any other form of agreement reached between the parties.

### **Approach to working in partnership and cost-sharing with regional authorities and others**

KVH will work with regional authorities (as above) and other partners (e.g., District Councils, significant public and private landowners) where there is mutual interest in managing risk associated with an abandoned orchard. KVH will contribute funding within a partnership where:

- i. this is to address a 'historic abandoned orchard', defined as 'an orchard that was abandoned before Psa-V was first detected in NZ (i.e. prior to November 2010);
- ii. a local partnership is formed, where other parties (e.g., regional council and/or landowner) are contributing resources;
- iii. where the arrangement involves/provides for on-going monitoring and follow-up control as required; and
- iv. for cases where the total cost of control and follow-up monitoring/control is under \$15k.

For all other cases (i.e. where abandoned after Psa-V arrived, or for historic cases where the \$15k is exceeded) a 100% cost recovery policy will apply.

### **NPMP requirements and deciding when and orchard is 'abandoned' and level of risk**

The NPMP states that an orchard will be considered 'abandoned' when:

*Any orchard which is not winter pruned or tied after 1 October each year, or where fruit remains un-harvested after 30 June each year.*

The NPMP defines 'winter pruned' as:

*Activity carried out within an orchard after harvest and before bud-break, involving pruning and tying down canes in order to set a commercial crop.*

The level of risk associated with each abandoned orchard will not be equal. And there is potential for a significant number of abandoned orchards, which could require KVH and regional authorities to make difficult prioritisation decisions. Therefore, a risk-based approach will be taken when prioritising the management of abandoned orchards.

When identifying the 'level of risk' associated with an abandoned orchard KVH will take account of:

- i. The overall level of infection within the region; and
- ii. The proximity of adjacent or nearby 'Containment' or 'Exclusion' regions; and
- iii. The proximity and Psa-V status of adjacent and nearby orchards; and
- iv. The nature and extent of the symptoms present on the abandoned orchard; and
- v. The composition of different kiwifruit varieties grown within the abandoned orchard and associated level of inoculum these could potentially release; and
- vi. The number and nature of potential movements into, within, leaving or adjacent to the abandoned orchard, which could lead to further spread of Psa-V.

When deciding the priority associated with an abandoned orchard, KVH will take account of:

- i. The level of risk and related criteria (as above);
- ii. The relative level of risk in relation to unmanaged orchards and wild kiwifruit (i.e. so KVH focuses on addressing the greatest Psa-V inoculum risks first, across unmanaged orchards, abandoned orchards and wild kiwifruit);
- iii. Whether the abandoned orchard falls under terms of any agreement (such as a MOU) with a regional authority, and the extent of alignment between the interests of KVH and that regional authority.

### **Implementation approach for abandoned orchards**

KVH will work with regional authorities and other partners (as above) where there is mutual interest in managing risk associated with an abandoned orchard. KVH will focus on achieving timely protection / addressing extreme risks, and will work with regional authorities and others to clarify arrangements in advance wherever possible to avoid delays.

Where the implementation approach under terms of such an agreement varies from this policy, the terms of that agreement prevail. [Note that in establishing such agreements KVH will endeavour to achieve consistency with this policy, and any substantial variation in relation to this policy will require KVH Board approval]

KVH will act to implement this policy where reasonable attempt has already been made by KVH operational staff along with the regional coordinator, neighbours and the Grower's post-harvest operator (where applicable) to seek a voluntary solution, without success. That is, KVH compliance staff will only take action where local and regional solutions have either been exhausted or are not leading to timely management of risks.

In practice there will be an escalation model, that starts with providing support and giving every reasonable opportunity to find a voluntary solution, but that also ensures timely action is taken so that significant risks get managed.

KVH will act where its staff identify potentially abandoned orchards and will respond to reasonable reports or complaints.

The steps to be taken once a potentially abandoned orchard is identified are set out in Table 3, below. Table 3 also identifies indicative timing at each step, and clarifies that the speed of management response will be faster for 'extreme cases', compared to 'other cases that pose a significant risk', as follows:

- **Extreme cases:** this will apply, in particular, for less tolerant varieties, and situations where disease progression is rapid and level of symptoms that could release inoculum is high. The aim will be to achieve actively management of risks on-orchard within one month.
- **Other cases that pose a significant risk:** this will apply, in particular, for more Psa-V tolerant varieties, such as Hayward, and situations where disease progression is slower and level of symptoms that could release inoculum is lower. KVH will prioritise such cases, with compliance timeframes to be determined based on priority.

A significant number of potentially abandoned orchards (approximately 50) exist, and KVH aims to validate these historic (i.e. assess risk and way forward) cases over the first three months following NPMP commencement.

The course of action to address risk associated with an abandoned orchard will typically entail:

- completion of winter pruning and removal of commercially viable fruit, returning the orchard to a managed situation in accordance with a Psa-V Orchard Management Plan; or
- removal and disposal of vines in accordance with KVH protocols.

KVH will play a facilitation role to assist Growers or landowners with an abandoned orchard, or an orchard which is struggling for whatever reason and likely to be abandoned, to connect with other people or organisations who are interested in possible management opportunities; that is, to maintain or return the orchard to a managed state.

**Table 3. Steps and indicative timing once a potential abandoned is identified and a complaint is lodged,**

showing how timeframe would differ for ‘extreme cases’ and ‘other cases that pose a significant Psa-V risk. The steps and timeframes indicate where and how KVH would propose to engage regional authorities where interests align (where these differs from any formal agreement reached between the two parties, then the terms of that agreement prevail).

[Note: KVH have a number of historical records identifying possible abandoned orchards because of their historical nature KVH will need to verify and allocate Risk. KVH will begin to process this data base immediately. Logistically the back log will take time to work through; priority will be given to abandoned orchards coming through the complaint process and orchards that have been deemed to be ‘extreme risk’. The timeframes are an indication of the speed KVH intends for the process however KVH reserves the right to adjust the timeframes if the need arises and logistically they are not realistic. Historic orchards will operate outside of this timeframe unless identified as high risk.]

Step	Indicative timeframe	
	Extreme	Other
<b>A. KVH contacts Grower to verify orchard status, affirm KVH position on abandoned orchards, and initially assess Psa-V Orchard Management Plan compliance. KVH contacts post-harvest / regional coordinator, and notifies regional authority and other potential partners (where applicable).</b>	Within 24 hours	Within 24 hours
<b>B. Post-harvest/ regional coordinator assess the orchard, then discuss with KVH to agree whether the case is extreme, or otherwise poses a serious Psa risk.</b>  • <i>if denied entry then proceed to Step F.</i>	Within 48 hours	Within 48 hours
<b>C. KVH works with the relevant regional authority to establish whether the abandoned orchard is covered by an existing agreement (e.g., MOU), and whether the two parties will work together.</b>	By end of day 5	By end of day 5
<b>D. KVH, regional coordinator, post-harvest and regional authority (where applicable) work with the Grower to agree course of action. KVH provides advice to the Grower and/or landowner on potential parties interested in management opportunities. Post-harvest facilitate any additional assistance where appropriate (e.g., neighbours / contractors). Regional coordinator to update KVH and regional authority (where applicable), including copy of agreement reached.</b>	By end of week 1	By end of week 1
<b>E. Regional coordinator and post-harvest check in with the Grower regarding progress and the situation on-orchard, and any further support required. Regional coordinators update KVH and regional authority (where applicable).</b>  • <i>If Grower completes agreed course of action and risk is managed then stand down.</i>	As required, up until end of week 2	As required , up until end of week 4
<b>F. If there is evidence the agreed course of action is either not taken or is not effective, KVH and regional authority (where applicable) compliance staff investigate, discuss the situation with the Grower and post-harvest operator (if any), and attempt to reach agreement on a way forward.</b>  • If agreement cannot be reached proceed immediately to step G. • <i>If agreement is reached and course of action is taken and is effective then stand down.</i>	Start of week 2	Start of week 4

<p><b>G. KVH and regional authority (where applicable) compliance staff check in with the Grower regarding progress and the situation on-orchard. Regional Council/Post-harvest facilitate assistance where appropriate (e.g., neighbours / contractors).</b></p> <ul style="list-style-type: none"> <li><i>If Grower completes agreed course of action and risk is managed then stand down.</i></li> <li><i>If course of action is not sufficiently managing the risk, then all parties to agree changes required.</i></li> </ul>	<p>As required, up until end of week 3</p>	<p>As required, up until end of week 6</p>
<p><b>H. Where Grower cooperation and action has not been achieved through prior steps, KVH or the regional authority (where applicable) issue a Notice of Direction (notice), which specifies the management actions to be taken and when those actions must be undertaken by (the conditions of the notice). Post-harvest facilitate assistance where appropriate (e.g., neighbours / contractors).</b></p> <ul style="list-style-type: none"> <li><i>If Grower complies with conditions of the notice, then stand down.</i></li> </ul>	<p>Start of week 4 (or earlier, at KVH discretion, where a Grower does not cooperate or make any real attempt to address the orchard situation)</p>	<p>Priority determined at start of week 6, with timeframe for issuing notice to reflect that priority (or this step can be taken earlier, at KVH discretion, where a Grower does not cooperate or make any real attempt to address the orchard situation)</p>
<p><b>I. KVH monitors. Where conditions of the notice are not met, KVH or regional authority (where applicable) select a contractor to undertake the management/control actions, and recover costs.</b></p>	<p>As per timeframe specified in the notice</p>	<p>As per timeframe specified in the notice</p>

### Compliance and cost-recovery for un-managed orchards

KVH will seek to achieve voluntary and timely resolution of abandoned orchards where possible, and will work in partnership with others and contribute limited funding to resolve historic cases (refer to criteria in section 4.8.1 under the heading ‘Approach to working in partnership and cost-sharing with regional authorities and others’). For all other cases a 100% cost recovery policy will apply (also refer below).

Where reasonable efforts to achieve a voluntary and timely solution have not been successful, either:

- a KVH authorised person will issue the ‘Notice of Direction’ under section 122 of the biosecurity Act, which sets out the management actions that must be taken by the land owner or occupier, and when those actions must be undertaken by; or
- KVH may agree with a regional authority that a regional authority authorised person will issue the ‘Notice of Direction’ under section 122 of the biosecurity Act, which sets out the management actions that must be taken by the land owner or occupier, and when those actions must be undertaken by.

Where a Notice of Direction issued by a KVH authorised person is not complied with:

- KVH will act on default under section 128 of the Biosecurity Act, by appointing a contractor to carry out the work set out in the Notice of Direction.
- KVH will procure services from a ‘panel of contractors’, which it pre-selects on the basis of ability to reliably deliver cost-effective and timely services. KVH will consider at least two quotes before selecting its preferred contractor.

- KVH will recover costs from the landowner or occupier under section 128 of the Biosecurity Act; including 100% of the cost of services delivered by the third party contractors, but excluding costs associated with KVH staff time or legal advice.
- All costs recoverable shall be a charge against the land concerned.