



## KVH Best Practice—Managing Infected Material

- Key principles: Monitor frequently. Remove infected material as it is found. Bury or burn onsite; or mulch finely. Follow [KVH Protocol: Disposal Options](#).



	1. Hayward or New Varieties	2. Infected Males	3. Notch-grafted vines	4. Hort16A	
What To Do	Identify the number of infected vines and symptom severity. Remove or manage infection accordingly.	Identify the number of infected vines and symptom severity. Assess impact on pollination and manage risk accordingly.	Identify the number of infected vines and symptom severity. Assess impact on grafted scions.	Aggressively cut out secondary symptoms.	
Purpose	Reduce inoculum levels. Prevent infection spread within vines and within the orchard.	Reduce inoculum levels. Balance infection removal with the need to maintain sufficient flower for pollination. Refer to <a href="#">KVH Information Sheets</a> on males.	Reduce inoculum levels. Manage infection to ensure young scions are not at risk.	Minimise infection spread in this highly-susceptible variety.	
How To Do	<ul style="list-style-type: none"> <li>Monitor blocks and record percentage of vines infected and symptom severity.</li> <li>For new incursions where only a few plants are infected consider cutting whole vines.</li> <li>Where infection is wide-spread manage by cutting out and/or cauterising cankers.</li> <li>Remove infected material from the production area and bury or burn onsite.</li> <li>Maintain an on-going protective spray programme.</li> </ul>	<ul style="list-style-type: none"> <li>Monitor blocks and record percentage of vines infected and symptom severity.</li> <li>Where only a few plants are infected consider cutting whole vines.</li> <li>Where infection is wide-spread manage by cutting out or cauterising cankers.</li> <li>Remove infected material. Bury or burn onsite.</li> <li>Maintain an on-going protective spray programme.</li> <li>Do not harvest flowers from vines expressing secondary symptoms.</li> <li>Consider cut-out of susceptible males following flowering.</li> </ul>	<ul style="list-style-type: none"> <li>Cut canopy where infection is seen.</li> <li>If disease spread is rapid within a block, cut the canopy to preserve grafted scions.</li> <li>If within the product allowed use period, apply an elicitor 5–7 days prior to canopy removal.</li> </ul>	<ul style="list-style-type: none"> <li>Cut canopy as soon as infection is seen.</li> <li>If disease spread is rapid within a block, cut vines with a view to re-grafting to a more-tolerant variety.</li> <li>Consider applying an elicitor 5–7 days prior to canopy removal.</li> <li>Cut vines back to tolerant rootstock where possible.</li> <li>Promote sucker growth to provide additional grafting options.</li> </ul>	
Notes	<ul style="list-style-type: none"> <li>Young vines are more susceptible than mature vines. Therefore, management of infection should be more proactive in newly-grafted and young blocks.</li> </ul>	<ul style="list-style-type: none"> <li>Have a pollination plan in place if the decision to cut out males is made.</li> <li>Collect flowers or pollen for next season where possible.</li> </ul>	<ul style="list-style-type: none"> <li>Work in conjunction with your packhouse rep to prepare a management plan for decisions around cut out.</li> <li>Establishing young grafts in an infected orchard is extremely challenging.</li> </ul>	<ul style="list-style-type: none"> <li>Work in conjunction with your packhouse rep to prepare a management plan for decisions around cut out.</li> <li>Consider re-planting if vines are on highly-susceptible Chinensis rootstock.</li> </ul>	
<p>Keep monitoring throughout the season. Monitor, mark and then follow up with cut out. Carry out removal of infected canopy material in dry conditions. Sterilise tools between vines, and apply a sealant that provides a persistent physical barrier and bactericide to all wounds. Maintain an on-going protectant spray programme to reduce inoculum levels. Protect suckers being maintained as future grafting options with protectant sprays.</p>					