

Spring protection from Psa-V



Wet spring conditions are ideal for Psa-V build up and infection of young tender growth. Take every opportunity to maintain protective spray covers.

Spray protection

- Maintain full spray cover prior to, or directly after high-risk weather - on all varieties. Use the Psa-V risk model to plan spray timings.
- Consider new growth, grafts, natural wounds (bud and flower crack), wind, hail and frost damage as well as pruning, bud and flower thinning wounds.
- Maximise spray coverage as all protective products require good coverage to be effective. Increase water rates and review nozzling as canopy develops. Be sure spray reaches grafts and young plants, as these are particularly vulnerable to Psa infection.

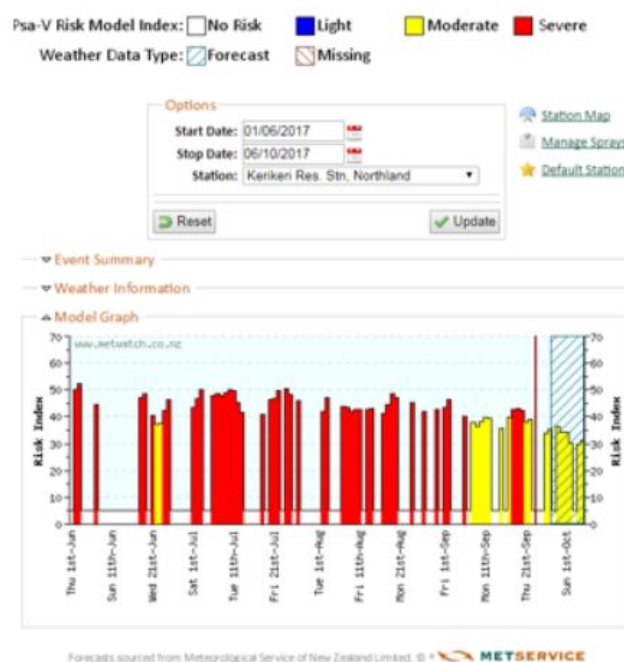


Spray products and recommended timings

- **Copper** – an effective contact protectant. Through spring reapply copper at full summer label rates to ensure new growth is covered prior to high-risk weather, and to maintain effective (Psa killing) cupric ion concentrations on all vine parts. Don't use half rates as these increase the risk of copper resistant strains of Psa establishing.
- **Bactericides** – use these in high-risk situations. Apply before or immediately after a weather event and as part of an integrated spray programme. Follow all user guide requirements.

One preflower Kasumin is allowed. A second requires a JA. Suitable for use up to 21 days prior to flowers opening. Kasumin is rainfast after two hours, and can be applied once there is sufficient foliage for uptake (leaves the size of a 50-cent coin). Keystrepto requires a JA and can be used up to seven days before flowering.

- **Actigard™** should be incorporated alongside copper to help protect new growth. It acts systemically and is "rainproof" after one hour. For mature vines, apply Actigard™ once leaves reach 25mm diameter, and apply to new grafts once they are 25cm long. Delay if plants are stressed. Applied one to seven days preflower, Actigard™ can provide protection through flowering, when other options of Psa control are limited. Use full label rates.
- **CPPU** (Green varieties only) – Ambitious can be applied when shoots are 15-25cm long and rapidly growing. Good coverage is required as this product is not systemic. Ambitious is thought to activate plant resistance in five to seven days, and can be used preventatively to reduce Psa leaf spot symptoms. One pre-flower application is allowed. A second application requires a JA.



Use the KVH Psa-V Risk Model to help plan timing of protective sprays. Yellow and red bars indicate significant risk.

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Preflower girdles

For green varieties (HW and G14) in high Psa risk areas apply a full trunk girdle 30 days before the first female flower opens. This will reduce sepal staining and Psa bud rot, therefore improving fruit-set. Only girdle in fine weather, check girdle depth, and sanitise tools between every vine. Girdle older trunks rather than young scions. Avoid girdling stressed vines.



Pollination

- Collect flowers for pollen milling from asymptomatic vines only.
- Where possible, use clean pollen collected from your own orchard.
- When sourcing pollen off-orchard use the cleanest possible source.
- Comply with KVH protocols for pollen and beehive movement.

Biosecurity

- Ensure that everyone on your orchard – including staff, contractors and visitors, are aware of required hygiene standards and follow these to protect your asset.
- Make sure staff know how to identify most unwanted pest threats, particularly Brown Marmorated Stink Bug (BMSB). Check the [KVH website \(www.kvh.org.nz/bmsb\)](http://www.kvh.org.nz/bmsb) for videos on “BMSB impacts on kiwifruit in Italy” and “Presentation by Tracey Leskey, international expert on BMSB preparedness”. Report suspect finds to **MPI on 0800 80 99 66**.
- Report any unusual vine symptoms to **KVH on 0800 665 825**.

