

WHO DO I TALK TO ABOUT PSA?



For questions about Psa on-orchard practices, contact your **trusted technical advisor** in the first instance.



Find up-to-date Psa resources, management guidance, and spray information on our **Canopy website**.
Check our **Crop Protection Standard** to understand responsibilities for monitoring and justified approval applications.



Report potential new spread of Psa to info@kvh.org.nz or 0800 665 825.
Kiwifruit Vine Health is prepared to respond to new variants of Psa and other biosecurity threats.

DEVELOP A MANAGEMENT PLAN



AUTUMN
(RISK INCREASES)

Use copper and Actigard® after harvest. Maintain copper cover throughout leaf fall.



WINTER
(RISK CONTINUES)

Apply winter copper before and after winter pruning and immediately before budbreak.
Remove infected material. Ensure effective and consistent tool hygiene.



SPRING
(VERY HIGH-RISK)

Maintain protective cover from budbreak through to flowering. Include products with different modes of action – copper, Aureo®Gold, and Actigard®. Consider CPPU for Hayward. Bactericides suit high-risk sites. Remember frost protection and consider a preflower girdle to reduce flower bud infection (Hayward and G14).



SUMMER
(LOWER RISK)

Apply copper before significant high-risk weather events. Also consider Aureo®Gold.

PSA SYMPTOMS



Red/orange exudate



Leaf spot

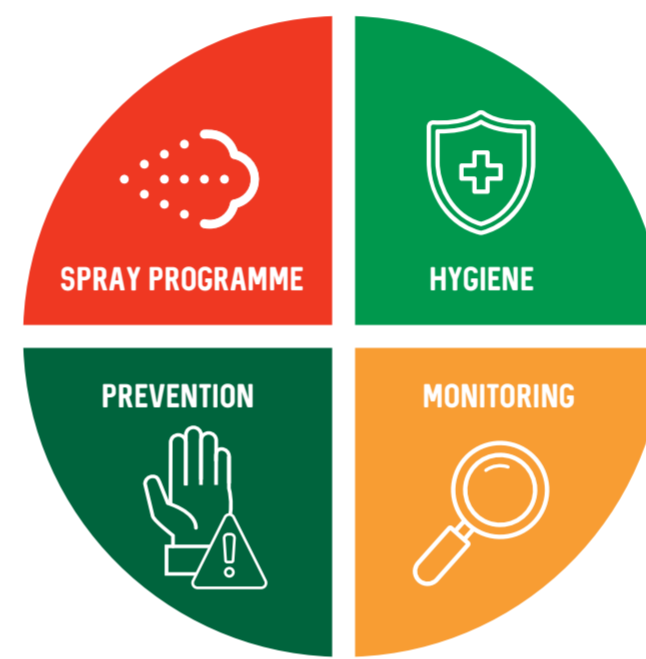


Shoot and cane die-back



Flower bud infection

GOOD PRACTICE PSA MANAGEMENT



WEATHER & DISEASE PORTAL

PSA RISK MODEL

This tool shows the current and forecast daily environmental risk assessment of Psa infection conditions. It can be used to inform good practice decisions on spray and orchard management.



PRE-FLOWERING ACCUMULATION MODEL

Designed to predict the optimum spray timing intervals from local climate conditions. Use between budbreak to flowering (1 Sept-30 Nov). The purpose of this tool is to prevent over or under-spraying for Psa management. The tool can be used to show periods of high risk where protectants are necessary, and long periods of low risk where spray use can be reduced.

RESOURCES

SPRING SPRAY PROGRAMME

View the results of a Plant & Food Research trial which showed that a mixed product programme is likely to provide a higher level of protection than copper alone, and that there are alternative spray programmes that provide good efficacy with the added benefit of reduced reliance on copper and bactericides.



PSA DECISION TREE

A resource to help make decisions on-orchard pre-flowering. This resource pays particular attention to vine stress and walks you through the critical time between budbreak and flowering.

← AUTUMN → WINTER → SPRING → SUMMER →

	Post-harvest	Leaf fall	Dormancy	Budbreak	Green tip	Shoot growth	Flowering/pollination	Fruit growth
COPPER: Always apply in good drying conditions and always use label rates. Max 8 kg active/ha/yr or 3 kg for organics. After harvest apply copper to protect fruit stalks and leaf scars, and winter pruning wounds. Don't apply within seven days of bud enhancing sprays. Apply winter rate copper immediately before budbreak. From budbreak, apply summer rates at 10-14 day intervals to protect expanding leaves, shoots and flower buds ahead of high-risk weather. See Zespri Weather & Disease Portal for guidance. Don't spray open flowers. IMPORTANT: Any application during 'fruit growth', has a seven day pre harvest interval. Don't apply copper and seaweed within three days of each other, this may reduce the amount of bioavailable copper. NOTE: Bioavailable copper is the concentration of copper that can be taken up by Psa and have an effect; copper hydroxide provides higher concentration in a short period of time, copper oxide maintains higher levels over time.								
Ag Copp 75 ✓	55-70 g/100 L				37.5 g/100 L		DO NOT APPLY	37.5 g/100 L
Nordox™ 75 WG ✓	55-70 g/100 L				37.5 g/100 L			37.5 g/100 L
Norshield 45WG ✓	92-117 g/100 L				62.5 g/100 L			62.5 g/100 L
Kocide® Opti™ ✓			70 – 90 g/100 L					70-90 g/100 L
Champion++® ✓			70 – 90 g/100 L					70-90 g/100 L
Hortcare® Copper Hydroxide 300 ✓	70-90 g/100 L				50-90 g/100 L			50-90 g/100 L
Copzyzin	150-300 ml/100 L				150-225 ml/100 L			125 ml/100 L
Tri-base Blue®			150 ml/100 L				150 ml/100 L	
BACTERICIDES: Should only be applied in high-risk orchards and only immediately after or prior to high-risk weather events to reduce inoculum. Leaf area is sufficient when leaves reach 25-30 mm in diameter (50 cent coin). Use AI nozzles and drift-reducing adjuvants. Should not be used within 21 days of flowering. Don't spray any flowers (male or female) or fruit. One pre-flower Kasumin® is allowed. Provides 10-14 days protection. KeyStrepto™ and additional Kasumin® applications require a Justified Approval/JA. Follow user guides and label. NOTE: KeyStrepto™ use is continually reviewed each season. If you are closer than 21 days preflowering and would like to apply a Kasumin®, contact spraydiary@zespri.com .								
Kasumin®	DO NOT APPLY			500 ml/100 L	21 DAY GAP		DO NOT APPLY	
BIO-BACTERICIDES: Apply when early leaves reach 25-30 mm diameter (50 cent coin), and up until six weeks after flowering. Apply before high-risk weather to protect against leaf spot and flower bud infection. Reapply at 7-14 days, as required. Do NOT apply Aureo®Gold closer than ten days after Kocide® Opti™ or 14 days after Nordox™ 75 WG. DO NOT TANK MIX Aureo®Gold with coppers. Adjuvant use is recommended. Maximum ten applications/year. Don't exceed 4.5 kg/active/ha.								
Botector® Aureo®Gold ✓	DO NOT APPLY					50 g/100 L		DO NOT APPLY
ELICITORS: Apply when early leaves reach 25-30 mm diameter (50 cent coin) to protect against leaf spot and flowerbud infection. Requires 4–7 days for full effect. Reapply prior to flowering allowing 21 days between sprays. Don't apply to stressed plants. Don't spray flowers or fruit. Use immediately after harvest to protect fruit stalks and leaf scars. Avoid drift onto unharvested fruit. Foliage must be actively photosynthesising. Maximum four applications per season.								
Actigard®	20 g/100 L DO NOT exceed 200 g/ha	DO NOT APPLY		20 g/100 L DO NOT exceed 200 g/ha			NON PRODUCING VINES ONLY	
CPPU: Apply preventatively to protect against leaf spot. Requires 5-7 days for full effect. Apply when shoots reach 15-25 cm and up until three weeks before first female flower opens. One pre-flower Ambitious is allowed. Use AI nozzles and drift reducing adjuvants. Spray in good conditions and ensure even coverage. Don't spray female flowers or fruit. Not permitted as a growth regulator. Follow CPPU user guide. For more information on G3 or R19, contact spraydiary@zespri.com .								
Hayward only Ambitious 10SL®	DO NOT APPLY			50 ml/100 L	21 DAY GAP		NON PRODUCING VINES ONLY	
BIOLOGICALS: Use in a programme. Suit lower risk sites. For BOTRY-Zen® use sufficient water to achieve run-off. Reapply after 7-14 days. Don't apply BOTRY-Zen® to fruit i.e. from fruit-set to harvest.								
BOTRY-Zen® ✓			600 g/100 L				DO NOT APPLY	

Products listed have ACVM registration for Psa control. Spray rates are for high volume spraying (i.e. volumes to the point of run-off). Adjust product rates per 100 L if concentrate spraying. Use water rates appropriate for the size of the canopy to give complete coverage. This table is subject to change – refer to Zespri Crop Protection Standard (CPS) for updates.

PLEASE NOTE: The information on this resource is of a general nature and not intended to apply to any specific kiwifruit orchard and/or operation. Zespri cannot guarantee the accuracy, currency, or completeness of the information, nor is Zespri liable for any steps taken in reliance on it. For specific advice about a particular orchard/operation, contact your Zespri Grower Liaison Manager, post-harvest technical manager, or other suitably qualified technical consultant. ©2026 Zespri Group Limited, all rights reserved.