

Spring 2020 Spray Guide: Conventional - all varieties



	Timing	Purpose	Product	Rate/100 L	Water rate/Ha	PHI (DAYS)	REI (HRS)	Notes
	Advanced Bud Swell	Psa	Copper	Nordox™ 75WG - 37.5g	600-700L	7	WFD	Apply summer rates of Nordox™75WG just prior to bud cracking. Do NOT apply within 7 days of bud enhancing sprays. Use a superspreader like DuWett® to improve coverage.
	Visible Leaves - Green Tip	Bird control	Flock Off®	150-300ml	600-1000L	Pre-flowering only	WFD	Do not spray to run off. Reapply every 7-10 days as required. Use the higher rate for longer control, when bird pressure is heavy or new bird populations are invading the area. Use a superspreader like DuWett® to improve coverage or DuWett WeatherMax® if rainfall is expected. May be tank mixed with copper. Do not apply within 14 days of Aureo Gold®.
		Psa protection on emerging shoots	Copper Ⓢ	Kocide® Opti™ - 70g Champion® - 70g	600-700L	7	WFD	From bud break, apply summer rates at regular intervals to protect expanding leaves, shoots and flower buds. Avoid spraying open flowers. Use a superspreader like DuWett® to improve coverage. Do not apply within 5 days of Movento®.
	Early Leaf Development (leaf diameter from 25mm)	Psa	Trichoderma atroviride	KiwiVax® - 200g/Ha	1000-2000L	3	WFD	Apply two applications to the rootzone of kiwifruit plants in damp conditions during periods of active root growth about six weeks apart. Soil temperatures must be above 10°C. Three applications per year are recommended, either split or combined in bud phase and post harvest for active root colonisation.
		Psa	Kasumin®	500ml	700-1000L	Do not use within 21 days of flowering	48	Apply in high risk orchards to reduce inoculum prior to or immediately after high risk weather events - refer KVH Risk Model. Use AI nozzles and drift-reducing adjuvants. Sward must be mowed prior to application. Do NOT spray any flowers or fruit. One pre-flower Kasumin® is allowed, additional bactericide use requires a JA. Follow Zespri User Guide.
	Leaf development prior to flowering	Psa protection on emerging shoots	Copper Ⓢ	Kocide® Opti™ - 70g Champion® - 70g	600-700L	7	WFD	From bud break, apply summer rates at regular intervals to protect expanding leaves, shoots and flower buds. Avoid spraying open flowers. Use a superspreader like DuWett® to improve coverage. May be tank mixed with Actigard®. Do not apply copper within 5 days of Movento®. May be alternated with or replaced with Aureo Gold® (50g/100L) - do not apply Aureo Gold® within 14 days of copper or Flock Off®.
		Psa	Actigard® Ⓢ	200g/Ha	600-700L	Pre-flowering only	12	Apply early spring, when leaves reach 25mm in diameter to reduce leaf spot and protect flowerbuds. Requires 4-7 days for full effect. Maximum 4 applications per season. Do NOT apply to kiwifruit flowers or fruit. Do NOT apply to plants that are stressed due to drought, excessive moisture, wind, cold weather or disease. Tank mixing Actigard® with Aureo Gold® may improve efficacy of both products.
		Scale	Movento® 100 SC (plus DuWett®)	960ml/Ha (+ 40ml/100L)	600-700L	Pre-flowering only	12	This first Movento® application should only occur if there was a scale problem last year - check with your Grower Services Representative if you are unsure. Apply when leaves are at least 25mm in diameter. Add DuWett® for greater efficacy. Do not apply within 5 days of copper. Consider buffering pH of spray tank to less than 7.5. * A maximum of two scale control sprays are allowed between harvest and flowering - apply for JA if more required.
		Psa	Ambitious 10SL™ Ⓢ	50ml	600-700L	Pre-flowering only	WFD	Apply early spring, when leaves are developing and shoots reach 15-25cm long to reduce leaf spot. Requires 5-7 days to activate. Use AI nozzles and drift-reducing adjuvants. Not permitted on Gold varieties. May cause fruit shape issues at harvest.
		Psa protection on emerging shoots	Copper Ⓢ	Kocide® Opti™ - 70g Champion® - 70g	600-700L	7	WFD	From bud break, apply summer rates at regular intervals to protect expanding leaves, shoots and flower buds. Avoid spraying open flowers. Use a superspreader like DuWett® to improve coverage. May be tank mixed with Actigard®. Do not apply copper within 5 days of Movento®. May be alternated with or replaced with Aureo Gold® (50g/100L) - do not apply Aureo Gold® within 14 days of copper or Flock Off®.
7-10 days prior to male flower opening	Psa	Actigard® Ⓢ	200g/Ha	1000-1500L	Pre-flowering only	12	Apply 7 days pre-flower - requires 4-7 days for full effect. Maximum 4 applications per season. Do NOT apply to kiwifruit flowers or fruit. Do NOT apply to plants that are stressed due to drought, excessive moisture, wind, cold weather or disease. Tank mixing Actigard® with Aureo Gold® may improve efficacy of both products.	
	Scale	Movento® 100 SC (plus DuWett®) Ⓢ	960ml/Ha (+ 40ml/100L)	1000-1500L	Pre-flowering only	12	Add DuWett® for greater efficacy. Do not apply within 5 days of copper. Consider buffering pH of spray tank to less than 7.5. Can be tank mixed with Actigard®. * A maximum of two scale control sprays are allowed between harvest and flowering - apply for JA if more required.	
	Leafroller	Prodigy™ Ⓢ	25ml	1000-1500L	Pre-flowering only	WFD	Do not apply less than 300ml/ha under moderate pest pressure. Use being reviewed by Zespri® - apply if leafroller was a problem last season, otherwise maintain a strong flowering/post-fruitset programme. Maximum of three leafroller sprays allowed up to the start of monitoring. Do not tank mix with Luna® Privilege.	
	Period immediately before flowering	Psa	Copper Ⓢ	Kocide® Opti™ - 70g Champion® - 70g	1000-1500L	7	WFD	From bud break, apply summer rates at regular intervals to protect expanding leaves, shoots and flower buds. Avoid spraying open flowers. Use a superspreader like DuWett® to improve coverage. Can be tank mixed with Luna® Privilege. Do not apply within 5 days of Movento®.
		Sclerotinia	Luna® Privilege Ⓢ	300ml/Ha	1000-1500L	Pre-flowering only	24	Apply as close to the start of flowering as possible (cannot be used past bud phase). In total, 2 x sclerotinia sprays allowed per season but a JA is required for the 2nd spray. Can be tank mixed with copper. Do not tank mix with Prodigy™.
	Flowering	Sclerotinia	Timorex® Gold	100ml	1500L	Flowering period only	WFD	Avoid excessive run-off and oil products. Apply as a preventative spray prior to or at early stages of infection at the end of flowering. Bee safe, but do not apply while bees are actively foraging. If Luna® Privilege was applied, a JA is required for this Timorex® Gold application.
		Leafroller	Bio-Bit® DF	50g	1500L	2	WFD	May be applied if Prodigy™ was not sprayed pre-flower. Bt is an effective product and can be used during flowering to protect the early fruit (important if flowering happens over an extended period). Bee safe, but do not apply while bees are actively foraging.
90% Fruitset		Remember to record fruitset date in Spray Diary						

DISCLAIMER: This is a guide only provided to help with your decisions regarding Pest, Disease & Psa options. We make no warranty, representation or guarantee of the accuracy of the information due to environmental pressures, conditions & mechanical/human error and will not be responsible for any loss arising from reliance on the information. Please contact Zespri® or your preferred supplier for any updated information or advice.

Estimated Spray Date	Copper No1	/ /	Copper No2	/ /	Copper No3	/ /	Copper No4	/ /
Estimated Spray Date	Actigard® No1	/ /	Actigard® No2	/ /	Kasumin® No1	/ /	Bird Repellent	/ /
Estimated Spray Date	Scale No1	/ /	Scale No2	/ /	Leafroller No1	/ /	Leafroller No2	/ /
Estimated Spray Date	Sclerotinia No1	/ /	Sclerotinia No2	/ /	Other	/ /	Other	/ /
Estimated Spray Date	Other	/ /	Other	/ /	Other	/ /	Other	/ /
Other Key Dates	Bud Burst	/ /	Pre-Flower Girdle	/ /	Bees In	/ /	Full Bloom	/ /
Other Key Dates	Bees Out	/ /	Fruit set	/ /	Other	/ /	Other	/ /

Key

- Ⓢ Flock Off® and copper may be tank mixed. Do not mix Flock Off® with Aureo Gold®
- Ⓜ Actigard® may be tank mixed with copper or Aureo Gold®.
- Ⓢ Ambitious 10SL™ and copper or Aureo Gold® may be tank mixed. Do not mix copper with Aureo Gold®.
- Ⓢ Actigard®, Movento®, Prodigy™ may be tank mixed. Do not mix Movento® or Aureo Gold® with copper.
- Ⓢ Luna Privilege® may be tank mixed with copper or Aureo Gold®. Do not mix Movento® or Aureo Gold® with copper.
- REI** Restricted Entry Interval
- PHI** Pre-Harvest Interval (days)
- WFD** When Fully Dry
- JA** Zespri® Justified Approval
- AI nozzles** Air Inclusion nozzles

Notes

- This spray guide covers the period pre-budbreak to fruitset referred to as the “dormancy”, “bud phase” and “flowering” in the Zespri® Crop Protection Standard (CPS).
- Not all products that are listed in the CPS are listed in this spray guide - refer the CPS for all allowed products for use in this period.
- For HW and G14 blocks with a history of flower bud infection, a trunk girdle 30 days before flowering is an effective Psa management tool.
- Do not apply Aureo Gold® within 14 days of copper and/or Flock Off®.
- Tank mixing Aureo Gold® and Actigard® may improve efficacy of both leading to improved control of Psa. Do not tank mix Aureo Gold® with copper.
- Monitor for Psa regularly. Remove infected material promptly to reduce the risk of Psa spread. Always sanitise tools between vines with proven products, e.g. methylated spirits, Varicide, Virkon S, Sterigene, Envirosan, Aussan L44.
- Mixing copper with products that contain oils, penetrants, chelating agents, amino acids and/or nitrogen may result in phytotoxicity or fruit staining.
- All rates listed are for dilute (high volume) spraying only (i.e. spraying up to the point of run-off or full coverage). For concentrate spraying, adjust dilution rate accordingly (refer to the “Spray Tech Box” on Zespri® Canopy website).

Zespri® Requirements



- Zespri® requires all agricultural compounds applied to the vines, orchard floor, shelter or outside the boundary shelter used in the management of plant nutrition, pests, diseases or animals to be recorded in the Zespri® Spray Diary. This includes pesticides, herbicides, compost, soil and foliar applied fertilisers.
- Only products listed in the Zespri® Crop Protection Standard are allowed to be used without the prior approval of a Justified Approval (JA).
- Products not listed in the CPS may be allowed under JA by Zespri® under certain circumstances - refer to Zespri® for more information (spraydiary@zespri.com).
- Products must be applied at the label rate and as recommended. Where there is a rate/and or timing conflict between the label and the CPS the CPS will apply.
- Growers must complete a Property Spray Plan which summarises how to responsibly manage agrichemical use on the property.
- Growers must take all practical and reasonable steps to protect bees from the risks of agrichemical sprays.
- The Zespri® Crop Protection Standard only allows for a single application of Kasumin® in the bud phase period. A second application is possible using a JA. Growers are encouraged to save this spray for a period of inclement weather and to use the KVH risk assessment model for guidance.
- It is a Zespri® mandatory requirement that low drift technology is used for the application of Kasumin® - this includes air inclusion and the use of products such as Driftstop® or Surecane®.
- The GlobalG.A.P Management System Owner (MSO) is solely responsible for ensuring the spray diary is accurate and complete, regardless of who enters the information.
- Remember to record the fruitset date in Spray Diary at the end of the flowering period.
- Refer to Section 7 of the Zespri® CPS for HSNO Classification and MSD sheets for all products listed.

