AUSTRALIAN MADE

BAYER

vayego®

BENEFITS

- Vayego® targets multiple tree crop pests
- Proven activity on all life stages
- Fast acting
- Soft on most beneficial species when used as directed
- Short withholding period

Technical Guide

Protecting pome and stone fruit, almonds and macadamias against a number of chewing pests.

vayego®

///// TECHNICAL GUIDE CONTENTS

Vayego is a diamide insecticide (Group 28) that protects pome and stone fruit, almonds and macadamias against all life stages of a number of important chewing pests. Tetraniliprole, the active ingredient in Vayego, was created and developed by Bayer.

KEY BENEFITS

////// **Vayego targets multiple tree crop pests:** Carob moth, codling moth, light brown apple moth, oriental fruit moth, carpophilus beetle and weevils, including apple weevil, garden weevil, Fuller's rose weevil and macadamia seed weevil. (See label for further details)

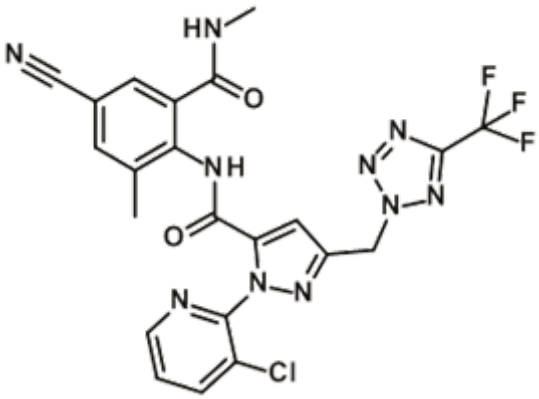
////// **Proven activity on all life stages:** From eggs to adults

////// **Fast acting:** Pests stop feeding almost immediately after treatment

////// **Soft on beneficial species:** Including mites, aphid, moth and scale predators and parasitoids, when used as directed. Vayego is positioned for application after flowering to protect bees and other pollinator species

////// **Short withholding period:** 3–10 days (crop dependent)

STRUCTURAL FORMULA



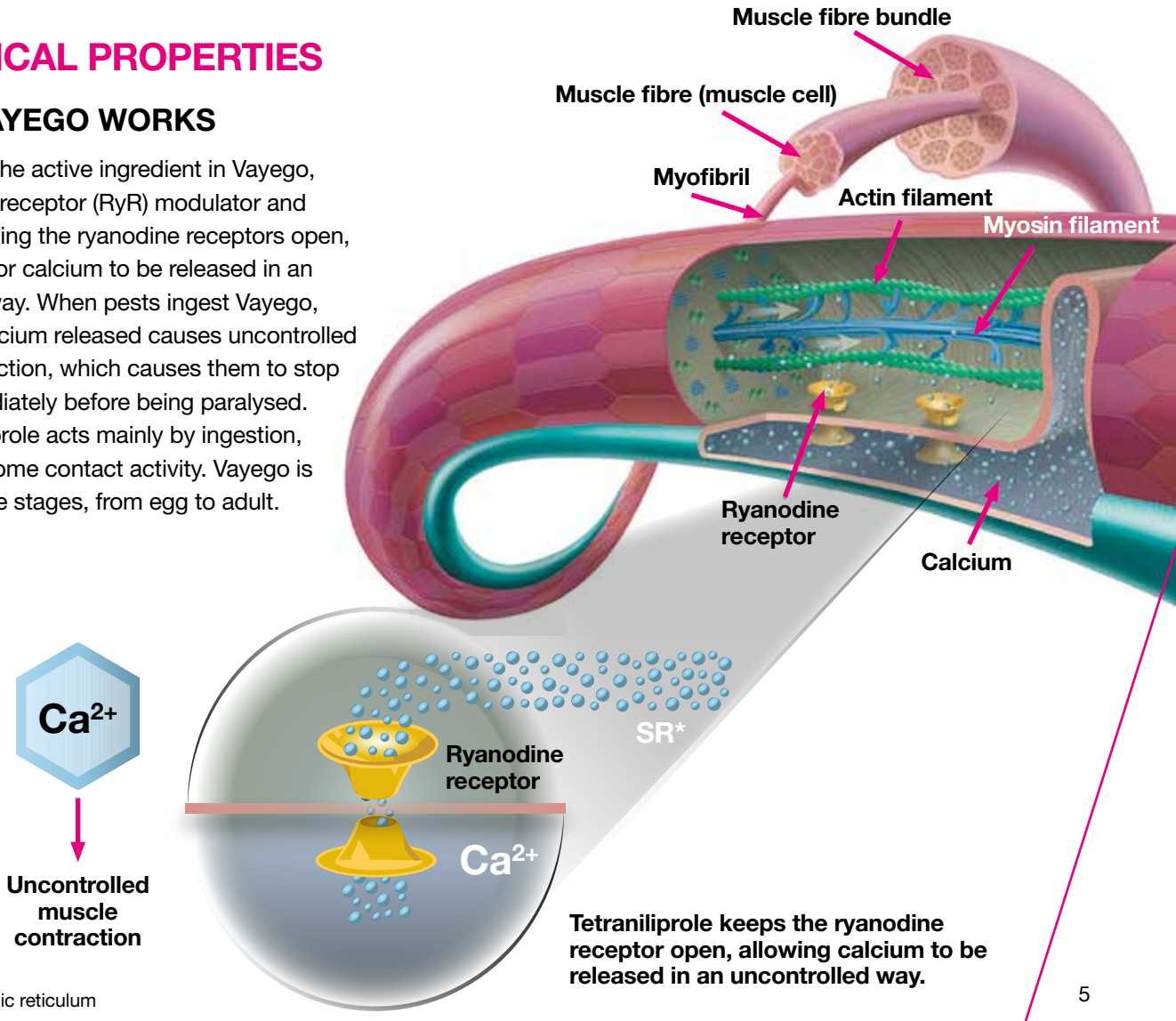
AT A GLANCE

PRODUCT NAME:	Vayego
ACTIVE INGREDIENT:	Tetraniliprole 200 g/L
INDICATION:	Insecticide for broadcast foliar spray
MODE OF ACTION:	Ryanodine receptor modulator
CHEMICAL CLASS:	Diamide (anthranilamide)
IRAC CLASSIFICATION:	Group 28
CROPS:	Pome fruit, stone fruit, almonds and macadamias
PEST SPECTRUM:	Selected lepidopteran, coleopteran and dipteran species
FORMULATION:	Suspension concentrate (SC)

BIOLOGICAL PROPERTIES

// HOW VAYEGO WORKS

Tetraniliprole, the active ingredient in Vayego, is a ryanodine receptor (RyR) modulator and works by keeping the ryanodine receptors open, which allows for calcium to be released in an uncontrolled way. When pests ingest Vayego, the excess calcium released causes uncontrolled muscle contraction, which causes them to stop feeding immediately before being paralysed. While tetraniliprole acts mainly by ingestion, it does have some contact activity. Vayego is active on all life stages, from egg to adult.



Tetraniliprole keeps the ryanodine receptor open, allowing calcium to be released in an uncontrolled way.

*SR = Sacroplasmic reticulum

BIOLOGICAL PROPERTIES

// HOW VAYEGO MOVES THROUGH THE PLANT

Vayego moves via the xylem and it is also translaminar.
This means it spreads evenly so it can be readily ingested by feeding pests.

// SYSTEMICITY IN CABBAGE* LEAVES

Tetraniliprole was taken up and translocated to other parts of the leaves.

= POINT OF APPLICATION

Greenhouse experiment: systemic activity – 1 drop of radio-labelled tetraniliprole applied to leaf 2.
Method: Vayego plus RME (0.1%), 1 drop: 3 µg/5 µL (3.33 kBq, 200,000 dpm), dried for 24 hours at 50˚C, exposure to phoser imaging plate for 24 hours.

*Vayego is not registered in cabbages in Australia. Images are for demonstration only.

// VAYEGO ACTS FAST

While tetraniliprole acts mainly by ingestion,
it does have some contact activity.
Larvae stop feeding almost immediately,
lose muscle control and become immobile.
Within 1-2 hours after application,
they contract to half their original size.

Vayego in pome fruit

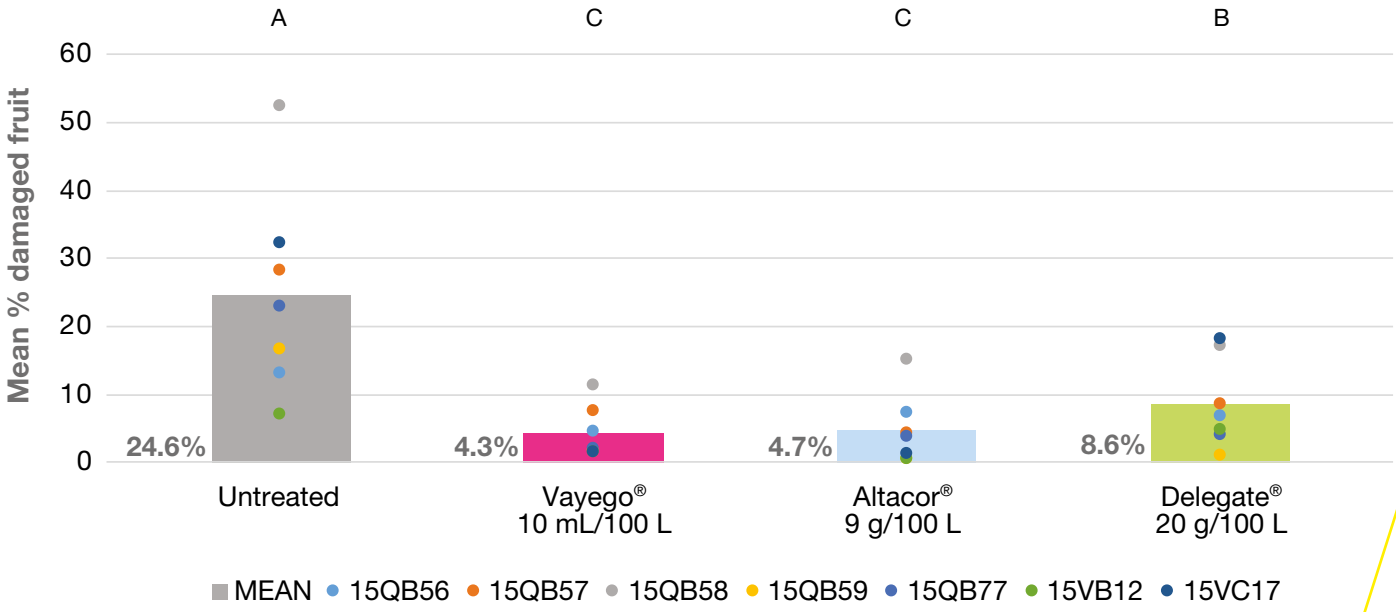
Vayego is a broad-spectrum insecticide for pome fruit, offering control of codling moth, light brown apple moth and targeted weevils. It controls all stages of the life cycle of these pests. Vayego is a new mode of action for weevil control and complements existing chemistry and management strategies.

AT A GLANCE

TARGET PESTS:	Codling moth, light brown apple moth and weevils (e.g. garden weevil, Fuller's rose weevil, apple weevil)
USE RATE:	10 mL/100 L
PACK SIZES:	1 L & 5 L
MAXIMUM SPRAYS:	**Codling moth, light brown apple moth and weevils:** Do not apply more than 3 applications per season (up to 300 mL/ha per application)
APPLICATION INTERVALS:	**Codling moth and light brown apple moth:** 14–21 days **Weevils:** 14 days
WITHHOLDING PERIOD:	7 days
ADJUVANT REQUIRED:	No

// TRIAL RESULTS

Codling moth efficacy assessment at harvest from a full season Vayego application program across various Australian trial sites.

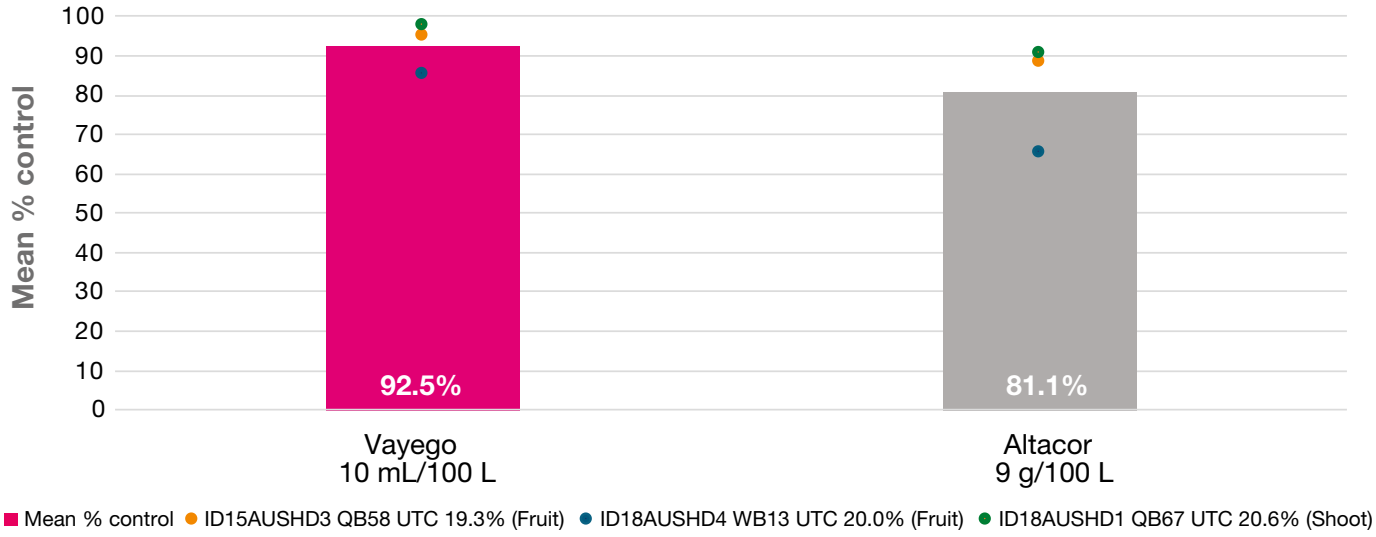


Letters of separation are based on Duncan's new multiple range test p=0.05. Each data point represents average from replicated trial.

Vayego in pome fruit

// TRIAL RESULTS

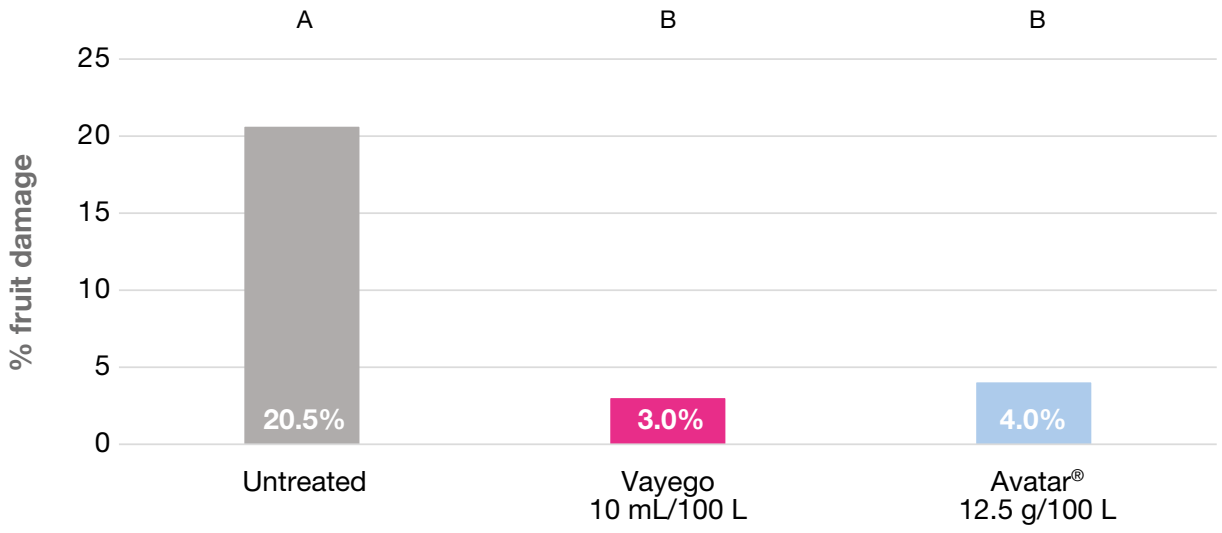
Light brown apple moth efficacy assessment in apples across various trial sites.



Each data point represents average from replicated trial.

Garden weevil efficacy assessment in Fuji apples, Manjimup WA at harvest.
123 days after application A (123 DAA).

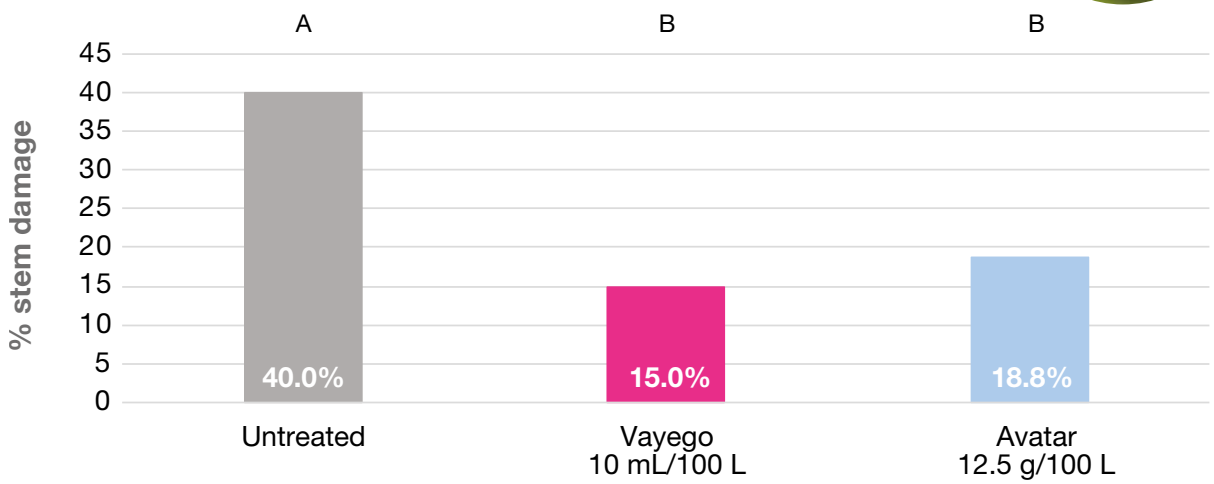
Trial No: ID15AUSHD4WB11
Apple cv. ***Fuji***
Replications: 4
No. of applications: 1 (App A:30/10/2015)



Letters of separation are based on Duncan's new multiple range test p=0.05.

Apple weevil efficacy assessment in Fuji apples, Manjimup WA at harvest.
123 days after application A (123 DAA).

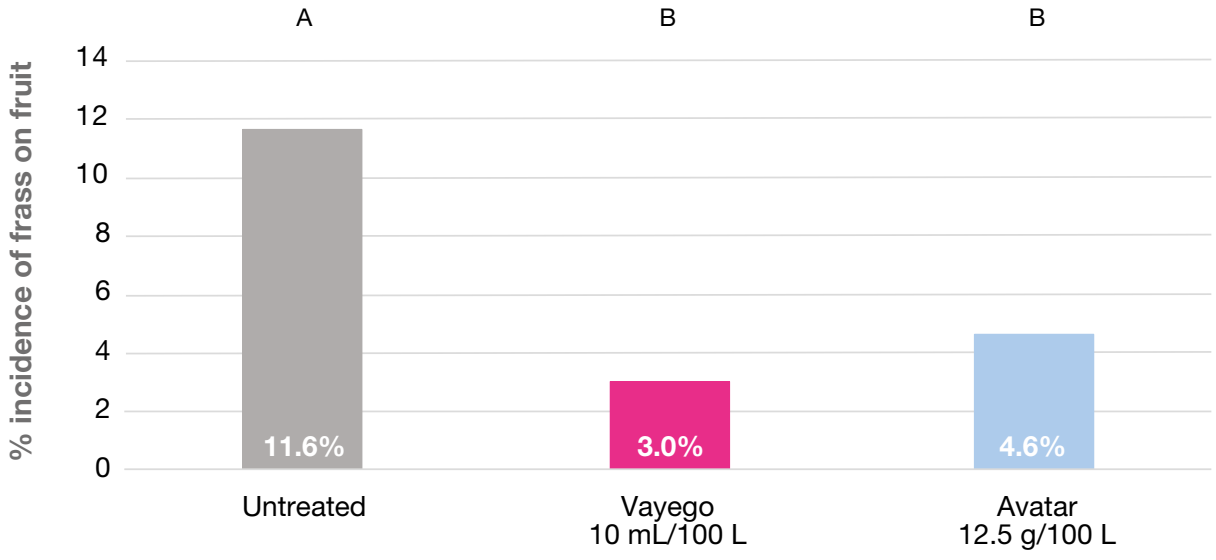
Trial No: ID15AUSHD4WB11
Apple cv. Fuji
Replications: 4
No. of applications: 1 (App A:30/10/2015)



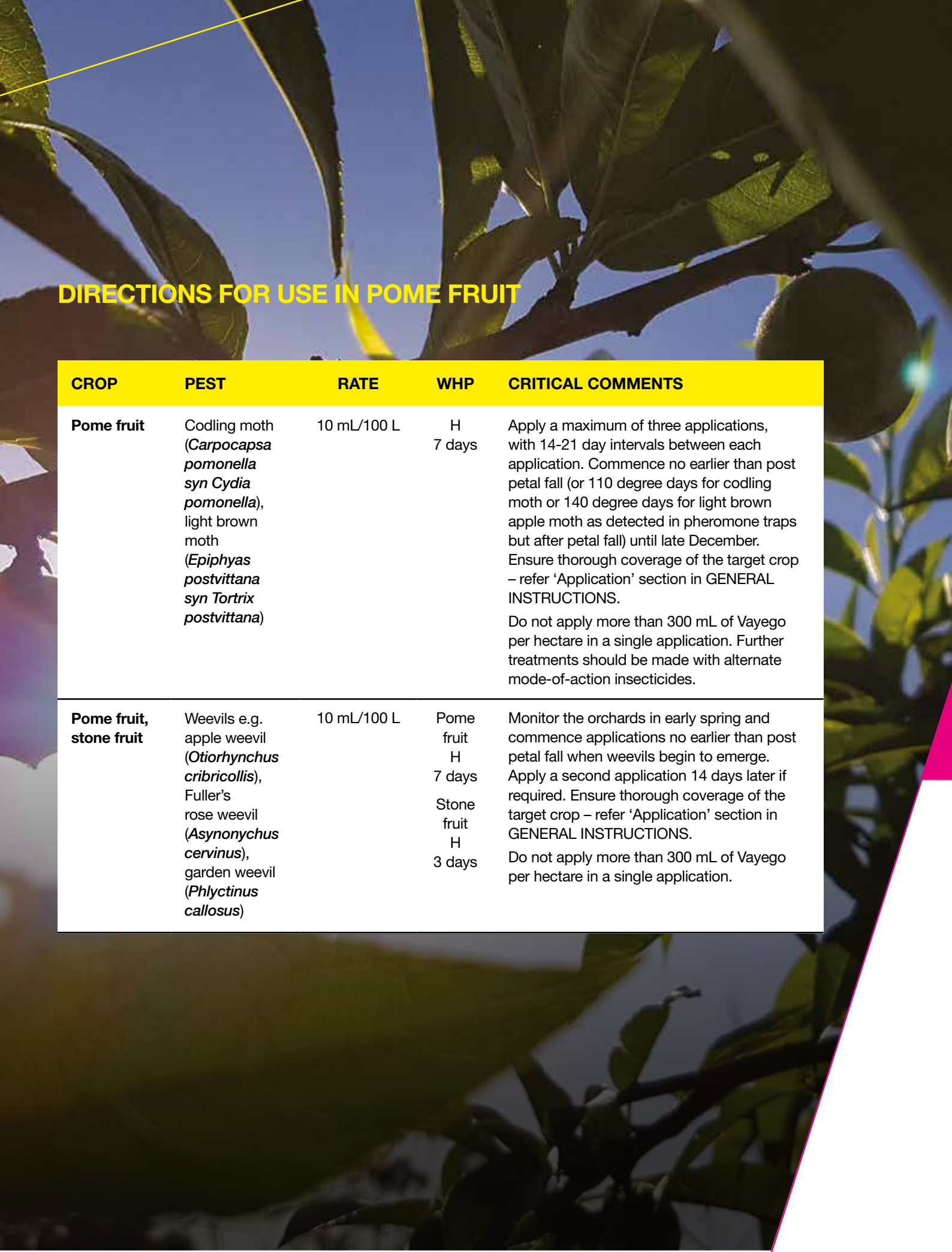
Letters of separation are based on Duncan's new multiple range test p=0.05.

Fuller's rose weevil efficacy assessment in Royal Gala apples, Manjimup WA at 104 days after application B (DAB).

Trial No: ID18AUSHD4WB12
Apple cv. ***Royal Gala***
Replications: 4
No. of applications: 2
(App A:06/11/2017, App B:23/11/2017)



Letters of separation are based on Duncan's new multiple range test p=0.05.



DIRECTIONS FOR USE IN POME FRUIT

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Pome fruit	Codling moth (*Carpocapsa pomonella syn Cydia pomonella*), light brown moth (*Epiphyas postvittana syn Tortrix postvittana*)	10 mL/100 L	H 7 days	Apply a maximum of three applications, with 14-21 day intervals between each application. Commence no earlier than post petal fall (or 110 degree days for codling moth or 140 degree days for light brown apple moth as detected in pheromone traps but after petal fall) until late December. Ensure thorough coverage of the target crop – refer 'Application' section in GENERAL INSTRUCTIONS. Do not apply more than 300 mL of Vayego per hectare in a single application. Further treatments should be made with alternate mode-of-action insecticides.
Pome fruit, stone fruit	Weevils e.g. apple weevil (*Otiorhynchus cribricollis*), Fuller's rose weevil (*Asynonychus cervinus*), garden weevil (*Phlyctinus callosus*)	10 mL/100 L	Pome fruit H 7 days Stone fruit H 3 days	Monitor the orchards in early spring and commence applications no earlier than post petal fall when weevils begin to emerge. Apply a second application 14 days later if required. Ensure thorough coverage of the target crop – refer 'Application' section in GENERAL INSTRUCTIONS. Do not apply more than 300 mL of Vayego per hectare in a single application.

Vayego in stone fruit

Vayego is a broad-spectrum insecticide, controlling lepidopteran (Oriental fruit moth) coleopteran (weevils) and dipteran (Mediterranean fruit fly) and supressing key carpophilus beetle species in stone fruit. Previously there has not been a Group 28 insecticide available to control Mediterranean fruit fly or manage carpophilus beetles. Vayego should be used as part of an integrated pest management program.

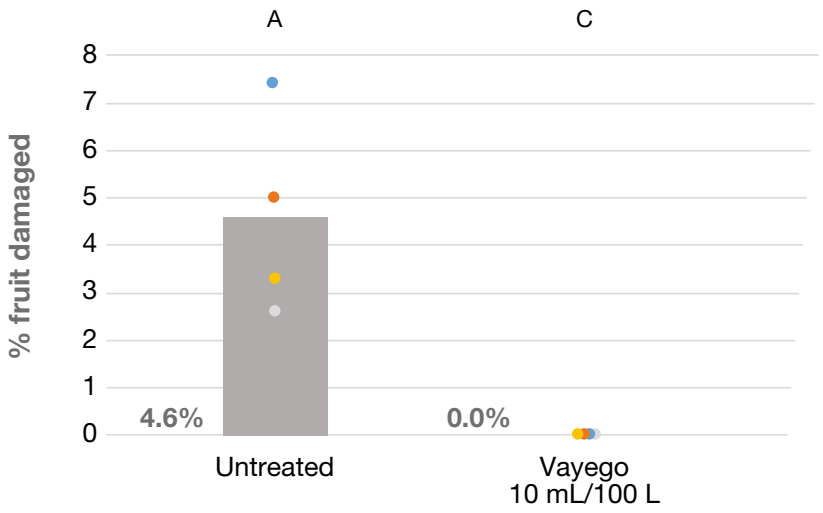
AT A GLANCE

TARGET PESTS:	Oriental fruit moth, carpophilus beetle, Mediterranean fruit fly and weevils (e.g. garden weevil, Fuller's rose weevil, apple weevil)
USE RATES:	**Oriental fruit moth, carpophilus beetles and weevils:** 10 mL/100 L **Mediterranean fruit fly:** 12.5 mL/100 L
PACK SIZES:	1 L & 5 L
MAXIMUM SPRAYS:	Do not apply more than 3 applications per season (up to 300 mL/ha per application)
APPLICATION INTERVALS:	**Mediterranean fruit fly:** 10 days **Carpophilus beetles:** 10–14 days **Weevils:** 14 days **Oriental fruit moth:** 14–21 days
WITHHOLDING PERIOD:	3 days
ADJUVANT REQUIRED:	No

// TRIAL RESULTS

Oriental fruit moth efficacy assessment in peaches, Cobram VIC.

Trial No: ID18AUSHD2VE10
Location: Cobram, VIC
Peach
Replications: 4
No. of applications: 6*
Assessment: 22 January 2018 (12 DAF)

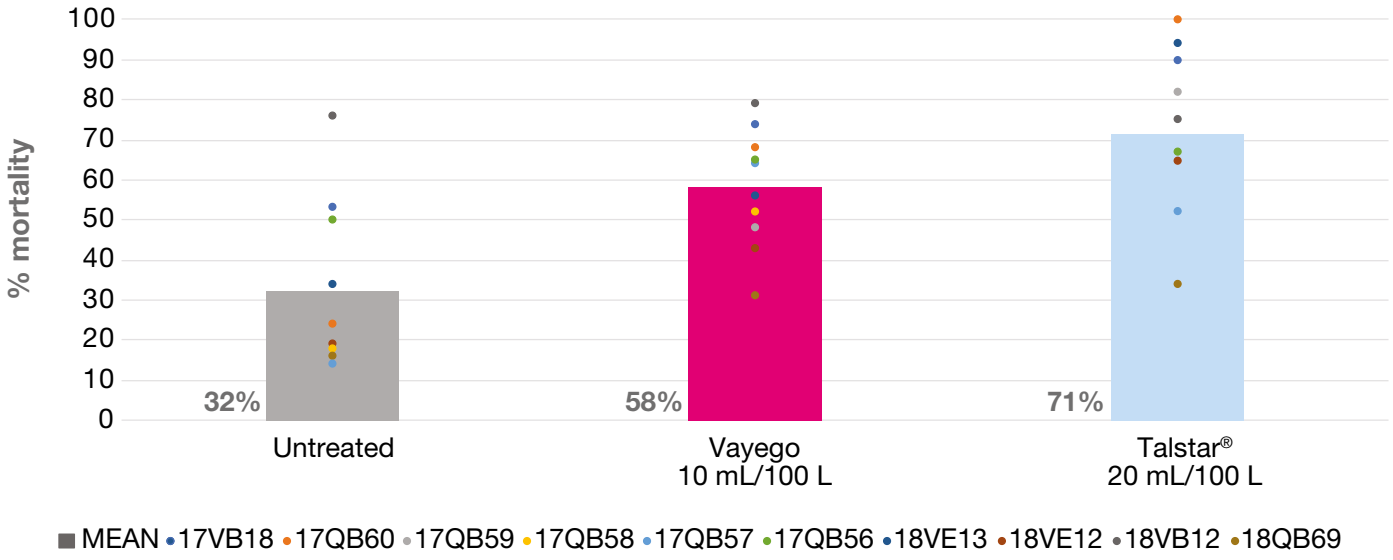


Letters of separation are based on Duncan's new multiple range test p=0.05. Data points represent replicate results.
*The number of applications used were higher than registered label recommendations and used for efficacy comparison only.
Refer to individual product label directions for commercial use.

Vayego in stone fruit

// TRIAL RESULTS

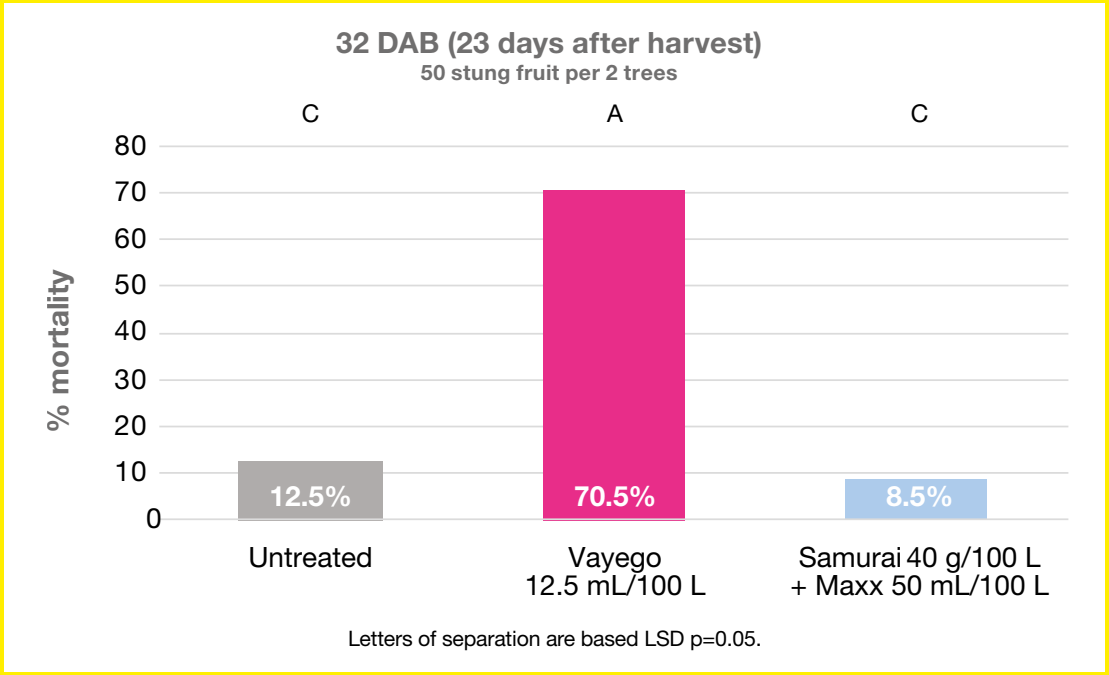
Summary of carpophilus beetle mortality in stone fruit 8–12 days after application across 10 trials.



In the ten replicated trials completed, Vayego was more consistent than Talstar for carpophilus beetle control.

Vayego provided a significant increase in Mediterranean fruit fly pupae mortality in peaches, Perth Hills WA.

Trial No: ID17AUSHD8QB62
Location: Perth Hills
Trial contractor: Peracto WA
Peach cv. Zee Lady
Replications: 4
No. of applications: 2
(App A:04/01/2017, App B:16/01/2017)

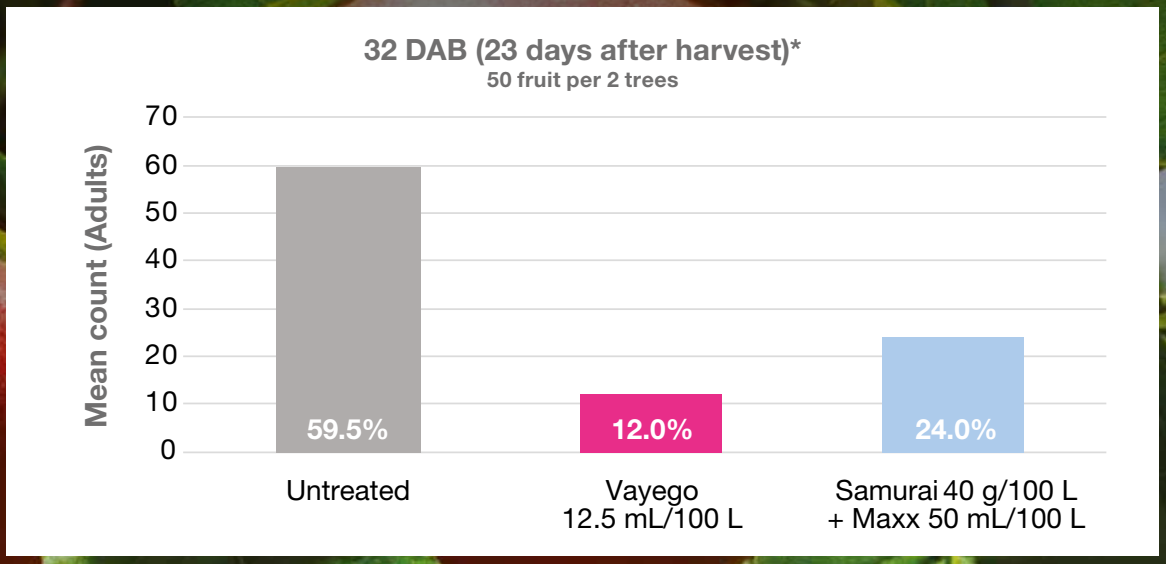


Letters of separation are based LSD p=0.05.

- A further sample of 50 stung fruit was collected at commercial harvest.
- Fruit were placed over sand trays in the laboratory and allowed to pupate and develop to adults.
- Pupae mortality was assessed by counting pupae casings (emerged adults) and dead pupae.

Vayego had the greatest impact in reducing the number of adult Mediterranean fruit flies completing their lifecycle in peaches, Perth Hills WA.

Trial No: ID17AUSHD8QB62
Location: Perth Hills
Trial contractor: Peracto WA
Peach cv. *Zee Lady*
Replications: 4
No. of applications: 2
(App A:04/01/217, App B:16/01/2017)



*No statistical difference

DIRECTIONS FOR USE IN POME FRUIT

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Stone fruit	Oriental fruit moth (***Laspeyresia molesta syn Grapholita molesta***)	10 mL /100 L	H 3 days	Commence applications post petal fall, when predictive models from local monitoring agencies indicate egg hatch of a generational peak. Apply a maximum of three applications, with 14-21 day intervals between applications. Ensure thorough coverage of the target crop – refer 'Application' section in GENERAL INSTRUCTIONS. Do not apply more than 300 mL of Vayego per hectare in a single application.
	Dried fruit beetles (***Carpophilus*** spp.) – suppression			Monitor stone fruit orchards or beetles as fruit approaches maturity and become susceptible to attack. Commence applications before beetle populations reach damaging levels and re-apply treatments if necessary. Apply a maximum of three applications, with a 10 – 14 day interval between applications. Ensure thorough coverage of the target crop – refer 'Application' section in GENERAL INSTRUCTIONS. Do not apply more than 300 mL of Vayego per hectare in a single application.
	Mediterranean fruit fly (***Ceratitis capitata***)	12.5 mL /100 L		Commence applications when monitoring indicates fruit fly activity and fruit are vulnerable to damage (e.g. fruit ripening). Apply a maximum of three sprays, with 10 day intervals between applications. Ensure thorough coverage of the target crop – refer 'Application' section in GENERAL INSTRUCTIONS. Do not apply more than 300 mL of Vayego per hectare in a single application. Vayego applications should form part of an integrated fruit fly management program including baiting, trapping and a focus on orchard hygiene.
Pome fruit, stone fruit	Weevils e.g. apple weevil (***Otiorhynchus cribricolis***), Fuller's rose weevil (***Asynonychus cervinus***), garden weevil (***Phlyctinus callosus***)	10 mL /100 L	Pome fruit H 7 days Stone fruit H 3 days	Monitor stone fruit orchards or beetles as fruit approaches maturity and become susceptible to attack. Commence applications before beetle populations reach damaging levels and re-apply treatments if necessary. Apply a maximum of three applications, with a 10 – 14 day interval between applications. Ensure thorough coverage of the target crop – refer 'Application' section in GENERAL INSTRUCTIONS. Do not apply more than 300 mL of Vayego per hectare in a single application.

Vayego in almonds

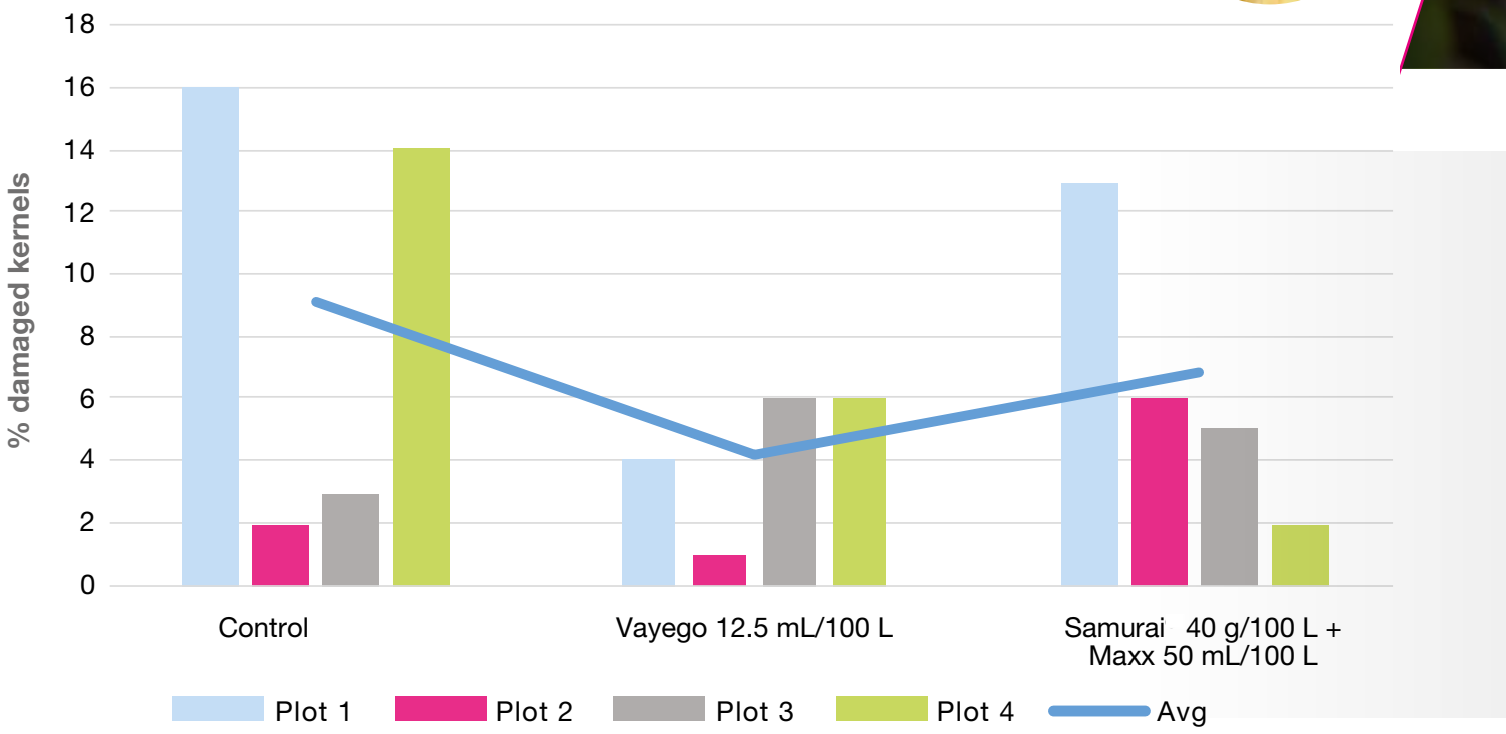
Vayego controls carpophilus beetles and carob moths in almonds and should be used as part of integrated pest management programs, with a focus on orchard hygiene to manage carpophilus beetles.

AT A GLANCE

TARGET PESTS:	Carpophilus beetles and carob moths
USE RATE:	12.5 mL/100 L
PACK SIZES:	1 L & 5 L
MAXIMUM SPRAYS:	Do not apply more than 2 applications per season (up to 300 mL/ha per application)
APPLICATION INTERVALS:	**Carpophilus beetles:** 14 – 21 days **Carob moths:** 1st generation control & 2nd generation control
CONCENTRATE SPRAYING:	Is not appropriate
WITHHOLDING PERIOD:	10 days
ADJUVANT:	A non-ionic wetter should be added at label rates

// VAYEGO CARPOPHILUS BEETLE TRIAL RESULTS

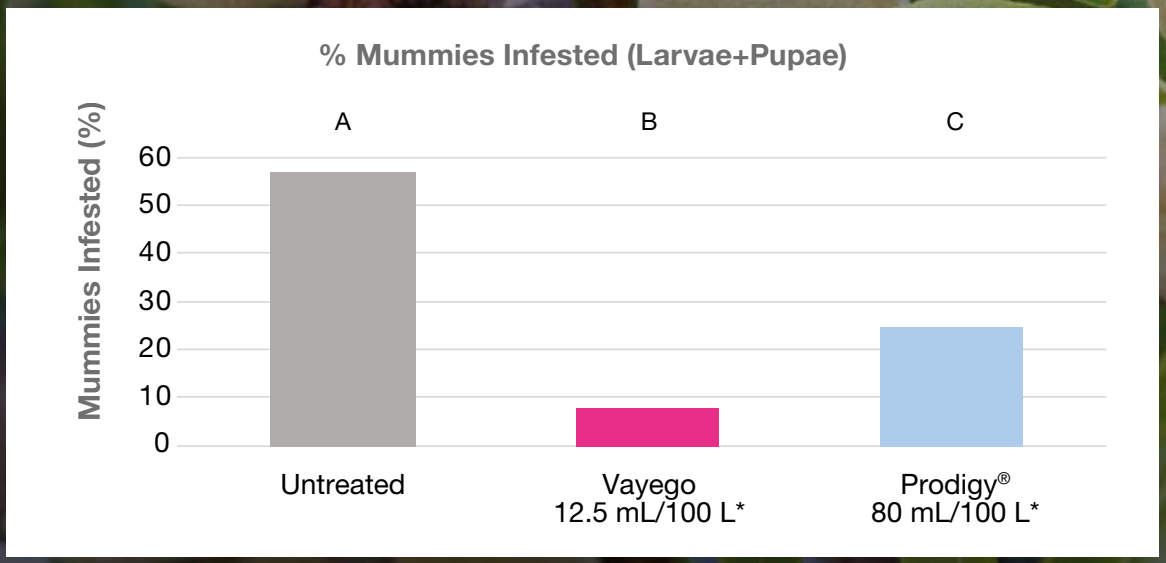
Vayego reduced almond kernel damage from carpophilus beetles by 50% in a large area trial in NSW (Jan 2020).



// VAYEGO CAROB MOTH TRIAL RESULTS

Carob moth control: 1st Generation (November)

Trial No: ID19AUSHDHQB36
Location: Lyrup, SA
Trial contractor: Select Ag
Variety: Nonpareil
Replications: 4
No. of applications: 1 (App A: 31/10/2019)
Water volume: 2,000 L/ha



*plus Agral @ 10 mL/100
Lp-value = <0.0001

- 20 mummies per plot (80 per treatment), assessed 14 days after application.
- Carob moth population at assessment was approx. half larvae and half pupae.
- 3% of mummies had eggs, with no eggs found in treated plots.
- **Vayego control = 87% relative to UTC**
  Prodigy control = 56% relative to UTC

- Applied 24/01/20, Assessment 13/02/20 (commercial harvest 21/02/20)
- Kernel damage % from carpophilus beetle.
- 1200 nuts assessed (100/plot, 400/treatment)
- Average damage in unsprayed = 8.75%
- Average damage in Vayego = 4.25% (50% reduction)
- Average damage in Samurai* = 6.5%
- Vayego applied once at early hull split (10%) 24 January
- 12.5 mL/100 L in 2000 L water/ha
- High pest pressure
- 5 rows sprayed
- Compared with Samurai and unsprayed
- Not replicated

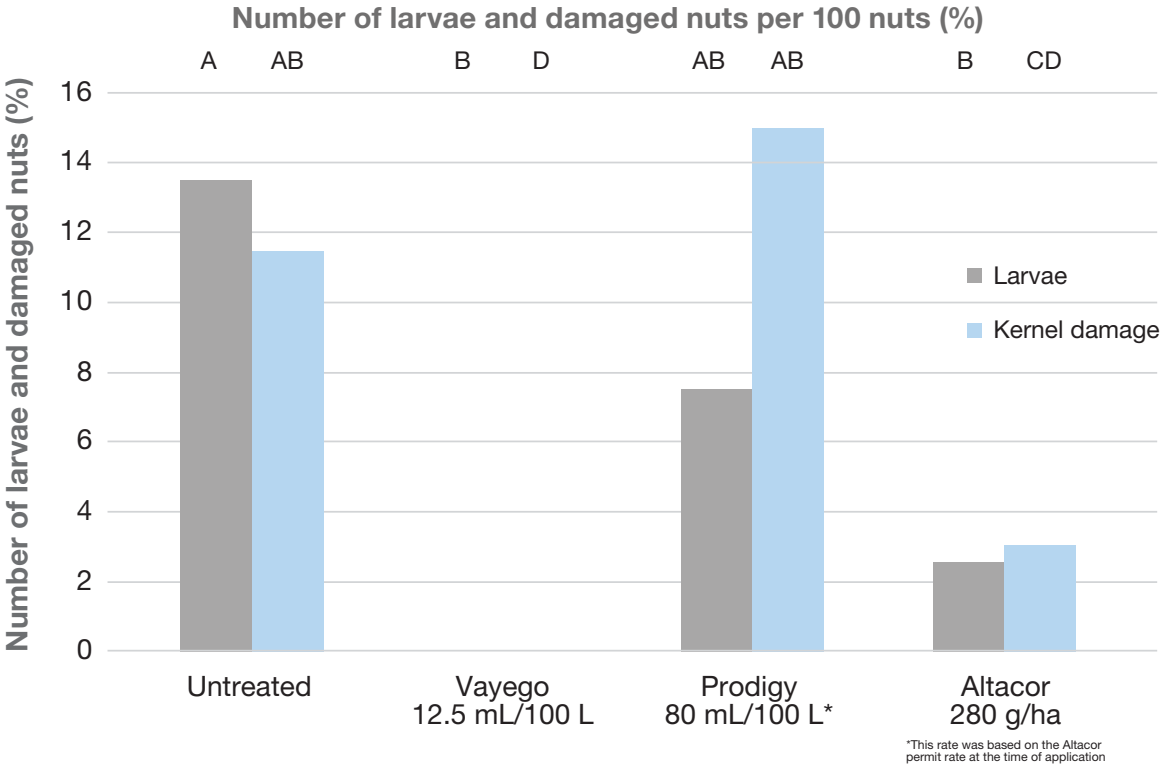
*Samurai applied according to PER87311

Vayego in almonds

// VAYEGO CAROB MOTH TRIAL RESULTS

Carob moth control: hull split application (damage)

Trial No: ID18AUSHDDQB73
Location: Lyrup, SA
Trial contractor: Select Ag
Variety: Nonpareil
Replications: 4
No. of applications: 2
Water volume: 2,000 L/ha



- App A – 9th Jan (early hull split).
  App B – 31st Jan (22 DAA).
- Assessed: 14 days after App B.
- 100 nuts from each plot assessed (400 nuts total per treatment).

*plus Agral @ 10 mL/100
Lp-value = 0.006
p-value = 0.003

No pest damage identified in Vayego-treated plots

DIRECTIONS FOR USE IN ALMONDS

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Almonds	Carpophilus beetles (incl. *Carpophilus truncatus*)	12.5 mL /100 L	H 10 days	Monitor orchards during hull split for the presence of carpophilus beetles. If numbers have the potential to cause economic loss, apply at mid hull split before the shells of soft-shelled varieties dry, exposing the kernel. Apply a follow up application 14-21 days later if there is a continual influx of carpophilus beetles from surrounding areas. Apply a maximum of two applications. Kernel damage can still occur if carpophilus beetles enter the orchard just prior to harvest, when the shell is open, and feed directly on the kernel. Ensure thorough coverage of the target crop as thorough coverage of all hulls is essential – refer 'Application' section in GENERAL INSTRUCTIONS. Concentrate spraying for this pest is not appropriate. A non-ionic wetter e.g. Agral® 600 should be added at 10 mL/100 L of spray solution. Do not apply more than 300 mL of Vayego per hectare in a single application. Vayego should form part of an integrated program to manage carpophilus beetle populations with a focus on orchard hygiene.
	Carob moth (***Ectomyelois ceratoniae***)			**1st generation pest control** Monitor carob moth activity during spring (after flowering). If pest numbers exceed thresholds, a late spring application (Oct-Nov) will provide control of eggs and larvae present in mummy nuts, reducing carob moth numbers in the orchard prior to hull split. **2nd generation pest control** Apply Vayego at early hull split (typically 1-5% hull split) to provide control over the main egg laying period. Ensure thorough coverage of the target crop as thorough coverage of all hulls is essential – refer 'Application' section in GENER AL INSTRUCTIOINS. Concentrate spraying for this pest is not appropriate. A non-ionic wetter should be added at label rates. Do not apply more than two applications per season in each crop. Do not apply more than 300 mL of Vayego per hectare in a single application.

Vayego in macadamias

Vayego controls macadamia seed weevil in macadamias. Vayego should be used as part of an integrated pest management program, with a focus on using a range of other measures to control macadamia seed weevil.

AT A GLANCE

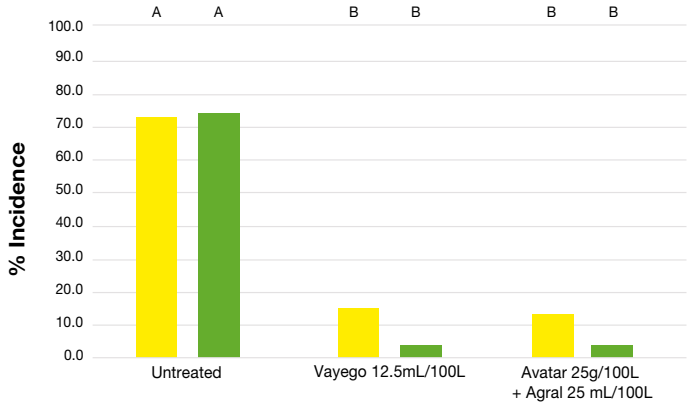
TARGET PEST:	Macadamia seed weevil (Sigastus weevil)
USE RATE:	12.5 mL/100 L
PACK SIZES:	1 L & 5 L
MAXIMUM SPRAYS:	Do not apply more than 3 applications per season (up to 300 mL/ha per application)
APPLICATION INTERVAL:	14 – 28 days
WITHHOLDING PERIOD:	10 days
ADJUVANT:	Adding a non-ionic wetter at label rates may improve control

DIRECTIONS FOR USE IN MACADAMIAS

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Macadamias	Sigastus weevil (macadamia seed weevil, *uschelorhynchus macaadamiae*)	12.5 mL /100 L	H 10 days	Monitor the weevil population and commence applications when weevils are active and after petal fall. Apply with a 14 - 28 day interval between applications as required until shell hardening. Do not apply more than three applications per season in each crop. Apply as a dilute application ensuring thorough and uniform spray coverage of foliage and branches – refer 'Application' section in GENERAL INSTRUCTIONS. Do not apply more than 300 mL of Vayego per hectare in a single application. The addition of a non-ionic wetter e.g. Agral 600 added at 10 mL/100 L of spray solution, may improve control. Vayego should be used as part of an integrated pest management approach which should include the use of other measures for control of sigastus weevil.

// NUMBER OF MACADAMIA SEED WEEVIL DAMAGE ON NUTS

Letters of separation are based on Duncan's new multiple range test p=0.05.



Seed weevil egg lay damage on dropped nuts at 19 DAA

Seed weevil egg lay damage on nuts in tree at 77 DAB

19 DAA untreated recorded mean of 70 damaged dropped nuts per tree.

77 DAB untreated recorded mean of 20 damaged nuts per tree.

Application timing: Initial application 31st October 2018 (early nut set), second application 20th November 2018.

DAA: Days after application A,
DAB: Days after application B.

Trial No: ID19AUSHDOQA03
Location: Alstonvale, NSW
Replications: 3
No. of applications: 2
Application interval: 20 days
Water volume: 2,000 L/ha

Vayego application

Vayego has the following characteristics that make it easy to use:

- Vayego is a water-based suspension concentrate
- Vayego consists of small, suspended active ingredient particles that provide long-lasting efficacy at low application rates (between 10–12.5 mL/100 L)
- Vayego mixes well in cold water (5˚C)
- Vayego has no issues with pH, although ideally adjust the spray solution to pH >6
- Vayego is compatible with a broad range of products
- Vayego must not be applied when tree crops or weeds within orchards are flowering

DILUTE & CONCENTRATE SPRAYING

Vayego is suitable for dilute spraying across all crops but is only suitable for concentrate spraying in macadamias, pome fruit and stone fruit.

// DILUTE SPRAYING APPLICATION – ALL CROPS

- Use a sprayer designed to apply high volumes of water up to the point of run-off and matched to the crop being sprayed
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to the point of run-off. Avoid excessive run-off
- The required water volume may be determined by applying different test volumes, using different settings on the sprayer, from industry guidelines or expert advice
- Add the amount of product specified in the Directions for Use table for each 100 L of water up to a maximum of 300 mL Vayego per hectare in a single application. Spray to the point of run-off
- The required dilute spray volume will change and the sprayer set up and operation may also need to be changed, as the crop grows.

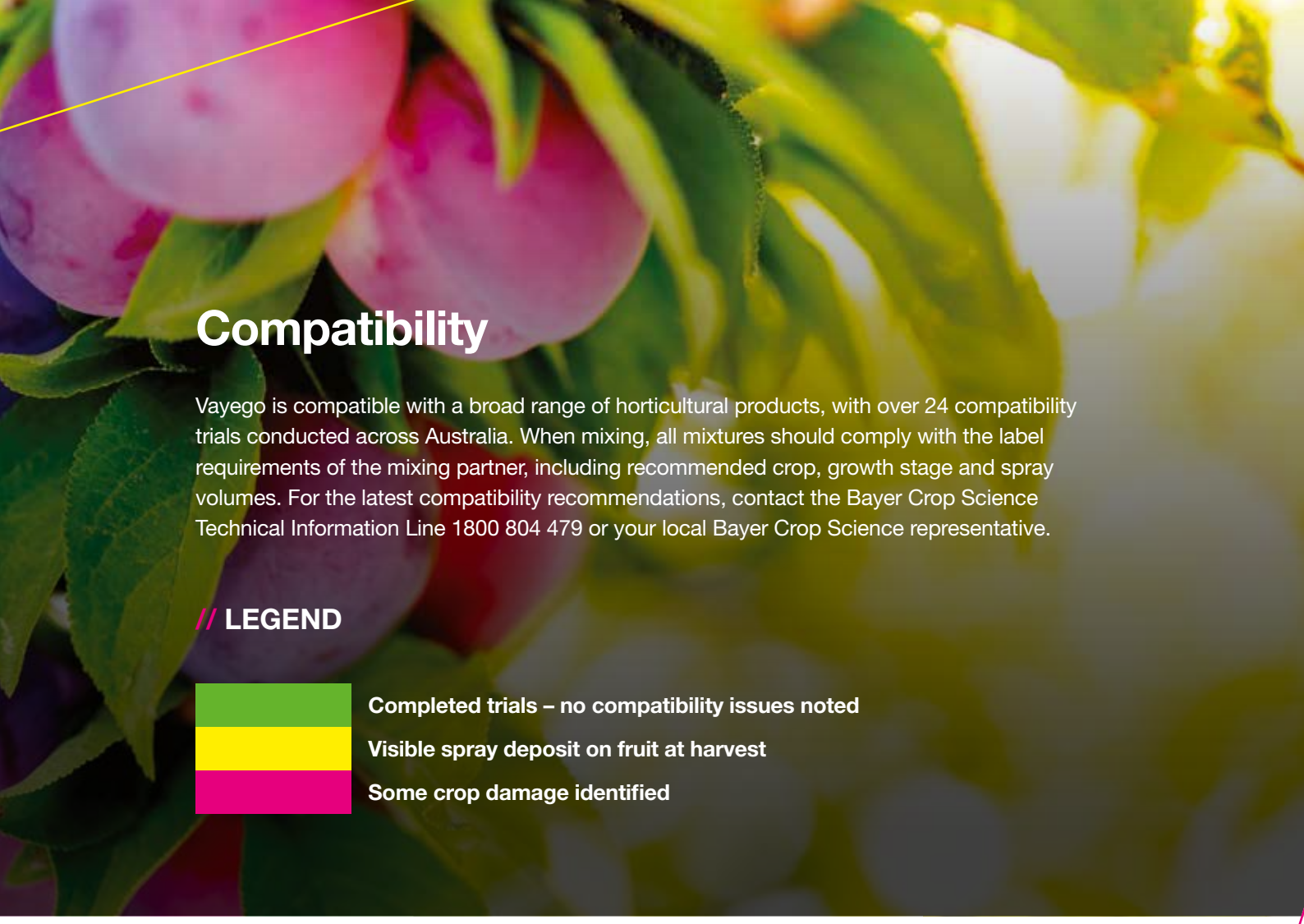
// CONCENTRATE SPRAYING APPLICATION – MACADAMIAS, POME FRUIT, STONE FRUIT

- Use a sprayer designed and set up for concentrate spraying (that is a sprayer that applies spray volumes less than those required to reach the point of run-off) and matched to the crop being sprayed
- Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen spray volume
- Determine an appropriate dilute spray volume (See Dilute Spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate
- The mixing rate for concentrate spraying can then be calculated in the following way:

Example

1 Dilute spray volume as determined above:
For example 1500 mL/ha
2 Your chosen concentrate spray volume:
For example 750 mL/ha
3 The concentration factor in this example is 2X
(i.e. 1500 L ÷ 750 L = 2)
4. If the dilute label rate is 10 mL/100 L, then the concentrate rate becomes 2 x 10 mL/100 L, which is 20 mL/100 L of concentrate spray

- The chosen spray volume, amount of product per 100 L of water, and the sprayer set up and operation may need to be changed as the crop grows
- Do not use at a concentration factor greater than 2X (e.g. at a rate higher than 25 mL/100 L where a dilute spraying rate of 12.5 mL/100 L is specified)
- Note that the concentration mixing rate is applicable only to Vayego. The adjuvant remains unchanged (i.e. no concentration factor applies)
- For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry best practice.



Compatibility

Vayego is compatible with a broad range of horticultural products, with over 24 compatibility trials conducted across Australia. When mixing, all mixtures should comply with the label requirements of the mixing partner, including recommended crop, growth stage and spray volumes. For the latest compatibility recommendations, contact the Bayer Crop Science Technical Information Line 1800 804 479 or your local Bayer Crop Science representative.

// LEGEND

Completed trials – no compatibility issues noted

Visible spray deposit on fruit at harvest

Some crop damage identified

STONE FRUIT COMPATIBILITIES	
Acramite®	1[13]
Bumper®	1[13]
Captan	2[13,12]
Confidor®	2[14]
Delan®	2[12,13]
Delegate®	1[13]
Dithane® Rainshield®	2[12,13]
Fontelis®	2[14,12]
Luna® Sensation	2[13,12]
Merivon®	1[1]
Movento® + Agridex®/Hasten®	6[2,8,5,7,9,14]
Omite®	1[13]
Polyram®	2[14]
Rovral® Aquaflo	2[13,12]
Talstar®	2[14]
Thiovit® Jet	2[13,12]
Throttle®	1[12]
Transform®	1[14]
Ziram	2[13,12]

VARIETIES TESTED

Peach – Golden Queen

Peach – Taylor Queen

Nectarine – September Bright

Nectarine – 1986

Plum – Teagan Blue

Cherry – Somerset

APPLE COMPATIBILITIES	
Captan	3[22,24,10]
Delan	2[16,22]
Dithane Rainshield	2[23,22]
Fontelis	2[10,22]
Luna Sensation	3[20,22,23]
Movento + Agridex/Hasten	4[3,6,11,17]
Polyram	2[11,17]
Seguris® Flexi	2[11,17]
Thiovit Jet	3[16*,22,23]
Transform	2[11,17]
Ziram	3[16,10,22,23]

VARIETIES TESTED

Pink Lady
Fuji
Red Delicious
Gala

ALMOND COMPATIBILITIES	
Agral®	2[4,15]
Agridex®	1[15]
Luna Sensation + Agral	2[4,15]
Custodia® + Agral	1[15]
Elect 500 + Agral	1[15]
Dithane Rainshield + Agral	1[15]
Bumper + Agral	1[15]

VARIETIES TESTED

Nonpareil

Trial ID: [1]17QB51, [2]18QA07, [3]18QA08, [4]18QB72, [5]18QB74, [6]18QB77, [7]18QB83, [8]18WB16, [9]18WB17, [10]19QA02, [11]19QB09, [12]19QB10, [13]19VB07, [14]19VE07, [15]19VE13, [16]19WB08, [17]19WB09, [18]20QB51, [19]20QB52, [20]20VB22, [21]20VE11, [22]21QA11, [23]21QA25, [24]21WB08

*Applied when temperature was above 30°C

**All mixtures should comply with the label requirements of the mixing partner, including recommended crop, growth stage and spray volumes, etc.

IPM profile

Having been assessed in over 160 tests in both Europe and Australia, Vayego has been shown to have minimal impact on key beneficial species including pest mite, aphid, moth and scale predators.

// SUMMARY OF TOLERANCE OF KEY BENEFICIALS TO VAYEGO

SCIENTIFIC NAME	COMMON NAME	HOST	IOBC RATING	
Typhlodromus pyri	Predatory mite	European red mite	1-2*	Harmless / Slightly harmful
Galendromus occidentalis/ Typhlodromus occidentalis	Predatory mite	Two spotted mite	1-2*	Harmless / Slightly harmful
Phytoseiulus persimilis	Predatory mite	Two spotted mite	1*	Harmless
Stethorus punctillum	Ladybird beetle	Spider mite	1-2*	Harmless / Slightly harmful
Amblyseius swirskii	Predatory mite	Spider mite	1*	Harmless
Aphelinus mali	Parasitic wasp	Woolly apple aphid	1-2*	Harmless / Slightly harmful
Coccinellidae	Ladybird beetles	Aphids	1-2*	Harmless / Slightly harmful

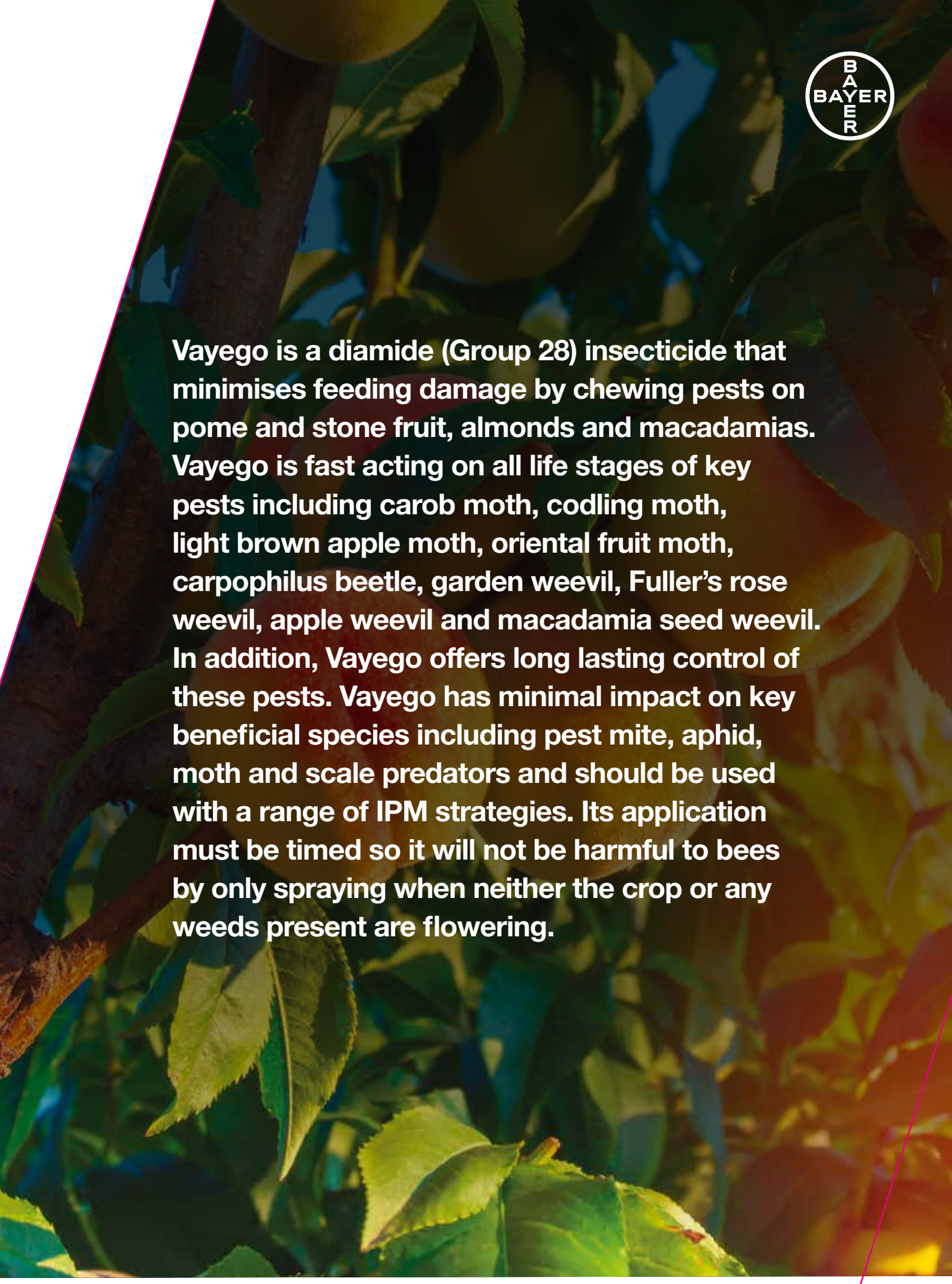
*Summary of multiple global beneficial trials

// CESAR BENEFICIAL ARTHROPODS STUDY

SCIENTIFIC NAME	COMMON NAME	HOST	IOBC RATING	
Galendromus occidentalis/ Typhlodromus occidentalis	Predatory mite	Two spotted mite	Late stage nymphs and adults	Harmless
Mallada signatus	Green lacewing	Aphids	1st-2nd Instar	Harmless

The use of Vayego must be timed so its application will not be harmful to bees. This means;

- Only applying Vayego onto crops that are not attractive to bees (i.e. not flowering)
- Applying Vayego post-petal fall when there is minimal risk to bees
- Ensuring no flowering weeds are present in the orchard
- If planning to spray pre-flowering, ensure an interval of at least 7 days between application of Vayego and the commencement of flowering of bee attractive weeds or crops
- If there is potential for managed hives to be affected by the spray or spray drift, notify beekeepers to move hives to a safe location with an untreated source of nectar and pollen
- Spraying in the early morning or late evening when bees are not foraging.



Vayego is a diamide (Group 28) insecticide that minimises feeding damage by chewing pests on pome and stone fruit, almonds and macadamias. Vayego is fast acting on all life stages of key pests including carob moth, codling moth, light brown apple moth, oriental fruit moth, carpophilus beetle, garden weevil, Fuller's rose weevil, apple weevil and macadamia seed weevil. In addition, Vayego offers long lasting control of these pests. Vayego has minimal impact on key beneficial species including pest mite, aphid, moth and scale predators and should be used with a range of IPM strategies. Its application must be timed so it will not be harmful to bees by only spraying when neither the crop or any weeds present are flowering.

Break *the cycle.*

For more information on getting the best out of Vayego, visit **crop.bayer.com.au/vayego** or talk to your local Bayer Crop Science representative.