

User guide

Vayego® 200SC insecticide provides IPM-compatible pre-harvest control of carpophilus beetle in stonefruit.



Broad spectrum insecticides used for carpophilus beetle control can be highly disruptive to beneficial insects.

Vayego 200SC contains tetraniliprole, a new active ingredient developed by Bayer. Both fast acting and long lasting, it delivers an IPM solution for the control of carpophilus beetle.

Carpophilus beetles (also known as dried fruit beetles) are a pest in fruits, nuts and grains. They attack a wide variety of hosts including almonds, cherries and other stonefruit. There are a number of species of carpophilus beetles. The species most prevalent in New Zealand orchards is *Carpophilus davidsoni*, which is particularly aggressive in cherries and other stonefruit.

The adult beetles can cause direct feeding damage in ripening stonefruit. Adult beetles are also a major vector of the fungal diseases including brown rot (*Monilinia spp.*) in a wide range of host crops.

They prefer moist conditions, and beetles fly once temperatures are above 22°C. The adults lay their eggs in rotting or damaged fruit on the ground and the larvae develop within the fruit. Mature larvae then emerge and pupate in the soil.

There are multiple overlapping generations each year, with adult beetles emerging from the orchard floor or flying in from neighbouring orchards to attack fruit in late spring and summer.

Good orchard hygiene can contribute to the control of this pest within the orchard. Removal of fallen and damaged fruit reduces availability of breeding sites and helps to break the life cycle. However, in susceptible crops good hygiene practices alone often do not provide adequate control.

Vayego is a diamide insecticide (Group 28) that provides an IPM-compatible solution for the control of *Carpophilus davidsoni*, commonly found in New Zealand stonefruit orchards.

Benefits of Vayego

- Soft on beneficial species including predatory mites to promote greater orchard biodiversity.
- Increased yield with outstanding protection of fruit from carpophilus beetle damage.
- Excellent user safety profile when used as directed.
- Highly rainfast formulation that can withstand significant rainfall once fully dry.
- User peace of mind – Vayego is backed by years of global investment and the experience of Bayer's in-field team.

Carpophilus davidsoni.
Photo: Alex Wild.

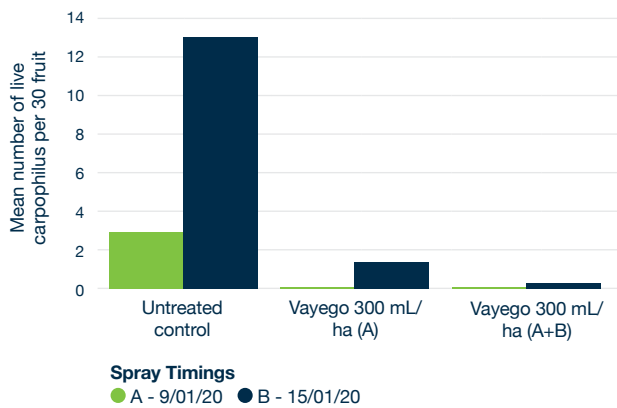


Vayego® 200SC performance in New Zealand

The Bayer Crop Science New Zealand field team has performed a number of efficacy and crop safety trials under New Zealand conditions with Vayego 200SC. The results showed robust performance and good crop safety.

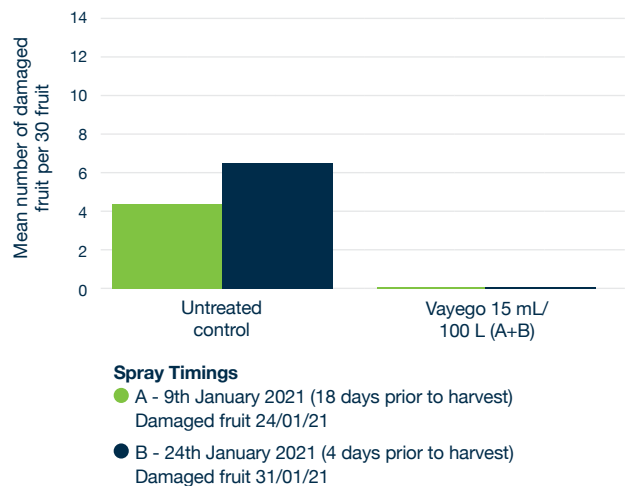
Mean number of live carpophilus per 30 fruit/per treatment

4 and 10 days after application B. Stonefruit Peach cv Golden Queen 2019/20
Trial No: ID20NZL039FF02



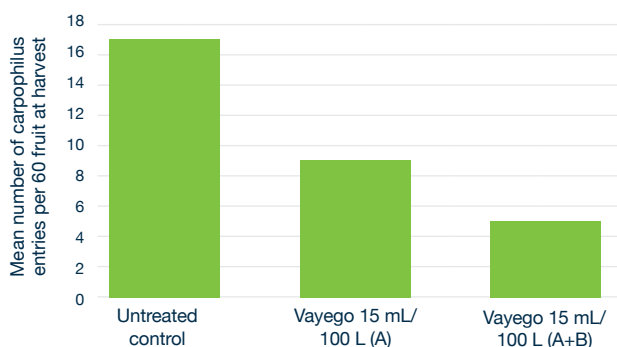
Mean number of damaged fruit per 30 fruit

15 days after application A and 7 days after application B. Apricot cv Sundrop
Trial No: ID21NZLC2MH35



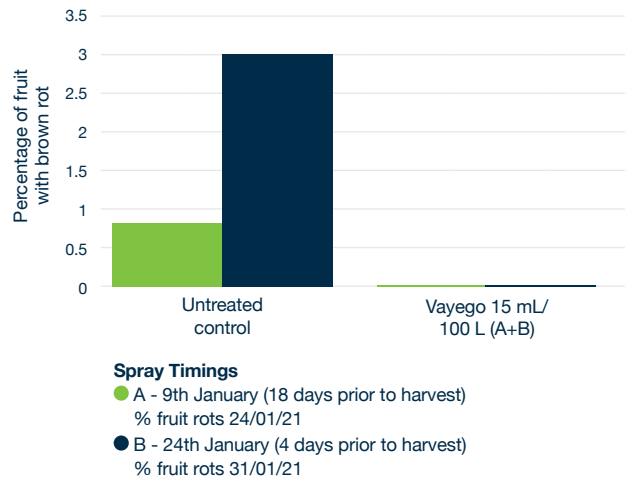
Mean number of carpophilus entries per 60 fruit at harvest

4 days after application B
Trial No: ID20NZL039MH05 - Nectarine cv Hunny™ Yellow cv. Firebright



Percentage of fruit with brown rot

15 days after application A and 7 days after application B
Trial No: ID21NZLHC2MH35 - Apricot cv Valley Gold





Using Vayego® 200SC in stonefruit.

i USAGE RECOMMENDATIONS

Usage Rate	15 mL/100 L of water as a dilute application. For concentrate spraying, adjust the rate accordingly.
Spray Timings/ Number of Applications	Monitor stonefruit orchards for beetles as fruit approaches maturity and becomes susceptible to attack. Commence application before beetle populations reach damaging levels and re-apply treatments if necessary, at an interval of 14-17 days. Do not apply more than 2 applications per season.
Water Rate	Vayego can be applied at high volume dilute rates.
Compatibility	Vayego is compatible with a range of pre-harvest fungicide products. Captan WG, Folicur® WG, Luna® Sensation, Pristine®. Peach: Golden Queen/Scarlet O'Hara/Yummeyon /Taylor Queen/Polar Princess. Nectarine: Firebright/Arctic Glo/September Bright. Apricot: Valley Gold.
Resistance Management and Number of Applications	Do not apply more than 2 applications of Vayego per season.
Adjuvants	If even spray coverage is able to be achieved, the addition of an adjuvant is not required.
Water pH	Vayego is stable between pH 5 – 7.5. Above 7.5 use of an appropriate pH buffer is advised.
Rainfastness	Vayego is very rainfast after at least 2 hours in good drying conditions. NB: If significant rainfall is predicted within 24 hours of application, ensure the crop is dry at application and sufficient drying time is allowed prior to rainfall.
Re-entry Intervals	Non contact re-entry: when fully dry. Contact re-entry: 12 hours.
Withholding Period (PHI)	4 days. Import tolerances for produce treated with Vayego may be pending in some countries. Consult with your exporter or Bayer NZ before applying Vayego to export crops.

ENVIRONMENTAL EFFECTS

Based on multiple experimental studies, Vayego® can be applied with minimal disruption to the environment and beneficial insects when used according to label directions.

Do not apply within 25 meters of any water body.

VAYEGO - IPM

Vayego is suitable for integration into IPM strategies and has demonstrated a high level of safety in a wide range of important groups of biological control species, including the predatory mites species *Typhlodromus pyri* as well as *Aphelinus mali*.

Studies performed by Plant & Food Research in New Zealand also showed no harmful effects to *Aphelinus mali*.

BEE-SAFE POSITIONING

Vayego must be applied to crops post petal fall. Do not apply Vayego to any crop where flowers are present. Ensure flowering weeds are not present in treated areas before using Vayego. Spray applications made after petal fall to crops where there are no flowering weeds present pose minimal risk to bee safety.



Carpophilus larva.
Photo: Dept of Agriculture and Food, WA.



Carpophilus davidsoni.
Photo: Alex Wild.

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