

## Systemic protection against spring Psa infection

Kiwifruit

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### Protecting spring growth

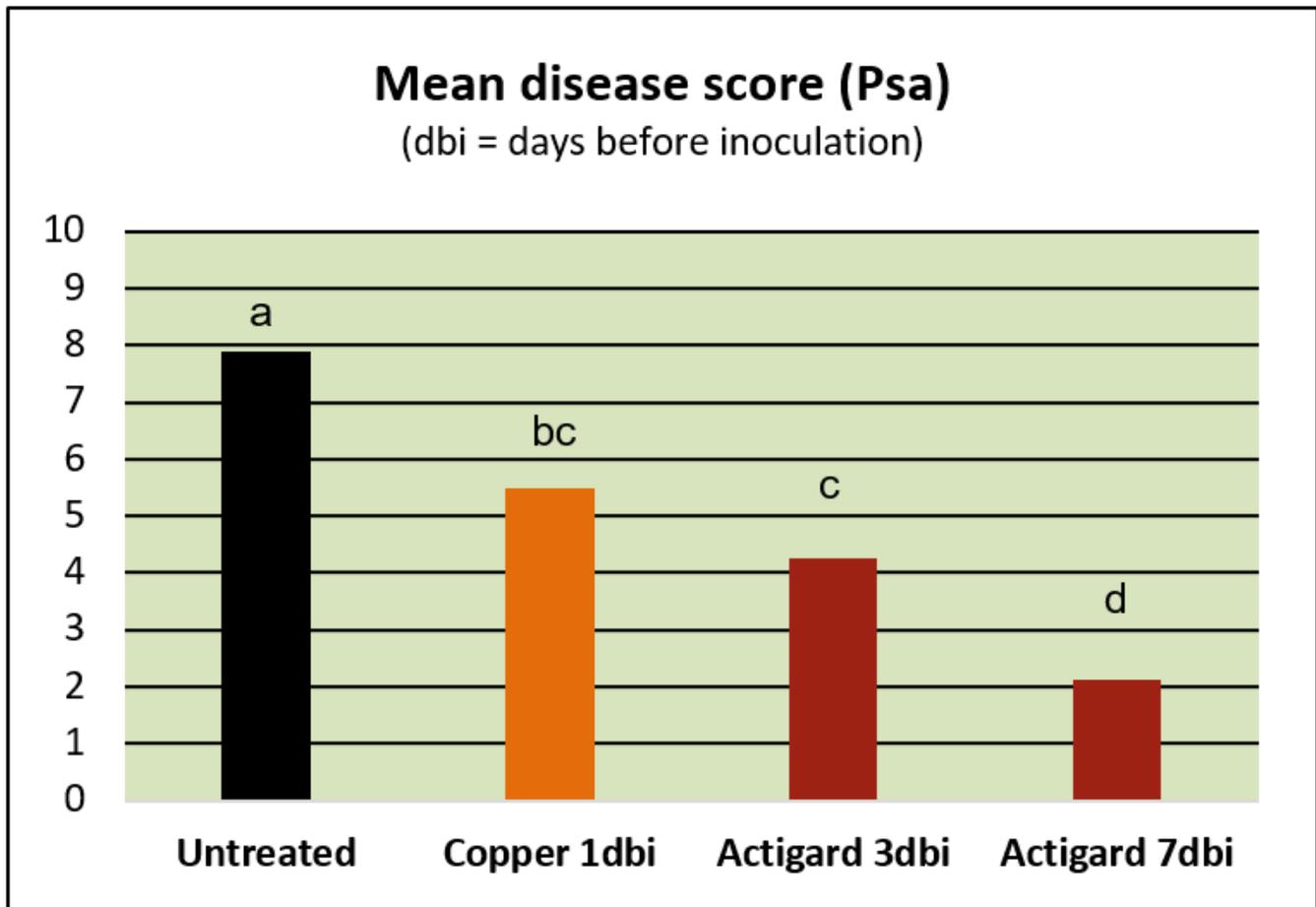
Spring growth of kiwifruit is particularly susceptible to Psa-V infection. The use of copper is a useful contact protectant at this time. However, unlike ACTIGARD<sup>®</sup>, copper does not move in the plant to protect new growth and requires frequent applications to maintain protection.

ACTIGARD provides systemic protection against Psa-V infection by eliciting a natural response known as Systemic Acquired Resistance (SAR), which helps to protect the rapidly developing spring canopy for up to 21 days.

### New data supports effectiveness of ACTIGARD

Trials have consistently shown the effectiveness of ACTIGARD in controlling Psa, including a new study conducted in 2019 by the Bio-Protection Research Centre at Lincoln University, using Psa-inoculated kiwifruit seedlings cv. Bruno conducted under controlled environmental conditions.

In this laboratory study, plants were assessed for Psa symptom development 5 weeks after inoculation, and an overall mean disease score was given to each treatment ranging from 1 to 10 (see Graph 1).



**Graph 1: Mean disease score – combined, weighted measure of leaf spot severity and number of leaves showing symptoms.**

The ACTIGARD treatment applied as a spray 7 days before inoculation gave the largest reduction in leaf symptoms (73% reduction) followed by ACTIGARD applied 3 days before inoculation (46% reduction), then copper applied 1 day before inoculation (30% reduction).

This result highlights the importance of applying ACTIGARD up to 7 days prior to an infection period in the field to allow enough time for ACTIGARD to fully activate the plant's natural self-defence mechanism. The addition of copper is recommended when applying ACTIGARD to provide immediate protection prior to high risk weather events.

### **Best use advice for ACTIGARD in spring**

A maximum of 4 applications of ACTIGARD can be made to kiwifruit in a season, with 2 applications recommended in the spring.

The first recommended application timing of ACTIGARD in spring is when leaves reach approximately 25 mm diameter. This makes best use of its systemic movement to protect rapidly expanding growth and newly produced leaves.

The second key application timing for ACTIGARD is 1 to 7 days prior to flowering. This provides systemic protection over the flowering period when options for Psa-V control are limited and infection

risk remains high.

- Apply 20 grams of ACTIGARD per 100 litres of water as a dilute spray (200 g/ha).
- As it can take up to 7 days for ACTIGARD to fully activate the plant, the addition of copper is recommended to give immediate protection, especially when applied prior to wet weather events.
- To avoid the risk of residues, DO NOT spray female flowers or fruit with ACTIGARD.
- If vines are under stress, delay application until vines have recovered and are actively growing.
- ACTIGARD is compatible with: Kocide Opti\*, Nordox\*, Prodigy\*, Movento\*, Luna\* Privilege, Timorex\* Gold, and Aureo\* Gold. Multiple product mixtures should always be tested for physical compatibility prior to use.

For more information [click here](#) to download the latest spring 2020 Kiwifruit Technote for ACTIGARD.