

Phytogard Macrobial

Reg No. PCPB (CR) 2250















Phytoseiulus persimilis feeding on Two-spotted mite

Phytogard

Phytogard is a predatory mite for the control and management of **Two-spotted mites** (Tetranychus urticae) on Roses.

Predatory mites are beneficial insects that

Predatory mites are beneficial insects that feed on harmful crop insects. *Phytoseiulus persimilis* is the predatory mite contained in *Phytogard*, it is host specific and consumes all stages of the spider mite. In addition, all life stages of *Phytogard* are predatory (adults, protonymphs and deutonymphs).

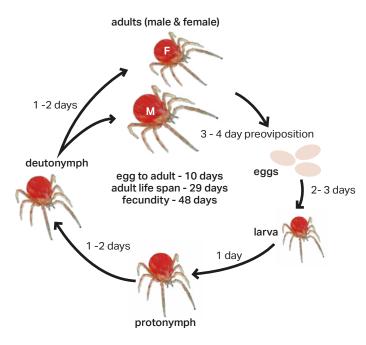
Why use *Phytogard*?

Phytogard is composed of pure *Phytoseiulus persimilis*, a beneficial predatory mite and natural enemy that feeds on **Two-spotted mites** (*Tetranychus urticae*) and it is used to control this pest on Roses and other crops infested by the target pest. The predatory mite is specific to spider mites and consumes all life stages of the Two-spotted mites i.e. egg, larvae, protonymphs, deutonymphs and adults.

Phytogard Life cycle?

A complete life cycle of *Phytoseiulus persimilis* takes from 5 days at 30°C (86°F) to 25 days at 15°C (59°F).

- There are 4 times more females in the population than males (a sex ratio of 4:1).
- Females lay 2-3 eggs per day for an average of 60 eggs over their 35-days lifetime. The eggs hatch in 2-3 days, they are oval in shape and twice the size of two-spotted mite eggs.
- Newly hatched predators do not eat, but later stages and adults feed on all stages of prey. Each predator consumes between 5-30 prey (eggs or mites) per day.
- Phytoseiulus persimilis does not diapause, therefore remains active year-round on the applied/introduced area



Mode of action:

Phytoseiulus persimilis adults, protonymphs and deutonymphs actively search for all stages of Two-spotted mites and consume all life stages by piercing the eggs and mites and sucking them dry.



Two-spotted mite (*Tetranychus urticae*)

Benefits of Phytogard:

- Aggressive, highly effective feeder of Two-spotted mite
- Ideal for 'hot spot' applications
- Biological and chemical free pest control solution

Directions for use and application:

Scouting should be conducted to determine the population of Two-spotted mites before application of *Phytogard*.

Phytogard is available in a pure or a mixed formulation:

- Pure Phytogard contains Phytoseiulus
 persimilis only (no carrier material). For
 application of pure Phytogard, mix
 vermiculite with Phytoseiulus persimilis as
 advised by the Andermatt Kenya Biospecialist
 and then gently rotate the bottle to mix the
 mites with the carrier as you distribute the
 contents over the plants.
- Mixed formulation *Phytogard* contains *Phytoseiulus persimilis* premixed with a carrier (vermiculite). When applying *Phytogard* mixed formulation, rotate the bottle gently before opening to facilitate the loosening of the carrier (vermiculite). Open the lid and sprinkle *Phytogard* on the crop canopy gently (50 100 mites per m² or 0.5 1 million mites per hectare).
- Applications should be done early in the morning or later afternoon, ideally outside the heat of the day.





Environmental conditions:

Relative humidity should be greater than 60% and the temperatures above 22 - 27°C (80.6°F).

Packaging:

Phytogard are packed in clear tubes containing 2,000 live *Phytoseiulus persimilis*. Customised pack sizes of 10k, 25k, 50k and 1 million predators are available on request.

Storage:

It is recommended that *Phytogard* should be applied on the same day of the delivery. If the mites need to be stored, ensure they are refrigerated at 8 - 10°C.

Compatibility:

Phytogard can be used in combination with other beneficial insects, contributing to the biological ecosystem for IPM (Integrated Pest Management) programs.

Some acaricides and insecticides are incompatible and may affect *Phytoseiulus persimilis* populations. Care should be observed between application of acaricides and insecticides during the introduction of *Phytogard*.

Pest	Crop	Application rate	Timing and frequency of application
Two-spotted mite	Roses	500,000 - 1 million predators per ha or 50 - 100 mites per m ²	7 days

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