Cali Combo

Neoseiulus californicus and *Carpoglyphus lactis*

Cali Combo contains BioCalifornicus *(Neoseiulus californicus)* and BioClFeed *(Carpoglyphus lactis)* which helps to establish and maintain a large and stable *N.californicus* population before pests appear.

TARGET PESTS

Two-spotted spider mite (*Tetranychus urticae*), Red spider mite (*T. cinnabarinus*), European red mite (*Panonychus ulmi*), citrus red mite (*Panonynchus citri*), begonia mite (*Tarsonemus pallidus*), broad mite (*Polyphagotarsonemus latus*), Cyclamen mite (*Phytonemus pallidus*) and Persea mite (*Oligonychus perseae*).

Spider mite damage

DESCRIPTION

N. californicus is <1mm long, pear-shaped and buff to tan colored. Males are much smaller and darker brown than females, with females generally more numerous. The female lays oval, clear whitish eggs, singly or in small clusters on leaf undersides, often on leaf hairs or at the vein junctions. The rate of development from egg to adult is temperature dependent, it ranges from 4-10 days. The adult female lives approximately 20 days and lays around 3 eggs per day, two to three days after application.

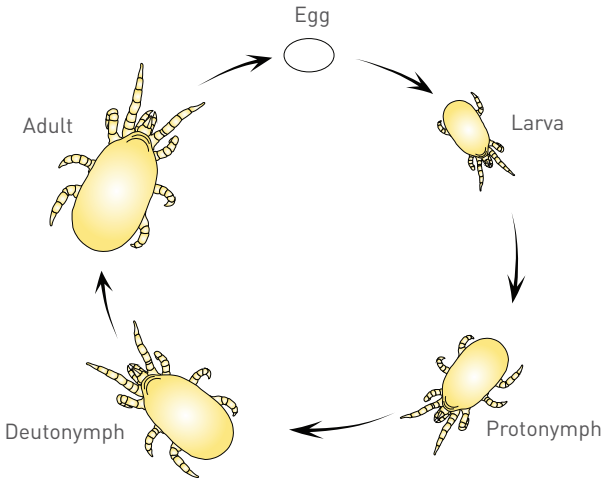
TEMPERATURE & DEVELOPMENT

Temperature (°C)	Development time egg to adult (days)
15	14.1
20	7.7
25	7.2
30	3.0
31	3.8

Lower Threshold= 10.3°C

Gotoh et al. 2004

LIFE CYCLE

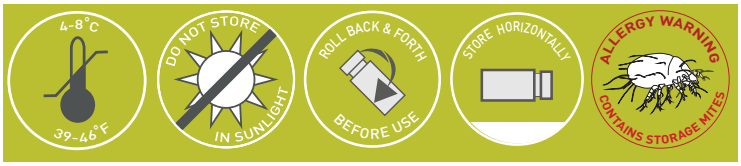


CROPS

Cannabis, vegetables (e.g. capsicum, eggplant, cucumber), melon, watermelon, strawberry, ornamentals such as gerbera, chrysanthemum, rose and herbs. It is often used in greenhouse production, but can also be used in open fields, particularly in fruit crops such as pome, stone fruit and citrus orchards.

ADVANTAGES

- Establishes well even when pest numbers are scarce.
- Able to feed on various species of prey and on alternative feed.
- Establishes well on trees and woody plants.
- Highly tolerant to a wide range of temperatures both high and low.
- Highly tolerant to low humidity and dry conditions.
- Tolerant to chemical residue on crops.
- Prevents waste in the field.



BIOBEE® Inspired by Nature

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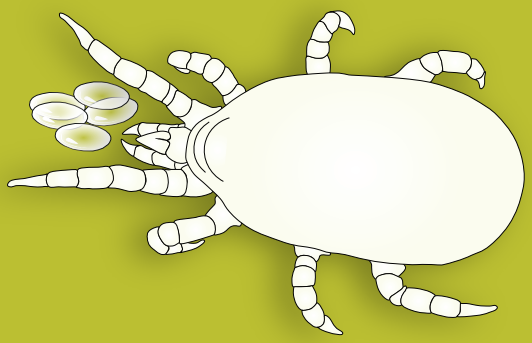

Cali Combo

THE PRODUCT

- 1 liter cylinder,containing either 25K or 50K mites

Advantages

- High volume package for application.
- Mixed with sawdust for a better grip on the plant.
- Varied mite population: egg, nymph and adult.
- The cylinder will soon be available for use with BugFlow (blower).
- Simultaneous application of beneficial and alternative feed.
- Environmentally friendly.

APPLICATION & HANDLING

- Cali Combo is shipped in insulated, chilled boxes. Packaging must be kept intact until placed in the field.
- Keep in a cool location 4°C-8°C until release; do not put the product in a refrigerator.
- The predatory mites should be released within 24 hours of receipt.
- Release Cali Combo early morning or late afternoon,when the temperature is milder
- Remove the product containers from the box, one at a time and distribute their content as quickly as possible.
- Before use, roll he cylinder back and forth gently, to mix BioCalifornicus with the feed and the carrier.
- Release the predators by opening by twisting the cylinder cap to the correct opening hole and sprinkling the contents on the leaves of the plants, in a shaded area.
- The predators should be distributed evenly through the crop, on the foliage, with additional material at the end of the rows and in hotter/dryier areas, prone to spider mites.
- **Do not expose the bottles to direct sunlight.**

STORAGE

- Cali Combo can be stored for 1-2 days if necessary, under recommended conditions.
- If the mites cannot be immediately released, the containers must be stored in their original packaging, in a cool, dark place, at temperatures between 4°C-8°C.
- Store horizontally.

MONITORING

Scouting and monitoring is crucial.

DOSAGE

The amount and frequency of predatory mite release is determined by crop, the degree of infestation, weather conditions and damage inflicted on the crop. Additional quantities might be needed according to the infestation level and scouting information.

The effectiveness of BioCalifornicus can be assessed two weeks after the release (depending on weather conditions).

BioPersi+ and BioCalifornicus, complement each other in controlling spider mite infestations and can coexist in the same environment. It is not recommended for use with other generalist predatory mites (ie. swirskii, cucumeris, etc.)

GENERAL COMMENTS

Before combining Cali Combo with any chemical pesticide in the crop, please consult your local BioBee representative

DISCLAIMER

The success of biological pest control is affected by the crops initial pest population (upon application of the product), weather conditions and chemical residue present in the crop, among other possible aggravating factors.

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