

BioPersi+

Phytoseiulus persimilis



BioPersi+ (*Phytoseiulus persimilis*), a proven aggressive and highly effective predator of spider mites, was developed at BioBee with an innovative technology which won BioBee the Bernard Bloom Innovation Award.

TARGET PESTS

The two-spotted spider mite (*Tetranychus urticae*) and other closely related spider mites.



Spider mites in strawberries



Spider mite hot spot

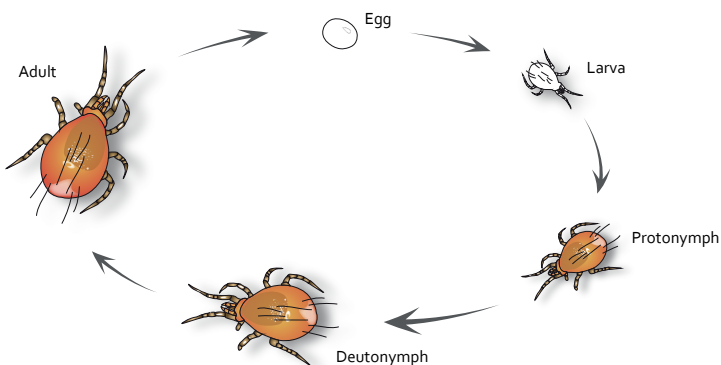
DESCRIPTION

BioPersi+ are initially pale white, but change to the typical reddish-orange once they start feeding on spider mites in the crop. It has a pear-shaped body and long front legs which allow it to move quickly and, easily navigate spider mite webs.

BioPersi+ completes its lifecycle from egg to adult in about a week at 21°C- 26°C (70°F-80°F). It can develop twice as fast as its prey allowing it to suppress mite infestation quickly and thoroughly.

These predators consume all stages of the pest with predation beginning the day of application. The adult female can consume up to 40 spider mite eggs a day at temperatures above 20°C.

LIFE CYCLE



ADVANTAGES

BioPersi+ is produced using a new alternative food system developed at BioBee; a true revolution in the mass rearing of *Phytoseiulus persimilis*.

- Can be introduced early, when pest pressure is still light
- The presence of eggs and juvenile stages in cylinders make it ideal for hot spot treatment
- Suitable for mechanized application (Bugflow & drones)
- No generation gap : Faster establishment
- Higher fecundity
- Visible color change confirms predation
- Includes nutrition: better shelf life and transport
- Sawdust as a carrier allows better attachment to foliage

CROPS

Vegetables, cannabis, ornamentals, strawberries and many other crops.

THE PRODUCT

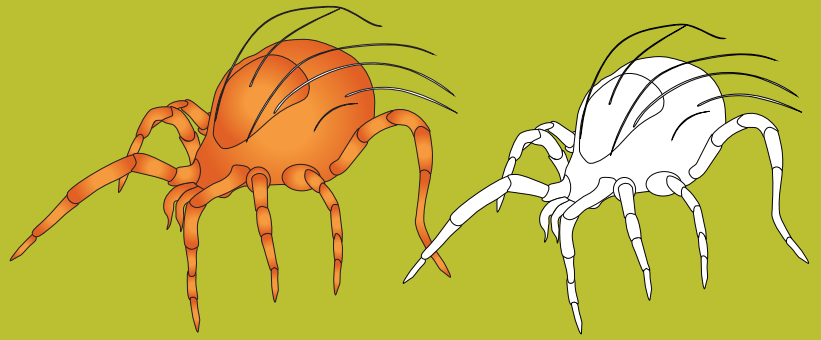
- Pre-perforated fast & slow release sachets. 250/500 sachets per package with at least 100 mobile stages/sachet
- 500 ml cylinder containing 25K/50K mobile stages
- 1l cylinder containing 25K/50K mobile stages
- 5l bag containing 500K or 1 million mobile stages

500 ml and 1l cylinders are available with either a sawdust or a vermiculite carrier.

BioPersi+ contains mobile stages: adults, juveniles and eggs. Inactivated *Carpoglyphus lactis* eggs and mobile stages may also be present, to fortify the BioPersi+ until arrival.



BioPersi+



APPLICATION

- BioPersi+ is shipped in insulated, chilled boxes. Packaging must be kept intact until released.
- The optimal application of BioPersi+ is during the early morning or late afternoon while temperatures are relatively mild.

SACHETS

- Hang the sachets within the canopy, at medium height and not in direct sunlight.

CYLINDER

- Before releasing, gently rotate the container, to evenly mix the mites and the carrier.
- The mites are released by gently shaking the opened container over the foliage while walking between the rows of the crops.

BUGFLOW

- Hold the cylinder bottom, firmly press one of the arrow markers and push inward firmly until the mesh ring is partly detached.
- Place the cylinder over the cylinder adapter and tighten in a clockwise circular motion.
- Point the Bugflow towards the area to be sprayed.
- Use the shoulder carry strap to reduce fatigue during application.
- Walk at a constant speed while holding the blower at the right angle to best cover the crop and ensure a uniform spread of the material on the crop.

ADVANTAGES OF BUGFLOW APPLICATION

- Saves time
- Consistent and uniform application
- High range: up to a distance of 4 meters
- Easy and simple flow rate adjustment
- High survival rate of beneficial mites during application
- Good maneuverability in tight spaces

STORAGE

- If the mites cannot be immediately released, the bottles must be stored in their original packaging, in a cool dark place, at temperatures between 4°C and 8°C (39 to 46°F).
- Store horizontally.
- BioPersi+ can be stored for up to 2 days in recommended conditions.
- Do not expose the bottles to direct sunlight.

RELEASE RATES AND TIMING

- BioPersi+ Sachets can be released preventively, before the spider mites are present.
- BioPersi+ can be introduced even at very light spider mite presence.
- The amount of BioPersi+ to be released is determined by the type of crop, field conditions, level of infestation and damage present or expected in the crops.
- Please consult with BioBee Technical Representative.

Scouting and monitoring is crucial.

The effectiveness of BioPersi+ can be assessed three to seven days after the release (depending on weather conditions). The decline in spider mite numbers, dried spider mite carcasses are evidence of their successful establishment.

GENERAL COMMENTS

Before combining BioPersi+ with any chemical pesticide in the crop, please consult your BioBee Technical 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.