

# Phytoseiulus-T-System

## A spider mite killer in tomato

### BIOLOGY

The predatory mite *Phytoseiulus persimilis* has a life cycle of five stages which are egg, larva, protonymph, deutonymph and adult.

This predatory mite lays her translucent eggs amongst colonies of spider mites. These eggs are twice the spider mite's size and get darker as they mature. The larva does not feed but after the first cast of its skin, the protonymph starts feeding continuously. The adult predatory mite is as big as the spider mite, but is orange-red and much more mobile. The development under greenhouse conditions takes about four to seven days (from egg to adult mite). *Phytoseiulus* needs a high relative humidity (minimum 65 %) and a temperature of 20-25°C.

Plant parts attacked by spider mites produce certain smells which are recognized by the predatory mites. Even uninfested and surrounding plants start to produce these signal substances. The predatory mite, who recognizes these signals, hurries to the plants to help them.

### APPLICATION

Phytoseiulus-T-System contains tomato conditioned *Phytoseiulus*. This product is introduced onto tomato to control spider mites. At high temperatures, hairs on stems and leaves are likely to break when a predatory mite passes by.

The plant then secretes toxins, which are very harmful to *Phytoseiulus* nymphs. The tomato conditioned *Phytoseiulus* are more tolerant to the toxins and therefore establish much quicker on tomato than standard *Phytoseiulus* products.

### ADVANTAGES

1. *Phytoseiulus-T* is a predatory mite which moves and develops better on tomatoes than the usual *Phytoseiulus*.
2. *Phytoseiulus* consumes eggs, larvae, nymphs and spider mite adults.
3. The generation time of the predatory mite is only half of that of spider mites.
4. It is a simple, user-friendly and labour-saving system, because less or no chemical pesticides need to be used.
5. Under ideal circumstances (sufficient temperature and a high relative humidity), *Phytoseiulus* provides a prolonged control.
6. This system is perfectly compatible with Feltiella-System.

### SIDE EFFECTS

Pesticides harmless or harmful to Phytoseiulus-System are also harmless or harmful to Phytoseiulus-T-System. Experiments and field experiences show that Nissorun, Torque and Apollo are harmless to *Phytoseiulus-T* when sprayed. Dusting Torque can be harmful to the predatory mite.

### PHYTOSEIULUS-T-SYSTEM

Phytoseiulus-T-System is available in small tubes containing 1000 or 2000 units in vermiculite. With an insert piece in the bottle, the predatory mites can be evenly distributed on the plants by a unique dosing system.

It is recommended to introduce the predatory mites immediately after their arrival. Before introduction, allow the mites in the tube to adjust to ambient temperature by placing the tube horizontally. Turn them upside down several times in order to mix them evenly in the vermiculite carrier.

### BIOBEST'S TECHNICAL ADVICE

Monitor spider mites continuously and introduce *Phytoseiulus* immediately at the first signs of spider mites. Introduce at least 20 to 50 predatory mites/m<sup>2</sup>. The best method is to enclose them by applying predatory mites both in the top and at the basis of the plants, and even in the surrounding plants where spider mite hot spots occur.

Where strongly infested plants are detected, *Phytoseiulus-T* can be applied in combination with Feltiella-System. It is necessary to monitor at least every week and if required to introduce more predatory mites.

#### ADVANTAGES

- Consumes every stage of the spider mite;
- Short life cycle;
- User-friendly and labour-saving;
- Prolonged control;
- Perfectly compatible with Feltiella-System;
- No waiting period before harvest.

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