

# BioSwirski Combo

## *Amblyseius swirskii*

Predatory mite for the biological control of sweet potato whitefly, greenhouse whitefly, Western flower thrips, red spider mites and broad mites

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## *BioArtFeed*

Premium quality decapsulated *Artemia* cysts which promote the early establishment of BioSwirski



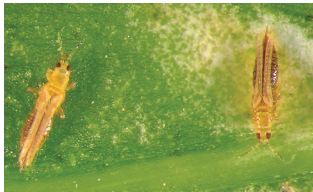
# BioSwirski Combo



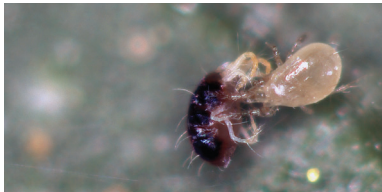
BioSwirski Combo contains the predatory mite *Amblyseius swirskii* and BioArtFeed, premium quality decapsulated *Artemia* cysts. BioSwirski is a proven and highly effective predator, while BioArtFeed enables its early establishment.

## TARGET PESTS

The *A. swirskii* mite is an efficient predator of young stages of sweet potato whitefly, greenhouse whitefly, broad mites, spider mites and young stages of the western flower thrips. In the absence of prey, it will survive on BioArtFeed, pollen and nectar from flowers.



Thrips damage on leaf



BioSwirski feeding on two-spotted spider mite

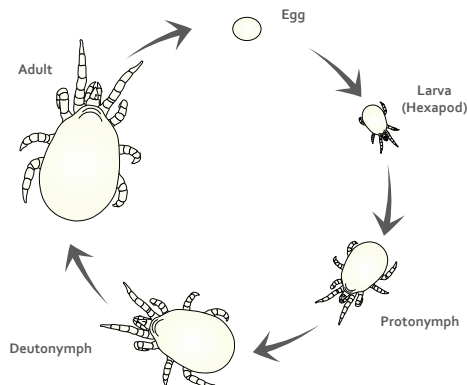
## CROPS

Greenhouse and outdoor vegetables, flower, ornamentals and fruit trees.

## DESCRIPTION

The mites are pale yellow to pale tan while their eggs are white and oval shaped. The mites change color to light orange when feeding on *Artemia*.

## LIFE CYCLE



This beneficial mite is active and reproductive in a wide range of climatic conditions. It does not hibernate and functions effectively even during short days if temperatures allow it.

The developmental rate of the *A. swirskii* mite depends on temperature, relative humidity and type of available prey. When prey is not yet available it can thrive on BioArtFeed.

## ADVANTAGES

BioSwirski Combo is an innovative product that contains both the predators and the feed allowing for the early establishment of the natural enemy before the pests arrive.

- BioSwirski and the feed are applied simultaneously in the same area, achieving precise application which allows the predators to start feeding and reproducing immediately.
- Exact feed dosage sustains the predators for a period of approximately 2 weeks.
- Improved and simplified field application saves time and prevents waste.
- Saves manpower

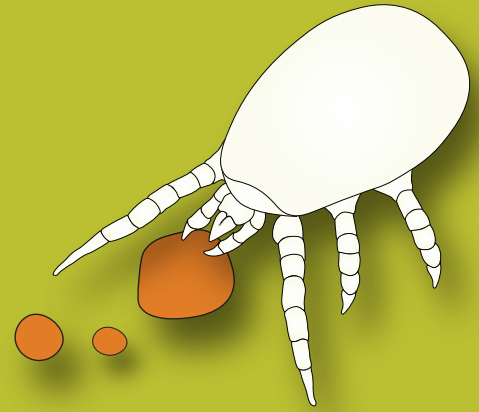
By starting biological control early on and providing good quality nutrition, it is possible to establish a "standing army" of BioSwirskii as well as other predators on the crop, thus providing earlier and overall better pest control.



## BioArtFeed

BioArtFeed is a novel premium quality insect feed based on decapsulated cysts of the brine shrimp *Artemia*. It is highly nutritious and retains viability longer than other alternatives. The combination of the predatory mite and the feed in one container improves and simplifies the field application, saves time and manpower.

# BioSwirski Combo



## THE PRODUCT

- A shaker contains 25K or 50K mobile stages (adults and juveniles) of *A. swirskii* premixed with quality *Artemia* cysts.
- The product is mixed with a bran-based media.
- The shaker includes a dosing cap that facilitates application.



## APPLICATION & HANDLING

The application is simple and safe:

- The product should be transported to the crop site in the insulated shipping boxes.
- The shakers should only be removed from the shipping boxes when ready to apply.
- Disperse the BioSwirski mites over the plant as close as possible to the time of receipt.
- Before releasing, gently rotate the container to evenly mix the mites, *Artemia* cysts and bran-based media.
- The mites are released with their feed simultaneously by turning the shaker cap to the desired opening and gently tapping the container over the plants while walking between the rows of the crops.
- DO NOT EXPOSE TO DIRECT SUNLIGHT

## STORAGE

- If the mites cannot be immediately released, the containers must be stored in their original packaging, in a cool dark place, at temperatures between 10°C - 14°C (50°F - 57°F).
- Store horizontally.
- BioSwirski Combo can be stored for up to 2 days in recommended conditions.

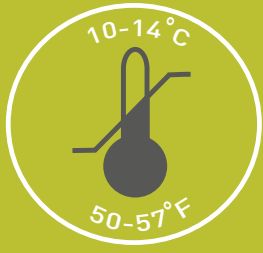


## RELEASE RATES AND TIMING FOR THE "STANDING ARMY" APPROACH

- BioSwirskii combo should be released as soon as the relevant pests are observed.
- The frequency and amount of Bioswirski Combo to be released is determined by the type of crop, environmental conditions, level of infestation and damage incurred by the pest.
- Please consult with your BioBee Technical Representative.







### BIOLOGICAL PEST CONTROL

- BioSwirski Combo allows the early establishment of the predatory mite in the crop, prior to pest infestation.
- BioBee provides crop-specific guidance



Scouting and monitoring is crucial.



### GENERAL COMMENTS

Before combining BioSwirski Combo with any chemical pesticide in the crop, please consult your BioBee Technical Sales Representative.

## WE HAVE SOLUTIONS



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### 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.