

# Orius Combo

## *Orius laevigatus* + BioArtFeed

BioOrius feeds on a large variety of insect prey, plant pollen, sap and alternative feed. Orius Combo combines the predatory pirate bug *Orius laevigatus* with BioArtFeed (premium *Artemia* cysts). This highly nutritious feed promotes and improves the establishment of BioOrius in crops, at low pest densities or if flowering is delayed.

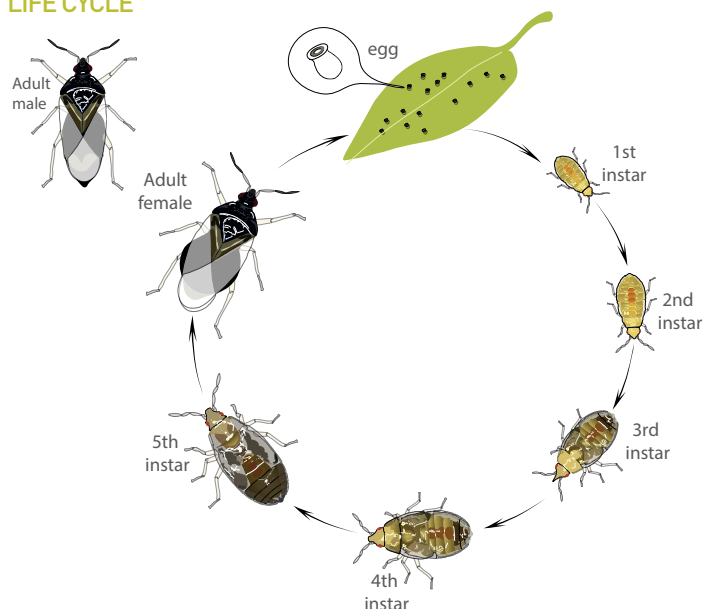
### TARGET PESTS

Western flower thrips, aphids, whitefly and spider mite.

### DESCRIPTION

*O. laevigatus* is a small insect (1.5-2.5 mm in length) equipped with piercing-sucking mouthparts, and 2 pairs of wings, the front pair being partially rigid.

### LIFE CYCLE



The *Orius laevigatus* adult female lays its eggs in the plant tissue on the underside of the stems, leaves or fruit. It lays between 150-200 eggs. Adults live 3-4 weeks and all stages of BioOrius are able to consume prey. Adults are extremely mobile and able to locate new prey. Temperatures of 21-27°C and high humidity (above 60%) enhances the predator's activity and ensures its success.

*Artemia* is a genus of aquatic crustaceans, also known as brine shrimp. *Artemia* eggs, also known as cysts, are pale brown to dark brown in color.

BioArtFeed is a sustainable, natural, highly nutritious source of protein and fat for a wide range of beneficial predators.

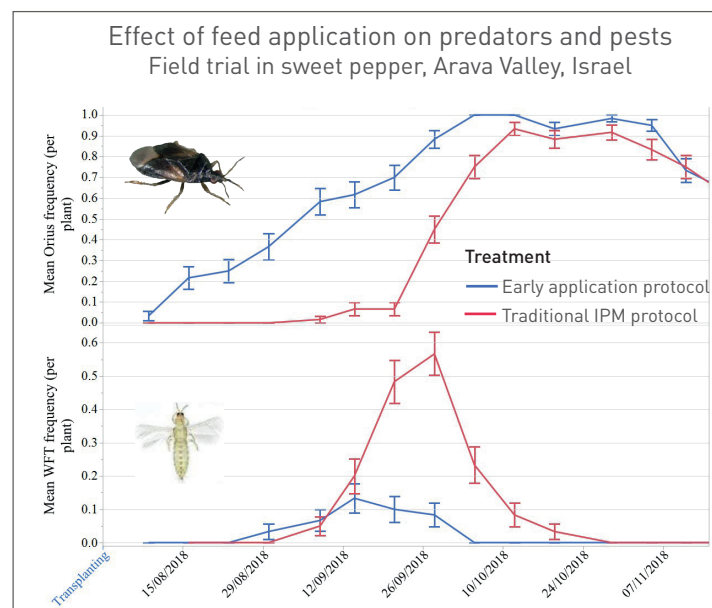
### CROPS

Vegetables, strawberries and ornamental flowers.

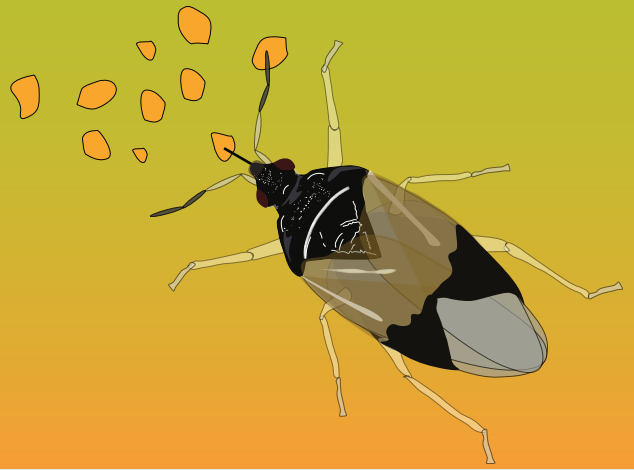
### THE STANDING ARMY APPROACH

One of the challenges of biologically based IPM is the establishment of thrips and other pests prior to the establishment of beneficials. This may cause plant damage, increase the time and expense required for pest control, require chemical treatments as an interim solution, delay beneficial release, and increase the required application rate of beneficial insects.

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



# Orius Combo



## ADVANTAGES

- Orius Combo can be introduced preventively
- Improves dramatically development and reproduction
- BioOrius and the feed are applied simultaneously
- Precise application
- Exact feed dosage
- Improved and simplified field application
- Saves time
- Saves manpower

## THE PRODUCT



- 100cc bottle containing 1K BioOrius, BioArtFeed and vermiculite. At least 80% of the individuals are adults and 20% are 4th and 5th instar nymphs.

## APPLICATION & HANDLING

- Apply Orius Combo during the early morning hours or late in the afternoon, while temperatures are relatively mild.
- Gently rotate the bottle, while in a horizontal position, to allow proper mixing of the contents before and also a few times during application.
- Sprinkle Orius Combo on the top leaves of the plants.

## STORAGE

Orius Combo is shipped in isolated Styrofoam boxes chilled with icepacks. This packaging must be kept intact until application

If necessary BioOrius Combo can be stored up to 24 hours at room temperature of 13-25°C

**Do not expose the bottles to direct sunlight.**



## DOSAGE

- Orius Combo can be introduced preventively, before the appearance of pests, to create a "standing army" because the BioArtFeed provided within the bottle will allow it to feed and reproduce regardless of the pollen or pest presence the crop.
- The amount and frequency of releases is determined by the degree of infestation, weather conditions and damage inflicted on the crop.

## MONITORING

Scouting and monitoring is crucial.



## GENERAL COMMENTS

Before using any pesticide or other chemical agent on the crops where beneficial predatory bugs have been applied or will be applied, consult with your BioBee field service representative for chemical compatibility.

## 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