Amblyseius swirskii

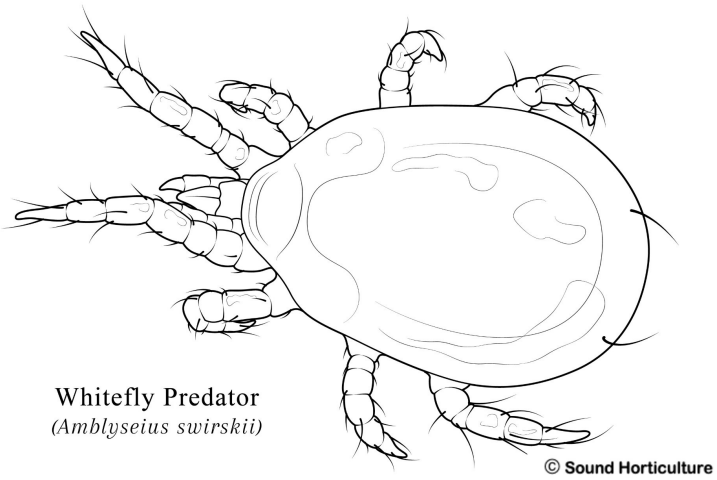
Whitefly and Thrips Predator

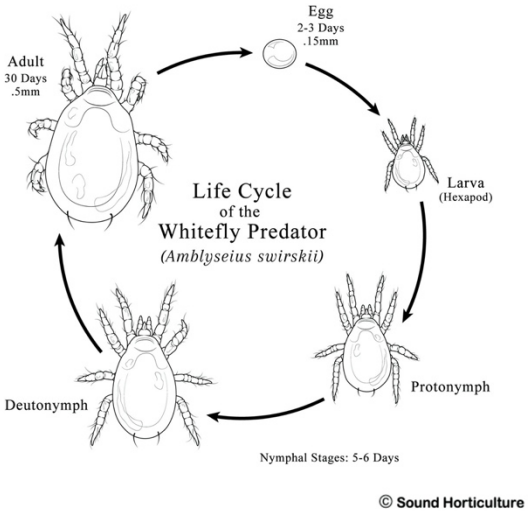
DESCRIPTION:

Amblyseius swirskii is a predatory mite native to the coastal regions of the Middle East and North Africa. It is an ideal product to be used in crops that are grown under protection in warm conditions, such as peppers, cucumbers, gerbera and aubergine.

TARGET PEST:

Western flower thrips *(Frankliniella occidentalis);* and Whitefly (*Bemisia)*





LIFE CYCLE:

A complete life cycle takes 7 days at 77°F (25°C).

Females lay 2 eggs per day on leaf hairs along the veins on the lower surface of leaves. Humidity is especially important for the eggs; if the leaves are too dry the eggs are unable to hatch, decreasing population numbers.

Swirskii go through five stages of development, egg, larvae, protonymph, deutonymph, and finally adult.

They are very light in color and difficult to see with the naked eye. Often they get mistaken for *A. cucumeris,* another predatory mite that feeds on thrips.

USE IN BIOLOGICAL CONTROL:

A. swirskii prefers mainly young stages of whitefly and thrips and consumes about 15 prey per day. Optimum daytime temperatures include 77-82°F with a relative humidity of 70%. These are optimum conditions, however, successful implementation may be received outside of those parameters. It breeds extremely quickly under warm and humid environmental conditions. It predates on thrips, whiteflies and other pests. In the absence of prey it can also survive on the plant by feeding on pollen and mold. It prefers a warm and humid climate, but can survive cooler nights during the winter months in semi-protected crops by moving lower down the plants where it benefits from the warmer microclimate closer to the ground. This mite is available in Gemini and hooked sachets, which are water resistant and allow for quick and easy introduction into the crop.

For more information, Please contact ***Sound Horticulture***
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MONITORING TIPS:
Use a 10-15 X hand lens to inspect for mites, which are most often found along veins on the underside of leaves or inside mature flowers.

PRODUCT INFORMATION:
A. swirskii is available in various forms to suit your specific crop needs:

1) 1-liter bottles contain 25,000 mites on vermiculite. 5-liter bags contain 125,000 mites on vermiculite. Recommended rates for loose material is approximately .2 to .3 *A. swirskii* per square foot. Keep containers horizontal and cool until use. Before opening, rotate the bottle or bag to distribute mites evenly throughout the material.

2) Sachets come in boxes of 250 with hooks provided for easy hanging within foliage. Approximately 250 mites are released from each sachet-breeding colony over a 6+ week period. Rates include 1 sachet per tree, or 1 sachet per 6.5 - 13 feet of crop row. Water resistant "Gemini" sachets can tolerate overhead irrigation. Do not hang sachets next to heat pipes and away from intense direct sunlight. Please specify whether "CRS" or "Gemini" sachets are needed.

3) Mini sachets come in boxes of 200 or 1,000. Each sachet contains 125 mites over the course of 6+ weeks in foliage that is not expected to grow together. Minis are best suited in situations where plant foliage is not expected to grow together contiguously.

INTRODUCTION RATES:
A. swirskii should be released at a rate of 2 to 5 mites per square foot. Repeating applications will help increase numbers.
Introduce early before pests have a chance to establish.

FOR BEST RESULTS:
A. swirskii does best when there is a high amount of pollen present in the crop.

Be careful if releasing with *Aphidoletes* or *N. californicus,* some studies have suggested *swirskii* will feed on these in absence of other prey.

Do not refrigerate. Use product within 18 hours of receipt.