# **Insect Control**

White Fly Predators
DELPHASTUS CATALINAE - Whitefly



Predator
Delphastus catalinae
Minute black lady beetle that
lays many eggs as long as
whitefly populations are

high. Feeds on whitefly eggs, such as sweet potato whiteflies and spider mite's. Can be used with Encarsia formosa. Optimum Conditions: 19-30C (65-90F) 20-80% humidity.



ENCARSIA FORMOSA -Whitefly Parasite Encarsia formosa. Small 3.1 mm. (1/8in.) black and yellow wasp that lays its eggs inside whitefly scale

(egg/nymph). The whitefly scale becomes blackened when parasitized. Encarsia is attracted to the smell of honeydew made by the whiteflies. Shipped as blackened whitefly nymph's on cards with hangers. Optimum Conditions, 18-37C (65-98F), 20-80% humidity.

**Spider Mite Predators** PHYTOSEIULUS PER-SIMILIS NEW ZEALAND - Spider Mite Predator Phytoseiulus persimilis New Zealand Strain Bright orange mite's (0.5 mm./1/20 in.), and larger than two-spotted mite's. Persimilis breeds twice as fast as the spider mite's to provide a fast knock down. These mite's do not form webs, but use webbing to move along the plant to capture the spider mite's. Shipped as adults in shaker bottle with vermiculite carrier. Optimum Conditions, 22-35C (72-100F), 60-80% humidity.

# SPIDER MITE TRI-PAK - Spider Mite Predator

P. persimilis, Feltiella,
Stethorus, A. fallacis.
Contains 3 spider mite
predators including
Phytoseiulus persimilis
(2500), Feltiella acarisuage
(250)/Stethorus punctillum
(200) and Amblyseius fallacis (1000). The tri-pak
usually contains Stethorus

punctillum but, occasionally it may contain Feltiella acarisuga. All predators are adults, immature and eggs on bean leaves. STETHORUS PUNCTILLUM - Spider Mite Predator Stethorus punctillum



Small (0.85 mm./1/30 in.), black lady beetle. The larvae are grey in colour with many hairs. Both adult and larva feed on spider mite's.

Shipped as adults. Optimum Conditions 5-40C (40-100F) 60-90 humidity.

#### AMBLYSEIUS FALLACIS -

Spider Mite Predator Amblyseius fallacis. Small (0.5 mm./1/64 in.) cream colored, pear shaped mite's that are very active. Feed on mite's such as red, two-spotted,

European, spruce and strawberry mite's. Can feed on alternative food sources, such as pollen and nectar. Shipped as adults/immature on bean leaves or in vermiculite. Optimum Conditions, 5-40C (40-100F), 60-90% humidity.

DACNUSA SIBIRICA - Leafminer Parasite Dacnusa sibirica. Small (3 mm./1/8 in.) wasp that works well in cool tem-

peratures (13-25C/55-80F). It lays its eggs inside leaf miner larva. Shipped as adults in shaker bottle.

## DIGLYPHUS ISEA -

Leafminer Parasite/Predator Diglyphus isea.



black and metallic wasps that lay eggs next to the leaf miner larva. This is a warm weather parasite (15-32C/60-90F) that works well in greenhouses. Diglyphus parasitizes 18 different species of leaf miners including, American serpentine, Florida, tomato vein and pea miners. Shipped as adults

### **Aphid Preditors**

LADYBUGS - General Predator Hippodamia convergens.

LADYBUGS stop aphid damage now, keep your plants healthy and beautiful. Be sure to water the area before releasing your ladybugs. Placing a small dish of water in your garden will help keep not only

den will help keep not only ladybugs but native insects close to your plants especially in soaring heat. BUGS NEED WATER TOO!!! Adults are orange and black beetles that feed on aphids, mite's, scales, thrips, whiteflies and beneficial insect food. Eggs are white or yellow ovals and laid in clusters. Larvae are black and orange alligator shaped.

APHIDIMYZA - Aphid
Predator
Aphidoletes aphidimyza
Adults are tiny fly-like midges that lay eggs in aphid colonies. Larva kill aphids by injecting them with a toxin. Shipped as pupae. Optimum

APHELINUS ABDOMINALIS (Parasite)

A. abdominalis.

ADULT: 3mm (1/8") black wasp. Lives for 60 days parasitizing 5-15 aphids/day. Adult also feeds on aphids and honeydew. EGG: 1000 eggs/female are

Conditions 21-28C (68-81F).

laid inside aphids for 3-4 days. Hatch in 2-3 days. LARVA: Grows and eats inside an aphid for 3-4 days. Turns aphid into mummy (dark shell) on underside of leaf. PUPA: Non feeding stage, in a cocoon inside the aphid for 7 days. FEEDS ON: Greenhouse and potato aphids. SHIPPED: As adults and mummies in shaker bottle. STORE: Use immediately.

NOTE: Large number of offspring and long life of female make this an especially useful control.

HYPOASPIS MILES - Fungus Gnat and Thrip Predator

Hypoaspis miles.

Tiny (0.8 mm.), brown mite that lives on the top layer of soil and soil-less mixes. Feeds on fungus gnats, root mealybugs, sciarid flies, springtails and thrip larva. Shipped in sheker bottles as adults, imprature

in shaker bottles as adults, immature and eggs. Optimum Conditions 20-30C (68-80F).

NEMS - Larva Parasite
Steinernema feltia
Nems control fungus gnats,
black vine weevils, mushroom
flies, craneflies, sciarid larvae, thrips and other pest
larva in the soil. Shipped in
clay medium that will store well for 2 months
in refrigeration. Nems become inactive at temperatures below 10C (50F) or above 30C (86F)