APHID PREDATOR
Aphidoletes aphidimyza

Product: *Aphidoletes* is a small midge (fly) that feeds on over 60 species of aphids. The adults are 2 -3mm (1/16") long and have distinctive long legs. Adult midges seek out aphid colonies by detecting the scent of honeydew. Females deposit 150-200 eggs on leaves adjacent to aphid colonies. Eggs are oval, 0.3x0.1mm in size, and shiny orange-red. The developing larvae are usually orange colored, but may also be brownish or greyish. Larval stages are maggots which crawl on the leaf surface in search of aphid prey. Only the larval stage is predaceous. It feeds by biting aphids in the legs and paralyzing them with a toxin before sucking out the aphid body fluids. *Aphidoletes* larvae may consume 3 - 50 aphids per day, but where aphid populations are high they will kill more aphids than they can consume. When fully grown the larvae are 3mm long, and can be easily seen because of their color. Larvae will flip onto the ground to spin a cocoon and to pupate. Development time is temperature and prey dependent. At 21°C (70°F), total generation time from egg to adult takes nearly 3.5 weeks. *Aphidoletes* are good fliers in low crops, one release point /ha is sufficient. They are capable of finding aphid clusters as small as one individual. *Aphidoletes* are sent as pupae (cocoons) in moist vermiculite. At 22°C (72°F), the adults will begin to emerge within 1 week. All should emerge within 14 days of receipt.

Target: Many different aphid species (over 60 species including Snapdragon and Foxglove aphids), in greenhouses, orchards, shade trees and garden situations.

Release: TRAY RELEASE - If the pupae have not yet begun to hatch, you may temporarily store these predators at 18 - 31°C (64 - 87°F) in a highly humid, shaded location until hatch begins (check twice daily). Allow up to 12 days to hatch. When the midges have hatched, allow complete emergence in container before releasing, releasing them at sundown (*Aphidoletes* are most active at night-time). To release the adult midges, cut the corner off the tray. CRITICAL!!! Release away from circulation fans (*Aphidoletes* are easily damaged by fans) preferably downstream. Always release away from known aphid "hot spots." Start program with clean crop as soon as plants are present or before aphids arrive. Release weekly until crop is finished.
HANGING VIAL RELEASE - Simply hang vial below the aphid infestation and midge will slow emerge from the hole in the vial.

Rate: Hot Spot: First reduce aphid populations with a soap spray then release at a rate of 10m^2.
Release Rates: Home garden-250 *Aphidoletes*, 1 - 2 times, 2 weeks apart.
Low Crops: e.g.-Flowers, perennials, lettuce, herbs - 1000 /ha /week. Medium Crops: e.g. Cut roses, gerberas, etc. 2000 /ha/week.
Dense or High Crops: e.g.-Sweet peppers, cucumbers, etc-3000 /ha/week.
Trees: 2 - 5 midges per tree once in spring, again in late summer to eliminate over wintering aphids.

Notes:

- 21 - 25oC (70 - 77oF), RH >70% is preferred. Diapause will occur with low temperatures and <14 hours of light. *Aphidoletes* need very little light to remain active (60-watt light bulb will cover a radius of 20m or 67ft), but require 14 hrs of light/day. Diapause is triggered in larval stage, so preventative releases are not affected by day length or light intensity.

For further Information Contact: **NATURAL INSECT CONTROL**, 3737 Netherby Road, Stevensville, Ontario, L0S 1S0
905-382-2904 (Tel); 905-382-4418 (Fax); info@naturalinsectcontrol.com
For further Information on all NIC Beneficial Insects go to **www.naturalinsectcontrol.com**

- *Aphidoletes* is capable of finding a safe pupation site in almost any environment including rock wool, leaf litter, vermiculite, cracked concrete - wherever a small amount of organic matter and moisture is present.
- Have the ability to survive for over 24 hours completely submerged.
- *Aphidoletes* cannot be introduced during fall and winter months unless there is supplemental lighting.
- Do not use Beneficial Nematodes with *Aphidoletes* as they cycle in the soil!
- Do not store the hatched midges in the container for more than 8 hours. Hold at a very humid 16 - 19oC (60 -65oF

Please let us know within 24 hours of receipt if there are any problems with your Live Insect Order.

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