SUSTAINABLE CROP MANAGEMENT

TECHNICAL DATA SHEET

ERVI-SYSTEM

Aphidius ervi

Aphidius ervi is a parasitic wasp of large aphids. The female wasps search for aphid nymphs or adults guided by odor cues of infested plants and the aphids honeydew secretion. Using her ovipositor, the female inserts an egg inside the aphid host. When the egg hatches, the larva begins to eat the aphid from the inside out causing its death. The dead aphid will turn into a light golden mummy, and remain attached to the leaf. A new adult emerges through a round exit hole at the back of the golden mummy. Each female wasp can lay up to 350 eggs, most of them during the first 4-5 days of adulthood. The presence of a parasitic wasp can cause aphids to drop from the plant in a panic reaction.

Product Specifications

Commercial name	Specifications
Ervi-System - 2,000	• 100 ml bottle: 2,000 pupae • Carrier: sawdust
Ervi-System - 5,000	• 250 ml bottle: 5,000 pupae • Carrier: sawdust

Storage

Use immediately upon receipt. If not possible, product can be briefly stored at 43-46°F (6-8°C) and RH>85%.

Rates

Mode	Dosage	Area	Repeat
Preventative	0.25-0.5 ind./m²	Full field	Weekly or Bi-weekly
Low Curative	0.5-1 ind./m²	Hotspots and surroundings	Weekly until control achieved
High Curative	1-2 ind./m²	Hotspots and surroundings	Weekly until control achieved

Features

- Parasitic wasp of large aphid species
- Suitable for preventative releases
- Great searching capacity, at low pest density
- Easily disperses throughout the crop (strong fliers)

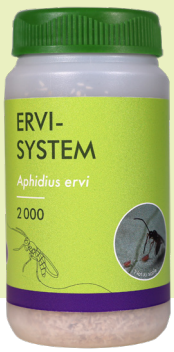
Targets

Large aphid species:

- Potato aphid (Macrosiphum euphorbiae)
- Foxglove aphid (Aulacorthum solani)

Crops (Indoor / Outdoor)

- Vegetables / Herbs
- Soft fruits
- Ornamentals
- Cannabis / Hemp
- Trees and shrubs



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ERVI-SYSTEM

Instructions

Application

Gently rotate the bottle horizontally to ensure even distribution within the carrier. Sprinkle the contents on flat leaves or other dry areas (on top of slabs) or into Bio-Boxes and hang in the plants. Do not place mummies directly onto soil or substrate, they prefer a dry surface. Make sure the material remains dry and is not moved from its introduction site for at least a few days, or until adults had emerged.

Timing of Application

Start applications of Ervi-System preventatively. When aphids are detected, increase the dose in line with pest density. In case of curative treatments a simultaneous release of the predatory midge Aphidoletes aphidimyza (Aphidoletes-System) is advised. More severe infestations can be tackled in combination with the ladybug Adalia bipunctata (Adalia-System) and Chrysoperla rufilabris (Chrysopa-System).

Release conditions

A. ervi is active in temperatures from 50°F (10°C) up to 89°F (32°C). In summer time, the presence of hyperparasitoids can severely reduce the efficacy of A. ervi.
Optimal temperatures for development: 68-86°F (20-30°C)
Optimal temperatures for parasitism: 59-77°F (15-25°C)

Monitoring

- Mummies can be observed on leaves of the crop approximately 14-25 days after the first application, depending on temperature, host and crop.
- The presence of a perfect round hole at the back of the mummy indicates that an adult of A. ervi has emerged.
- Control is achieved when 80% of the aphids are parasitized.
- The efficacy can be checked in the crop by observing an increased number of mummies, reduction in pest population and healthy plant growth, free of honeydew or sooty mould.

Life cycle and appearance

Egg	Parasitized aphid (mummy)	Adult
• Eggs are laid inside the aphid • Duration: 2-3 days*	• Larva develops inside the host • The larva fixes the aphid on the leaf and starts to pupate • Parasitized aphids swell and change into golden-brown mummies • Larval stage duration: 7 days* • Pupal stage duration: 5 days*	• Emerges through an exit hole in the mummy • Slender, black body with brown legs, long antennae and noticeable wing venation • 4-5 mm long • Lifespan: 2-3 weeks*
		

*At an average temperature of 70°F (21°C).