

APHELINUS-SYSTEM

TECHNICAL DATA SHEET



Targets

Large aphid species such as:

- Potato aphid (*Macrosiphum euphorbiae*)
- Foxglove aphid (*Aulacorthum solani*)
- Strawberry aphid (*Chaetosiphon fragaefolii*)
- Blueberry aphid (*Ericaphis fimbriata*)

Crops

- Vegetable crops
- Ornamental crops
- Fruit crops
- Cannabis

Registration number

- Costa Rica: 038
- Spain: OCB 0396 – 487/2009
- Austria: Pfl.Reg.Nr.4087
- Switzerland: W-4901

What is Aphelinus-System?

- Parasitic wasp for controlling large aphid species
- *Aphelinus abdominalis*
- Endoparasitoid
- Slower population build up, but much longer lived compared to other aphid parasitoids.
- Adults feed directly on aphids (host-feeding)
- More resistant to high temperatures than other wasp species
- Less sensitive to hyperparasitism
- Short search range

Mode of action

- The female wasps walk or make short flights in search of aphid nymphs or adults. They sense the odour of infested plants and the aphid's honeydew secretion.
- The parasitic wasps parasitize adults and nymphs.
- Using her ovipositor, the female will insert an egg inside the aphid host.
- When the egg hatches, the larva begins to eat the aphid from the inside out causing its death.
- A new adult emerges through a round exit hole at the back of the mummy.
- 1 parasitic wasp parasitizes 5 to 10 aphids a day, with a total of up to 250 aphids during its entire lifetime
- The presence of a parasitic wasp can cause aphids to drop from the plant in a panic reaction.

Product specifications

Product	Package size	Package content
Aphelinus-System 250	30 ml	250 mummies ⁽¹⁾
Aphelinus-System 1.000	100 ml	1.000 mummies ⁽¹⁾

⁽¹⁾ In a carrier of vermiculite

Storage

Use immediately upon receipt. If not possible, product can be briefly stored in at 8-10°C/46-50°F and RH > 85%. Always respect the use-by-date.

Dose rate

Mode	Dosage	Area	Repeat
Preventative	0.25–0.5 ind./m ²	Full field	Once Every 1-2 weeks
Curative	1-3 ind./m ²	Hotspots and surroundings	Weekly Until good control

Instructions of use

Release moment

Aphelinus-System can be used preventatively. When aphids are detected, increase the dosage rate in line with pest density. In case of curative treatments a simultaneous release of the parasitic wasp *Aphidius. ervi* (Ervi-System) and the gall midge *Aphidoletes aphidimyza* (Aphidoletes-System) is advised. More severe infestations can be tackled in combination with the ladybird *Adalia. bipunctata* (Adalia-System).

Release method




Gently rotate the bottle horizontally to ensure homogenous distribution. Sprinkle the content on the horizontal leaves or into Bio-Boxes and hang in the plants. Do not place mummies directly onto soil or substrate.

Make sure the material remains dry and is not moved from its introduction site for at least a few days.

Release conditions

A. abdominalis is active in a temperature range from 10°C/50°F up to 32°C/89°F. Hyperparasites appear to show less preference for *A. abdominalis*, making it a good choice for aphid control during the summer months.

Life cycle and appearance

Egg	Parasitized aphid (mummy)	Adult
<ul style="list-style-type: none"> - Eggs are laid inside the host aphid - Duration: 2-3 days* 	<ul style="list-style-type: none"> - Parasitized aphids swell and change into black mummies - Larva develops inside the host - The larva fixes the aphid on the leaf and starts to pupate - Larval stage duration: 7 days* - Pupal stage duration: 8 days* 	<ul style="list-style-type: none"> - Emerges through an exit hole in the mummy - Females have a black thorax and yellow abdomen - Short legs and antennae - 3 mm long - Lifespan: 8 weeks*
		

*In case of an average temperature of 20°C/68°F

Monitoring

- The adult female does not immediately begin to lay eggs. On the 3rd or 4th day after emergence she begins to oviposit.
- The presence of a perfect round hole at the back of the mummy indicates that an adult of *A. abdominalis* has emerged.
- Control is achieved when 80% of the aphids are parasitized.
- The efficacy can be checked by observing a reduction in pest population, reduced hotspots, and healthy plant growth, free of honeydew or sooty mould.

DISCLAIMER

Use plant protection products safely. Please read the label and product information before use. Please consult the instructions for use to prevent potential harm to people and environment.