

## APHIDOLETES- SYSTEM

### TECHNICAL DATA SHEET



#### Targets

- Over 60 species of aphids

#### Crops

- Vegetable crops
- Ornamental crops
- Soft fruit
- Tree nursery
- Aromatic herbs and medicinal plants

#### Registration number

- AUT - Pfl. Reg. Nr. 3513
- ESP - Nº MDF: 0371
- LVA - Afidoletes sistēma (Reg. Nr. 0448)
- TUR - Ruhsat Tarihi ve No'su 11.06.2012 / 8728

#### Key features

- Gall midge whose larvae are the biocontrol agents
- *Aphidoletes aphidimyza*
- Larvae consume various aphids species
- Adults only feed on nectar
- Predates at low prey densities
- Very good search behaviour
- Eggs only deposited in aphid hot spots
- Does not cause leaf damage due to gall formation

#### Mode of action

- Adult females actively look for aphid hot spots
- Adult lay more than 100 eggs/aphid hotspot
- Larvae start sucking their prey immediately upon hatching
- Up to 80-100 aphids are eaten during the larval stage
- In large aphid hotspots more aphids are killed than they need to feed themselves (up to 35 extra killed aphids)

#### Product specifications

Product	Package size	Package content
Aphidoletes-System 1.000	100 ml	1.000 pupae sawdust carrier
Aphidoletes-System 2.000	100 ml	2.000 pupae sawdust carrier
Aphidoletes-System 10.000	500 ml	10.000 pupae sawdust carrier

#### Storage

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

#### Dose rate

Mode	Dosage	Area	Repeat
Preventative	0,1-0,2 ind./m <sup>2</sup>	Sensitive areas (infestation history)	Weekly
Curative*	0,5-4 ind./m <sup>2</sup>	Under hot spots	Weekly

\*Note: good in support of parasitic wasps

## Instructions for use

### Release moment

- Start releasing Aphidoletes-System when the first aphid colonies are observed or expected





### Release method

- Open the bottle in the crop and place small piles of the material directly on moist growing media
- Use 40 piles per hectare and calculate the number of gall midges needed according to the recommended dosage
- Reinforce the population at hotspots by opening bottles in the vicinity of aphid colonies and placing them on the floor or hang in between the infested plants

### Release conditions

- Adults are active at night and rest during the day
- Aphidoletes-System performs best at a temperature range from 20-26 °C (68-79 °F) and at high humidity (70% RH)
- For egg laying the night temperature must be higher than 12 °C (59 °F)
- Soil needs to be slightly moist for a successful pupation
- *Aphidoletes* larvae will enter into diapause at day length shorter than 16 hours
- Be careful with the use of sulphur as it will affect the survival of adults and larvae
- Take care when Amblyseius-System, Degenerans-System, Swirskii-System and Orius-System are released in the same crop, as they may feed on *Aphidoletes* eggs.

## Life cycle and appearance

Egg	Larva	Pupae	Adult
<ul style="list-style-type: none"> <li>- 100-250 eggs (most during the first 4 days)</li> <li>- Oblong (0,3 mm x 0,1 mm)</li> <li>- Within aphid colonies</li> <li>- Hatch within 2-4 days*</li> </ul>	<ul style="list-style-type: none"> <li>- Young larva: 0,4 mm, light orange</li> <li>- Mature larva: 2,5 mm, orange</li> <li>- Duration: 7-14 days*</li> </ul>	<ul style="list-style-type: none"> <li>- In the ground</li> <li>- Cocoon covered with sand particles</li> <li>- 1,8 mm</li> <li>- Duration: 10-14 days*</li> </ul>	<ul style="list-style-type: none"> <li>- Mosquito like</li> <li>- 1,8-3 mm</li> <li>- Long antenna</li> <li>- Life span: 1-2 weeks*</li> </ul>
			

\* 20-22 °C (68-72 °F)

## Monitoring

### Predator presence

- Use a hand lens with a magnification of 10-20x to search for eggs and larvae among the aphids. Full grown larvae are easy to see because of their striking orange colour. Eggs and young larvae are much smaller and pale, making them less easy to see.
- Adults may be seen flying during cloudy days or in the evening. At daytime they remain in sheltered places on the plants or hanging on webs close to the soil. When disturbed they fly up searching for another resting place.

### Predation evidence

Aphids are sucked empty, resulting into a shrivelled, black or brown coloured body that is still attached to the leaf with its rostrum.

#### 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