SUSTAINABLE CROP MANAGEMENT

PROPYLEA-SYSTEM

TECHNICAL DATA SHEET

Targets

- Aphids

Crops

- Vegetable crops
- Fruit crops
- Ornamental crops
- Public green

What is Propylea-System?

- Fourteen-spotted ladybird
- *Propylea quatuordecimpunctata*
- Biological control of all aphid species at all stages
- Highly voracious
- Both larvae and adults are effective predators
- Can also consume other pests, such as spider mites, caterpillar eggs and whiteflies

Mode of action

- Both larvae and adults are predators of many aphid species
- After eating its own egg shell, the young larva will immediately seek for prey
- *P. quatuordecimpunctata* will predate on all aphid stages
- One larva or adult can eat up to 100 aphids per day
- Females can lay more than 1.000 eggs, on average around 20 eggs per day
- Females will start laying eggs as soon as aphids are found in the crop

Product specifications

Product	Package size	Package content
Propylea-System 250	240 ml[(1)]	250 adults Carrier: Honeycomb paper

[(1)] Packaging consists of a 100% biodegradable cup and lid

Storage

Use immediately upon receipt. If not possible, the product can be stored in a dark place, at 8-10°C/46-50°F. Always respect the use-by-date.

Dose rate

Mode	Dosage (ind./m²)	Dosage (units/ha)	Area	Repeat
Preventative	0.025	1	Full field	4 times Weekly
Low curative	0.05	2	Hotspots and surroundings	4 times Weekly
High curative	0.1	4	Hotspots and surroundings	3 times Weekly

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Application

Release moment

Introduce Propylea-System at the first signs of aphids.

Release method & conditions

Introduce *P. quatuordecimpunctata* in the center of aphid hotspots, or distribute equally over the crop. Release the individuals by placing pieces of honeycomb paper in the crop. The lid and cup can be used as well as separate introduction points, resulting in a maximum of 6 introduction points per packaging.

P. quatuordecimpunctata is active in a temperature range from 15°C/59°F up to 35°C/95°F. The optimal conditions however are between 24°C/75°F and 28°C/82°F.

Life cycle and appearance

Egg	Larva	Pupa	Adult
- White, pale color - Ovoid shaped - In clusters - Duration: 4-5 days*	- Grey to black color - Elongated shape - 3 pairs of legs - Duration: 7-9 days*	- Brown to black color - Cylindrical shaped - Duration: 5-6 days*	- Pale brown with black spots - Lifespan: 60-90 days*
			

*In case of an average temperature of 23 °C/73.4 °F.

Monitoring

- After 1-2 weeks *P. quatuordecimpunctata* larvae remain visible in the crop, and no more expansion of aphid hotspots is being observed.
- Ants will reduce the efficacy of *P. quatuordecimpunctata*. Eliminate ants by using glue barriers or ant lures.
- In case of low or no aphid pressure, *P. quatuordecimpunctata* will stay in the flowers to consume pollen.

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