Beneficial Insects
TECHNICAL DATA SHEET

biobest SUSTAINABLE CROP MANAGEMENT

PLANTPRODUCTS®

AMBLYSEIUS-SYSTEM

AMBLYSEIUS-VERMICULITE-SYSTEM
and
ABS-SYSTEM
Amblyseius cucumeris

***Amblyseius cucumeris* is a small predatory mite of thrips, broad-, cyclamen- and spider mites. Since it feeds on pollen, it can be used preventatively in pollen bearing crops. It is also available as a breeder material (ABS) for preventive application in non-pollen bearing crops or before flowering. ABS comes mixed with a food source to ensure long-term reproduction and slow release into the crop. *A. cucumeris* also comes as a sprinkler material (Amblyseius-System, Amblyseius-Vermiculite-System) for curative application. Combine with other thrips enemies (Insidiosus-System, Swirskii-System and Degenerans-System) during late spring and summer.**

Item N°	Commercial name	Specifications
800016	Amblyseius-System - 20,000	• 1 L tube: 20,000 mites • Carrier: bran with factitious prey
002995	Amblyseius-System - 250,000	• 5 L bucket: 250,000 mites • Carrier: bran with factitious prey
800014	Amblyseius-Vermiculite-System - 20,000	• 1 L tube: 20,000 mites • Carrier: mixture of vermiculite (min. 80% and bran with factitious prey
990014	Amblyseius-Vermiculite-System - 50,000	• 1 L tube: 50,000 mites • Carrier: mixture of vermiculite (min. 80%) and bran with factitious prey
990514	Amblyseius-Vermiculite-System - 250,000	• 5 L bucket: 250,000 mites • Carrier: mixture of vermiculite (min. 80%) and bran with factitious prey
700011	ABS - 100,000 Breeding System	• 5 L bucket: 100,000 mites • Carrier: bran with factitious prey • High ratio prey mites to predatory mites
750100	ABS-System-Hook - 500	• ABS-sachets: 500 sachets with hook • Carrier: bran with factitious prey
750102	ABS-System-Hook - 1,000	• ABS-sachets: 1,000 sachets with hook • Carrier: bran with factitious prey
750122	ABS-System-Stake - 500	• ABS-sachets: 500 sachets with stake • Carrier: bran with factitious prey
750120	ABS-System-Stake - 1,000	• ABS-sachets: 1,000 sachets with stake • Carrier: bran with factitious prey

Features
- Pear shaped and mobile predatory mite
- Effective in the control of thrips larvae, broad mites and cyclamen mites
- Complements primary predators of spider mites
- Also feeds on pollen, enabling survival without prey, making it ideal for preventative control

Targets
- Broadmites
- Cyclamen mites
- Spider mite
- Thrips

Crops
- Cannabis / Hemp
- Fruit crops
- Herbs / Vegetables
- Ornamentals
- Tree and shrubs

Everything you **need to grow**

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AMBLYSEIUS-SYSTEM, AMBLYSEIUS-VERMICULITE-SYSTEM and ABS-SYSTEM

Storage

Use immediately upon receipt. If not possible, product can be briefly stored, horizontally, in the dark, at a temperature of 59˚F (15˚C) and RH >85%.

Rates

Mode	Dose	Area	Repeat
Amblyseius-System / Amblyseius-Vermiculite-System			
Preventative	100 ind./m^2	Full field on leaves	Weekly or bi-weekly
Low curative	100-200 ind./m^2	Hotspots and surroundings	Weekly in combination with ABS sachet and other thrips predators/ mass trapping
High curative	200-400 ind./m^2	Hotspots and surroundings	Weekly until controlled
ABS-Mini (stake or hook)			
Preventative	1 mini sachet/pot or hanging basket 1 mini sachet/tray in propagation or small pot production 1-2 sachets/linear meter (in strawberries/lettuce/others) 3-4 sachets/m^2 (in veggies)	Full field	Replace every 4-6 wks

*The dose rate of ABS-System is crop dependent. Contact your Biobest advisor for tailored advice.

Instructions

Release moment

A. cucumeris doesn't feed on adult stages of thrips, therefore preventative releases are recommended early in the crop cycle before pests show up. Can be used curatively when pest is detected in high numbers.

Complement its action with pirate bugs (Orius-System) and other Biobest tools such as BugScan® Blue cards and sticky rolls with Thripher to control older thrips stages.

Release method

Bulk material: Gently rotate the bottle or bag horizontally to ensure homogenous distribution. Press the lid to open the sprinkler cap or open the top of the bulk bag. Sprinkle the content on the horizontal leaves. Leave the bottle in the crop to allow remaining predators to come out.

Breeding sachet: Hang the sachets inside the canopy of the crop, protected from direct sunlight. Pinching the sachets may damage the predatory mites. Handle the sachets by the cardboard hook. The sachets have a small exit hole. Do not perforate the sachet or tear it open, as this can cause the sachet to quickly dehydate.

Release conditions

The average temperature should be higher than 59˚F (15˚C) for at least some hours of the day to give the mites an opportunity to warm up and feed. Relative humidity should be above 65%, since a low RH impedes the population build-up of *A. cucumeris* as the eggs do not hatch and breeding sachets dry out. The predatory mite is not susceptible to diapause and therefore remains active all year round in greenhouses.

AMBLYSEIUS-SYSTEM, AMBLYSEIUS-VERMICULITE-SYSTEM and ABS-SYSTEM

Life cycle and appearance

Egg	Larva	Nymph	Adult
• Oval shaped • Around 0.1-0.14 mm • White to translucent color • Duration: 2-3 days*	• 3 pairs of legs • Do not feed - Duration: 2 days*	• 4 pairs of legs • Paler color than adult mites • Highly mobile on plant • Duration: 7 days*	• Pear shaped • Pale brown to tan color • 0.5 mm long • Avg. 1-3 eggs per day • Lifespan: 10-12 days*
			

*At an average temperature of 59˚F (15˚C).

Monitoring

- *A. cucumeris* adults, juveniles and eggs can be spotted in the crop, on the undersides of leaves. Eggs are laid on leaf hairs near the junction of veins. Mobile stages walk along veins and aggregate on the underside of leaves, in between the leaf hairs at the juncture of the midrib and the veins.
- Adults may also be found in flowers, feeding on pollen and on present thrips larvae.
- Because A. cucumeris feeds on immature thrips stages a decrease in adult thrips populations will not occur for 2 to 3 weeks (depending upon initial pest population and climate conditions).
- The establishment will be faster in pollen bearing crops and with sufficient prey level.
- The efficacy can be checked by observing a reduction in pest population, reduced spreading, lower number of discolored flowers and new healthy growth free of damages.
- The use of Bug-Scan® traps in combination with Thripher (thrips pheromone lures) is recommended to continually monitor the populations of thrips in the crop.
- Use Bug-Scan® rolls for mass trapping.