

# Atheta-System

The predatory beetle *Atheta coriaria* is an extremely voracious and efficient predator of some of the most troublesome soil insects such as fungus gnats (*Sciara*), shore flies (*Scatella stagnalis*) as well as the very damaging western flower thrips (*Frankliniella occidentalis*).

## FUNGUS GNAT AND SHORE FLY

They are particularly seen in a warm and humid environment in the proximity of plants. That's why they can occur the whole year round in the greenhouse. Not only do larvae feed on decaying organic material such as algae and mould, but also on living material such as root and stalk tissue. They pierce into the root and/or stalk of cuttings, seedlings and young plants. As a result, secondary plant diseases such as *Pythium*, *Phytophthora*, *Botrytis*, *Fusarium* and *Verticillium* can be spread. The larvae of *Scatella stagnalis* do not feed on roots, but adults foul young plants with their excrement. The damage is recognizable by the small black spots on young leaves and growing points. Severe fouling of young plants can lead to growth inhibition because of a lack of photosynthesis.

## ATHETA CORIARIA

Adult *Atheta* beetles are dark brown to shiny black, 3 to 4 mm long and are completely covered with hair. *Atheta* has three larval stages during which the larvae change from white to orange brown. All stages of *Atheta* actively search for prey. Because of their flight capability, adults can travel through a greenhouse, which ensures good distribution and fast population development. Total development time from egg to adult takes about three weeks at 25°C. After that period the adult predatory beetle will be active for approx. three weeks. An adult female will lay 8 eggs per day during the first two weeks after maturing.

## APPLICATION

*Atheta coriaria* can be introduced against different soil pests in several ornamental, vegetable and arboricultural crops. The adult beetles and the larvae will mainly search for eggs, young larvae and pupae of the sciarid fly (*Sciara*). The same goes for the eggs and larvae of the shore fly (*Scatella*). Especially the adult predatory beetles will also contribute to the control of the 2<sup>nd</sup> larval stage of the Western flower thrips (*Frankliniella occidentalis*). This is the larval thrips-stage that lets itself fall to the ground to pupate later on. Besides these three pests, also the eggs and young larvae of moth flies are on the menu of *Atheta coriaria*.

Atheta-System can be applied to different media, such as compost, coconut fibre, rock wool, etc. by distributing the content of 1 package (500 beetles) into 10 to 20 piles.

Introduce at least 2 predatory beetles per m<sup>2</sup>.

## ATHETA-SYSTEM

Atheta-System is available as 500 adults in a 1L bottle with peat as carrier material. *Atheta* can be stored for a short while at 8-10°C and RH>85 %.

### ADVANTAGES

- All stages extremely voracious
- Easy introduction in the crop
- Fast development and distribution in the greenhouse
- Broad action range