ANATIS BIOPROTECTION

Gaeolaelaps gillespiei

Gaeolaelaps gillespiei is a pear-shaped predatory mite that is 1mm long. Its colour can vary from cream to brown.

The immature stages are usually paler and semi-transparent. The eggs are oval and measure 0.5mm.

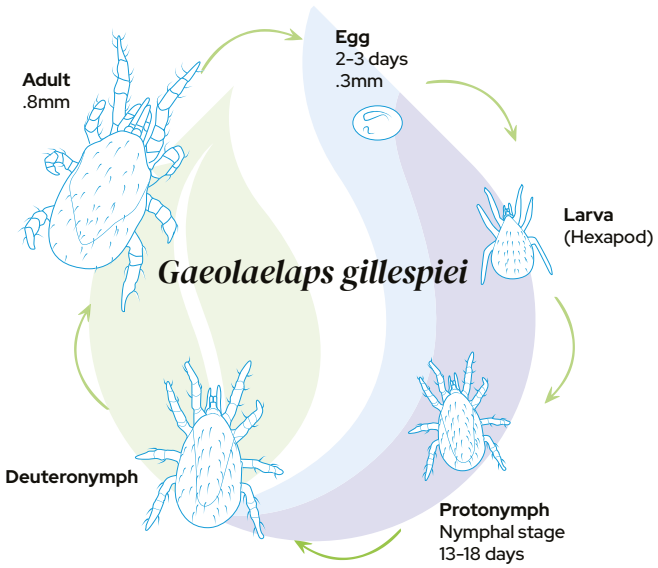
Gaeolaelaps looks very similar to its cousin ***Stratiolaelaps scimitus (Hyposaspis miles).***

This predatory mite is a native species to Canada, discovered and evaluated 30 years ago by Dave Gillespie of Agriculture Canada.

While still not well known, it has proven to be very effective at controlling soil-dwelling flies. It can consume over 50% more fungus gnats than the Stratiolaelaps scimitus.

Life Cycle

- Optimal conditions: temperatures between 15°C and 25°C.
- Life cycle lasts approximately 18 days at 20°C.
- Sex ratio is 1 female for 1 male.
- Eggs hatch after 2 to 3 days.
- Each Gaeolaelaps eats 7 fungus gnat larvae per day.
- For lack of food, it becomes a detritivore and feeds on algae and plant debris. On this diet, Gaeolaelaps will survive but they will not reproduce unless they are well fed.
- Become inactive at 14°C.



Introduction rate

Introduction	Quantity	Surface	Frequency	Duration
Preventive	100	per m^2	14-28 days	2 introductions in total
Curative	250	per m^2	7-14 days	As needed

Gaeolaelaps gillespiei

Application

Gaeolaelaps can be applied to different types of substrates such as potting soil, coco fiber, rockwool, etc.

They adapt well to various growing media and capillary mats used in plant production, but do not survive freezing or flooding conditions.

This predatory mite is very mobile, and it can be found on the surface of the substrate, as well as the first few leaves of the plant; if food is lacking and they go searching.

To properly establish *Gaeolaelaps*, introduce the predatory mite twice, 2-3 weeks apart. Reapply as needed if the pest population increases.

Instructions

- Thoroughly moisten the soil before introducing mites. Do not flood.
- Do not freeze or refrigerate.
- Turn the bottle gently to mix the mites. Open the bottle.
- Sprinkle the content on the soil or substrate. Spread evenly in the area needing treatment or suitable for ground flies.

David R. Gillespie