APHID CONTROL
Aphelinus abdominalis

Product: Aphid parasitic wasps, *Aphelinus abdominalis* are very small, 2-3 millimeters long and has yellow-black in colour. They can adequately protect a crop throughout the season. The adults are attracted to the colonies of phids by responding to alarm signals produced by aphid infested plants and smell of honeydews secreted by aphids on the infested plants. *A. abdominalis* larvae are parasitic in nature feeding on the body content of aphids whereas their adults feed on honeydews secreted by aphids. They perform better against aphids when aphid population is at very low level in the garden.

The wasps are generally shipped as ready to emerge mummies. When aphid mummies contatining wasp pupae are applied in the vegetable gardens, greenhouses, or fields, adult wasps immediately start emerging from aphid mummies. When the adults come across to colonies of aphids, they will select a suitable size aphid using their antennae to lays in the aphid body. Once an appropriate size aphid is found, adult wasp turn around and extend and insert its ovipositor tip into the abdomen of aphid and then lay eggs. The parasitized aphids will survive, reproduce, and feed on plant tissue for a while, but eventually they will die when the larvae of the wasp mature and pupate. After 14-15 days, adult wasps will start emerging from mummies and life cycle continues.

Target: *A. abdominalis* is effective against bigger aphid species, such as Alfalfa aphid (*Acyrthosiphon pisum*), Bird cherry-oat aphid (*Rhopalosiphum padi*), California Laurel aphid (*Euthoracaphis umbellulariae*), Cereal aphid (*Sitobion avenae*), Cotton aphid (*Aphis gossypii*), Green Peach aphid (*Myzus persicae*), Melon aphid (*Aphis gossypii*), Potato aphid (*Macrosiphum euphorbiae*), and Foxglove aphid *(Aulacorthum solani*). Moreover, they parasite 5-10 aphids per day, and continue so far about 8 weeks. However, *A. abdominalis* mainly used for biocontrol of potato aphid and foxglove aphid.

Potato aphid (*Macrosiphum euphorbiae*) is a 2-4 millimeters tall, elongated aphid with relatively long legs. The antennae are longer than the body. They eyes are conspicuously red. The tail is relatively long, and the cornicles are long with a dark tip. The potato aphid is usually green in colour, but sometimes yellowish or pink in colour. The larvae have a dark longitudinal line on the back. The mobility is also typical. Moreover, the aphid easily lets itself fall. Although this aphid usually hibernates on roses in North America, in Europe it usually passes the winter in the greenhouse. The potato aphid has more than 200 host plants such as tomato, eggplant, sweet pepper, chrysanthemum, rose, pelargonium, tobacco, and potato. It is often found on stalks or younger parts of a plant, and causes crimped tips that look like virus infestations.

Foxglove aphid *(Aulacorthum solani*) is a middle sized, round oval aphid of 1.8-3 millimeters. They have dark bands on the long antennae. Around the base of the cornicles, dark green patches can be seen. This aphid usually has a glossy yellowish green in colour, but this can vary from white yellowish green to brown green in colour.
The foxglove aphid always reproduces viviparously on several host plant species. In the open field potato and several bulb crops are attacked. In the greenhouse the main hosts are sweet pepper, chrysanthemum, tomato, eggplant, lettuce, and bean.

For further Information Contact: **NATURAL INSECT CONTROL**, 3737 Netherby Road, Stevensville, Ontario, L0S 1S0
905-382-2904 (Tel); 905-382-4418 (Fax); info@naturalinsectcontrol.com
For further Information on all NIC Beneficial Insects go to **www.naturalinsectcontrol.com**

Release: *A. abdominalis* is applied on several greenhouse crops such as Sweet pepper, Tomato, Eggplant, Bean, Gerbera, Rose, and Chrysanthemum.

Rate: The parasitic wasps should be introduced in the greenhouse at the first signs of aphids. They are released in and around beginning hot spots at 0.5-2/m^2, depending on the crop and the circumstances.

Notes:

- Can be stored for a few days at 8-10^{O}C (46.4-50^{O}F) and humidity >85%
- Temperature: 21-25^{O}C (70-77^{O}F)
- Humidity: 60-80%
- Remove all the yellow sticky traps used for whitefly control before releasing wasps in your gardens, greenhouse, fields, and orchards, as the adult wasps are generally attracted to yellow sticky traps and get killed before they can parasitize aphids by laying eggs in aphid body.

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Please let us know within 24 hours of receipt if there are any problems with your Live Insect Order.

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