New Biological for Greenhouse Fungus Gnat Control Available

iba-Geigy announces that its first biological, nematode-based larvacide, Exhibit, now is available to members of the green industry (including greenhouse use). The active ingredient is a beneficial microscopic nematode (Steinernema carpocapsae) that is indigenous to almost all soils and feeds on and reproduces in insect larvae hosts. Properly applied, this natural insect predator protects ornamentals from both foliar and root damage that can be caused by certain pests including black vine weevil (Otiorhynchus sulcatus), strawberry root weevil (Otiorhynchus ovatus) and fungus gnats (Sciaridae). A one-gallon recyclable plastic container of Exhibit contains 250 million nematodes suspended in a polymer gel. The nematodes are living organisms in suspended animation, and can be mobilized once water and the enclosed activator packet are added.

Exhibit is a naturally-occurring, soil-borne beneficial organism. It can, therefore, be used on any container-grown, greenhouse or field-grown ornamental that could potentially suffer from an infestation of any of the above pests. Since the nematodes in Exhibit are a natural part of the environment, run-off from an application won't threaten groundwater sources or upset the ecosystem of surrounding lakes and streams. In addition, workers can handle Exhibit without special protection and can reenter areas immediately after they've been treated. Because it leaves no residue on your ornamentals, plants can be sold the same day they're treated. Exhibit can be used in IPM programs and poses no threat to beneficial insects, turf or ornamentals. Nematodes are natural predators, so insects cannot develop resistance, which in turn helps prolong the effectiveness of your chemicals.

Once applied according to directions, the beneficial nematodes move through the soil and actively search for host

insect larvae and pupae. They penetrate the host and release bacteria (*Xenorholodus spp.*) which kill the host, usually within 24 to 48 hours of entry. The namatodes then reproduce, releasing new generations of nematodes which continue to seek out and destroy insect pests. Exhibit is used to destoy immature insects only and has no effect on adult populations of target pests. Since these beneficial nematodes are parasites, they die if there are no more insect hosts.

For information on Exhibit, contact Ciba-Geigy Agricultural Division, Ciba-Geigy Corp., P.O. Box 18300, Greensboro, North Carolina 27419-8300. (Scott Moffitt 919-547-1174)