



**BioWorks®**  
How You Grow Matters™



# Success in Fungus Gnat Control

Fungus gnat larvae can quickly build up to very high numbers in the root systems of your plugs and other potted crops. They can cause direct and indirect damage to your plants: Fungus gnat larvae chew the plant's roots, damaging them so they do not function efficiently, which leaves them susceptible to disease organisms.

When applied proactively, NemaShield, containing *Steinernema feltiae* predator nematodes, are very effective in controlling fungus gnat larvae. A single application of NemaShield will kill fungus gnat larvae that feed on plant roots.

## Mode of Action

After application, NemaShield nematodes actively seek out the fungus gnat larvae. The nematodes enter the larvae through respiratory, mouth or anal openings. Once inside their host, the nematode molts to the next stage and releases a beneficial bacterium from their intestinal tract. The bacteria multiply rapidly within the fungus gnat larva, dissolving the inner body tissue. During this time, the nematode feeds on host tissues, gradually molting to the adult stage. The fungus gnat larvae die within a few days; the subsequent generation of nematodes is released to the environment where they can attack additional fungus gnat larvae. Prior to mixing, NemaShield should be stored in a refrigerator (41° F) and NOT FROZEN. Be sure there is good air circulation around each tray when stored.

## Rates

NemaShield should be applied when fungus gnat populations are low to prevent severe infestations. One unit of NemaShield (sprayable formulation) containing 100 million infective stage *Steinernema feltiae* on a clay/gel carrier will treat 1100-3400 square feet. NemaShield is available in 100 million or 500 million nematodes per unit. For light or heavy infestations treat the entire house or plant inventory as soon as insect pests appear. Re-apply in 14 to 21 day intervals at the light infestation rate. For heavy infestations on highly susceptible crops or newly propagated cuttings, follow the rate recommended above and reapply at the light infestation rate when necessary or after 5 to 6 weeks. Apply within 2 – 3 days of sticking cuttings or seeding trays.

## Success Story

Tim Martonik, of VanHoekelen Greenhouses in McAdoo, PA, saw firsthand the success of NemaShield in controlling fungus gnats. He uses yellow sticky cards as scout reports. After applying NemaShield, for four months Tim found that in the latter weeks sticky cards literally had only 1 or 2 fungus gnats for 2 acres of crops. The reduction of fungus gnats was significant.

NemaShield kills fungus gnat larvae, but does not control adults. If present, adult fungus gnats will linger for several weeks after a NemaShield treatment, and gradually age and die off. Just as they did for Tim Martonik.

| Fungus Gnat Control                             | Coverage per Unit Container (100 Million Nematodes) |
|---|---|
| Light Infestation                               | 3400 sq. ft. with 100 gals water                    |
| Heavy Infestation                               | 2200 sq. ft. with 70 gals water                     |
| Highly susceptible crops & newly stuck cuttings | 1100 sq. ft. with 50 gals of water                  |

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