Talstar®
Insecticides

FMC

Best Management Practices

Fungus Gnats

Background: Fungus gnats are slender, mosquito-like insects that lay their eggs in damp, organic matter. The larvae are serious pests in moist potting media and decaying vegetation, where they are known to feed on plant roots and damage plant material. Plants that are damaged by fungus gnats lack vigor and their leaves may turn yellow without any visible injury to any part of the plant above ground. The roots will have small brown scars or the small feeding roots and root hairs will be eaten off. These damaged roots then become susceptible to disease. On occasion, fungus gnat larvae can infest foliar tissues and feed between the upper and lower leaf surface.

Description: There are several species of fungus gnats which can injure roots and underground stems of plants in greenhouses. The adults are all very small, sooty gray or nearly black, long legged flies or gnats, measuring 1/10 to 1/8 inch in length. These flies deposit their eggs in clusters of 2 to 30 or more in the soil. The eggs are very small 1/100 inch, almost too small to be seen. After 4-6 days small legless maggots, with black heads and nearly transparent bodies, hatch and work their way through the soil. The maggots feed for 5-14 days and become fully grown at 1/4 inch. These maggots form a flimsy cocoon in the ground and pupate. The adults emerge in 5-6 days and live about 1 week.

Management: Talstar® Nursery granular insecticide can be incorporated into the potting media for containerized plants to provide control of fungus gnat larvae as well as root mealybugs. The recommended application rate for these pests is 5 to 10 parts per million mixed thoroughly into the media with equipment that is suitable to give uniform distribution throughout. To select the proper amount of Talstar® Nursery granular to be incorporated in one cubic yard, determine the bulk density of the potting media by measuring the dry weight of a unit volume of the mix. Then multiply the bulk density of the media by the desired parts per million. This number is then divided by 2000.

Formula:

$$\frac{\text{media bulk density} \times \text{ppm}}{2000} = \text{lb Talstar® granular per cubic yard}$$

Example:

$$\frac{(200 \text{ lb/cu yd}) \times 10 \text{ ppm}}{2000} = 1.0 \text{ lb Talstar® granular}$$

A chart on the product label indicates the quantity of Talstar® Nursery granular for several popular bulk densities. Use the higher labeled rate for up to 6 months of residual control of fungus gnat larvae.

Always read and follow label directions.

P3190R 11/03

Agricultural Products Group ■ Specialty Products Business ■ 1735 Market Street Philadelphia, PA 19103 ■ 1.800.321.1FMC ■ www.talstar-one.com