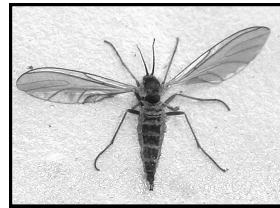


# GOT GNATS?

Fungus gnats are small, dark-colored flies that resemble miniature mosquitoes. Adult gnats are typically 1/16 to 1/8 inches long with antennae that are longer than their head, and light gray/clear wings. Their life cycle consists of 4 distinct stages – egg, larva, pupa, and adult. In general, these gnats produce and develop faster with increasing ambient temperatures, but they can occur during any time of year in moist regions and indoors. Female gnats lay eggs in moist organic debris or potting soil; they commonly infest any containers that are a source of organic decomposition. The larvae then feed on fungi and other matter in the soil. They are also known to chew roots and leaves in some cases.



FUNGUS GNAT LARVAE



ADULT FUNGUS GNAT

**Treatments/Solutions:** Since most of the fungus gnat's life is spent as a larva and pupa, the most effective management approaches will focus on these early stages of life as opposed to the short-lived, relatively harmless (but still irritating) adults.

- Insecticides are an option to control these pests in a commercial setting, but in a home this is usually excessive.
- A layer of sand may be placed on the surface of the soil in order to help prevent the larvae from reaching the soil and feeding on decomposing materials.
- What is often needed is simply a reduction of excess moisture and organic debris. Avoid overwatering and allowing water to remain stagnant – good drainage is key. Allowing the surface of the soil in a container to dry in between watering is important. Cleaning the area around your plant is also good practice. Picking out rotting leaves or other sources of food/nesting for the larvae is recommended. Other things to avoid include incompletely composted organic matter or excessive manure.
- Using pasteurized container mixes/potting mixes is also recommended. Growers will often treat potting soil with heat or steam in order to kill flies and other microorganisms they feed on. At home, you can solarize your soil on a small scale in order to control soil borne pests such as these with a nonchemical method. In short, solarization is done by first moistening soil, placing it in a bag of transparent plastic or black plastic, keeping the pile of soil no deeper than about 8 inches, and placing the bagged soil in a slightly elevated, sunny, hot location for about 4 to 6 weeks. The effectiveness of this preventative method depends on the intensity, depth, and duration of the elevated soil temps it causes. In western Oregon this is generally only possible during summer.
- Biological control agents such as *Steinernema feltiae* nematodes or *Hypoaspis* predatory mites can be purchased and applied to fight gnats.
- An experimental approach that could be worth trying involves baiting the female gnats with a good breeding ground such as a pot of wheat and soil. Close monitoring should be exercised when trying this method; the goal is to allow the females to lay their eggs in the lure and then dispose of all of them BEFORE they hatch.
- Sticky traps are effective for trapping the adult gnats.