

A few days ago while I was watering my house plants, a small dark cloud rose from the pot I was watering and scattered haphazardly. Further investigation revealed that the cloud was a bunch of tiny gnats, but no visible damage to my plants. Fungus gnats aren't typically found in high enough concentrations as to be harmful to the plants, but they can be a chronic annoyance for some with houseplants.

When trying to identify fungus gnats, the adults are only one-eighth inch long. They are able to fly, but can't fly very far, and they're clumsy and knock into things. When they land, their wings fold neatly behind them.

The first thing that I do when I find a new disease or insect is try to determine where it came from and if I'm likely to get more from that source. Fungus gnats could be from a new plant brought in, soil that had been outside, or other sources. If it is feasible to get rid of the source, or possibly put the plant into quarantine away from the other plants until it can be treated, I would recommend it.

Before you can treat a biological problem such as insects, weeds, or fungi, it always helps to look at the lifecycle of the organism first. This can help you decide if treatment is needed, when to treat, or help you decide what kind of treatment should be used. Taking a look at fungus gnats, they start as eggs that have been laid in the moist potting media. The tiny white larvae hatch from the eggs and eat organic material like plant roots and leaves that are sitting on the soil surface. Two to three weeks later, the larvae pupate, kind of like a caterpillar in a chrysalis. A week after they pupate, the fungus gnats emerge as adults.

One of the best ways to get rid of insects without needing to use any chemical is to interrupt the lifecycle of the organism. If more of them cannot complete the lifecycle, there will be fewer adults, and thus fewer eggs. Looking at the lifecycle for fungus gnats, there isn't much that can be done about the eggs in the soil media, other than to not bring in outside soil, or potting mix that has been sitting outside. The larvae do best in moist soil and eat plant material. If you can allow your soil to dry out more between waterings, especially the top few inches, this will help considerably to lower the population of larvae that are in your soil. Leaves that have fallen, or dead stems, or any other dead organic material should also be removed, as it could be providing a food source to the larvae. Adult fungus gnats are attracted to the color yellow, and can be trapped on yellow sticky cards.

If cultural methods, where you change the environment to reduce reproduction and survival, don't work, there are a few different chemical options to consider. Contact insecticides, like horticultural soaps and neem oil, work on a short term basis, but will need repeat applications to be effective in the long term. Be aware that insecticides designed to kill the adults will not have much effect on the larvae and vice versa. Systemic insecticides are also available to help kill larvae in the soil.

Fungus gnats won't harm your plants, but they can be irritating and difficult to get rid of. The first step is positive identification, look for clumsy fliers that land often and are only about an eighth of an inch long. Once you're sure that fungus gnats are the issue, try to let the soil dry out more between waterings to make the environment less friendly to the fungus gnat larvae. As always, chemicals should be the last resort for treatment. If you have any questions or would like to suggest a topic for me to write about, feel free to contact me at the Buffalo County Extension Office, at 308-236-1235, or mearnest2@unl.edu.