



USING POTATO WEDGES TO DETECT FUNGUS GNAT LARVAE

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Wondering what to do with those extra potatoes? Martha Stewart might have other suggestions, but we suggest using them to sample for fungus gnat larvae and other growing media-inhabiting creatures. This will help you know more about what is happening in your crops - which is what crop management is all about. Potato pieces pressed into the media are very useful for detecting fungus gnat larvae, and probably other potential pests such as bulb mites.

Fungus gnat larvae are especially harmful to plants in propagation beds, cuttings just after sticking, and seedlings - any plant with a limited root system. Fungus gnat adults are attracted to fresh potting media to lay their eggs. The larvae hatching from these eggs can be feeding on roots in a matter of days after potting plants. But that's not all. Recent research at Michigan State and Purdue Universities demonstrated the presence of fungus gnat larvae and bulb mites in some potting media before the presence of any plants. In other words, fungus gnat larvae could be waiting for plants to be added! Placing a cutting into media already infested with larvae is asking for trouble. Using the potato sampling method is useful as a kind of early warning system.

There are at least two ways to use this sampling method:

1. Cut potatoes into pieces about 1-inch thick (to prevent them from drying) and about 1-inch in diameter. Press the pieces slightly into the potting media surface and leave in place for 48-72 hours. Some cut the potato piece into a wedge, making it easier to push into the media. After the 48-72 hour period, lift the pieces and look for larvae, either on the potato piece or in the media where the potato was.
2. Cut the potato into "French fry" pieces and push them deeper into the media (1-2 inches), because fungus gnat larvae may be well below the surface.

The number of potato pieces to use in a sampling plan is a kind of educated guess at the moment. One suggested sampling plan is to use one potato piece per 100 square feet of bench area. You will need to use the number that can be examined within 48-72 hours of placing them in pots or flats. Much longer than that and the pieces either dry out or rot. It's not necessary to use potato pieces everywhere in the greenhouse, but only on those young plants on which fungus gnats are known to be problems. Should you give up the yellow traps for sampling adults? No. Yellow sticky traps should be used in addition to potatoes. The two methods together will give a pretty good picture of the fungus gnat situation.

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