

Wingless and Flightless Fruit Flies

Fruit flies are a perfect live food for small-trap carnivorous plants.

Feeding Carnivorous Plants.

Carnivorous plants grow in the nutrient-poor soils of bogs. The constant flow of water through a bog leaches away soil minerals including nitrogen, which is necessary for healthy plant growth. Carnivorous plants have adapted unique methods to lure, trap and digest insect victims to obtain nitrogen. When grown indoors there can be too few insects available for strong growth and it becomes useful to feed the plants. Wingless or flightless fruit flies are an ideal food, especially for small-trap carnivorous plants including sundews, butterworts, venus flytraps, cephalotus and pitcher plants. The fruit flies are easily sprinkled into the traps for quick, natural feeding. Wingless and Flightless fruit flies cannot fly and are very simple to culture.

They are clean and odorless. They need very little space, and can be grown year-round. Nothing beats live food for great carnivorous plant growth.

Culturing Fruit Flies.

Fruit flies are very simple to culture. The only materials necessary are small vials, plugs and medium. Upon receiving the culture, remove the cap, but leave the foam plug in place. Keep them at room temperature, between 68-75°F (20-25°C) and out of direct sunlight. Lower temperatures will slow their growth, and higher temperatures will shorten their life cycle, but may promote the growth of mold, bacteria and mites. The flies will do fine in the plugged vial for a month or more. Adults can be sprinkled onto carnivorous plant traps as needed. To start a new culture, add a few flies into a clean vial first filled with fresh medium and a sprinkle of dry yeast.

Fruit Fly Life Cycle.

Wingless and Flightless fruit flies are natural genetic variations of the common fruit fly, *Drosophila melanogaster* and *D. hydei* which is a bit larger, but produces fewer flies. Both will breed true, as long as they are kept in plugged containers away from wild fruit flies. They reach breeding size in about two weeks at 70°F (21°C). A single female can lay 100s of eggs in a week. There are four distinct stages in the fruit fly life cycle: egg, larva, pupa and adult. Within one day the larva hatch from the egg and begin feeding and burrowing thorough the medium. Larva feed in the medium for a week, molting twice in that time. They crawl above the medium to form dark colored pupa on a dry surface. The pupae metamorphose and emerge as adults in about six days.

Two days after emerging a female can mate and start to lay eggs. Adults may live for several weeks or longer.

Creating New Cultures.

About once a month prepare a fresh culture.

Add one ounce of flaked medium to a clean dry vial. Pour in an equal amount of cool tap water. Sprinkle a few grains of dry viable yeast onto the surface. Too much yeast will produce excess CO₂ causing sterility or even death for the fruit flies. Six grains of yeast are adequate. Let the medium stand for a minute or more before adding the new flies. Simply sprinkle a few flies from an old culture into the freshly prepared vial. It only takes one fertile female, but adding about a dozen flies works well. Plug the vial with a clean foam plug.

Ideal Carnivorous Plant Food

1. Natural source of nitrogen.
2. Just sprinkle into traps.
3. Easy to use and keep.
4. Clean and odorless.
5. Lasts for years.

