

# Down the Garden Path



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Plant & Pest Diagnostic Laboratory

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## THE GRAPE VINE

### Gastero-whats?

*Peggy Sellers, Director, Plant and Pest Diagnostic Laboratory*

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#### TIME TO RENEW

Fall is the time of year when certain fungi are "popping up" everywhere. Perhaps you have noticed a few this year as you enjoyed the leaves changing color in your yard or a nearby woodland. One group of fungi, the gasteromycetes, may have been particularly noticeable. Fungi belonging to the gasteromycetes include the bird's nest fungi, puffballs, and stinkhorns.

Bird's nest fungi are so named because of their fruiting structures that look like miniature bird nests filled with eggs (spore-like structures). Raindrops that splash on the nests, disseminate the "eggs". Bird's nest fungi can be found growing in groups on wood, wood chips, or high-cellulose substrates such as corncobs.

Puffballs are so named because of their spore-dispersal mechanism. Perhaps you have noticed a puffball as you walked in the woods and saw a cloud of spores "puff" out of a tan colored ball-shaped fungus when you bumped it with your hand or foot. When young, puffballs are white and firm inside and as they mature, the interior turns to a dry powdery mass of olive-green to brown spores.

Puffballs occur on the ground or on logs, stumps in wooded areas in late summer or fall. Some puffballs (*Lycoperdon* spp.) are small, measuring 1 to 3 inches in diameter. Others such as the giant puffballs are gigantic (*Calvatia gigantea*), commonly having diameters of 8 to 20 inches and containing billions of spores! These giant puffballs can look like white basketballs dotting the landscape or something you might expect to see if you were to visit "Teletubby Land". (Refer to your nearest pre-schooler for a description of "Teletubby Land".)

Stinkhorns are obviously named for their incredible stench. The fruiting bodies of young stinkhorns appear as whitish egg-shaped structures. As this "egg" hatches, a long spongy stalk-like structure emerges that bears a putrid, greenish-brown gelatinous substance containing spores. Some people have described stinkhorns as peach-colored to orange-colored carrot with a brown wet tip that attracts flies. In less than five hours, stinkhorns can grow from the "egg" to the fully-elongated foul-smelling stalk. ☹



*Stinkhorns*



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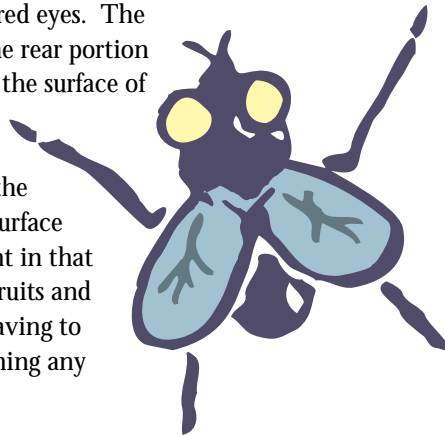
# HOME

## Fall's Bounty Brings Fruit Flies

Mike Potter, *Kentucky Pest News*: November 3, 1997

Several people have called recently about small flies or gnats flying about in their kitchen. These are probably fruit flies. Fruit flies can be a problem year round, but are especially common this time of year because they are attracted to ripened or fermenting fruits and vegetables. Tomatoes, melons, squash, grapes and other perishable items brought in from the garden are often the cause of an infestation developing indoors. Fruit flies are also attracted to rotting bananas, potatoes, onions, and other unrefrigerated produce purchased at the grocery store. They are also attracted to dirty garbage containers and clogged disposals where decaying organic matter may have accumulated.

Description and Habits- Fruit flies are common in homes, restaurants, supermarkets and wherever else food is allowed to rot and ferment. Adults are about 1/8 inch long and usually have red eyes. The front portion of the body is tan and the rear portion is black. Fruit flies lay their eggs near the surface of fermenting foods or other moist, organic materials. Upon emerging, the tiny larvae continue to feed near the surface of the fermenting mass. The surface feeding behavior of larvae is significant in that damaged or over-ripened portions of fruits and vegetables can be cut away without having to discard the remainder for fear of retaining any developing larvae.



The reproductive potential of fruit flies is enormous; given the opportunity, they will lay about 500 eggs. The entire life cycle (egg to adult) can be completed in about a week.

Fruit flies are especially attracted to ripened fruits and vegetables in the kitchen. They also will breed in drains, garbage disposals, empty bottles and cans, trash containers, mops and cleaning rags. All that is needed for development is a moist film of fermenting material.

Infestations can originate from over-ripened fruits or vegetables that were previously infested and brought into the home. The adults can also fly in from outside through inadequately screened windows and doors.

Fruit flies are primarily nuisance pests. However, they also have the potential to contaminate food with bacteria and other disease-producing organisms.

Prevention- The best way to avoid problems with fruit flies is to eliminate sources of attraction. Produce that has ripened should be eaten, discarded or refrigerated. Cracked or damaged portions of fruits and vegetables should be cut away and discarded in the event that eggs or larvae are present in the wounded area. A single rotting potato or onion forgotten at the back of a closet, or fruit juice spillage under a refrigerator can breed thousands of fruit flies. So can a recycling bin in the basement that is never emptied or cleaned.

People who process their own fruits and vegetables, or make wine, cider or beer should ensure that the containers are well sealed; otherwise, fruit flies will lay their eggs under the lid and the tiny larvae will enter the container upon hatching. Windows and doors should be equipped with tight-fitting (16 mesh) screens to help prevent adult fruit flies from entering from outdoors.

Eradication- Once a structure is infested with fruit flies, all potential breeding areas must be located and eliminated. Unless the breeding sites are removed or cleaned, the problem will continue no matter how often insecticides are applied to control the adults. Finding the source(s) of attraction and breeding can be very challenging, and will require persistence on the part of the client -- guided by your suggestions as to where these areas might be. Potential breeding sites that are inaccessible (e.g., garbage disposals and drains) can be inspected by taping a clear plastic food storage bag over the opening overnight. If flies are breeding in these areas, the adults will emerge and be caught in the bag.

After the source of attraction/breeding is eliminated, a pyrethrum-based, aerosol insecticide may be used to kill any remaining adult flies in the area. A better approach, though, is to construct a trap by placing a paper funnel (rolled from a sheet of notebook paper) into a jar which is then baited with a few ounces of cider vinegar or a slice of banana. This simple but effective trap will soon catch any remaining adults. Faster results can be achieved by installing additional traps. Since more fruit flies will be caught in traps closest to the breeding source, the technique can also help pinpoint the source of the problem. Adult fruit flies caught in traps can be killed or released outdoors. ☺

## YARD

### Late Season Mowing

Zac Reicher , Turfgrass Extension Specialist

Be sure to keep mowing your lawn as long as it is growing this fall. Grass allowed to grow tall before winter may slump over and mat down to create the perfect environment for a disease called snow mold. Snow mold can cause considerable damage to cool season turfgrasses during the winter.

Unlike recommendations from years ago, **DON'T ADJUST THE MOWING HEIGHT DOWN BEFORE WINTER.** This should be avoided because photosynthesis will continue until the plant is dormant, even in spite of cool temperatures. Photosynthesis at this time of the year allows the plant to store energy for winter and next spring, which is crucial for its survival. Scalping off grass leaves now reduces the photosynthetic capacity of the plant, reducing energy storage, and decreasing turf survival this winter and performance next summer. Additionally, regular mowing into the late fall will help mulch tree leaves into the turf. A layer of tree leaves will shade the grass minimizing photosynthesis and possibly smothering the grass. A layer of tree leaves will also encourage snow mold, so get outside and keep mowing your lawn!

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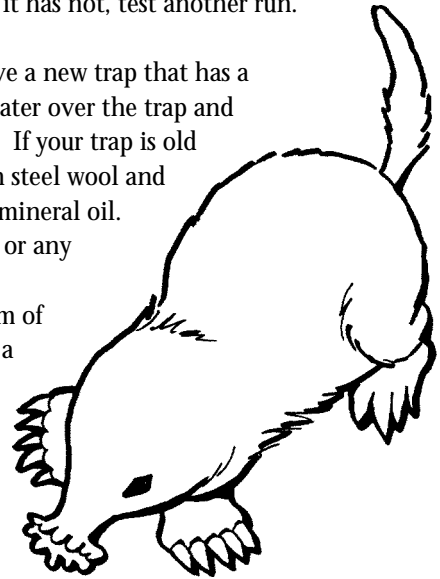


## OVER THE BACK FENCE

**Q:** I have a spring trap with spikes. On several occasions, the trap was sprung, but no more. Are the 4-inch spikes supposed to surround the mole (trapping it), or stab it? I've since tried bending the spikes inward in an attempt to zero in on the pest. Any suggestions?

**A:** Moles can be destructive pests in lawns, gardens, nurseries, golf courses, and cemeteries. People made these areas particularly attractive to moles by amending the soil which makes it easier to dig, and by adding plants and mulch that attract insects. Moles are not rodents; they are insectivores, and frequently dislodge plants and injure plant roots while hunting for food. During their burrowing activities, they produce mounds and ridges that disfigure lawns. The most dependable method of mole control is trapping. The harpoon-type trap is most easily available and can be quite successful if placed correctly.

1. Locate an active run (tunnel). Moles make many runs, some they use only once. Moles like to tunnel next to a vertical surface such as a sidewalk, driveway, or foundation, check these runs first. To find an active run, mash down a section of the surface run (1-2 feet is adequate). Check the following morning to see if the run has been repaired (pushed back up). If it has not, test another run. If it has, go to step 2.
2. Trap maintenance. If you have a new trap that has a greasy coating, pour boiling water over the trap and allow to dry in the bright sun. If your trap is old and rusty, clean the trap with steel wool and use minimal lubrication with mineral oil. Do not use motor oil, WD-40 or any strong smelling oil.
3. Check the depth of the bottom of the mole run by probing with a pencil or screwdriver. If it is deeper than 4 inches, scoop off a layer of soil.
4. Place the trap support stakes on either side of the run. Press the trap into the soil.
5. Pump the harpoons up and down to clear any pebbles or twigs under the soil.
6. Set the trap.
7. Make an underground fence of popsicle sticks or small garden stakes spaced 1 inch apart and driven down at least 4 inches. Extend fence 10 inches out either side of the trap.
8. Place a bucket upside down over the trap to protect kids and pets.
9. After you have trapped-out your moles, collapse and fill in all visible tunnels and burrows. A vacant tunnel system is an invitation to stay for the next morel passing through your yard.



For additional information on mole control, contact USDA-APHIS-WS at 765-494-6229. ©

## TIME TO RENEW

# 1999

It is that time of year...fall clean-up, holidays, shopping, parties, and subscription renewal. Your 1998 subscription to *Down the Garden Path* will ending after two more issues. Avoid a delay in your subscription.

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