

## MULCHING TOMATOES

Soils are warm enough now that tomatoes can benefit from mulching. Tomatoes prefer even levels of soil moisture and mulches provide such by preventing excessive evaporation. Other benefits of mulching include weed suppression, moderating soil temperatures and preventing the formation of a hard crust on the soil. Crusted soils restrict air movement into and out of the soil and slow the water infiltration rate. Hay and straw mulches are very popular for tomatoes but may contain weed or volunteer grain seeds. Grass clippings can also be used but should be applied as a relatively thin layer – only 2 to 3 inches thick. Clippings should also be dry as wet clipping can mold and become so hard that water can't pass through. Also, do not use clippings from lawns that have been treated with a weed killer until some time has passed. With most types of weed killers, clippings from the fourth mowing after treatment may be used. If the lawn was treated with a product containing quinclorac (Drive), the clippings should not be used as mulch. If the weed killer used has a crabgrass killer, it likely contains quinclorac.

### ***Recent Rains Trigger Mushroom Development***

The frequent, heavy rains in certain areas of the state have resulted in the appearance of mushrooms in home lawns and landscape beds. Although mushrooms are often spectacular in size and color, most are relatively harmless to plant life. Some of these mushrooms are associated with arc-like or circular patterns in turfgrass called fairy rings. The ring pattern is caused by the outward growth of fungal mycelium. The mycelium forms a dense, mat-like structure in the soil that decomposes organic matter. This decomposition releases nitrate into the soil, which in turn stimulates the growth of the grass at the outer portion of the ring. This results in a dark green appearance of the grass at the margin of the ring. Unfortunately, the thick fungal mat formed by the fungus interferes with water infiltration. The fungus also may release certain byproducts that are toxic to the turf. This can lead to dieback of the turf close to the ring. Fairy rings are difficult to control. You can sometimes eliminate the ring by digging to a depth of 6 to 12 inches and 12 inches wide on both sides of the ring, refilling the hole with non-infested soil. Or you can try to mask the symptoms by fertilizing the rest of the lawn so that it is as dark green as the ring. This often isn't a good idea because it tends to promote other turf problems. Commercial people can use certain fungicides to control fairy rings but these products are not available to homeowners. Some mushrooms in lawns are not associated with fairy rings. These may be mycorrhizal (symbiotic association with tree roots) or saprophytic (live on dead organic matter such as wood, etc.) in the soil. Because some of these mushrooms are beneficial, you don't really want to kill them. Besides, a fungicide spray to the mushroom itself does little good. Remember the mushroom is simply the fruiting structure of the organism. Most of the fungus is below ground and inaccessible to the chemical. If mushrooms are a nuisance, pick them and dispose of them as soon as they appear. Remove sources of large organic debris from the soil. Also, mushrooms tend to go away as soil dries. Patience may be the best control. Some of the mushrooms in the lawn are edible, but others are poisonous. Never eat mushrooms unless you are sure of their identity.

### ***Control of Prostrate Spurge***

Prostrate spurge is one of the more difficult broadleaf weeds to control. It is a summer annual that must come up from seed every year. If caught when young, it is easier, though still difficult, to control. Correct herbicide selection is important. Mature plants are almost impossible to control, even with selected herbicides. Several years ago K-State Research and Extension conducted a study on the phytotoxic effects of certain herbicides on buffalograss. During the application, we noted the presence of a large number of small prostrate spurge plants. As the study progressed, plots were rated for percent control of spurge. The results were interesting. We found that Drive (quinclorac) provided more than 90 percent control. Until recently, Drive was only available to commercial applicators. Now we have additional products that contain Drive. Some of those products are: *Ortho Weed-B-Gon Max + Crabgrass Control*, *Bayer All-in-One Lawn Weed and Crabgrass Killer*, *Drive in Monterey Lawn and Garden Fertilome Weed Out with Q*, *Trimec Crabgrass Plus Lawn Weed Killer*, *Bonide Weed Beater Plus Crabgrass & Broadleaf Weed Killer*, and *Spectracide Weed Stop for Lawns Plus*

*Crabgrass Killer.* If you choose to use any of the above products, do not compost clippings or use them as mulch. The quinclorac can harm certain broadleaf plants. Clippings should be returned to the lawn or discarded. Dimension and Turflon Ester offered more than 80 percent control, and Trimec 78 percent. Dimension results were surprising because it is a preemergence herbicide with some postemergence activity that is commonly used for crabgrass control. Turflon Ester should only be used on cool-season grass such as tall fescue and Kentucky bluegrass; not on warm-season grasses such as bermuda, zoysia or buffalo. Remember that these are very small, immature spurge plants. Larger, more mature plants are much more difficult to control.

### ***Vein Pocket Galls on Oak***

We are seeing a high number of oak galls this year, especially vein pocket gall on pin oak leaves. Vein pocket gall causes abnormal swelling of the leaf near the veins. Actually, there are hundreds of different types of galls, each of which is caused by a specific insect. Insects that can cause different galls on oaks include tiny, non-stinging wasps and flies which cause abnormal growths to develop on the leaves, twigs or branches of oak trees. There are even some mites that can cause galls. These galls can include growths that are round, spiny, flattened, elongated or star-shaped. Galls form in response to a chemical that the insect or mite injects into the plant tissue. Eggs laid by a mature female hatch into legless grubs around which the gall forms. The larvae feed, develop, and pupate inside these galls. The adults may emerge either the same season or may overwinter inside the gall depending on the life history of that specific insect. Generally, these gall insects do not cause significant damage to their hosts, though some of the leaf galls can cause enough deformity to make a tree unsightly. Also, severe infestations of twig galls can cause twig dieback or, rarely, tree death. However, just because a twig is covered with galls does not mean it is dead. I have seen twigs that looked like a solid mass of galls leaf out in the spring.

Insecticide sprays applied when galls are noticed are ineffective because damage has already occurred. Also, larvae are unaffected because of the protection afforded by the gall. Insecticide sprays can kill emerging adult wasps and flies, but long emergence periods and short residuals of most contact insecticides make this impractical. Stem and twig galls can be pruned if this is deemed to be practical and necessary. Fortunately, natural predators and parasites usually bring these insects under control given time. Therefore, the best option is usually to do nothing.