

# MULCHING

Landscape mulches are used to protect soil, conserve moisture, moderate soil temperature, and limit weed growth, as well as beautify and unify landscape plantings. When applying mulch, do not cover the stem or the trunk of the plant. Most mulches are mixtures of shredded wood and bark residues.

Like other organic matter, wood and bark decompose over time. The primary organisms involved with their decomposition are bacteria and fungi, which derive their energy for growth from the carbon-based compound found in wood and bark. These compounds include cellulose, lignin, and simple sugars. Bacteria are microscopic organisms that are not visible in the mulch. Fungi also may be microscopic, but many develop visible reproductive structures.

The fungi involved in the decomposition of landscape mulches are natural components of the environment and are not harmful to landscape plants. In addition, no known health hazards are associated with them unless they are eaten.

Four common types of fungi growing in landscape mulches include mushrooms, slime molds, bird's nest fungus, and the artillery fungus.

## **Mushrooms:**

- They come in various colors, shapes, and sizes ranging from less than an inch to several inches tall. Some are soft and fleshy and disappear soon after they emerge. Others may remain in mulch for a few days, weeks, or an entire growing season.
- They may be poisonous if eaten.
- Appreciate their beauty, ignore them, or remove them.

## **Slime Molds:**

- They start as brightly colored (yellow, orange, etc), slimy masses, that are several inches to more than a foot across. They produce many tiny, dark spores. These mold dry out and turn brown, eventually appearing as a white, dry, powdery mass.
- These fungi "feed" on bacteria growing in the mulch. They are normally a temporary nuisance confined to small areas.
- The fungus can be left in place to decompose. If its appearance is offensive, discard the fruiting bodies in a compost pile, garbage, or away from the existing mulch.

## **Bird's Nest Fungus:**

- They resemble tiny, gray to brown bird's nests. The nest is up to 1/4 inch in diameter.
- These fungi may grow in large areas of mulch, but they are not problematic. The "eggs" are masses of spores that splash out of the nest when rained on. The spores occasionally stick to surfaces, but they are easily removed without leaving a stain.
- These naturally occur in decomposing organic matter and do not need to be removed.

## **Artillery Fungus:**

- They look like a tiny cream or orange-brown, small cup with one black egg. Areas of mulch with the artillery fungus may appear matted and lighter in color than the surrounding mulch.
- They may be problematic. The fruiting body of the artillery fungus orients itself toward bright surfaces. The artillery fungus produces a black, sticky spore mass (the egg) that can be windblown as high as a two-story house. The spore mass sticks like tar to buildings, cars, plants, trees, etc.
- To date, there are no known controls for this fungus. Replacing the affected mulch is the most effective way to control the spread of spores.