Mulch mushrooms and other fascinating organisms

Source: Nicole Gauthier, extension specialist, Department of Plant Pathology

Mulches provide numerous benefits in our landscapes, including conserving soil moisture and suppressing weeds, as well as providing a pleasing background to highlight landscape plantings. However, mulch can also provide a perfect growing medium for a diverse group of fungi and slime molds. While gardeners may be alarmed when they see an abundance of mushrooms or a yellow slime mold suddenly spread across their mulch, these organisms often do not infect plants or cause plant diseases. In fact, there’s good in that unusual slime mold or odorous stinkhorn.

Saprophytic fungi and slime molds get their nutrients from nonliving organic materials, such as wood mulch and plant residue, and in the process contribute to their decomposition, releasing nutrients back into the soil and improving soil fertility. A variety of saprobes are needed to completely recycle nutrients, so it is advantageous to have a diversity of beneficial saprobes present and growing in your garden. Slime molds, in particular, are indicators of healthy soils with high organic matter.

Mushrooms are the visible reproductive structures of Agaricomycetes fungi, most of which are beneficial (though not always edible). These fungal bodies survive within mulch or soil and go unnoticed for most of the year. The mushroom phase of their lifecycle usually appears after prolonged periods of rain. Common mulch fungi include tiny Mycena mushrooms as well as larger mushrooms. Other fungi have different above-ground reproductive structures that emerge after rainy weather. Some of the most interesting fungi include stinkhorns, puffballs, bird’s nest fungi, and artillery fungi.

While most saprobes do not cause damage, the tiny artillery fungi, which often goes unnoticed in mulch, eject masses of sticky spores up to 20 feet away. The tar-like specks cling to house siding, cars and other nearby structures and can be extremely difficult to remove, because they often leave a stain.

Slime molds may initially appear bright yellow but darken with maturity. They are harmless and, like fungal saprobes, emerge temporarily during wet weather. Dry weather will halt their growth and dry them out. You can remove them with a rake, but they may reappear when rains return. Managing moisture or improving drainage may help limit or discourage their emergence if their presence is problematic such as on sidewalks.

Even if you don’t mind their appearance, there still might be a few other reasons to remove fungal fruiting bodies. Some mushroom species are poisonous, and you may want to remove them to prevent children or pets from eating them. Wear gloves when removing poisonous mushrooms by hand. Because of the damage artillery fungi spores can do, you may want to remove the mulch that contains these fungi.

You can find more information about mulch mushrooms and slime molds in extension publication <https://plantpathology.ca.uky.edu/files/ppfs-gen-06.pdf> or contact the (COUNTY NAME) office of the University of Kentucky Cooperative Extension Service.

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