

Slime Molds

Slime molds are primitive fungi that exist chiefly as amoeba-like masses (plasmodia). The plasmodium is not very noticeable as it moves among low-lying plants; it becomes more noticeable when the fungus moves onto vegetation and produces spores. Slime molds are infectious or parasitic on higher plants, but live on decaying plant material. Vegetation is used as a support for fruiting structures. Damage to the plant may result from shading and suffocation, but this rarely occurs.

Hosts

Slime molds most often are seen on turf grasses, although they may be found on low-lying vegetation, such as ground covers and bedded flowers. They are considered saprophytic, meaning they derive most of their nourishment from decaying organic materials such as mulches, dead plants, wood, and soil.

Life Cycle

The fungus survives unfavorable periods as spores or sclerotia (resting structures). When the temperature is above 60°F (16°C) and moisture is available, spores germinate into motile swarm cells. These cells feed on microorganisms and decaying matter. Swarm cells eventually join together to form the amoeba-like plasmodium. At this stage the plasmodium creeps onto vegetation. As the slimy plasmodium dries, irregular crust-like structures, the sporangia, form. These sporangia may block light from leaves and thereby weaken the light.



Slime mold growing in Prescott, AZ vegetable garden (Photo by Jeff Schalau, U of A.)

Symptoms

After wet weather a slimy, translucent growth appears on vegetation or soil surface. This growth is the amoeba-like plasmodium stage of the fungus. The color may be white, gray, yellow, brown, or red. The plasmodium moves onto vegetation where it begins to form the sporangia. It may form one solid mass or it may break up into many pinhead-size sporangia. These are usually ash-colored although they may be orange, black, or white. Sporangia are usually present for a week or so before dark spores are released. After the spores are released, the sporangia disintegrate.

A common type seen in northern Arizona is aptly named Dog Vomit slime mold. It usually starts out cream-colored, but may be yellow to reddish orange and have a moist sheen on its surface. The texture is gelatinous. It goes from light color to dark color in response to decreasing organic matter and moisture availability.

Causal Agent

Many species of slime molds (Myxomycetes) may be found by the gardener. Species of the genera *Physarium*, *Fuligo*, *Mucilago* and *Didymium* are most common.

Control

Control measures are not generally necessary; mold usually disappears in a week or so. If the sporangia are unsightly they may be removed by a stream of water or by raking. In the case of turf, mowing quickly removes unsightly grass blades.



Dog vomit slime mold growing on organic mulch (Jason Sharman, Vitalitree, Bugwood.org).

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<http://extension.arizona.edu/yavapai>

Sources: Luellen Pierce, Plant Disease Diagnosis, University of California Cooperative Extension; Jeff Schalau, University of Arizona, Backyard Gardener