

Slime Molds on Home Lawns

Slime molds commonly occur across Alabama on all warm- and cool-season turfgrasses. These unusual organisms rarely if ever damage a lawn. However, the sudden appearance of the crusty gray to black fruiting bodies of a slime mold on the leaves of a manicured lawn often causes homeowners a great deal of anxiety. Alabama's humid, warm climate is quite conducive to slime mold activity, particularly during extended periods of rain showers in late spring and early summer.

Symptoms

The most noticeable sign of this disease is the appearance of circular to irregular patches, usually 4 to 8 inches in diameter, of the gray to black crust-like fruiting bodies (sporangia) of the slime mold on the surface of leaf blades (Figures 1, 2, and 3). Since the individual fruiting bodies are about the size of the head of a pin, there are thousands of them embedded in the crusty residue on the leaf surfaces. In some cases, stalked, brightly colored fruiting bodies may form on leaf surfaces. These fruiting bodies are filled with a dark brown to black powdery mass of spores that are released when the sporangia disintegrates or is damaged. The affected patches of turf covered with the body of the slime mold, or plasmodium, have a slimy or oily appearance before the fruiting bodies form and become crustlike (see Figure 4). A plasmodium

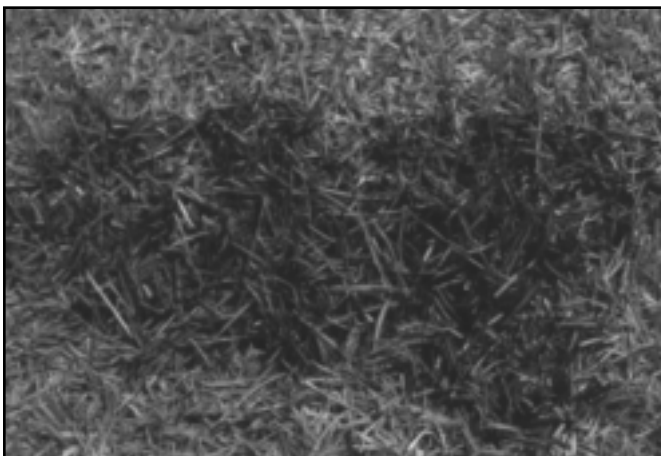


Figure 1. Slime mold encrusting on leaves of centipede grass

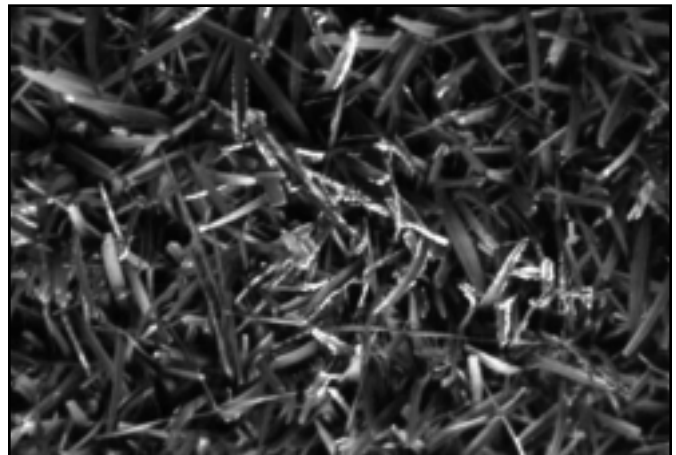


Figure 2. Slime mold on centipede grass



Figure 3. Slime mold on Emerald zoysiagrass

may range from several inches to over a foot in diameter.

In most cases, only one to a handful of encrusted slime molds are found scattered across a lawn. Occasionally, slime molds may literally cover much of the surface of a lawn. Typically, encrusted grass blades are not discolored or damaged by a slime mold. After a few days to a week, the crust or fruiting bodies disintegrate, and the slime mold usually disappears without a trace. Slime molds often appear in the same area of a lawn year after year.



Figure 4. Discolored or "lolly" areas are plasmodium of a slime mold.

Cause

Slime molds commonly found on turfgrasses include the species *Physarum*, *Fuligo*, and *Mucilago crustacea*. Although slime molds are usually classified as fungi, their actual relationship with this diverse group of organisms has never been clearly established.

The body of a slime mold is a single amoeba-like, multinucleate cell called a plasmodium. Decaying organic matter, bacteria, protozoa, and similar organisms are engulfed whole by a slime mold. After a heavy dew or evening fog, the plasmodium will slowly creep up onto the leaves of a turfgrass or low-growing ornamental as well as onto pine bark and other organic mulches. The

plasmodium rapidly dries in the morning sun into a crust containing numerous fruiting bodies. As the crust disintegrates, clouds of dustlike spores are dispersed by air currents, water, mowers, other equipment, pets, and foot traffic. Surviving spores absorb water, germinate, and release a single motile "swarm" spore. Two spores then fuse to form an amoeba-like zygote which later gives rise to the multinucleate plasmodium.

Typically, slime molds appear most often during several days of cloudy, wet weather, usually in the late spring and summer. The occurrence of slime molds on Alabama lawns at other times of the year, even when conditions appear favorable, is actually quite sporadic. On most lawns, slime molds are not an annual occurrence. Two and often many more years will usually pass between the appearance of a slime mold on any given lawn.

Control

Mowing or light raking are effective means of destroying the crusty fruiting bodies of a slime mold. Washing the affected patches of turf with a hard stream of water can also break up the slime mold and restore the beauty of a lawn. Since slime molds may be more common on heavily thatched or poorly drained portions of a lawn, renovation of the affected areas should reduce the incidence of disease. Fungicide applications are considered ineffective and unnecessary.