

# HOME GROUNDS FACT SHEET



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## Slime Molds

Slime molds belong to a separate biological kingdom called Protoctista, which includes protozoa, algae and creatures that most resemble fungi, downy mildews and Pythium as well as slime molds. There are two kinds of slime molds: cellular and plasmodial, the latter being most common in soil, thatch, rotting vegetation and damp walls. The slime molds are heterotrophs, meaning that they eat other organisms or their by-products. They are incapable of photosynthesis, are not parasitic and do not “infect” turf.

Plasmodial slime molds may be brightly colored. The feeding stage of the life cycle consists of a multinuclear but not multicellular cellular ameoboid mass called a plasmodium – this may grow to a diameter of several centimeters. This giant cell engulfs food particles. When the habitat dries up or food supplies dwindle, the plasmodium goes into its reproductive cycle where it rounds up and produces fruiting bodies. These fruiting bodies produce spores, which rest until environmental conditions are favorable. The spores germinate to form cells which will fuse with each other and divide until another plasmodium is produced.

Cellular slime molds have a solitary lifestyle during the feeding stage in damp compost. When food is depleted, however, all the cells in a given area aggregate due to a chemical cue. This slug-like multicellular colony may migrate as a unit and may climb to the top of a clump of turfgrass before developing fruiting bodies and completing its life cycle much as the plasmodial slime molds. This unionized clambering to the top of grass is usually the way the homeowner knows of the slime mold’s presence.

Typically, slime molds can cause problems for grasses by reducing light levels enough to interfere with photosynthesis, or can predispose the grass to disease by reducing airflow or increasing leaf wetness. Warm, wet weather favors plasmodium movement onto grass sheaths and leaves and cool humid weather favors swarm spore discharge. The appearance of fruiting bodies in large numbers in irregular to circular patches can be alarming.

On turf, the usual color is white, gray or purplish brown, but other colors may occur. The slime molds usually reproduce in the same place year after year. High thatch encourages slime molds because of the food reserves available to them.

Slime molds **do not need to be controlled**. They are unsightly rather than harmful. If you can’t bear the look of them, a strong stream of water will usually do the trick. Raking, brushing, or frequent mowing are other ways to remove the fruiting bodies. All turfgrass species are affected.

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