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Moss, Algae, and Slime Mold in Lawns

Turf Tips

Michigan State University Extension Service

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Moss, Algae, and Slime Mold in Lawns

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Moss, algae, and slime mold are common but minor problems in lawns. These organisms usually can be eliminated without using chemicals. Each requires specific conditions in order to develop, and alleviating these conditions will normally control the organism. Once control is achieved, damaged areas larger than 4 inches in diameter should be reseeded.

Moss

Mosses are primitive forms of green plants that produce a tangled, fine-textured mat over the surface of the soil. Under optimal growth conditions, this mat can become quite thick and may spread throughout an area rather rapidly. When moss becomes a problem, it is commonly associated with one or more of the following conditions: (a) low fertility, (b) acidic soils, (c) poor drainage, (d) soil compaction, (e) heavy shade, (f) restricted air movement. Moss problems commonly develop where the established grass is unadapted to the site. Selecting the proper grass species and cultivars for the site is important in avoiding a moss problem. For additional information on grass selection, refer to Extension Bulletin E-1489, Grasses For Lawns in Michigan.

For proper control, first determine which conditions are contributing to the moss infestation, then take the necessary steps to correct these problems. Low fertility areas can be fertilized to encourage aggressive growth of the grass to crowd out the moss. If acidic soil is suspected, a soil test should be made to determine the soil pH and obtain a specific recommendation for the area. Soil tests are available through your county Cooperative Extension



Moss in the lawn can be caused by a variety of conditions. To rid the lawn of the moss, determine which conditions are contributing to the problem.



A heavy growth of algae can seal off the surface and severely restrict water infiltration. It will also smother grass.

Service. Poor drainage can be corrected by recontouring the area to improve surface drainage or by installing sub-surface drainage (drain tile, dry wells, etc.). Compaction can be reduced by coring (aerating) or slicing which will promote better rooting and more vigorous grass growth.

Heavy shade can be reduced through selective pruning of trees in the area to increase light penetration. Pruning will also help increase air movement. Where heavy pruning may not be practical or desirable, consider establishing a more shade-tolerant ground cover such as Baltic ivy, pachysandra, or periwinkle. These ground covers perform quite well in the shade with minimal care, but should not be used if the area will be subject to traffic.

Moss can be chemically controlled by spraying with copper sulfate or iron sulfate at the rate of 2-5 ounces in 4 gallons of water per 1,000 square feet. However, this treatment will provide only temporary control, and corrective measures like those discussed are needed to alleviate the adverse conditions on the site. After chemical treatment, the dead moss can be raked out and bare areas reseeded or resodded.

Algae

Algae often occur on wet or water-logged soils, particularly where high fertility levels exist, and where direct sunlight can reach the soil surface, as with thin turf areas. Two problems will develop from a heavy growth of algae. First, algae will clog soil pores and seal off the surface, severely restricting water infiltration. Second, the algae can dry into a black crust which will smother the grass.

For proper control, the wet or water-



Slime molds, though relatively rare, can indirectly damage grass due to shading and smothering.

logged soil conditions must be alleviated. This can be accomplished through recontouring the area to provide rapid surface drainage and/or by installing subsurface drainage. In addition to improving the drainage, efforts must be made to break up the algal mat and restore water infiltration.

In severe cases, copper sulfate in a dilute solution of 1-2 ounces per 1,000 square feet will control the algae. The dead scum or crust can then be removed.

Slime Mold

Slime molds are fungi which feed on decaying organic matter or live on the surfaces of grass foliage. These molds inhabit the upper layer of soil, the thatch layer and the foliage. During warm weather, following a rain or

heavy watering, slime molds will form a creamy white or gray-colored slimy growth on the foliage. The molds develop in streaks or small patches 2-6 inches in diameter, and are often associated with heavy morning dew.

The grass blades are used only for support by the mold and are not directly damaged. However, this growth will eventually change to an ash-gray crusty mat, which dries on the grass blades, and can indirectly damage the grass due to shading and smothering.

No chemical control is recommended for slime molds. Raking, brushing or spraying the growth with a stream of water will remove the mold from the grass blades. It should be noted that the development of slime molds in lawns is relatively rare, and usually will not occur more than once a season.