



ANR-908

ALABAMA A & M AND AUBURN UNIVERSITIES

Moss and Algae Control in Lawns

Mosses and algae are frequently found in areas of thin, weak turfgrass. Their presence indicates that environmental conditions are not favorable for the growth of a dense, healthy lawn.

Mosses are small, green, primitive plants that have reduced leaves and a mass of fine, threadlike stems. They produce their own food, form a soft mat of growth in spaces where grass will not grow, and are not parasitic to turfgrasses. Although many species of moss can grow in lawns, they are all favored by the same or similar growing conditions. Some factors that favor moss growth and inhibit growth of desirable turfgrass include humid, shady conditions, infertile, acid, or compacted soils, poorly drained soils, and areas with excessive thatch.

Algae are small, green filamentous plants that form a green scum over a moist soil surface. The green scum produced by algae forms a tough, black crust when dry. Unlike moss, algae prefer areas with a wet soil surface in full sunlight. Other factors that contribute to algal growth are compacted soils, high fertility, and open, thin turf.

Control of moss and algae does not involve the use of herbicides. Contact materials will at best only control moss and algae temporarily. The only permanent control of these pests is to correct the conditions that prevent or restrict turfgrass growth. The following **cultural practices** will stimulate healthy lawn grass growth and greatly inhibit the establishment and growth of mosses and algae.

- **Soil test.** Soil test the problem area as well as the rest of the turfgrass. Separate soil samples should be collected from healthy turf and problem areas. Apply as needed the fertilizer and lime recommended to maintain good turfgrass growth throughout the lawn area.
- **Improve drainage.** In moist places where there is poor drainage, contour or trench the area to move water away. In localized low lying areas, adding sand or soil will slightly change the elevation allowing the area to dry out. In larger areas that retain water, the installation of french drains or tile drains may be necessary.
- **Increase light penetration and air movement.** Trim the lower branches of shade trees to improve light penetration to the soil surface and to improve air circulation. In partially shaded areas, St. Augustinegrass or

fescue are better lawn grass choices. Where there is heavy shade, it may be necessary to remove entire trees to maintain a dense, healthy lawn. In problem areas where shade and trees are both desirable, an attractive ground cover or mulch rather than grass should be used. Attempting to grow warm-season turfgrasses, especially bermudagrass, on partial or heavily shaded sites often results in a thin turf that is readily invaded by moss.

- **Loosen compacted soils.** Cultivate or aerify (core) the compacted soil areas to eliminate the compacted condition that restricts grass root growth and spread. Deep tillage or cultivation is usually not necessary. Any process that loosens the top 2 to 4 inches of soil will help improve the movement of water, oxygen, and nutrients in the problem areas. Cultivation or aeration breaks up the algal crust or moss mats. Prior to or during this activity is also a good time to add and mix the lime and fertilizer as recommended by the soil test.
 - **Avoid excessive irrigation.** Only water the lawn when it is needed. Regular scheduling or automatic watering can result in excessive moisture in shaded areas or accumulation of water in poorly drained places that favor moss or algal growth.
- Chemical control** is only a short-term alternative to moss or algae problems. Only temporary or partial control should be expected. Long-term, successful control of these pests is achieved through modifying the environment that favored the pest growth.
- **Nonselective herbicides** such as Roundup will kill desirable turfgrass as well as moss and will require reseeding or resodding of the damaged areas. You can reseed, sprig, or sod 10 to 14 days after Roundup application.
 - **Copper sulfate** has been used for many years to control algae, and it also will "brown-out" moss. Apply 3 to 5 ounces of copper sulfate in 3 gallons of water per 1,000 square feet of infested turf.
 - **Hydrated lime** can be applied to acid soil areas identified by a soil test. The soil test will recommend the amount of lime to apply per unit area. This material also acts as a desiccant.



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Use pesticides **only** according to the directions on the label. Follow all directions, precautions, and restrictions that are listed. Do not use pesticides on plants that are not listed on the label.

The pesticide rates in this publication are recommended **only** if they are registered with the Environmental Protection Agency and the Alabama Department of Agriculture and Industries. If a registration is changed or cancelled, the rate listed here is no longer recommended. Before you apply any pesticide, check with your county Extension agent for the latest information.

Trade names are used **only** to give specific information. The Alabama Cooperative Extension System does not endorse or guarantee any product and does not recommend one product instead of another that might be similar.

For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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