Algae and Moss Control in the Home Lawn

Infestations of algae and moss in the lawn are associated with conditions that are unfavorable for growing healthy, dense turf—insufficient sunlight due to shade, an acidic soil (low pH), low soil fertility, a heavy or compacted soil or soil conditions that are too wet. Physical or chemical removal will only be temporary unless growing conditions are improved.

Algae are threadlike green plants that form a thin dense green scum over the soil surface. This scum forms a tough black crust when it dries and acts as a barrier that prevents water and nutrients from penetrating the soil surface. Algae are most likely to occur on compacted, waterlogged soils during warm, sunny, and humid conditions.

Mosses are green plants with leaves arising from all sides of a central axis. Mosses may grow erect or prostrate, but typically form a thick green mat at the soil surface. Mosses are very competitive in cool, moist, shaded locations, such as the north side of buildings and wooded areas.

The following practices can help you prevent or control algae and moss.

**Cultural**

- Conduct a soil test to determine the lime and fertilizer needs of the lawn. Lime may be required to reduce soil acidity. Proper fertilization encourages a healthy, dense turf that resists weeds.
- Avoid excessive watering. One inch of water per week provided through irrigation or rainfall is sufficient to keep the lawn green. If irrigating, calibrate by placing shallow pans in the sprinkler pattern and time to determine average time needed to deliver one inch of water.
- Compacted areas should be core-aerated to allow improved air and water infiltration to turf roots.
- Increase air movement and light penetration in shaded areas by removing unnecessary undergrowth and pruning tree limbs.
- Improve drainage through re-grading, installation of drain tile or incorporation of organic matter.
- In some areas you may choose to use a mulch cover (pine straw, bark, etc.), plant a shade-tolerant ground cover instead of turf grass, or allow the moss to provide a natural groundcover.
Chemical

1. **Algae** may be controlled with copper sulfate at the rate of 2 to 3 ounces per 1,000 square feet or one teaspoon in 8 gallons of water. An application of 5 to 10 pounds of ground limestone per 1,000 square feet prior to reseeding will help to inactivate the copper sulfate that may be toxic to grass seedlings. Punch holes in the alga crust or remove the crust entirely to allow turf recovery in these areas. Prepare a new seedbed and replant if large bare areas exist.

2. **Moss** control formulations usually contain iron, copper, or potassium salts of fatty acids as active ingredients. Ferrous sulfates and chelated iron products applied as liquid sprays are generally rapid and effective. Dry formulations of ferrous sulfate monohydrate are available such as Moss Control Granules for Lawns, containing 5% iron. Read and follow all label directions.

   Mycogen DeMoss® is a formulation containing potassium salts of fatty acids. The area should be irrigated just prior to application. Do not irrigate after application for 2 days. Mix 40 ounces of Mycogen DeMoss in 10 gallons of water to apply to 1000 square feet. Do not apply to turfgrass when air temperature exceeds 85°F. Moss discoloration is a sign of successful treatment and takes longer under cool conditions.

3. Physical removal of the moss by raking may be needed to allow for turf recovery. Prepare a new seedbed and replant if large bare areas exist. Follow good establishment practices as discussed in *Lawn Establishment in Virginia*.

**Important Reminder**: Moss control is temporary and treatment may be required annually. Long-term control can only be achieved by improving the conditions for turf grass growth while minimizing the environmental conditions that favor the algae or moss. Read and follow label directions carefully.

*Adapted from NCSU Agricultural Extension Service Publication Number: TM-20*

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