A well-tended lawn gathers no moss

Some gardeners love moss. It’s bright green color and soft appearance is charming. Many gardeners simply "want it out" of their lawn and landscape. If you are among the latter, there are several things you can do.

First, it’s important to understand why algae and moss invade your lawn and landscape.

Algae vs. moss
Algae are tiny threadlike plants that form a thin dense green scum over the soil surface. When dry, this scum will form a hard black crust. This crust is a barrier that hinders the entrance of water and nutrients into the soil. Compacted, waterlogged soils, thinned turf canopy, and warm, sunny, humid conditions are conducive for algae growth.

Algae (left) is favored by warm, sunny and humid conditions. Moss (right) is favored by cool, moist and shaded conditions.

Photo credits: Theresa Friday
Mosses are green plants with very small leaves that form a thick green mat at the soil surface. Soils that are excessively wet have low fertility, poor drainage, and high soil acidity favors the growth of mosses. Mosses are very competitive in cool, moist, shaded locations, such as the north side of buildings and wooded areas.

Mosses can and do survive in distinctly different conditions than grasses. Mosses grow best in shady and wet conditions. Lawns need well-drained soil and good light. Therefore, the obvious place to begin with a moss management program is to make sure that the lawn has the best possible conditions for growth.

Although moss will invade well-maintained lawns, it usually occurs extensively in neglected lawns where poor cultural conditions enable it to out-compete turf. Moss encroachment generally is associated with thin turf, low fertility, highly acidic soils, shade, wet soils, and turf injury from insects, diseases, chemicals, or cultural practices.

**Proper care of turf**

Often turf is thin because it lacks fertilizer. Properly timed fertilizer applications will increase turf density, vigor, and competitiveness. However, overfertilization or improper fertilization can cause some grass species to decline.

Grasses grow poorly in dense shade because of low light; therefore, shady lawns usually have more moss than lawns in full sun. Thinning out trees by selective pruning or removing trees completely may reduce moss encroachment. In some cases, it's easier to redesign the area and eliminate grass than it is to improve lighting. When planting new lawns in shady sites, be careful to select shade-tolerant species.

Wet soils caused by compaction, poor drainage or excessive irrigation provide a perfect environment for germination and growth of moss. Poor drainage sometimes can be improved by promoting water infiltration by aeration or thatch removal. Wet soils often are due to overwatering.

**Control of algae and moss**

Short-term control can be achieved by removing the algae or moss by hand. Copper sulfate, ferrous sulfate, and ammonium sulfate and other chemicals may be helpful for temporary control of mosses. Copper sulfate is active on algae. Excessive use of chemicals, however, may become toxic to the turf. However, to permanently be rid of a chronic moss problem, it is important to change the conditions that favor the moss.

Adding limestone is a common "remedy" mentioned for moss control, but is not suggested unless a soil test has shown the pH needs to be raised. Acidic soils are not the only reason for moss in lawns. Adding limestone without a soil test may add to the lawn problem.
For more information on how to properly maintain your lawn, contact your local Extension Office or visit the Your Florida Lawn website at http://hort.ifas.ufl.edu/yourfloridalawn/.

Theresa Friday is the Environmental Horticulture Extension Agent for Santa Rosa County. The use of trade names, if used in this article, is solely for the purpose of providing specific information. It is not a guarantee, warranty, or endorsement of the product name(s) and does not signify that they are approved to the exclusion of others.

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