

TURF TWISTERS

TELL ME . . .

Question: What is the best time and what are the important considerations in liming practices on golf courses? (Oregon)

Answer: Before anything else, take soil tests to determine if and how much calcium is required to reduce the acidity level and raise the soil pH. If the soil is deficient in calcium, apply dolomitic or ground agricultural limestone. These are usually the best choices. Determine their neutralizing capacity, size of the particle (fine grades are preferred), cost per ton, magnesium content, and the handling and storage requirements for the limestone needed. Drop spreaders are preferred, and lime may be applied anytime in the fall, winter, or spring when the ground is firm enough for the equipment.

ABOUT SOIL SAMPLING . . .

Question: What is the proper technique for taking soil samples? (California)

Answer: Four points should be remembered when taking soil samples on the golf course:

- 1) Each sample should be taken to a depth of two inches, *i.e.*, the top two inches of the soil profile.
- 2) Be sure to take enough samples (from a particular green, tee, or fairway) to furnish approximately half a pint total for the area in question. Take samples in a random pattern so that, when they are mixed together, they will provide a representative sample of the test area.
- 3) Allow the samples to air dry before sending them to the laboratory.
- 4) Take samples during a time when recent fertilizer applications will not affect the results. Late fall, winter, or early spring are preferred. Usually, sampling the same green, tee, or fairway every two or three years will provide an excellent guide or reference for future planning. Rarely does one need to sample every green, tee, or fairway to find a proper reference.

AND WHERE DID ALL THIS MOSS COME FROM?

Question: We seem to be developing moss problems on our greens even though the soil is well drained and our program is geared toward applying as little water as possible. I thought moss occurred on wet, partly shaded areas. What is happening and what can I do about it? (New York)

Answer: It is not strictly correct to talk of moss, but of mosses. There are over 600 species of moss, and more than 30 of these are known to occur in turf. Each has its own individual habitat preference. Courses that maintain low fertility levels, low cutting heights, and firm, dry putting surfaces seem to be most susceptible to moss encroachment. The Acrocarpous (mat forming) mosses like these conditions. In addition, they have a comparatively high light requirement, and they are particularly drought resistant.

A combination of cultural practices and chemical controls offers the best solution. Light and frequent nitrogen applications throughout the growing season, combined with 3/16-inch to 7/32-inch height of cut, plus aeration, topdressing, and bentgrass overseeding for one or two years will be effective. In other words, help your bentgrass to become competitive again. Ferrous iron sulfate (four pounds per 1,000 square feet) plus mercury-based fungicides have been effective not only in killing present moss but also in checking its further propagation. Spot treatments to kill the moss and reestablish bentgrass turf in spring or fall have also been effective. (See "Have We Gone Too Far with Low Nitrogen Levels on Greens?" by A. M. Radko in this issue.)