



TURFAX™

of the International Sports Turf Institute, Inc.

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MOSS MANAGEMENT

Moss is a plant in the class Musci within the division Bryophyta. Most of the mosses that develop as problems in turf areas are green in color. This means they are most likely to develop in turfs which have been thinned or damaged to the extent that openings in the turf allow sunlight to reach the surface, whereon the moss initiates growth. The Metropolitan Golf Association of New York funded a study at Cornell University under the direction of Dr. Norman Hummel which focused on methods for the chemical and cultural control of moss in turfgrasses. Dr. Hummel's work showed the following chemical controls to be effective, especially when combined with specific cultural practices.

In early spring, the application of hydrated lime at 2.5 kilograms per 100 square meters (5 lbs/1,000 sq ft) is effective in burning back the moss.

Then approximately a month after the hydrated lime application and also again in the fall, there are several options in terms of pesticides for the control of moss. The most effective treatment Hummel found was the Scotts Crabgrass Killer which contains a combination of bensulide and oxadiazon. The product is labeled for use on putting greens and provided 83% moss control in a single application under the conditions of the study in New York. It was noted however that the treatment did cause some discoloration to the creeping bentgrass (*Agrostis stolonifera* var. *stolonifera*). Other controls that provided from 53 to 74% control of the moss were siduron and bentazon. Both were safer to use than the bensulide and oxadiazon combination. The mode of action of these chemicals was chronic in nature with several weeks passing following application before a significant decrease in the moss population was observed.

Dr. Hummel's studies indicated that chemical control of moss was maximized by key adjustments in the turfgrass cultural practices. Enhancing the shoot density and health of the turfgrass is important. The best contributing cultural practices consisted of core cultivation followed immediately by a sand topdressing to enhance surface drying. Deep spiking also was beneficial when used in combination with core cultivation. These soil management practices were further maximized when combined with high rates of nitrogen (N) and iron (Fe). For example, moss was eliminated over a period of 2 growing seasons on plots that initially contained 40% moss by increasing the nitrogen rate to 0.4