

PUTTING GREEN SPEED STUDY

By J.N. ROGERS III, B.E. BRANHAM, and T. NIKOLAI
Crop and Soil Sciences

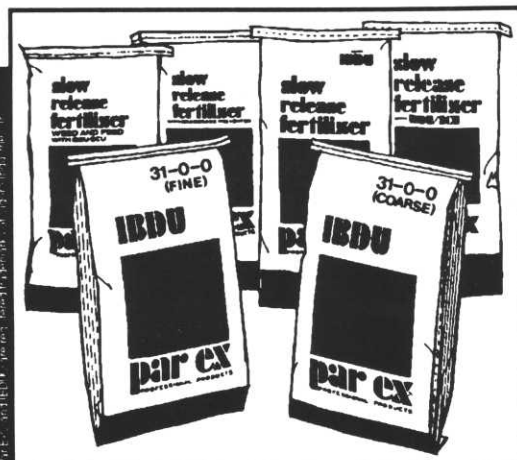
Golf courses are often judged by their putting green quality. One of the measures of putting green quality is the rate at which a ball decelerates on the putting surface or as is more commonly known, green speed. While it has been reported that changing the cutting height of a grass surface causes the most dramatic change in green speed, this is often dangerous to attempt, especially during times of environmental stress (i.e. July and August). Multiple daily mowings will also reduce friction on a surface, thereby increasing green speed. This is labor intensive and is not always an option. Grooming rollers attached to the front of individual cutting units became quite popular in the 1980s. In addition, plant growth regulators have recently been introduced for use on fairways for clipping reduction. The purpose of this study was to evaluate grooming and PGR treatments alone and in combination at two different cutting heights as to their effect on green speed.

The study was initiated July 2 on a two-year old stand of 'Pennlinks' creeping bentgrass (*Agrostis palustris*). This area was maintained as putting green turf from its outset, receiving regular applications of sand topdressing. The study was a 2 x 4 factorial with three applications. There were two cutting heights (4/32 and 5/32 inches) and four management strategies (control, groom once per week, grooming + PGR and PGR alone). The PGR was flurprimidol (Cutless) applied at 0.25 lb. ai/acre. The plots were mowed 6 times per week, and stimpmeter readings

were taken three times per week to evaluate green speed.

There was a significant difference in stimpmeter values between cutting heights on 16 of the 17 evaluation dates. The difference in distance averaged 0.8-1.0 feet. A cutting height by management strategy interaction was not present during this study. The management strategies (averaged over both cutting heights) and their respective stimpmeter values (green speed) are presented in Figure 1. One week following the PGR treatment (July 11), there was a difference in green speed between the PGR treatment and the control for approximately 3-5 days. This pattern was also evident during the August 10-15 period. A flush of growth occurred after the effects of the PGR had subsided, causing green speeds of the PGR treatments to be lower than the control (July 24-August 7). This was especially evident with the Grooming + PGR treatment. The grooming alone treatment followed the same pattern as the control in terms of green speed, except from July 13-17.

In summary, PGR treatments appear to have some promise for effectively slowing turf growth and thereby decreasing friction. This study will be carried out through the fall and next spring, as it is hoped that the PGR strategy might have a greater effect at higher cutting heights during a more active growth period. A more extensive study with these strategies and others is being planned for 1991.



Why the Ex stands for Excellence... in professional turf care.

- Contains environmentally-oriented, non-leaching IBDU® slow-release nitrogen.
- Regionally formulated blends to meet your agronomic needs.
- Not dependent on soil temperature or microbial activity.
- 100% available nitrogen in a single growing season.
- Non-hygroscopic; flowable product.
- Non-burning; low salt index.

Ed Long
Specialty Products
Territory Manager
913/897-5604

Precision Turf
& Chemicals
Plymouth, MN
612/559-5293

Turf Supply
Company
Eagan, MN
612/454-3106