Cutless. The highest rates of the Scott's product gave complete growth suppression from 3 to 5 WAT. Clipping weights did not return to the control level until 7 WAT for the 0.53 lbAI/A. The two highest rates of the Scott's Enhancer product were choosen because they are the same as the currently labeled rates of Scott's TGR except that the Turf Enhancer product has no fertilizer.

The two active ingredients in Cutless and Scott's Enhancer (common names are flurprimidol and paclobutrazol) have similar modes of action and in my observations the Scott's product is about twice as efficacious as Cutless on an active ingredient basis. Thus the two lowest rates of Scott's Turf Enhancer provided similar growth suppression as did the two lowest rates of Cutless.

Each of these products can cause some phytotoxicity or discoloration to the turf. The effects of these products can be seen in Table 1. Increasing rates of these products cause increasing turf discoloration. Notice the effect of fertilizer when comparing Scott's TGR to Scott's Turf Enhancer, which have the same active ingredient except that Scott's TGR is formulated on a fertilizer carrier.

## EFFECT OF PGR'S ON PUTTING GREEN SPEED

The putting green speed study examined the effects of mowing height, plant growth regulator use, and grooming reels on putting The four treatments were Cutless at 0.25 LB/A, green speed. grooming reels once per week, Cutless at 0.25 LB/A and grooming reels once per week, and an untreated control. These four treatments were studied at mowing heights of 5/32" and 4/32". Results showed that the PGR treatments did show an increase in green speed but only at the higher height of cut (Figure 4). The data in Figure shows only four of the eight treatments that were studied. However, these treatments most clearly show the benefit of using a PGR to increase putting green speed. A the lower height of cut,4/32", no benefit is seen. At the 5/32" height of cut, a consistent increase in putting green speed of 6-10" is seen for a period of 3 weeks following PGR application. This is quite beneficial since it is desirable to keep heights of cut higher while gaining the type of green speed normally only seen from lower heights of cut.

## PREEMERGENCE HERBICIDE STUDIES

A concern of the lawn care industry is the increasing legislation with which they must deal. A potential concern is the watering in of preemergence herbicide applications. Technically speaking, if a lawn care operator does not ensure that an application is watered in, then they may be considered in violation of the herbicide label. In order to determine the effect of watering in preemergence herbicides, we tested eight preemergence herbicides at two or three rates of application by watering in one set of treatments immediately after application and keeping water off the other set of plots for 14 days. This is the second year of this test and the results again have indicated that there is no measurable benefit to watering in preemergence herbicides (Table

## EFFECT OF PGR'S ON PUTTING GREEN SPEED

