



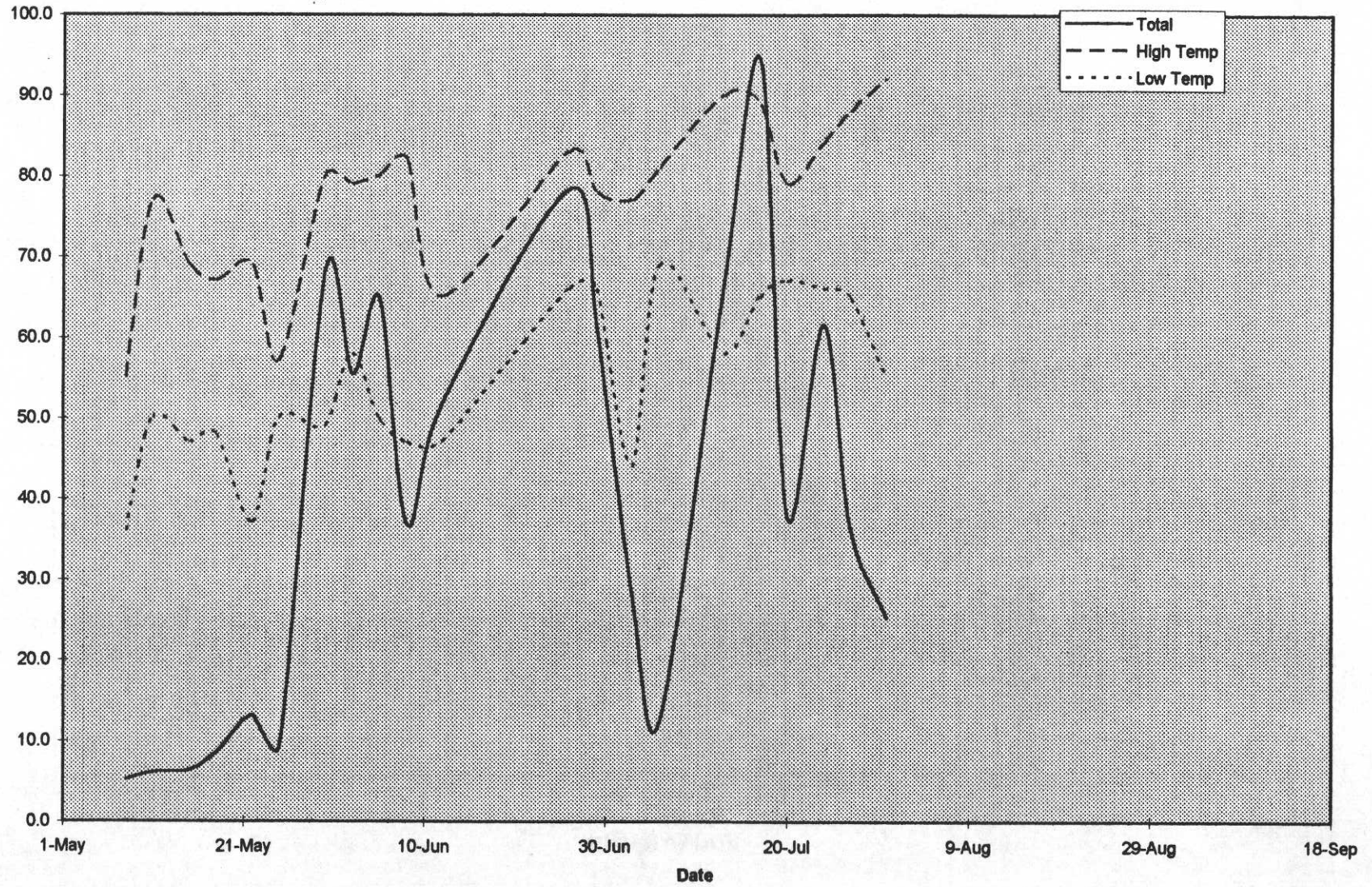
## **Bentgrass Response to Plant Growth Regulators**

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In the Spring of 1994 this study was established to examine the effects of three commonly used plant growth regulators (PGR's) on fairway height creeping bentgrass; specifically to determine the influence of PGR's and nitrogen on clipping yield, divot recovery rate, and overall turf quality. The first application was done early in June 1994 and included *Cutless* (flurprimidol), *Primo* (trinexapac-ethyl), and *Scott's TGR* (paclobutrazol). These products were all applied at label and sub-label rates which are listed below.

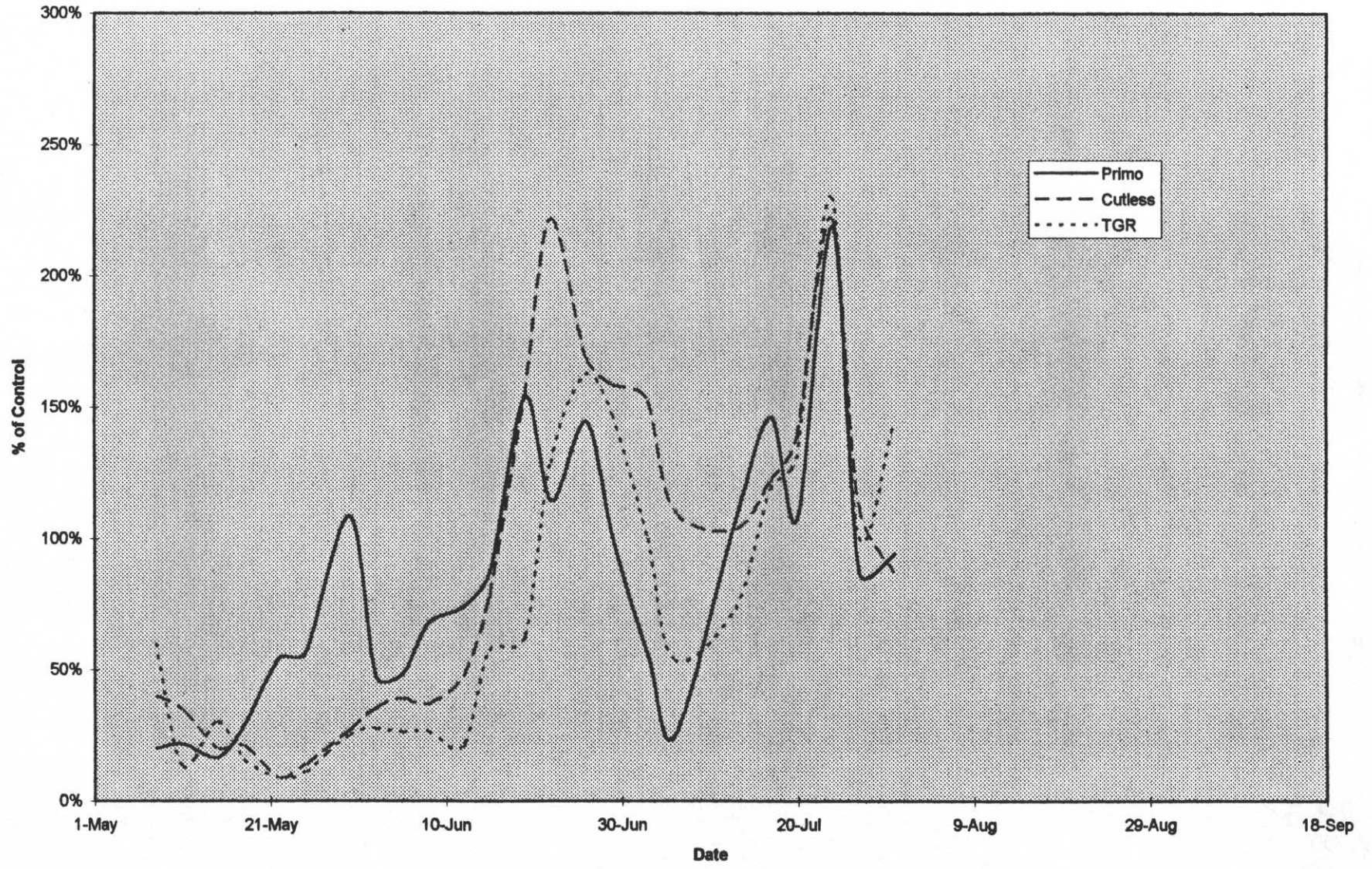
Three applications were made in 1994 on 28 day intervals. Two fertility regimes were included in this study. PGR treatments were on both nitrogen programs in order to compare turf responses in low and high maintenance conditions. The fertility levels were 2.6 and 5.9 lb N/1000 sq. ft. annually. The data collected in 1994 indicated that clippings could be decreased with no detrimental effect on divot closure rate. In 1995 the PGR treatments were applied on May 1, May 29, June 26, and July 24. The treatments and nitrogen levels were the same as in 1994. Divot closure was repeated in 1995 and recovery rates were determined after the first and second PGR applications. One divot was taken weekly from each plot for eight consecutive weeks. These wounds will continue to be evaluated until all the divots have healed. Wear treatments were started in June of 1995 in an effort to identify possible wear tolerance differences. A drag sled was manufactured and pulled across the plots ten times, three days per week. After July 24, wear was applied daily to expedite the onset of damage. At time of print, no damage was evident from wear treatments. In 1994, clipping samples were taken once per week and maintained with a riding fairway unit on days that samples were not collected. Therefore, the clipping reduction data for 1994 represent only a slice in time for any given week. The collection schedule for 1995 was modified to collect clippings twice per week and avoid using the riding unit. In this way all of the clippings from the plots can be collected and measured to determine the total growth of each plot for the season. The following graphs illustrate the overall growth rate of the turf for 1995 and indicate the amount of growth suppression realized from each PGR treatment.

Growth vs. Temp



vs Nitrogen Chart 3

### High N vs PGR



vs Nitrogen Chart 2

Low N vs PGR

