INTRODUCTION

The trials in this turfgrass research report were designed to:

1. **Gather information on potential weed management practices for county extension agents, lawn and landscape maintenance companies, sod producers, golf course superintendents, the North Carolina Department of Transportation and other turf related personnel.**

2. **Evaluate the effects of pre- and postemergence herbicides on winter annual, summer annual and perennial grass, broadleaf weeds, and sedges.**

3. **Evaluate performance of plant growth regulators (PGRs) and turf tolerance to PGRs in both cool and warm-season grasses.**

4. **Evaluate tolerance of warm and cool-season turfgrasses to grass and broadleaf herbicides.**

5. **Evaluate experimental application techniques for weed and brush control.**

Replicated trials were established where specific problems existed and were located over much of the state. Trials were also located at the NCSU Turf Field Laboratory and the Sandhills Turf Field Laboratory. The trials were a joint effort of North Carolina State University research personnel and the cooperating turf manager. Many companies provided financial support for these trials.

Complete descriptions of application methods and other experimental details are provided with each experiment. Unless otherwise noted, all products in a particular treatment, applied by the same method at the same time, were tank mixed.

Unless otherwise noted, sprayable herbicides were applied in water with a CO_2 pressurized backpack sprayer using TeeJet XR8002 flat fan nozzles. Nozzles were spaced 10 inches apart. The predominant plot size was 5 feet by 10 feet with four replications for each treatment. A 40-inch band was sprayed within each 5 foot wide plot. Ground speed was 3 mph and pressure was 32 psi. Spray volume was 32.5 gallons per acre. Herbicides and herbicide combinations for granular and fertilizers were weighed out on an individual plot basis and applied with a shaker can.

Weed control, turfgrass color, density, green-up, injury, quality and other data are presented as treatment means across replications. Weed control is expressed on a 0 to 100 scale where "0" equals no control and "100" equals complete weed control. Unless otherwise noted, turfgrass color, density, green-up, injury, quality and other data are expressed on a 1 to 9 scale where "1" equals complete kill or discoloration and "9" equals ideal green, vigorous turf. An analysis of variance has been performed on all tests with an LSD at 0.05 provided for treatment comparisons.

Weather data for NCARS research stations can be accessed at http://www.nc-climate.ncsu.edu/agnet/

This publication contains results of use patterns of pesticides, some of which are currently not covered by a registered label. Such results are included for information purposes and should not be taken as recommendations for use.

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