

## Nonselective Vegetation Control with Touchdown Herbicide

Dr. John Stier and Stephen Pearson  
University of Wisconsin-Madison  
Department of Horticulture  
December, 2000

### INTRODUCTION

The purpose of this study was to compare the effectiveness of two non-selective herbicides, Touchdown and Roundup, on turf.

### EXPERIMENTAL METHODS

This study was conducted at the O.J. Noer Turfgrass Research Facility in Verona, WI. The plot area used was a mixture of Kentucky bluegrass, tall fescue, dandelions, and small amounts of other weeds (e.g., clover). A randomized complete block design was used to compare the effectiveness of Roundup and Touchdown at two different rates. Each plot was 5 ft X 8 ft and the study contained 4 replications. There were 5 treatments including the untreated control. Mowing height was 3 inches. The soil type was a Miami silt loam.

<b>Treatment</b>	<b>Active ingredient</b>	<b>Rate</b>
Untreated control	---	--
Touchdown	Sulfosate	1% sol'n
Touchdown	Sulfosate	2% sol'n
Roundup	Glyphosate	1% sol'n
Roundup	Glyphosate	2% sol'n

The treatments were applied on 7/27/00 with a CO<sub>2</sub> powered backpack sprayer equipped with XR 8003 Tee Jet nozzles. The spray volume used was 1 gal/M. A damage rating was taken on 8/17/00 to evaluate the effectiveness of each treatment. The plots were rated from 1-9 with 1=no damage and 9=complete death.

### RESULTS AND DISCUSSION

Touchdown and Roundup Pro were equally effective at killing vegetation. Both chemicals at the 2% rate were more effective than at the 1% rate (Table 1). Most dandelion plants and some tall fescue survived the treatments. Kentucky bluegrass and other broadleaf weeds were killed completely. Regrowth did not occur in these areas by October 2000.

Table 1. Damage rating mean averages for Touchdown and Roundup treatments 8/17/00. Damage rating was on a scale of 1-9 where 1=no damage and 9=complete death, Verona, WI

<b>Treatment</b>	<b>Mean Damage Rating</b>
Untreated control	1.0
Touchdown 1%	6.3
Touchdown 2%	7.8
Roundup 1%	6.0
Roundup 2%	7.5
LSD (0.05)	0.7



Fig 1. Touchdown versus Roundup trial at O.J. Noer Facility, Verona, WI (8/17/00).

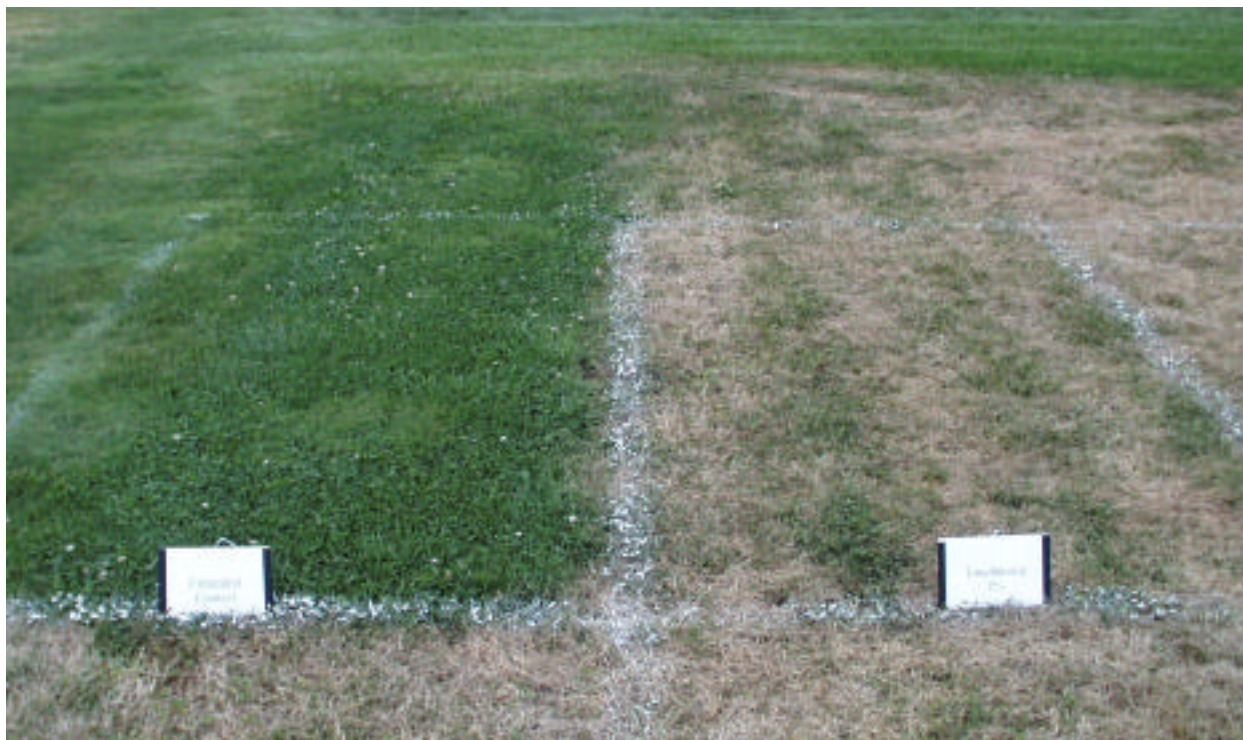


Fig 2. Untreated turf (left) and Touchdown (1% solution) at O.J. Noer Facility, 8/17/00,



Fig 3. Efficacy of Touchdown, 2% solution (left) and Roundup Pro, 1% solution (right) at O.J. Noer Facility, Verona, WI, 8/17/00.





Fig 4. Efficacy of Roundup Pro, 2% solution, O.J. Noer Facility, Verona, WI, 8/17/00.

## APPENDIX

Raw data

<u>Treatment</u>	<u>Rep</u>	<u>8/17/00</u> <u>Damage</u>
1	1	1
1	2	1
1	3	1
1	4	1
2	1	7
2	2	6
2	3	6
2	4	6
3	1	8
3	2	8
3	3	7
3	4	8
4	1	6
4	2	6
4	3	5
4	4	7
5	1	8
5	2	7
5	3	7
5	4	8