

Project: Efficacy of herbicides for Poa control on overseeded fairways

Principal Investigators: Wendy Gelernter, Ph.D. and Larry J. Stowell, Ph.D., CPPP, CPAg

Cooperators: Nancy Dickens, Sun City West

Sponsor: Rohm and Haas

Summary: In replicated field trials conducted on common bermudagrass fairways that were overseeded with perennial ryegrass, rates and timing of various herbicides were evaluated for Poa annua control efficacy. Key results include:

- Pre-emergence herbicides such as Dimension and Barricade continue to be most effective when applied prior to overseeding, as opposed to after overseeding.
- Applications made post-overseeding required higher rates of Dimension (200 lbs/A of the 0.25G formulation) to achieve the same efficacy observed at lower rates (150 lb/A) applied before overseeding.
- The efficacy and longevity of split applications was evaluated, but was difficult to assess, due to low populations of Poa annua.
- None of the treatments tested caused damage to either ryegrass or bermudagrass

Sun City, Palm Desert. Poa control on overseeded fairway turf. Fairways were overseeded with perennial ryegrass on 10/1/99. AO = after overseeding. BO = before overseeding. Poa control was estimated by counting the number of clumps of Poa per plot that were producing seedheads (#SH). The best performing treatments are highlighted in yellow. (LSD, P<0.10).

Product	Rate	Timing	Application Dates	Mean # Poa clumps with seedheads	
				3/3/00	3/15/00
Dimension 0.25 G	0.25 lb ai/A 100 LB/A	6 wk BO + 6 wk AO	8/19/99, 11/30/99	1.0a	0a
Dimension 0.25 G	0.38 lb ai/A 152 LB/A	6 wk BO	8/19/99	0.0a	0.7a
Dimension 0.25 G	0.5 lb ai/A 200 LB/a	6 wk BO	8/19/99	0.0a	0a
Dimension 0.25 G	0.25 lb ai/A	6 wk AO, 10 wk AO	11/30/99, 12/21/99	9.7bc	10.0b
Dimension 0.25 G	0.38 lb ai/A	6 wk AO	11/30/99	2.3ab	3.3a
Dimension 0.25 G	0.5 lb ai/A	6 wk AO	11/30/99	1.0a	1.3a
XF99-069	5 lb formulation/A	6 wk BO	8/19/99	0.0a	1.0a
Prograss	0.5 ga/A	1 November, 1 December app	11/30/99, 12/21/99	0.0a	0a
Barricade	1 lb/A	6 wk BO	8/19/99	0.0a	0a
No treatment				15.3c	16.0b

Sun City, Palm Desert. Turf quality on overseeded fairway turf. Fairways were overseeded with perennial ryegrass on 10/1/99. AO = after overseeding. BO = before overseeding. Turf quality was determined by using a numerical rating system from 0 –9, where 9 – best possible quality and 0 = worst possible quality. None of the treatments performed significantly better or significantly worse than the non-treated check. (LSD, P<0.10).

Product	Rate	Timing	Application Dates	Turf quality	
				3/3/00	3/15/00
Dimension 0.25 G	0.25 lb ai/A	6 wk BO + 6 wk AO	8/19/99, 11/30/99	5.3ab	6.2ab
Dimension 0.25 G	0.38 lb ai/A	6 wk BO	8/19/99	6.3a	6.8a
Dimension 0.25 G	0.5 lb ai/A	6 wk BO	8/19/99	6.2a	6.5ab
Dimension 0.25 G	0.25 lb ai/A	6 wk AO, 10 wk AO	11/30/99, 12/21/99	4.8b	5.8abc
Dimension 0.25 G	0.38 lb ai/A	6 wk AO	11/30/99	4.8b	5.7bc
Dimension 0.25 G	0.5 lb ai/A	6 wk AO	11/30/99	4.8b	5.0c
XF99-069	5 lb formulation/A	6 wk BO	8/19/99	6.3a	6.8a
Prograss	0.5 ga/A	1 November, 1 December app	11/30/99, 12/21/99	5.7ab	6.3ab
Barricade	1 lb/A	6 wk BO	8/19/99	5.8ab	6.5ab
No treatment				5.7ab	6.0abc

Figure 1. Poa density in plots treated with Dimension 0.25G at either 150 lb/A or 200 lb/A. “before overseed” refers to treatments made 6 weeks before overseeding. “after overseed” refers to treatments made 6 weeks after overseeding.

