

Stop #7: Pre- and Postemergence Control of Crabgrass and Broadleaf Weeds in Bermudagrass and Tall Fescue

Jim Baird, Tyler Mock, and Priti Saxena

Preemergence Control in Bermudagrass

Species: 'Princess 77' Bermudagrass

Spray Information: CO₂-powered bicycle sprayer
TeeJet 8003VS nozzles; 19-inch spacing
1 gal/M

Design: Randomized complete block; 3 replications

Plot size: 7 ft x 10 ft; 4-ft alleys

Application Dates: 2 February 2014 (initial treatment)
27 March 2014 (6 WAIT)

Results:

- ✓ Crabgrass pressure was low and sporadic. Nevertheless, plots treated with Tenacity + Barricade were completely free of crabgrass and other weed species at the final rating date in August.

Notes:

2014 Preemergence Crabgrass Control in Bermudagrass

No.	Treatment	Company	Rate	Timing (wks)	Other Weed Cover Quality (1-9, 9 = best or none) 8/5/2014	Crabgrass% cover 8/5/2014
1	Control				6.3 abc	9.0 a
2	Tenacity 4SC	Syngenta	5 oz/A	0, 6	7.3 abc	2.7 a
2	NIS		0.25% v/v	0, 6		
3	Tenacity 4SC	Syngenta	5 oz/A	0, 6	9.0 a	0.0 a
3	Barricade 65WG		0.65 lb/A	0, 6		
4	Tenacity 4SC	Syngenta	5 oz/A	0, 6	4.7 c	15.7 a
4	Monument 45WG		10 g/A	0, 6		
5	Monument 45WG	Syngenta	10 g/A	0,6	6.7 abc	8.0 a
5	NIS		0.25% v/v	0,6		
6	Change Up	Nufarm	1 pt/A	0	5.0 bc	20.7 a
7	Change Up	Nufarm	1 pt/A	0	7.0 abc	7.0 a
7	Sureguard	Nufarm	10 oz/A	0		
8	Sureguard	Nufarm	10 oz/A	0	7.3 abc	3.3 a
9	Specticle 0.0142% G	Bayer	272 lb/A	0	8.7 ab	0.3 a
10	Specticle 0.0213% G	Bayer	181 lb/A	0	7.3 abc	8.3 a
11	Specticle Flo	Bayer	8 oz/A	0	7.7 abc	5.3 a
12	Dimension 270G	Dow AgroScience	185 lb/A	0	6.3 abc	0.7 a
13	Dimension 2EW	Dow AgroScience	32 oz/A	0,6	7.7 abc	0.3 a
14	Pendulum Aqua Cap	BASF	3.1 pt/A	0,6	7.7 abc	0.7 a
15	Pylex	BASF	1 oz/A	0,6	8.3 abc	1.3 a
15	Pendulum Aqua Cap		3.1 pt/A			
16	Tower	BASF	32 oz/A	0,6	6.7 abc	4.7 a

Means followed by the same letter in a column are not significantly different (P = 0.05).

Postemergence Control in Bermudagrass

Species: 'GN-1' Hybrid Bermudagrass

Spray Information: CO₂-powered bicycle sprayer
TeeJet 8003VS nozzles; 19-inch spacing
1 gal/M

Design: Randomized complete block; 3 replications

Plot size: 7 ft x 10 ft; 4-ft alleys

Application Dates: 11 June 2014 (initial treatment)
23 July 2014 (6 WAIT)
28 August 2014 (11 WAIT)

Results:

- ✓ Crabgrass pressure was tremendous and this was considered a worst case scenario in terms of POST applications on mature (tillering) crabgrass.
- ✓ Problems with the sprayer during the second application resulted in misses and prompted a third application.
- ✓ Dimension provided the best crabgrass control in the study followed by MSMA. Barricade + Tenacity was the only other treatment that reduced crabgrass below that of the control.

Notes:

2014 Postemergence Crabgrass Control in Bermudagrass

No.	Treatment	Company	Rate	Timing (wks)	Crabgrass % cover (8/5/2014)	Crabgrass % cover (9/7/2014)
1	Control				56.7 a	85.0 a
2	Dimension 2EW	Dow AgroSciences	32 oz/A	0, 6	13.3 a	1.7 d
3	MSMA 6 Plus	Drexel	87 oz/A	0, 6	16.7 a	10.7 ab
4	Tenacity 4SC	Syngenta	5 oz/A	0, 6	23.3 a	35.0 a-d
4	NIS		0.25% v/v	0, 6		
5	Tenacity 4SC	Syngenta	5 oz/A	0, 6	30.0 a	20.0 bcd
5	Barricade 65WG	Syngenta	0.65 lbs/A	0, 6		
6	Tenacity 4SC	Syngenta	5 oz/A	0, 6	20.0 a	36.7 a-d
6	Monument 75WG	Syngenta	10 g/A	0, 6		
7	Monument 75WG	Syngenta	10 g/A	0, 6	23.3 a	41.7 a-d
8	OneTime	BASF	64 oz/A	0, 6	35.0 a	56.7 abc
8	MSO		0.5% v/v	0, 6		
9	Drive XLR8	BASF	64 oz/A	0, 6	41.7 a	55.0 abc
9	MSO		0.5% v/v	0, 6		
10	Pylex	BASF	1 oz/A	0, 6	20.0 a	38.3 a-d
10	Pendulum AquaCap	BASF	3.1 pt/A	0, 6		
11	Q4	PBI Gordon	128 oz/A	0, 6	50.0 a	58.3 abc
11	NIS		0.25% v/v	0, 6		
12	Solitare	FMC	16 oz/A	0, 6	48.3 a	63.3 ab
12	NIS		0.25% v/v	0, 6		
13	Solitare	FMC	24 oz/A	0, 6	38.3 a	43.3 a-d
13	NIS		0.25% v/v	0, 6		

Means followed by the same letter in a column are not significantly different (P = 0.05).

Preemergence Control in Tall Fescue

Spray Information: CO₂-powered bicycle sprayer
TeeJet 8003VS nozzles; 19-inch spacing
1 gal/M

Design: Randomized complete block; 4 replications

Plot size: 7 ft x 10 ft

Application Dates: 2 February 2014 (initial treatment)
27 March 2014 (6 WAIT)

Results:

- ✓ Tenacity + Barricade provided the best crabgrass control followed by Pylex and Pendulum and Pendulum alone. All other treatments were not significantly different from the control.
- ✓ Oxalis pressure was significant but not uniform throughout the study area. Treatments containing Turflon Ester or Tower provide the best control of this species.

Notes:

2014 Preemergence Crabgrass Control in Tall Fescue

No.	Treatment	Company	Rate	Timing (wks)	Oxalis % cover (8/30/2014)	Crabgrass % cover (8/30/2014)
1	Control				7.5 a	33.8 a
2	Tenacity 4SC	Syngenta	5 oz/A	0, 6	2.5 a	36.3 a
2	NIS		0.25% v/v	0, 6		
3	Tenacity 4SC	Syngenta	5 oz/A	0, 6	0.0 a	25.0 abc
3	Turflon Ester 4EC	Dow AgroSciences	16 oz/A	0, 6		
3	NIS		0.25% v/v	0, 6		
4	Tenacity 4SC	Syngenta	5 oz/A	0, 6	7.5 a	1.5 c
4	Barricade 65WG	Syngenta	0.4 lbs/A	0, 6		
5	Dimension 2EW		32 oz/A	0, 6	5.0 a	13.8 abc
6	Pylex		4 oz/A	0, 6	7.5 a	36.3 a
6	MSO		0.5 % v/v	0, 6		
7	Pylex		1 oz/A	0, 6	10.0 a	35.0 a
7	MSO		0.5% v/v	0, 6		
8	Pylex		1.5 oz/A	0, 6	7.5 a	38.8 a
8	MSO		0.5% v/v	0, 6		
9	Pylex		1 oz/A	0, 6	0.0 a	27.5 ab
9	Turflon Ester 4EC		16 oz/A	0, 6		
9	MSO		0.5 % v/v	0, 6		
10	Pylex		1 oz/A	0, 6	8.8 a	5.3 bc
10	Pendulum Aqua Cap		3.1 pt/A	0, 6		
11	Tower		32 oz/A	0, 6	0.0 a	33.8 a
12	Pendulum Aqua Cap		3.1 pt/A	0, 6	5.0 a	6.5 bc

Means followed by the same letter in a column are not significantly different (P = 0.05).

Postemergence Control in Tall Fescue

Spray Information: CO₂-powered backpack sprayer
TeeJet 8003VS nozzles; 9-inch spacing
1 gal/M

Design: Randomized complete block; 4 replications

Plot size: 4 ft x 8 ft

Application Dates: 18 July 2014 (initial treatment)
28 August 2014 (6 WAIT)

Results:

- ✓ Overall, distribution of crabgrass and Oxalis was less than ideal and contributed to general lack of treatment separation.
- ✓ Tenacity + Barricade and Pylex alone or combined with Pendulum or Tower provided the best crabgrass control.
- ✓ The treatment containing Turflon Ester provided the best control of Oxalis.

Notes:

2014 Postemergence Crabgrass Control in Tall Fescue

No.	Treatment	Company	Rate	Timing (wks)	Crabgrass % cover (7/18/14)	Crabgrass % cover (8/28/14)	Oxalis% cover (7/18/14)	Oxalis% cover (8/28/14)
1	Control				15.0 a	20.0 a	20.0 a	31.3 a
2 2	Tenacity 4SC NIS	Syngenta	5 oz/A 0.25% v/v	0, 6 0, 6	12.5 a	13.8 a	18.8 a	31.3 a
3 3 3	Tenacity Turflon Ester NIS	Syngenta Dow	5 oz/A 16 oz/A 0.25% v/v	6 6 6	17.5 a	12.5 a-d	18.8 a	1.3 a
4 4	Tenacity 4SC Barricade 65WG	Syngenta Syngenta	5 oz/A 0.4 lbs/A	6 6	20.0 a	3.8 d	26.3 a	25.0 a
5 5 5	Pendulum Pylex MSO	BASF BASF	3.1 pt/A 1 oz/A 0.5% v/v	6 6 6	12.5 a	6.8 cd	23.8 a	19.3 a
6 6 6	Tower Pylex MSO	BASF BASF	32 oz/A 1 oz/A 0.5% v/v	6 6 6	12.5 a	8.8 bcd	21.3 a	20.0 a
7 7	Pylex MSO	BASF	1.5 oz/A 0.5% v/v	6 6	13.8	7.5 cd	17.5 a	25.0 a
8 8	Solitare NIS	FMC	16 oz/A 0.25% v/v	6 6	20.0 a	18.8 a-d	18.8 a	17.5 a

Means followed by the same letter in a column are not significantly different (P = 0.05).