

Buffalograss establishment with pre- and postemergence herbicides
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Site and Design		
Plot Width, Unit:	5 FT	
Plot Length, Unit:	5 FT	
Plot Area, Unit:	25 FT ²	
Replications:	3	
Randomized Complete Block (RCB)		
Application Description		
	A	B
Application Date:	6/3/2013	7/10/2013
Application Method:	Spray	Spray
Application Timing:	post	post
Application Placement:	broad	broad
Air Temperature, Unit:	65 F	76 F
% Relative Humidity:	64	73
Soil Temperature, Unit:	66 F	84 F

This study was conducted at the John Seaton Anderson Turf Center outside Mead, NE in 2013. Sundancer buffalograss was seeded at 3 lb burs/1000ft² on 3 June on freshly tilled silt loam soil and incorporated less than 1/4" into the soil. Seeding was done using a dropseeder then raked in two directions to provide good seed soil contact. Immediately after seeding, at seeding (AS) applications were made, herbicides were applied to 5' by 5' plots in 2 gals water/1000 sq ft with a CO2 backpack sprayer using a 3 nozzle boom with 8002vs tips at 30 PSI. A starter fertilizer was applied to supply 1 lb P205/1000ft². Areas were managed to maximize buffalograss germination and establishment. Thus areas were irrigated as needed to keep the soil surface moist during germination and as needed thereafter to prevent even minimum stress on the buffalograss, and mowed at 2" weekly. On 10 July roughly 30 days after emergence (DAE) sequential applications were made along with preemergence herbicides in treatments 5, 6, and 7(non-ionic surfactant (NIS) was added at 0.25% V/V to each treatment at 30 DAE). Plots were rated for % cover of buffalograss or weeds (primarily redroot pigweed & common purslane) on a 0-100% scale 36, 48, and 70 Days after seeding.

Results: Applications of Tenacity resulted in the highest turf cover over Drive and the untreated plots throughout this experiment (Table 1). SquareOne also resulted in better turf cover than the untreated with similar cover to that of Tenacity treatments when no preemergence herbicide was applied(Table 1). Adding preemergence herbicides to the mix resulted in no negative effects on buffalograss establishment, providing another option for weed control in new buffalograss seedings especially if annual grasses will be an issue.

Weed cover ranged from 62-67% cover in the untreated plots throughout this study(Table 2). All treatments resulted in lower weed cover than the untreated from 21 July to the final rating on 12 August(Table 2). Tenacity and SquareOne resulted in the lowest weed cover throughout this experiment. Adding preemergence herbicides at 30 DAE did not improve control compared to similar treatments without preemergence in this study, though grassy weeds were not prevalent on this site. This study will continue for one more year.

Table 1. Percent cover of buffalograss following various herbicide treatments at seeding and 30 days after emergence

Crop Variety	Sundancer buffalograss		Sundancer buffalograss		Sundancer buffalograss			
Description	7/9/2013		7/21/2013		8/12/2013			
Rating Date	ground		ground		ground			
Rating Type	%		%		%			
Rating Unit	36 36		48 11		70 33			
Days After First/Last Applic.								
Trt	Treatment	Rate	Unit	Appl Code	Appl Description			
No.	Name							
1	Untreated Check							
					1	2		
						3		
2	Tenacity	5 fl oz/a	AB		at seeding+30 DAE			
3	Squareone	12 oz/a	AB		at seeding+30 DAE			
4	Drive 75 DF	0.367 oz/1000 ft ²	AB		at seeding+30 DAE			
5	Tenacity	5 fl oz/a	AB		at seeding+30 DAE			
	Barricade 65 wdg	12.3 oz wt/a	B		30 DAE			
6	Squareone	12 oz/a	AB		at seeding+30 DAE			
	Pendulum Aquacap	50.52 fl oz/a	B		30 DAE			
7	Drive 75 DF	0.367 oz/1000 ft ²	AB		at seeding+30 DAE			
	Pendulum Aquacap	50.52 fl oz/a	B		30 DAE			
LSD (P=.05)						14.46	13.61	12.77
Standard Deviation						8.13	7.65	7.18
Treatment Prob(F)						0.0145	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Table 2. Percent cover of weeds following various herbicide treatments at seeding and 30 days after emergence

Crop Variety				Purslane & Pig>	Purslane & Pig>	Purslane & Pig>	
Description				Weeds	Weeds	Weeds	
Rating Date				7/9/2013	7/21/2013	8/12/2013	
Rating Type				ground	ground	ground	
Rating Unit				%	%	%	
Days After First/Last Applic.				36 36	48 11	70 33	
Trt	Treatment	Rate	Appl	Appl			
No.	Name	Rate	Unit	Code	Description		
1	Untreated Check						
2	Tenacity	5 fl oz/a	AB		at seeding+30 DAE		
3	Squareone	12 oz/a	AB		at seeding+30 DAE		
4	Drive 75 DF	0.367 oz/1000 ft2	AB		at seeding+30 DAE		
5	Tenacity	5 fl oz/a	AB		at seeding+30 DAE		
	Barricade 65 wdg	12.3 oz wt/a	B		30 DAE		
6	Squareone	12 oz/a	AB		at seeding+30 DAE		
	Pendulum Aquacap	50.52 fl oz/a	B		30 DAE		
7	Drive 75 DF	0.367 oz/1000 ft2	AB		at seeding+30 DAE		
	Pendulum Aquacap	50.52 fl oz/a	B		30 DAE		
LSD (P=.05)					27.72	13.54	12.77
Standard Deviation					15.58	7.61	7.18
Treatment Prob(F)					0.0057	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.