

North Carolina State University

Catsear Dandelion Control in Bermudagrass Utility Turf

Trial ID: 03-D17
Location: Sandhills Station

Study Dir.: Travis Gannon
Investigator: Fred Yelverton

APPLICATION EQUIPMENT

	A
Appl. Equipment:	CO2 SPRAY
Operating Pressure:	42 PSI
Nozzle Type:	FLAT FAN
Nozzle Size:	VS8002XR
Nozzle Spacing, Unit:	10 INCH
Nozzles/Row:	4
Boom Length, Unit:	40 INCH
Boom Height, Unit:	10 INCH
Ground Speed, Unit:	3 MPH
Carrier:	WATER
Spray Volume, Unit:	32.5 GPA
Propellant:	COMP CO2

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										HRYRA	HRYRA	HRYRA	HRYRA	
										CONTROL	CONTROL	CONTROL	CONTROL	
										%	%	%	%	
										3-31-03	4-14-03	4-28-03	5-28-03	
										7 DA-A	21 DA-A	35 DA-A	65 DA-A	
Trt	Treatment	Form	Form	Rate	Rate	Product	Product	Grow	Appl	Spray				
No.	Name	Conc	Type	Unit	Unit	Rate	Rate	Stg	Code	Volume				
1	Flazasulfuron X-77	25	DG	3 oz/a L	0.25 % v/v			MARCH 24 MARCH 24	A		0.0 e	22.5 bc	58.8 ab	50.0 b
2	Flazasulfuron X-77	25	DG	6 oz/a L	0.25 % v/v			MARCH 24 MARCH 24	A		0.0 e	36.3 a	58.8 ab	66.3 ab
3	Flazasulfuron X-77 Bueno 6	25 6	DG L	3 oz/a L	0.25 % v/v			MARCH 24 MARCH 24 MARCH 24	A		8.3 cd	18.3 cd	45.0 bcd	45.0 bc
4	Flazasulfuron X-77 Roundup Pro	25	DG	3 oz/a L	0.25 % v/v			MARCH 24 MARCH 24 MARCH 24	A		1.3 e	31.3 ab	63.8 a	85.0 a
5	Flazasulfuron X-77 Banvel	25	DG	3 oz/a L	0.25 % v/v			MARCH 24 MARCH 24 MARCH 24	A		6.3 d	22.5 bc	63.8 a	53.8 b
6	Oust X-77	75	WG	0.5 oz/a L	0.25 % v/v			MARCH 24 MARCH 24	A		0.0 e	22.5 bc	48.8 abc	48.8 bc
7	Oust X-77	75	WG	1 oz/a L	0.25 % v/v			MARCH 24 MARCH 24	A		0.0 e	26.3 abc	57.5 ab	85.0 a
8	Princep X-77	4	L	2 lb ai/a L	0.25 % v/v			MARCH 24 MARCH 24	A		15.0 ab	6.3 de	15.0 fg	20.0 cd
9	AAtrex X-77	4	L	2 lb ai/a L	0.25 % v/v			MARCH 24 MARCH 24	A		18.3 a	15.0 cd	16.7 ef	8.3 d
10	Weedar 64 X-77		L	1 pt/a L	0.25 % v/v			MARCH 24 MARCH 24	A		10.0 cd	17.5 cd	31.3 de	20.0 cd
11	Weedar 64 X-77		L	1.5 pt/a L	0.25 % v/v			MARCH 24 MARCH 24	A		8.8 cd	17.5 cd	35.0 cd	20.0 cd
12	Weedar 64 X-77		L	2 pt/a L	0.25 % v/v			MARCH 24 MARCH 24	A		11.3 bc	21.3 bc	57.5 ab	57.5 ab
13	Nontreated										0.0 e	0.0 e	0.0 g	0.0 d
LSD (P=.05)											4.75	12.21	15.30	28.88
Standard Deviation											3.29	8.46	10.60	20.00
CV											54.02	42.76	24.97	46.47
Grand Mean											6.09	19.78	42.44	43.04
Bartlett's X2											8.331	8.808	5.449	16.231
P(Bartlett's X2)											0.215	0.64	0.907	0.133
Replicate F											1.244	0.252	5.521	1.205
Replicate Prob(F)											0.3091	0.8595	0.0034	0.3227
Treatment F											15.160	5.028	15.845	7.598
Treatment Prob(F)											0.0001	0.0001	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.

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Weed Code										HRYRA	HRYRA	CYNDA	CYNDA	
Crop Code										CONTROL	CONTROL	GREENUP	GREENUP	
Rating Data Type										%	%	%	%	
Rating Unit										6-18-03	7-1-03	3-31-03	4-14-03	
Rating Date										86 DA-A	99 DA-A	7 DA-A	21 DA-A	
Trt-Eval Interval														
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Spray Volume				
1	Flazasulfuron X-77	25 L	DG	3 oz/a 0.25 % v/v	oz/a % v/v			MARCH 24 MARCH 24	A A		56.3 b	48.8 bc	0.0 a	7.5 a
2	Flazasulfuron X-77	25 L	DG	6 oz/a 0.25 % v/v	oz/a % v/v			MARCH 24 MARCH 24	A A		76.3 a	85.0 a	0.0 a	12.5 a
3	Flazasulfuron X-77 Bueno 6	25 L 6 L	DG	3 oz/a 0.25 % v/v 2 qt/a	oz/a % v/v			MARCH 24 MARCH 24 MARCH 24	A A A		48.3 b	0.0 f	0.0 a	10.0 a
4	Flazasulfuron X-77 Roundup Pro	25 L L	DG	3 oz/a 0.25 % v/v 1 pt/a	oz/a % v/v			MARCH 24 MARCH 24 MARCH 24	A A A		91.3 a	46.3 bcd	0.0 a	10.0 a
5	Flazasulfuron X-77 Banvel	25 L 4 EC	DG	3 oz/a 0.25 % v/v 1 pt/a	oz/a % v/v			MARCH 24 MARCH 24 MARCH 24	A A A		75.0 a	72.5 ab	0.0 a	10.0 a
6	Oust X-77	75 L	WG	0.5 oz/a 0.25 % v/v	oz/a % v/v			MARCH 24 MARCH 24	A A		50.0 b	52.5 bc	0.0 a	10.0 a
7	Oust X-77	75 L	WG	1 oz/a 0.25 % v/v	oz/a % v/v			MARCH 24 MARCH 24	A A		85.0 a	86.3 a	0.0 a	7.5 a
8	Princep X-77	4 L	L	2 lb ai/a 0.25 % v/v	lb ai/a % v/v			MARCH 24 MARCH 24	A A		27.5 c	32.5 cde	0.0 a	17.5 a
9	AAtrex X-77	4 L	L	2 lb ai/a 0.25 % v/v	lb ai/a % v/v			MARCH 24 MARCH 24	A A		0.0 d	0.0 f	0.0 a	11.7 a
10	Weedar 64 X-77	L	L	1 pt/a 0.25 % v/v	pt/a % v/v			MARCH 24 MARCH 24	A A		23.8 c	17.5 def	0.0 a	11.3 a
11	Weedar 64 X-77	L	L	1.5 pt/a 0.25 % v/v	pt/a % v/v			MARCH 24 MARCH 24	A A		15.0 cd	11.3 ef	0.0 a	10.0 a
12	Weedar 64 X-77	L	L	2 pt/a 0.25 % v/v	pt/a % v/v			MARCH 24 MARCH 24	A A		55.0 b	66.3 ab	0.0 a	11.3 a
13	Nontreated										0.0 d	0.0 f	0.0 a	10.0 a
LSD (P=.05)											17.15	29.42	0.00	5.47
Standard Deviation											11.88	20.37	0.00	3.79
CV											25.6	51.05	0.0	35.39
Grand Mean											46.41	39.9	0.0	10.71
Bartlett's X2											8.161	18.223	0.0	8.162
P(Bartlett's X2)											0.613	0.033*	.	0.227
Replicate F											0.633	0.628	0.000	1.533
Replicate Prob(F)											0.5989	0.6018	1.0000	0.2237
Treatment F											27.302	9.935	0.000	1.728
Treatment Prob(F)											0.0001	0.0001	1.0000	0.1039

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Weed Code										CYNDA	CYNDA	CYNDA	CYNDA	
Crop Code										GREENUP	COVER	COVER	COVER	
Rating Data Type										%	%	%	%	
Rating Unit										4-28-03	5-28-03	6-18-03	7-1-03	
Rating Date										35 DA-A	65 DA-A	86 DA-A	99 DA-A	
Trt-Eval Interval														
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Spray Volume				
1	Flazasulfuron X-77	25	DG	3	oz/a			MARCH 24	A		32.5	ab	33.8	a
			L	0.25	% v/v			MARCH 24	A				53.8	ab
2	Flazasulfuron X-77	25	DG	6	oz/a			MARCH 24	A		28.8	ab	38.8	a
			L	0.25	% v/v			MARCH 24	A				53.8	ab
3	Flazasulfuron X-77	25	DG	3	oz/a			MARCH 24	A		28.3	ab	35.0	a
			L	0.25	% v/v			MARCH 24	A				43.3	bcd
	Bueno 6	6	L	2	qt/a			MARCH 24	A				48.3	bcd
4	Flazasulfuron X-77	25	DG	3	oz/a			MARCH 24	A		35.0	a	53.8	a
			L	0.25	% v/v			MARCH 24	A				72.5	a
	Roundup Pro		L	1	pt/a			MARCH 24	A				77.5	a
5	Flazasulfuron X-77	25	DG	3	oz/a			MARCH 24	A		35.0	a	32.5	a
			L	0.25	% v/v			MARCH 24	A				61.3	ab
	Banvel	4	EC	1	pt/a			MARCH 24	A				65.0	ab
6	Oust X-77	75	WG	0.5	oz/a			MARCH 24	A		16.3	bc	33.8	a
			L	0.25	% v/v			MARCH 24	A				47.5	abc
7	Oust X-77	75	WG	1	oz/a			MARCH 24	A		2.5	c	27.5	a
			L	0.25	% v/v			MARCH 24	A				55.0	ab
8	Princep X-77	4	L	2	lb ai/a			MARCH 24	A		33.8	ab	47.5	a
			L	0.25	% v/v			MARCH 24	A				47.5	abc
9	AAtrex X-77	4	L	2	lb ai/a			MARCH 24	A		38.3	a	21.7	a
			L	0.25	% v/v			MARCH 24	A				35.0	bcd
10	Weedar 64 X-77		L	1	pt/a			MARCH 24	A		30.0	ab	23.8	a
			L	0.25	% v/v			MARCH 24	A				35.0	bcd
11	Weedar 64 X-77		L	1.5	pt/a			MARCH 24	A		28.8	ab	21.3	a
			L	0.25	% v/v			MARCH 24	A				25.0	cd
12	Weedar 64 X-77		L	2	pt/a			MARCH 24	A		33.8	ab	32.5	a
			L	0.25	% v/v			MARCH 24	A				45.0	a-d
13	Nontreated										32.5	ab	13.8	a
													17.5	d
													23.8	d
LSD (P=.05)											18.27	27.51	27.86	28.56
Standard Deviation											12.65	19.06	19.29	19.78
CV											43.81	59.63	42.36	38.98
Grand Mean											28.88	31.96	45.54	50.74
Bartlett's X2											19.034	9.223	17.323	16.438
P(Bartlett's X2)											0.088	0.684	0.138	0.172
Replicate F											2.209	1.793	5.212	4.358
Replicate Prob(F)											0.1050	0.1671	0.0045	0.0106
Treatment F											2.280	1.302	2.366	2.080
Treatment Prob(F)											0.0295	0.2623	0.0243	0.0466

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Trial Comments

- 3-24-03 - Trial initiated, optimal environmental conditions at application.
- 3-31-03 - Trial evaluated for catsear dandelion control and bermudagrass greenup.
- 4-7-03 - Trial area visited but raining, trial not evaluated.
- 4-14-03 - Trial evaluated for catsear dandelion control and bermudagrass greenup.
- 4-28-03 - Trial area was evaluated for catsear dandelion control and bermudagrass greenup.
- 5-28-03 - Trial area was evaluated for catsear dandelion control and bermudagrass cover, however it was a very poor stand of bermudagrass.
- 6-18-03 - Trial area was evaluated for catsear dandelion control and bermudagrass cover.
- 7-1-03 - Trial evaluated for catsear dandelion control and bermudagrass cover.