

North Carolina State University

Tolerance of Coastal Bermudagrass to POST Applications of Raptor

Trial ID: 03-D44
Location: Lake Wheeler

Study Dir.: Travis Gannon
Investigator: Fred Yelverton

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2 SPRAY	CO2 SPRAY
Operating Pressure:	20 PSI	20 PSI
Nozzle Type:	FLAT FAN	FLAT FAN
Nozzle Size:	VS8002XR	VS8002XR
Nozzle Spacing, Unit:	15 INCH	15 INCH
Nozzles/Row:	4	4
Boom Length, Unit:	60 INCH	60 INCH
Boom Height, Unit:	16 INCH	16 INCH
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	20 GPA	20 GPA
Propellant:	COMP CO2	COMP CO2

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Weed Code										CYNDA	CYNDA	CYNDA	CYNDA	DIGIS	
Crop Code										PHYTO	PHYTO	PHYTO	PHYTO	CONTROL	
Rating Data Type										%	%	%	%	%	
Rating Unit										8-4-03	8-18-03	9-4-03	9-17-03	8-18-03	
Rating Date										14 DA-A	28 DA-A	45 DA-A	58 DA-A	28 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	Raptor X-77	1 L	L	4 oz/a	% v/v			JULY 21 A	A		0.0 a	0.0 b	0.0 a	0.0 a	12.5 cd
2	Raptor X-77	1 L	L	6 oz/a	% v/v			JULY 21 A	A		1.3 a	0.0 b	0.0 a	0.0 a	55.0 b
3	Raptor X-77	1 L	L	4 oz/a	% v/v			JULY 21 A	A		0.0 a	0.0 b	0.0 a	0.0 a	25.0 c
	Raptor X-77	1 L	L	4 oz/a	% v/v			AUG 18 B	B						
4	Plateau X-77	2 L	L	4 oz/a	% v/v			JULY 21 A	A		3.8 a	0.0 b	0.0 a	0.0 a	67.5 ab
5	Plateau X-77	2 L	L	6 oz/a	% v/v			JULY 21 A	A		2.5 a	25.0 a	0.0 a	0.0 a	68.8 a
6	Nontreated										0.0 a	0.0 b	0.0 a	0.0 a	0.0 d
LSD (P=.05)											4.05	3.55	0.00	0.00	13.00
Standard Deviation											2.69	2.36	0.00	0.00	8.62
CV											214.99	56.57	0.0	0.0	22.62
Grand Mean											1.25	4.17	0.0	0.0	38.13
Bartlett's X2											1.408	0.0	0.0	0.0	5.529
P(Bartlett's X2)											0.495	.	.	.	0.237
Replicate F											0.192	1.000	0.000	0.000	4.496
Replicate Prob(F)											0.9000	0.4199	1.0000	1.0000	0.0193
Treatment F											1.385	75.000	0.000	0.000	46.983
Treatment Prob(F)											0.2851	0.0001	1.0000	1.0000	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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										DIGIS	DIGIS	
										CONTROL	CONTROL	
										%	%	
										9-4-03	9-17-03	
										45 DA-A	58 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Spray Volume		
1	Raptor	1	L	4	oz/a			JULY 21	A		17.5	d
	X-77		L	0.25	% v/v			JULY 21	A			22.5
2	Raptor	1	L	6	oz/a			JULY 21	A		48.8	b
	X-77		L	0.25	% v/v			JULY 21	A			48.8
3	Raptor	1	L	4	oz/a			JULY 21	A		65.0	a
	X-77		L	0.25	% v/v			JULY 21	A			67.5
	Raptor	1	L	4	oz/a			AUG 18	B			
	X-77		L	0.25	% v/v			AUG 18	B			
4	Plateau	2	L	4	oz/a			JULY 21	A		33.8	c
	X-77		L	0.25	% v/v			JULY 21	A			51.3
5	Plateau	2	L	6	oz/a			JULY 21	A		51.3	ab
	X-77		L	0.25	% v/v			JULY 21	A			32.5
6	Nontreated										0.0	e
												0.0
LSD (P=.05)										14.92	24.01	
Standard Deviation										9.90	15.93	
CV										27.46	42.97	
Grand Mean										36.04	37.08	
Bartlett's X2										5.108	3.556	
P(Bartlett's X2)										0.276	0.469	
Replicate F										0.379	0.925	
Replicate Prob(F)										0.7694	0.4529	
Treatment F										23.509	9.046	
Treatment Prob(F)										0.0001	0.0004	

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.

Trial Comments

7-10-03 - Trial area was mowed to 5 inch mowing height.

7-21-03 - Trial was initiated. Trial area was a fair stand of bermudagrass mixed in with clover, large crabgrass, dallisgrass, and other grassy weeds.

8-4-03 - Trial was evaluated for bermudagrass phytotoxicity. Minimal phytotoxicity present from any of the treated plots.

8-18-03 - Trial was evaluated for bermudagrass phytotoxicity and large crabgrass control. Minimal phytotoxicity present from any of the treated plots, large crabgrass injured in select plots.