

North Carolina State University

BAHIAGRASS SEEDHEAD SUPPRESSION ALONG ROADSIDES WITH JOURNEY

Trial ID: 04-D29
Location: WILMINGTON AIRPORT

Study Director: TRAVIS GANNON
Investigator: Fred Yelverton

General Trial Information

Study Director: TRAVIS GANNON **Title:** RESEARCH ASSOCIATE
Affiliation: NORTH CAROLINA STATE UNIVERSITY
Postal Code: 27695 **E-mail:** TRAVIS_GANNON@NCSSU.EDU
Investigator: FRED YELVERTON **Title:** PROFESSOR
Affiliation: NORTH CAROLINA STATE UNIVERSITY
Postal Code: 27695 **E-mail:** FRED_YELVERTON@NCSSU.EDU

Trial Location

City: WILMINGTON **Trial Status:** COMPLETED
State/Prov.: NC
Postal Code: 28405 **Initiation Date:** 5-25-04
Country: USA
Directions:

Objectives:

Conclusions:

Cooperator/Landowner

Country: USA

Organization: WILMINGTON AIRPORT
Address 1: 1740 AIRPORT BLVD
City: WILMINGTON
State/Prov: NC
Postal Code: 28405

Crop Description

Crop 1: PASNO Paspalum notatum Bahiagrass
BBCH Scale: BGRM

Site and Design

Plot Width, Unit: 6 FT **Site Type:** AIRPORT UTILITY FIELD
Plot Length, Unit: 15 FT
Replications: 3 **Study Design:** Randomized Complete Block

Trial Initiation Comments:

Field Prep./Maintenance:

Soil Description

% OM: 1.87 **Texture:** MINERAL
pH: 5.4
CEC: 5.1 **Fert. Level:** POOR

Moisture Conditions

Overall Moisture Conditions: APR-1.4"; MAY-3.1"; JUN-4.4"; JULY-1.8"

Application Description

	A
Application Date:	5-25-04
Time of Day:	9-10 AM
Application Method:	SPRAY
Application Timing:	MAY 25
Application Placement:	FOLIAR
Applied By:	T GANNON
Air Temperature, Unit:	80.7 F
% Relative Humidity:	86
Wind Velocity, Unit:	2.4 MPH
Dew Presence (Y/N):	N
Soil Temperature, Unit:	79 F
Soil Moisture:	ADEQUATE
% Cloud Cover:	20

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Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	PASNO BGRM
Stage Scale Used:	BBCH
Stage Majority, Percent:	BOOT 100
Height, Unit:	8 IN
Height Minimum, Maximum:	5 10

Application Equipment

	A
Appl. Equipment:	CO2 SPRAY
Operating Pressure:	25
Pressure Unit:	PSI
Nozzle Type:	FLAT FAN
Nozzle Size:	VS8002XR
Nozzle Spacing, Unit:	15 INCH
Nozzles/Row:	4
Boom Length, Unit:	60 INCH
Boom Height, Unit:	18 INCH
Ground Speed, Unit:	3 MPH
Carrier:	WATER
Spray Volume:	20
Volume Unit:	GPA
Propellant:	COMP CO2

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Crop Code	PASNO	PASNO	PASNO	PASNO	PASNO	PASNO								
BBCH Scale	BGRM	BGRM	BGRM	BGRM	BGRM	BGRM								
Crop Name	Bahiagrass	Bahiagrass	Bahiagrass	Bahiagrass	Bahiagrass	Bahiagrass								
Rating Date	6-7-04	6-23-04	7-19-04	8-12-04	6-7-04	6-23-04								
Rating Data Type	PHYTO	PHYTO	PHYTO	PHYTO	VEG HT	VEG HT								
Rating Unit	%	%	%	%	IN	IN								
Days After Last Applic.	13	29	55	79	13	29								
Trt-Eval Interval	13 DA-A	29 DA-A	55 DA-A	79 DA-A	13 DA-A	29 DA-A								
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate	Growth Stage	Appl Code						
1	JOURNEY X-77	2.25 L	L	5.3 oz/a	0.25 % v/v		MAY 25 A	MAY 25 A	13.3 abc	25.0 a	8.3 bc	3.3 de	11.0 a	4.3 b
2	JOURNEY X-77	2.25 L	L	8 oz/a	0.25 % v/v		MAY 25 A	MAY 25 A	13.3 abc	21.7 ab	13.3 ab	3.3 de	10.7 a	4.3 b
3	JOURNEY X-77	2.25 L	L	10.7 oz/a	0.25 % v/v		MAY 25 A	MAY 25 A	16.7 a	25.0 a	16.7 a	15.0 a	10.0 a	4.5 b
4	PLATEAU X-77	2 L	L	2 oz/a	0.25 % v/v		MAY 25 A	MAY 25 A	8.3 c	11.7 b	5.0 cd	1.7 de	11.0 a	4.8 b
5	PLATEAU X-77	2 L	L	3 oz/a	0.25 % v/v		MAY 25 A	MAY 25 A	10.0 bc	20.0 ab	5.0 cd	3.3 de	10.0 a	4.3 b
6	PLATEAU X-77	2 L	L	4 oz/a	0.25 % v/v		MAY 25 A	MAY 25 A	10.0 bc	15.0 ab	16.7 a	8.3 bc	11.7 a	5.0 b
7	JOURNEY X-77	2.25 L	L	8 oz/a			MAY 25 A	MAY 25 A	11.7 abc	16.7 ab	11.7 abc	5.0 cd	11.7 a	4.8 b
8	OUST X-77	75 WG	L	0.5 oz/a	0.25 % v/v		MAY 25 A	MAY 25 A	15.0 ab	23.3 a	13.3 ab	10.0 b	10.3 a	4.3 b
9	NONTREATED								0.0 d	0.0 c	0.0 d	0.0 e	12.0 a	10.8 a
LSD (P=.05)									6.42	11.20	7.83	4.89	2.06	1.18
Standard Deviation									3.71	6.47	4.53	2.83	1.19	0.68
CV									33.97	36.79	45.26	50.87	10.88	13.0
Grand Mean									10.93	17.59	10.0	5.56	10.93	5.26
Bartlett's X2									2.062	7.49	2.548	1.133	4.956	5.505
P(Bartlett's X2)									0.956	0.278	0.769	0.951	0.762	0.702
Friedman's X2									13.044	14.067	16.2	17.844	7.978	10.533
P(Friedman's X2)									0.11	0.08	0.04	0.022	0.436	0.23
Replicate F									0.471	1.746	0.542	0.348	0.026	0.733
Replicate Prob(F)									0.6330	0.2061	0.5917	0.7114	0.9742	0.4961
Treatment F									5.160	4.630	4.881	8.348	1.167	28.475
Treatment Prob(F)									0.0026	0.0045	0.0034	0.0002	0.3753	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)
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							PASNO	PASNO	PASNO	PASNO	PASNO			
							BGRM	BGRM	BGRM	BGRM	BGRM			
							Bahiagrass	Bahiagrass	Bahiagrass	Bahiagrass	Bahiagrass			
							7-19-04	8-12-04	6-7-04	6-23-04	7-19-04			
							VEG HT	VEG HT	SEEDHEAD HT	SEEDHEAD HT	SEEDHEAD HT			
							IN	IN	IN	IN	IN			
							55	79	13	29	55			
							55 DA-A	79 DA-A	13 DA-A	13 DA-A	55 DA-A			
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate	Growth Unit	Appl Stage	Code					
1	JOURNEY X-77	2.25 L	L	5.3 oz/a		0.25 % v/v	MAY 25 A			11.0 ab	12.7 a			
2	JOURNEY X-77	2.25 L	L	8 oz/a		0.25 % v/v	MAY 25 A			9.2 bc	13.3 a			
3	JOURNEY X-77	2.25 L	L	10.7 oz/a		0.25 % v/v	MAY 25 A			9.2 bc	12.3 a			
4	PLATEAU X-77	2 L	L	2 oz/a		0.25 % v/v	MAY 25 A			12.7 a	13.0 a			
5	PLATEAU X-77	2 L	L	3 oz/a		0.25 % v/v	MAY 25 A			9.3 bc	12.7 a			
6	PLATEAU X-77	2 L	L	4 oz/a		0.25 % v/v	MAY 25 A			8.5 c	14.0 a			
7	JOURNEY X-77	2.25 L	L	8 oz/a		0.25 % v/v	MAY 25 A			11.0 ab	13.0 a			
8	OUST X-77	75 WG	L	0.5 oz/a		0.25 % v/v	MAY 25 A			9.7 bc	13.0 a			
9	NONTREATED										13.0 a	15.7 a	14.0	28.5
LSD (P=.05)							2.04	3.43	.	.	.	.
Standard Deviation							1.18	1.98	.	.	.	.
CV							11.33	14.9	.	.	.	.
Grand Mean							10.39	13.3	.	14.0	.	28.5		
Bartlett's X2							6.182	4.116	.	.	.	.
P(Bartlett's X2)							0.627	0.847	.	.	.	.
Friedman's X2							16.356	7.6	.	.	.	.
P(Friedman's X2)							0.038	0.473	.	.	.	.
Replicate F							0.962	1.849	.	.	.	.
Replicate Prob(F)							0.4030	0.1895		
Treatment F							5.669	0.774		
Treatment Prob(F)							0.0016	0.6312		

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				PASNO	PASNO	PASNO	PASNO	PASNO
				BGRM	BGRM	BGRM	BGRM	BGRM
				Bahiagrass	Bahiagrass	Bahiagrass	Bahiagrass	Bahiagrass
				8-12-04	6-7-04	6-23-04	7-19-04	8-12-04
				SEEDHEAD HT	SEEDHEAD	SEEDHEAD	SEEDHEAD	SEEDHEAD
				IN	#/4.3FT2	#/4.3FT2	#/4.3FT2	#/4.3FT2
				79	13	29	55	79
				79 DA-A	13 DA-A	29 DA-A	55 DA-A	79 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate	Growth Unit	Appl Code
1	JOURNEY X-77	2.25 L	L	5.3 oz/a 0.25 % v/v			MAY 25 A MAY 25 A	
							27.0 a	0.0 a
							0.0 b	0.0 b
							0.0 b	0.0 b
							1.0 b	
2	JOURNEY X-77	2.25 L	L	8 oz/a 0.25 % v/v			MAY 25 A MAY 25 A	
							25.0 a	0.0 a
							0.0 b	0.0 b
							0.0 b	0.0 b
							0.3 b	
3	JOURNEY X-77	2.25 L	L	10.7 oz/a 0.25 % v/v			MAY 25 A MAY 25 A	
							0.0 a	0.0 b
							0.0 b	0.0 b
							0.0 b	0.0 b
							0.0 b	0.0 b
4	PLATEAU X-77	2 L	L	2 oz/a 0.25 % v/v			MAY 25 A MAY 25 A	
							0.0 a	0.0 b
							0.0 b	0.0 b
							0.0 b	0.0 b
							0.0 b	0.0 b
5	PLATEAU X-77	2 L	L	3 oz/a 0.25 % v/v			MAY 25 A MAY 25 A	
							32.0 a	0.0 a
							0.0 b	0.0 b
							0.0 b	0.0 b
							0.7 b	
6	PLATEAU X-77	2 L	L	4 oz/a 0.25 % v/v			MAY 25 A MAY 25 A	
							0.0 a	0.0 b
							0.0 b	0.0 b
							0.0 b	0.0 b
							0.0 b	0.0 b
7	JOURNEY X-77	2.25 L	L	8 oz/a			MAY 25 A	
							23.0 a	0.0 a
							0.0 b	0.0 b
							0.0 b	0.0 b
							0.3 b	
8	OUST X-77	75 WG	L	0.5 oz/a 0.25 % v/v			MAY 25 A MAY 25 A	
							0.0 a	0.0 b
							0.0 b	0.0 b
							0.0 b	0.0 b
							0.0 b	0.0 b
9	NONTREATED						27.3 a	0.0 a
							6.7 a	18.7 a
							9.3 a	
LSD (P=.05)				91.47	0.00	4.05	9.61	3.37
Standard Deviation				8.82	0.00	2.34	5.55	1.95
CV				32.82	0.0	316.07	267.64	150.12
Grand Mean				26.87	0.0	0.74	2.07	1.3
Bartlett's X2				1.868	0.0	0.0	0.0	15.281
P(Bartlett's X2)				0.172	.	.	.	0.004*
Friedman's X2				7.467	0.0	3.2	3.2	10.022
P(Friedman's X2)				0.113	1.00	0.921	0.921	0.263
Replicate F				0.083	0.000	1.000	1.000	1.594
Replicate Prob(F)				0.9259	1.0000	0.3897	0.3897	0.2337
Treatment F				0.434	0.000	2.703	3.769	7.293
Treatment Prob(F)				0.7962	1.0000	0.0431	0.0115	0.0004

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Trial Comments