

North Carolina State University

Dallisgrass Control in a Golf Course Rough

Trial ID: 04-GER03
Location: Hidden Valley GC

Study Dir.: Gerald Henry
Investigator: Fred Yelverton

GENERAL TRIAL INFORMATION

Study Director: Gerald Henry **Title:** Graduate Student
Affiliation: North Carolina State University
Postal Code: 27695
Investigator: Fred Yelverton **Title:** Professor
Affiliation: North Carolina State University
Postal Code: 27695

TRIAL LOCATION

City: Fuquay Varina **Trial Status:** Completed
State/Prov.: NC
Postal Code: 27526 **Initiation Date:** 6-18-04
Country: USA

Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	PASDI	Dallis grass	Paspalum dilatatum

Crop 1: CYNDA BERMUDAGRASS **Variety:** common

SITE AND DESIGN

Plot Width, Unit: 5 FT **Plot Length, Unit:** 10 FT **Reps:** 4
Study Design: RANDOMIZED COMPLETE BLOCK

APPLICATION DESCRIPTION

	A	B	C	D
Application Date:	6-18-04	6-24-04	7-1-04	7-8-04
Time of Day:	1:30 PM	12 NOON	1:45 PM	3:00 PM
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	JUNE 18	JUNE 24	JULY 1	JULY 8
Applic. Placement:	FOLIAR	FOLIAR	FOLIAR	FOLIAR
Air Temp., Unit:	92 F	91 F	87 F	90 F
% Relative Humidity:	80	82	70	80
Wind Velocity, Unit:	4 MPH	4 MPH	4 MPH	2 MPH
Dew Presence (Y/N):	N	N	N	N
Soil Moisture:	ADEQUATE	ADEQUATE	ADEQUATE	ADEQUATE
% Cloud Cover:	50	10	50	50

CROP STAGE AT EACH APPLICATION

	A	B	C	D
Crop 1 Code, Stage:	CYNDA	CYNDA	CYNDA	CYNDA
Stage Scale:	MOWED	MOWED	MOWED	MOWED
Height, Unit:	2 IN	2 IN	2 IN	2 IN

WEED STAGE AT EACH APPLICATION

	A	B	C	D
Weed 1 Code, Stage:	PASDI	PASDI	PASDI	PASDI

APPLICATION EQUIPMENT

	A	B	C	D
Appl. Equipment:	CO2 SPRAY	CO2 SPRAY	CO2 SPRAY	CO2 SPRAY
Operating Pressure:	25 PSI	25 PSI	25 PSI	25 PSI
Nozzle Type:	FLAT FAN	FLAT FAN	FLAT FAN	FLAT FAN
Nozzle Size:	VS8002XR	VS8002XR	VS8002XR	VS8002XR
Nozzle Spacing, Unit:	10 INCH	10 INCH	10 INCH	10 INCH
Nozzles/Row:	4	4	4	4
Boom Length, Unit:	40 INCH	40 INCH	40 INCH	40 INCH
Boom Height, Unit:	10 INCH	10 INCH	10 INCH	10 INCH
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH	3 MPH
Carrier:	WATER	WATER	WATER	WATER
Spray Volume, Unit:	32.5 GPA	32.5 GPA	32.5 GPA	32.5 GPA
Propellant:	COMP CO2	COMP CO2	COMP CO2	COMP CO2

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							PASNO	CYNDA	CYNDA	CYNDA	CYNDA	CYNDA	CYNDA	CYNDA													
							COVER	PHYTO	PHYTO	PHYTO	PHYTO	PHYTO	PHYTO	PHYTO													
							%	%	%	%	%	%	%	%													
							6-18-04	6-24-04	7-1-04	7-8-04	7-15-04	7-29-04	8-12-04	9-13-04													
							0 DA-A	6 DA-A	13 DA-A	20 DA-A	27 DA-A	41 DA-A	55 DA-A	87 DA-A													
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Product	Product Rate	Product Rate	Grow Unit	Grow Stg	Appl Code																
19	Revolver	0.19	L	1.25	fl oz/1000 ft2				JUNE 18	A		46.3	a	0.0	b	0.0	c	0.0	a	0.0	a	0.0	a	0.0	a		
	MSMA	6.6	L	0.5	fl oz/1000 ft2				JUNE 24	B																	
	X-77		L	0.25	% v/v				JUNE 24	B																	
20	MSMA	6.6	L	0.5	fl oz/1000 ft2				JUNE 18	A		57.5	a	1.3	b	1.3	c	0.0	a	0.0	a	0.0	a	0.0	a		
	X-77		L	0.25	% v/v				JUNE 18	A																	
	Revolver	0.19	L	1.25	fl oz/1000 ft2				JUNE 24	B																	
21	Sencor	75	DF	0.5	lb/a				JUNE 18	A		55.0	a	0.0	b	1.3	c	0.0	a	0.0	a	0.0	a	0.0	a		
	Revolver	0.19	L	1.25	fl oz/1000 ft2				JUNE 24	B																	
22	MSMA	6.6	L	0.5	fl oz/1000 ft2				JUNE 18	A		58.8	a	1.3	b	1.3	c	0.0	a	0.0	a	0.0	a	0.0	a		
	X-77		L	0.25	% v/v				JUNE 18	A																	
	MSMA	6.6	L	0.5	fl oz/1000 ft2				JUNE 24	B																	
	X-77		L	0.25	% v/v				JUNE 24	B																	
23	Nontreated							67.5	a	0.0	b	0.0	c	0.0	a	0.0	a	0.0	a	0.0	a	0.0	a	0.0	a	0.0	a
LSD (P=.05)							29.29	2.81	3.12	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Standard Deviation							20.71	1.98	2.21	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
CV							37.58	51.42	213.64	959.17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Grand Mean							55.11	3.86	1.03	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Bartlett's X2							11.345	3.652	6.72	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
P(Bartlett's X2)							0.969	0.989	0.752	
Friedman's X2							14.022	54.84	11.739	0.688	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
P(Friedman's X2)							0.901	0.001	0.963	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Replicate F							5.839	3.935	1.545	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Replicate Prob(F)							0.0013	0.0120	0.2112	0.3985	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Treatment F							0.718	8.071	2.178	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Treatment Prob(F)							0.8054	0.0001	0.0081	0.4768	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	

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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							PASDI	PASDI	PASDI	PASDI	PASDI	PASDI
							CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
							%	%	%	%	%	%
							6-24-04	7-1-04	7-8-04	7-15-04	7-29-04	8-12-04
							6 DA-A	13 DA-A	20 DA-A	27 DA-A	41 DA-A	55 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Product	Product Rate	Product Rate	Grow Unit	Grow Stg	Appl Code	
19	Revolver	0.19	L	1.25	fl oz/1000 ft2				JUNE 18	A		
	MSMA	6.6	L	0.5	fl oz/1000 ft2				JUNE 24	B		
	X-77		L	0.25	% v/v				JUNE 24	B		
20	MSMA	6.6	L	0.5	fl oz/1000 ft2				JUNE 18	A		
	X-77		L	0.25	% v/v				JUNE 18	A		
	Revolver	0.19	L	1.25	fl oz/1000 ft2				JUNE 24	B		
21	Sencor	75	DF	0.5	lb/a				JUNE 18	A		
	Revolver	0.19	L	1.25	fl oz/1000 ft2				JUNE 24	B		
22	MSMA	6.6	L	0.5	fl oz/1000 ft2				JUNE 18	A		
	X-77		L	0.25	% v/v				JUNE 18	A		
	MSMA	6.6	L	0.5	fl oz/1000 ft2				JUNE 24	B		
	X-77		L	0.25	% v/v				JUNE 24	B		
23	Nontreated						0.0	0.0	0.0	0.0	0.0	0.0
LSD (P=.05)							7.38	13.08	9.65	10.03	18.80	19.59
Standard Deviation							5.22	9.25	6.83	7.09	13.30	13.85
CV							12.03	17.3	10.88	10.77	25.3	26.86
Grand Mean							43.37	53.48	62.72	65.82	52.55	51.58
Bartlett's X2							7.807	29.132	23.667	15.756	28.298	43.716
P(Bartlett's X2)							0.989	0.064	0.257	0.47	0.058	0.002*
Friedman's X2							70.125	69.905	71.973	77.272	70.853	71.935
P(Friedman's X2)							0.001	0.001	0.001	0.001	0.001	0.001
Replicate F							0.652	0.788	1.159	2.571	2.190	0.900
Replicate Prob(F)							0.5844	0.5051	0.3323	0.0616	0.0975	0.4459
Treatment F							42.670	22.754	44.122	40.598	16.349	15.355
Treatment Prob(F)							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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Weed Code										PASDI
Crop Code										CONTROL
Rating Data Type										%
Rating Unit										9-13-04
Rating Date										87 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	
1	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 18 A		25.0 ghi
	X-77		L	0.25 % v/v				JUNE 18 A		
	Revolver	0.19	L	0.6 fl oz/1000 ft2				JUNE 24 B		
2	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 18 A		32.5 f-i
	X-77		L	0.25 % v/v				JUNE 18 A		
	Revolver	0.19	L	1.25 fl oz/1000 ft2				JUNE 24 B		
3	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 18 A		38.8 e-h
	X-77		L	0.25 % v/v				JUNE 18 A		
	Revolver	0.19	L	1.5 fl oz/1000 ft2				JUNE 24 B		
4	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 18 A		40.0 efg
	X-77		L	0.25 % v/v				JUNE 18 A		
	Revolver	0.19	L	2 fl oz/1000 ft2				JUNE 24 B		
5	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 18 A		35.0 e-i
	X-77		L	0.25 % v/v				JUNE 18 A		
	Revolver	0.19	L	0.6 fl oz/1000 ft2				JULY 1 C		
6	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 18 A		50.0 def
	X-77		L	0.25 % v/v				JUNE 18 A		
	Revolver	0.19	L	1.25 fl oz/1000 ft2				JULY 1 C		
7	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 18 A		52.5 de
	X-77		L	0.25 % v/v				JUNE 18 A		
	Revolver	0.19	L	1.5 fl oz/1000 ft2				JULY 1 C		
8	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 18 A		63.8 cd
	X-77		L	0.25 % v/v				JUNE 18 A		
	Revolver	0.19	L	2 fl oz/1000 ft2				JULY 1 C		
9	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 18 A		83.8 ab
	X-77		L	0.25 % v/v				JUNE 18 A		
	Revolver	0.19	L	0.6 fl oz/1000 ft2				JULY 1 C		
	MSMA	6.6	L	1 fl oz/1000 ft2				JULY 8 D		
	X-77		L	0.25 % v/v				JULY 8 D		
10	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 18 A		87.5 ab
	X-77		L	0.25 % v/v				JUNE 18 A		
	Revolver	0.19	L	1.25 fl oz/1000 ft2				JULY 1 C		
	MSMA	6.6	L	1 fl oz/1000 ft2				JULY 8 D		
	X-77		L	0.25 % v/v				JULY 8 D		
11	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 18 A		90.0 a
	X-77		L	0.25 % v/v				JUNE 18 A		
	Revolver	0.19	L	1.5 fl oz/1000 ft2				JULY 1 C		
	MSMA	6.6	L	1 fl oz/1000 ft2				JULY 8 D		
	X-77		L	0.25 % v/v				JULY 8 D		
12	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 18 A		91.3 a
	X-77		L	0.25 % v/v				JUNE 18 A		
	Revolver	0.19	L	2 fl oz/1000 ft2				JULY 1 C		
	MSMA	6.6	L	1 fl oz/1000 ft2				JULY 8 D		
	X-77		L	0.25 % v/v				JULY 8 D		
13	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 18 A		50.0 def
	X-77		L	0.25 % v/v				JUNE 18 A		
	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 24 B		
	X-77		L	0.25 % v/v				JUNE 24 B		
14	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 18 A		71.3 bc
	X-77		L	0.25 % v/v				JUNE 18 A		
	MSMA	6.6	L	1 fl oz/1000 ft2				JUNE 24 B		
	X-77		L	0.25 % v/v				JUNE 24 B		
	MSMA	6.6	L	1 fl oz/1000 ft2				JULY 1 C		
	X-77		L	0.25 % v/v				JULY 1 C		
15	Revolver	0.19	L	0.6 fl oz/1000 ft2				JUNE 18 A		17.5 ij
	Revolver	0.19	L	0.6 fl oz/1000 ft2				JUNE 24 B		
16	Revolver	0.19	L	1.25 fl oz/1000 ft2				JUNE 18 A		20.0 i
	Revolver	0.19	L	1.25 fl oz/1000 ft2				JUNE 24 B		
17	Revolver	0.19	L	1.5 fl oz/1000 ft2				JUNE 18 A		23.8 ghi
	Revolver	0.19	L	1.5 fl oz/1000 ft2				JUNE 24 B		
18	Revolver	0.19	L	2 fl oz/1000 ft2				JUNE 18 A		41.3 efg
	Revolver	0.19	L	2 fl oz/1000 ft2				JUNE 24 B		

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Crop Code							CONTROL	
Rating Data Type							%	
Rating Unit							9-13-04	
Rating Date							87 DA-A	
Trt-Eval Interval								
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Product Rate	Product Unit	Grow Stg	Appl Code
19	Revolver	0.19	L	1.25 fl oz/1000 ft2			JUNE 18 A	33.8 f-i
	MSMA	6.6	L	0.5 fl oz/1000 ft2			JUNE 24 B	
	X-77		L	0.25 % v/v			JUNE 24 B	
20	MSMA	6.6	L	0.5 fl oz/1000 ft2			JUNE 18 A	27.5 ghi
	X-77		L	0.25 % v/v			JUNE 18 A	
	Revolver	0.19	L	1.25 fl oz/1000 ft2			JUNE 24 B	
21	Sencor	75	DF	0.5 lb/a			JUNE 18 A	20.0 i
	Revolver	0.19	L	1.25 fl oz/1000 ft2			JUNE 24 B	
22	MSMA	6.6	L	0.5 fl oz/1000 ft2			JUNE 18 A	21.3 hi
	X-77		L	0.25 % v/v			JUNE 18 A	
	MSMA	6.6	L	0.5 fl oz/1000 ft2			JUNE 24 B	
	X-77		L	0.25 % v/v			JUNE 24 B	
23	Nontreated							0.0 j
LSD (P=.05)							17.54	
Standard Deviation							12.40	
CV							28.07	
Grand Mean							44.18	
Bartlett's X2							29.472	
P(Bartlett's X2)							0.059	
Friedman's X2							69.408	
P(Friedman's X2)							0.001	
Replicate F							0.421	
Replicate Prob(F)							0.7384	
Treatment F							17.519	
Treatment Prob(F)							0.0001	

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Trial Comments