

North Carolina State University

Enhancement of Outrider Efficacy on Johnsongrass with MON 59166

Trial ID: 02-D29

Study Dir.: Travis Gannon

Location: Alamance County

Investigator: Fred Yelverton

GENERAL TRIAL INFORMATION

Study Director: Travis Gannon

Title: Research Associate

Affiliation: North Carolina State University

Postal Code: 27695

Investigator: Fred Yelverton

Title: Professor

Affiliation: North Carolina State University

Postal Code: 27695

TRIAL LOCATION

City: Liberty

Trial Status: Completed

State/Prov.: NC

Postal Code: 27298

Initiation Date: 07-30-02

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.	SORHA	johnsongrass	Sorghum halapense

SITE AND DESIGN

Plot Width, Unit: 5

FT

Plot Length, Unit: 10

FT

Reps: 3

Study Design: RANDOMIZED COMPLETE BLOCK

APPLICATION DESCRIPTION

	A
Application Date:	07-30-02
Time of Day:	11-3 PM
Application Method:	SPRAY
Application Timing:	JULY 30
Applic. Placement:	FOLIAR
Air Temp., Unit:	92.8 F
% Relative Humidity:	47
Wind Velocity, Unit:	2.6 MPH
Dew Presence (Y/N):	N
Soil Temp., Unit:	95 F
Soil Moisture:	FAIR
% Cloud Cover:	15

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	SORHA 12-18"HT
Stage Scale:	BOOT
Density, Unit:	0-6 FT ²

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APPLICATION EQUIPMENT

	A
Appl. Equipment:	ATV
Operating Pressure:	45 PSI
Nozzle Type:	FLAT FAN
Nozzle Size:	VS8002XR
Nozzle Spacing, Unit:	20 INCH
Nozzles/Row:	2
Boom Length, Unit:	40 INCH
Boom Height, Unit:	18 INCH
Ground Speed, Unit:	3 MPH
Carrier:	WATER
Spray Volume, Unit:	32.5 GPA
Propellant:	COMP. CO2

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Weed Code								SORHA	SORHA	SORHA		
Rating Data Type								CONTROL	CONTROL	CONTROL		
Rating Unit								%	%	%		
Rating Date								08-06-02	08-12-02	08-22-02		
Trt-Eval Interval								7 DA-A	13 DA-A	23 DA-A		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code			
1	Outrider MON 0818	75 L	WDG	0.25 0.5	OZ/A % V/V			JUNE 15 A JUNE 15 A		10.0 fg	25.0 d	28.3 de
2	Outrider MON 0818 MON 59166	75 L L	WDG	0.25 0.5 0.05	OZ/A % V/V % V/V			JUNE 15 A JUNE 15 A JUNE 15 A		18.3 def	30.0 cd	55.0 a-d
3	Outrider MON 0818	75 L	WDG	0.5 0.5	OZ/A % V/V			JUNE 15 A JUNE 15 A		31.7 ab	56.7 ab	81.7 a
4	Outrider MON 0818 MON 59166	75 L L	WDG	0.5 0.5 0.05	OZ/A % V/V % V/V			JUNE 15 A JUNE 15 A JUNE 15 A		30.0 abc	50.0 ab	73.3 ab
5	Outrider MON 0818	75 L	WDG	0.75 0.5	OZ/A % V/V			JUNE 15 A JUNE 15 A		38.3 a	56.7 ab	81.7 a
6	Outrider MON 0818 MON 59166	75 L L	WDG	0.75 0.5 0.05	OZ/A % V/V % V/V			JUNE 15 A JUNE 15 A JUNE 15 A		35.0 a	45.0 bc	65.0 ab
7	Outrider MON 0818	75 L	WDG	1 0.5	OZ/A % V/V			JUNE 15 A JUNE 15 A		33.3 ab	50.0 ab	43.3 bcd
8	Outrider MON 0818 MON 59166	75 L L	WDG	1 0.5 0.05	OZ/A % V/V % V/V			JUNE 15 A JUNE 15 A JUNE 15 A		28.3 a-d	66.7 a	66.7 ab
9	Outrider MON 0818 Garlon 3A	75 L 3 L	WDG	1 0.5 32	OZ/A % V/V OZ/A			JUNE 15 A JUNE 15 A JUNE 15 A		10.0 fg	18.3 d	26.7 de
10	Outrider MON 0818 Garlon 3A MON 59166	75 L 3 L L	WDG	1 0.5 32 0.05	OZ/A % V/V OZ/A % V/V			JUNE 15 A JUNE 15 A JUNE 15 A JUNE 15 A		13.3 ef	18.3 d	33.3 cd
11	Outrider MON 0818 Vista	75 L L	WDG	0.75 0.5 16	OZ/A % V/V OZ/A			JUNE 15 A JUNE 15 A JUNE 15 A		28.3 a-d	56.7 ab	70.0 ab
12	Outrider MON 0818 Vista MON 59166	75 L L L	WDG	0.75 0.5 16 0.05	OZ/A % V/V OZ/A % V/V			JUNE 15 A JUNE 15 A JUNE 15 A JUNE 15 A		23.3 b-e	48.3 b	61.7 abc

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Weed Code								SORHA	SOLCA	SOLCA		
Rating Data Type								CONTROL	CONTROL	CONTROL		
Rating Unit								%	%	%		
Rating Date								09-02-02	08-06-02	08-12-02		
Trt-Eval Interval								34 DA-A	7 DA-A	13 DA-A		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code			
1	Outrider MON 0818	75 L	WDG	0.25 0.5	OZ/A % V/V			JUNE 15 A JUNE 15 A		76.7 b	0.0 a	0.0 a
2	Outrider MON 0818 MON 59166	75 L L	WDG	0.25 0.5 0.05	OZ/A % V/V % V/V			JUNE 15 A JUNE 15 A JUNE 15 A		78.3 ab	0.0 a	0.0 a
3	Outrider MON 0818	75 L	WDG	0.5 0.5	OZ/A % V/V			JUNE 15 A JUNE 15 A		93.3 ab	0.0 a	0.0 a
4	Outrider MON 0818 MON 59166	75 L L	WDG	0.5 0.5 0.05	OZ/A % V/V % V/V			JUNE 15 A JUNE 15 A JUNE 15 A		90.0 ab	0.0 a	0.0 a
5	Outrider MON 0818	75 L	WDG	0.75 0.5	OZ/A % V/V			JUNE 15 A JUNE 15 A		94.3 a	0.0 a	0.0 a
6	Outrider MON 0818 MON 59166	75 L L	WDG	0.75 0.5 0.05	OZ/A % V/V % V/V			JUNE 15 A JUNE 15 A JUNE 15 A		90.0 ab	0.0 a	0.0 a
7	Outrider MON 0818	75 L	WDG	1 0.5	OZ/A % V/V			JUNE 15 A JUNE 15 A		90.0 ab	0.0 a	0.0 a
8	Outrider MON 0818 MON 59166	75 L L	WDG	1 0.5 0.05	OZ/A % V/V % V/V			JUNE 15 A JUNE 15 A JUNE 15 A		93.3 ab	0.0 a	0.0 a
9	Outrider MON 0818 Garlon 3A	75 L 3 L	WDG	1 0.5 32	OZ/A % V/V OZ/A			JUNE 15 A JUNE 15 A JUNE 15 A		35.0 cd	0.0 a	0.0 a
10	Outrider MON 0818 Garlon 3A MON 59166	75 L 3 L L	WDG	1 0.5 32 0.05	OZ/A % V/V OZ/A % V/V			JUNE 15 A JUNE 15 A JUNE 15 A JUNE 15 A		45.0 cd	0.0 a	0.0 a
11	Outrider MON 0818 Vista	75 L L	WDG	0.75 0.5 16	OZ/A % V/V OZ/A			JUNE 15 A JUNE 15 A JUNE 15 A		94.7 a	0.0 a	0.0 a
12	Outrider MON 0818 Vista MON 59166	75 L L L	WDG	0.75 0.5 16 0.05	OZ/A % V/V OZ/A % V/V			JUNE 15 A JUNE 15 A JUNE 15 A JUNE 15 A		93.3 ab	0.0 a	0.0 a

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								SORHA	SOLCA	SOLCA		
								CONTROL	CONTROL	CONTROL		
								%	%	%		
								09-02-02	08-06-02	08-12-02		
								34 DA-A	7 DA-A	13 DA-A		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Form Unit	Product Rate	Product Unit	Grow Stg	Appl Code			
13	Fusilade II X-77	2 L	L	18 OZ/A		0.25 % V/V		JUNE 15 A JUNE 15 A		50.0 c	0.0 a	0.0 a
14	Acclaim Extra	0.57 SL		20 OZ/A				JUNE 15 A		31.7 d	0.0 a	0.0 a
15	Nontreated									0.0 e	0.0 a	0.0 a
LSD (P=.05)								17.49	0.00	0.00		
Standard Deviation								10.46	0.00	0.00		
CV								14.86	0.0	0.0		
Bartlett's X2								23.091	0.0	0.0		
P(Bartlett's X2)								0.027*	0.00*	0.00*		
Replicate F								0.493	0.000	0.000		
Replicate Prob(F)								0.6163	1.0000	1.0000		
Treatment F								25.001	0.000	0.000		
Treatment Prob(F)								0.0001	1.0000	1.0000		

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

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Rating Data Type								CONTROL	CONTROL		
Rating Unit								%	%		
Rating Date								08-22-02	09-02-02		
Trt-Eval Interval								23 DA-A	34 DA-A		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Product Rate	Product Unit	Grow Stg	Appl Code		
1	Outrider MON 0818	75 L	WDG	0.25 0.5	OZ/A % V/V			JUNE 15 A JUNE 15 A		0.0 a	0.0 a
2	Outrider MON 0818 MON 59166	75 L L	WDG	0.25 0.5 0.05	OZ/A % V/V % V/V			JUNE 15 A JUNE 15 A JUNE 15 A		0.0 a	0.0 a
3	Outrider MON 0818	75 L	WDG	0.5 0.5	OZ/A % V/V			JUNE 15 A JUNE 15 A		0.0 a	0.0 a
4	Outrider MON 0818 MON 59166	75 L L	WDG	0.5 0.5 0.05	OZ/A % V/V % V/V			JUNE 15 A JUNE 15 A JUNE 15 A		0.0 a	0.0 a
5	Outrider MON 0818	75 L	WDG	0.75 0.5	OZ/A % V/V			JUNE 15 A JUNE 15 A		0.0 a	0.0 a
6	Outrider MON 0818 MON 59166	75 L L	WDG	0.75 0.5 0.05	OZ/A % V/V % V/V			JUNE 15 A JUNE 15 A JUNE 15 A		0.0 a	0.0 a
7	Outrider MON 0818	75 L	WDG	1 0.5	OZ/A % V/V			JUNE 15 A JUNE 15 A		0.0 a	0.0 a
8	Outrider MON 0818 MON 59166	75 L L	WDG	1 0.5 0.05	OZ/A % V/V % V/V			JUNE 15 A JUNE 15 A JUNE 15 A		0.0 a	0.0 a
9	Outrider MON 0818 Garlon 3A	75 L 3 L	WDG	1 0.5 32	OZ/A % V/V OZ/A			JUNE 15 A JUNE 15 A JUNE 15 A		0.0 a	0.0 a
10	Outrider MON 0818 Garlon 3A MON 59166	75 L 3 L L	WDG	1 0.5 32 0.05	OZ/A % V/V OZ/A % V/V			JUNE 15 A JUNE 15 A JUNE 15 A JUNE 15 A		0.0 a	0.0 a
11	Outrider MON 0818 Vista	75 L L	WDG	0.75 0.5 16	OZ/A % V/V OZ/A			JUNE 15 A JUNE 15 A JUNE 15 A		0.0 a	0.0 a
12	Outrider MON 0818 Vista MON 59166	75 L L L	WDG	0.75 0.5 16 0.05	OZ/A % V/V OZ/A % V/V			JUNE 15 A JUNE 15 A JUNE 15 A JUNE 15 A		0.0 a	0.0 a

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Trial Comments

7-16-02 - Johnsongrass was mowed to a height of 8 inches with a rotary mower.

9-2-02 - Final ratings were recorded, site to be plowed, johnsongrass continues to be under drought stress.