

# North Carolina State University

## Postemergence Control of Smooth Crabgrass with Flazasulfuron

Trial ID: 02-T19                      Study Dir.: Jason Hinton  
Location: Fairfield Harbour      Investigator: Fred Yelverton

### GENERAL TRIAL INFORMATION

**Study Director:** Jason Hinton                      **Title:** Research Technician  
**Affiliation:** North Carolina State University  
**Postal Code:** 27695  
**Investigator:** Fred Yelverton                      **Title:** Professor  
**Affiliation:** North Carolina State University  
**Postal Code:** 27695

### TRIAL LOCATION

**City:** New Bern                      **Trial Status:** Complete  
**State/Prov.:** NC  
**Postal Code:** 28560                      **Initiation Date:** 06-21-02  
**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.	DIGIS	Smooth Crabgrass	Diqitaria ischaemum

**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>Application Date:</b>	06-21-02
<b>Time of Day:</b>	3:00 PM
<b>Application Method:</b>	Spray
<b>Application Timing:</b>	E. Post
<b>Applic. Placement:</b>	Foliar
<b>Air Temp., Unit:</b>	83.1 F
<b>% Relative Humidity:</b>	59
<b>Wind Velocity, Unit:</b>	2.2 MPH
<b>Dew Presence (Y/N):</b>	N
<b>Water Hardness:</b>	N/A
<b>Soil Temp., Unit:</b>	84 F
<b>Soil Moisture:</b>	Good
<b>% Cloud Cover:</b>	50

### CROP STAGE AT EACH APPLICATION

	A
<b>Crop 1 Code, Stage:</b>	CYNDA Mowed
<b>Height, Unit:</b>	1.5 Inch

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### WEED STAGE AT EACH APPLICATION

	<b>A</b>
<b>Weed 1 Code, Stage:</b>	DIGIS 0-2 Till.
<b>Stage Scale:</b>	2-6 Leaf
<b>Density, Unit:</b>	50 Ft <sup>2</sup>

### APPLICATION EQUIPMENT

	<b>A</b>
<b>Appl. Equipment:</b>	CO2 Spray
<b>Operating Pressure:</b>	36 PSI
<b>Nozzle Type:</b>	Flat Fan
<b>Nozzle Size:</b>	8002 XR
<b>Nozzle Spacing, Unit:</b>	10 Inch
<b>Boom Height, Unit:</b>	10 Inch
<b>Ground Speed, Unit:</b>	3 MPH
<b>Carrier:</b>	Water
<b>Spray Volume, Unit:</b>	32.5 GPA
<b>Propellant:</b>	Compr.CO2

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								DIGIS	DIGIS	DIGIS	
								CONTROL	CONTROL	CONTROL	
								%	%	%	
								06-28-02	07-09-02	07-18-02	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code			
1	Flazasulfuron X-77	25 L	DG	0.75 OZ/A 0.25 % V/V			E. Post A E. Post A		3.8 e	0.0 e	0.0 d
2	Flazasulfuron X-77	25 L	DG	1.5 OZ/A 0.25 % V/V			E. Post A E. Post A		0.0 e	0.0 e	0.0 d
3	Flazasulfuron X-77	25 L	DG	2.25 OZ/A 0.25 % V/V			E. Post A E. Post A		3.8 e	0.0 e	0.0 d
4	Flazasulfuron X-77	25 L	DG	3.0 OZ/A 0.25 % V/V			E. Post A E. Post A		2.5 e	0.0 e	0.0 d
5	Flazasulfuron MSMA X-77	25 L	DG	3.0 OZ/A 0.25 % V/V			E. Post A E. Post A E. Post A		5.0 de	18.8 d	6.3 d
6	Flazasulfuron MSMA X-77	25 L	DG	3.0 OZ/A 0.25 % V/V			E. Post A E. Post A E. Post A		12.5 d	55.0 c	48.8 c
7	Flazasulfuron MSMA X-77	25 L	DG	3.0 OZ/A 0.25 % V/V			E. Post A E. Post A E. Post A		26.3 c	67.5 b	68.8 b
8	Flazasulfuron MSMA X-77	25 L	DG	3.0 OZ/A 0.25 % V/V			E. Post A E. Post A E. Post A		38.8 b	78.8 a	80.0 ab
9	MSMA X-77	6 L	SC	2.0 LB A/A 0.25 % V/V			E. Post A E. Post A		38.8 b	81.3 a	83.8 a
10	Drive MSO	75 L	DG	0.75 LB A/A 1.0 % V/V			E. Post A E. Post A		83.8 a	82.5 a	78.8 ab
11	Nontreated								0.0 e	0.0 e	0.0 d
LSD (P=.05)								7.54	9.80	12.12	
Standard Deviation								5.22	6.79	8.40	
CV								26.7	19.45	25.22	
Bartlett's X2								10.734	6.99	9.342	
P(Bartlett's X2)								0.217	0.221	0.096	
Replicate F								1.168	0.539	0.610	
Replicate Prob(F)								0.3382	0.6595	0.6138	
Treatment F								98.691	122.921	82.638	
Treatment Prob(F)								0.0001	0.0001	0.0001	

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

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								DIGIS	DIGIS	DIGIS	
								CONTROL	CONTROL	CONTROL	
								%	%	%	
								08-01-02	08-21-02	09-12-02	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code			
1	Flazasulfuron X-77	25 L	DG	0.75 OZ/A 0.25 % V/V			E. Post A E. Post A		0.0 c	23.8 cde	12.5 b
2	Flazasulfuron X-77	25 L	DG	1.5 OZ/A 0.25 % V/V			E. Post A E. Post A		0.0 c	25.0 cde	0.0 b
3	Flazasulfuron X-77	25 L	DG	2.25 OZ/A 0.25 % V/V			E. Post A E. Post A		0.0 c	18.8 cde	6.3 b
4	Flazasulfuron X-77	25 L	DG	3.0 OZ/A 0.25 % V/V			E. Post A E. Post A		0.0 c	12.5 de	12.5 b
5	Flazasulfuron MSMA X-77	25 L	DG	3.0 OZ/A 0.25 % V/V			E. Post A E. Post A E. Post A		10.0 c	35.0 cd	12.5 b
6	Flazasulfuron MSMA X-77	25 L	DG	3.0 OZ/A 0.25 % V/V			E. Post A E. Post A E. Post A		41.3 b	47.5 bc	12.5 b
7	Flazasulfuron MSMA X-77	25 L	DG	3.0 OZ/A 0.25 % V/V			E. Post A E. Post A E. Post A		66.3 a	77.5 ab	57.5 a
8	Flazasulfuron MSMA X-77	25 L	DG	3.0 OZ/A 0.25 % V/V			E. Post A E. Post A E. Post A		75.0 a	83.8 a	68.8 a
9	MSMA X-77	6 L	SC	2.0 LB A/A 0.25 % V/V			E. Post A E. Post A		75.0 a	86.3 a	63.8 a
10	Drive MSO	75 L	DG	0.75 LB A/A 1.0 % V/V			E. Post A E. Post A		68.8 a	82.5 a	71.3 a
11	Nontreated								0.0 c	0.0 e	0.0 b
LSD (P=.05)								14.23	30.62	25.87	
Standard Deviation								9.86	21.21	17.92	
CV								32.24	47.37	62.07	
Bartlett's X2								9.888	22.491	10.582	
P(Bartlett's X2)								0.078	0.007*	0.227	
Replicate F								0.489	2.282	1.475	
Replicate Prob(F)								0.6922	0.0994	0.2412	
Treatment F								48.964	9.241	10.808	
Treatment Prob(F)								0.0001	0.0001	0.0001	

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

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Trial Comments