



# North Carolina State University

## POSTEMERGENCE PURPLE NUTSEDGE CONTROL WITH SULFONYL UREA HERBICIDES

Trial ID: 02-P5

Study Dir.: LEON WARREN

Location: ONSLOW COUNTY

Investigator: Crop Science Department

**Overall Moisture Conditions:** APR 2.39"; MAY 3.06"; JUN 3.69"

**Closest Weather Station:** HOFMANN FOREST

**Distance:** 5

**Unit:** MI

### APPLICATION DESCRIPTION

	A
Application Date:	05-31-02
Time of Day:	11:15 AM
Application Method:	SPRAY
Application Timing:	POST
Applic. Placement:	BROFOL
Air Temp., Unit:	82 F
% Relative Humidity:	77
Wind Velocity, Unit:	1.8 MPH
Dew Presence (Y/N):	N
Soil Temp., Unit:	78 F
Soil Moisture:	MOIST
% Cloud Cover:	75

### CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	CYNDA CLIPPED
Stage Scale:	NONE
Height, Unit:	2 IN

### WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	CYPRO 5-8 LEAF
Stage Scale:	3-4 INCH
Density, Unit:	1-10 FT2

### APPLICATION EQUIPMENT

	A
Appl. Equipment:	BACSPR
Operating Pressure:	42
Nozzle Type:	FLAT FAN
Nozzle Size:	XR11002VS
Nozzle Spacing, Unit:	18 IN
Boom Length, Unit:	72 IN
Boom Height, Unit:	16 IN
Ground Speed, Unit:	3 MPH
Carrier:	WATER
Spray Volume, Unit:	20 GPA
Propellant:	COMCO2
Tank Mix (Y/N):	Y

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Weed Code								CYND A	CYND A		
Crop Code								C-PHYTO	C-COVERAGE		
Rating Data Type								PERCENT	PERCENT		
Rating Unit								06-13-02	07-01-02		
Rating Date								13 DA-A	31 DA-A		
Trt-Eval Interval								P	P		
ARM Action Codes											
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code		
1	HALOSULFURON X-77 SPREADER	75	WG L	1.33 0.25	OZ/A % V/V			MAY 31 MAY 31	A A	0.0 a	2.3 b
2	RIMSULFURON X-77 SPREADER	25	DF L	2.0 0.25	OZ/A % V/V			MAY 31 MAY 31	A A	0.0 a	1.5 b
3	SULFOSULFURON X-77 SPREADER	75	WG L	0.12 0.25	LB A/A % V/V			MAY 31 MAY 31	A A	0.0 a	11.3 a
4	TRIFLOXYSULFURON X-77 SPREADER	75	WG L	12.5 0.25	G A/A % V/V			MAY 31 MAY 31	A A	0.0 a	2.8 b
5	FLAZASULFURON X-77 SPREADER	25	WG L	2.86 0.25	OZ/A % V/V			MAY 31 MAY 31	A A	0.0 a	8.3 ab
6	FORAMSULFURON X-77 SPREADER	0.19	L L	48.5 0.25	G A/A % V/V			MAY 31 MAY 31	A A	0.0 a	3.8 ab
7	CHECK									0.0 a	2.3 b
LSD (P=.05)								0.00	8.18		
Standard Deviation								0.00	5.50		
CV								0.0	120.39		
Bartlett's X2								0.0	27.203		
P(Bartlett's X2)								0.00*	0.001*		
Replicate F								0.000	0.509		
Replicate Prob(F)								1.0000	0.6808		
Treatment F								0.000	1.812		
Treatment Prob(F)								1.0000	0.1532		

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

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Weed Code								CYNDA	CYNDA		
Crop Code								C-coverage	C-coverage		
Rating Data Type								PERCENT	PERCENT		
Rating Unit								07-17-02	08-22-02		
Rating Date								47 DA-A	83 DA-A		
Trt-Eval Interval								P	P		
ARM Action Codes											
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code		
1	HALOSULFURON X-77 SPREADER	75	WG	1.33	OZ/A			MAY 31	A	2.0 b	3.8 b
			L	0.25	% V/V			MAY 31	A		
2	RIMSULFURON X-77 SPREADER	25	DF	2.0	OZ/A			MAY 31	A	1.0 b	1.3 b
			L	0.25	% V/V			MAY 31	A		
3	SULFOSULFURON X-77 SPREADER	75	WG	0.12	LB A/A			MAY 31	A	11.3 a	9.3 a
			L	0.25	% V/V			MAY 31	A		
4	TRIFLOXYSULFURON X-77 SPREADER	75	WG	12.5	G A/A			MAY 31	A	4.0 b	3.3 b
			L	0.25	% V/V			MAY 31	A		
5	FLAZASULFURON X-77 SPREADER	25	WG	2.86	OZ/A			MAY 31	A	8.0 ab	4.5 b
			L	0.25	% V/V			MAY 31	A		
6	FORAMSULFURON X-77 SPREADER	0.19	L	48.5	G A/A			MAY 31	A	2.0 b	2.0 b
			L	0.25	% V/V			MAY 31	A		
7	CHECK									2.0 b	1.3 b
LSD (P=.05)								7.20	4.13		
Standard Deviation								4.85	2.78		
CV								112.13	77.1		
Bartlett's X2								17.948	20.449		
P(Bartlett's X2)								0.003*	0.002*		
Replicate F								1.279	1.273		
Replicate Prob(F)								0.3116	0.3136		
Treatment F								2.522	4.007		
Treatment Prob(F)								0.0597	0.0101		

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								CYPRO	CYPRO		
								P-INJURY PERCENT	P-CONTROL PERCENT		
								06-13-02	07-01-02		
								13 DA-A	31 DA-A		
								P	P		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code		
1	HALOSULFURON X-77 SPREADER	75	WG	1.33	OZ/A			MAY 31 A		32.5 b	94.0 a
			L	0.25	% V/V			MAY 31 A			
2	RIMSULFURON X-77 SPREADER	25	DF	2.0	OZ/A			MAY 31 A		18.3 c	20.0 c
			L	0.25	% V/V			MAY 31 A			
3	SULFOSULFURON X-77 SPREADER	75	WG	0.12	LB A/A			MAY 31 A		32.5 b	97.5 a
			L	0.25	% V/V			MAY 31 A			
4	TRIFLOXYSULFURON X-77 SPREADER	75	WG	12.5	G A/A			MAY 31 A		40.0 ab	96.5 a
			L	0.25	% V/V			MAY 31 A			
5	FLAZASULFURON X-77 SPREADER	25	WG	2.86	OZ/A			MAY 31 A		45.0 a	73.3 b
			L	0.25	% V/V			MAY 31 A			
6	FORAMSULFURON X-77 SPREADER	0.19	L	48.5	G A/A			MAY 31 A		12.5 c	26.3 c
			L	0.25	% V/V			MAY 31 A			
7	CHECK									0.0 d	0.0 d
LSD (P=.05)								11.47	8.34		
Standard Deviation								7.69	5.56		
CV								29.76	9.55		
Bartlett's X2								4.729	11.701		
P(Bartlett's X2)								0.45	0.039*		
Replicate F								1.900	1.324		
Replicate Prob(F)								0.1679	0.3014		
Treatment F								17.577	224.038		
Treatment Prob(F)								0.0001	0.0001		

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								CYPRO	CYPRO		
								P-CONTROL PERCENT	P-CONTROL PERCENT		
								07-17-02	08-22-02		
								47 DA-A	83 DA-A		
								P	P		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code		
1	HALOSULFURON X-77 SPREADER	75	WG	1.33	OZ/A			MAY 31	A	68.8 bc	43.8 b
			L	0.25	% V/V			MAY 31	A		
2	RIMSULFURON X-77 SPREADER	25	DF	2.0	OZ/A			MAY 31	A	16.7 d	3.3 c
			L	0.25	% V/V			MAY 31	A		
3	SULFOSULFURON X-77 SPREADER	75	WG	0.12	LB A/A			MAY 31	A	97.5 a	97.0 a
			L	0.25	% V/V			MAY 31	A		
4	TRIFLOXYSULFURON X-77 SPREADER	75	WG	12.5	G A/A			MAY 31	A	93.8 ab	91.3 a
			L	0.25	% V/V			MAY 31	A		
5	FLAZASULFURON X-77 SPREADER	25	WG	2.86	OZ/A			MAY 31	A	60.0 c	40.0 b
			L	0.25	% V/V			MAY 31	A		
6	FORAMSULFURON X-77 SPREADER	0.19	L	48.5	G A/A			MAY 31	A	8.8 d	8.8 c
			L	0.25	% V/V			MAY 31	A		
7	CHECK									0.0 d	0.0 c
LSD (P=.05)								28.36	29.60		
Standard Deviation								18.92	19.74		
CV								38.34	48.65		
Bartlett's X2								22.916	25.772		
P(Bartlett's X2)								0.001*	0.001*		
Replicate F								0.470	0.343		
Replicate Prob(F)								0.7074	0.7946		
Treatment F								18.497	16.772		
Treatment Prob(F)								0.0001	0.0001		

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### Trial Comments

05-31-02: TREATMENTS APPLIED AT 11:15 AM; 0.5 INCH OF RAIN OCCURRED AT NIGHT

06-06-02: CYNDA STAND EXTREMELY SPARSE THROUGHOUT TEST AREA DUE TO CYPRO AND LOLMU DENSITY  
- CYPRO INJURY SYMPTOMS MOST NOTICEABLE IN FLAZASULFURON TREATED PLOTS (YELLOWISH-GREEN LEAVES WITH SCATTERED BROWN LESIONS ON SOME PLANTS); INJURY SYMPTOMS ALSO OBSERVED IN HALOSULFURON AND TRIFLOXYSULFURON TREATED PLOTS

06-13-02: TEST AREA DRY AND STRESSED

07-01-02: CYNDA ACTIVELY GROWING BUT STILL NOT CLIPPED

07-17-02: CYNDA COVERAGE HARD TO DETERMINE DUE TO HEAVY ELEIN INFESTATION IN PLATEAU TREATED PLOTS