

MSU Weed Science Research Program

Evaluation of Postemergence Applications of ET on Soybean

Trial ID: NTS03-07
 Conducted: C-13W Campus

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Date Planted: 5/14/07 **Row Spacing:** 7.5 IN
Variety: Asgrow 2107 **No. of Reps:** 4
Population: 205,000 seeds/acre **% OM:** 2.9
Soil Type: Sandy Clay loam **pH:** 7.1
Plot Size: 10 X 30 FT **Design:** RANDOMIZED COMPLETE BLOCK

Tillage: No-Till into Corn Stubble
Fertilizer: None at planting

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	MELAL	COCKLE, WHITE	MELANDRIUM ALBUM (MILL.) GARCKE
2.	TAROF	DANDELION, COMMON	TARAXACUM OFFICINALE WEBER IN WIGGERS
3.	ERIST	FLEABANE, ROUGH	ERIGERON STRIGOSUS MUHL.
4.	ANGR	mainly foxtail species	SETARIA SP.
5.	CHEAL	COMMON LAMBSQUARTERS	CHENOPODIUM ALBUM L.
6.	STEME	CHICKWEED, COMMON	STELLARIA MEDIA (L.) VILL./CYR.
7.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIIFOLIA L.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

	A	B	C
Application Timing:	7d EPP	EPOST	MPOST
Date Treated:	5/7/07	6/9/07	6/14/07
Time Treated:	11:30 am	12:15 pm	4:30 pm
% Cloud Cover:	30	0	30
Air Temp., Unit:	68 F	72 F	90 F
% Relative Humidity:	33	35	22
Wind Speed/Unit/Dir:	7 mph SE	3 mph E	3 mph N
Soil Temp., Unit:	60 F	71 F	87 F
Soil/Leaf Surface M:	5 5	5 5	5 5
Soil Moist (1=w 5=d):	5	5	5

Crop Stage at Each Application

	A	B	C
Crop Name:	GLXMA	GLXMA	GLXMA
Height (In.):	-	3-5"	6-7"
Stage (L):	-	V1	V2

MSU Weed Science Research Program

Evaluation of Postemergence Applications of ET on Soybean

Trial ID: NTS03-07
 Conducted: C-13W Campus

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	MELAL	MELAL	MELAL
Height (In.):	8-12"	-	-
Stage (L):	many	-	-
Weed 2 Name:	TAROF	TAROF	TAROF
Height (In.):	10-18"dia	-	-
Stage (L):	many	-	-
Weed 3 Name:	ERIST	ERIST	ERIST
Height (In.):	6-10"	-	-
Stage (L):	many	-	-
Weed 4 Name:	ANGR	ANGR	ANGR
Height (In.):	4-6"	1/2-3"	2-5"
Stage (L):	2-4	3-4	3-5
Weed 5 Name:	CHEAL	CHEAL	CHEAL
Height (In.):	1/4-1"	1-3"	1-4"
Stage (L):	coty-4	4-8	4-many
Weed 6 Name:	STEME	STEME	STEME
Height (In.):	3-6"	-	-
Stage (L):	flower	-	-
Weed 7 Name:	AMBEL	AMBEL	AMBEL
Height (In.):	-	1-2.5"	1-3"
Stage (L):	-	4-6	6-10

Weed Density (plants/sq. ft.)

	1	2	3
Date:	7/10/07	7/10/07	7/10/07
Weed Name:	ANGR	AMBEL	CHEAL
Density:	9	<1	<1

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Boom				
	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI
A	Cub	3.9	AirMix	11003	24"	20"	120"	19	Water	27
B	Cub	3.9	AirMix	11003	27"	20"	100"	19	Water	27
C	Cub	3.9	AirMix	11003	28"	20"	100"	19	Water	27

MSU Weed Science Research Program

Evaluation of Postemergence Applications of ET on Soybean

Trial ID: NTS03-07
 Conducted: C-13W Campus

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Weed Code	ANGR	CHEAL	AMBEL	ANGR	CHEAL
Crop Code	GLXMA			GLXMA	
Rating Data Type	injury	control	control	injury	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	6/12/07	6/12/07	6/12/07	6/18/07	6/18/07
Trt-Eval Interval	36 DA-A	36 DA-A	36 DA-A	42 DA-A	42 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6	7
1	Roundup WeatherMax	4.5	SL	22	fl oz/a	7 EPP	A	0	66	56	48	0	94	98
1	2,4-D Ester	4	L	1	pt/a	7 EPP	A							
1	AMS		WG	17	lb/100 gal	7 EPP	A							
1	Roundup WeatherMax	4.5	SL	22	fl oz/a	EPOS1	B							
1	AMS		WG	17	lb/100 gal	EPOS1	B							
2	Roundup WeatherMax	4.5	SL	22	fl oz/a	7 EPP	A	29	73	75	78	15	95	98
2	2,4-D Ester	4	L	1	pt/a	7 EPP	A							
2	AMS		WG	17	lb/100 gal	7 EPP	A							
2	Roundup WeatherMax	4.5	SL	22	fl oz/a	EPOS1	B							
2	ET	0.21	L	0.75	fl oz/a	EPOS1	B							
2	AMS		WG	17	lb/100 gal	EPOS1	B							
3	Roundup WeatherMax	4.5	SL	22	fl oz/a	7 EPP	A	49	84	89	94	26	97	97
3	2,4-D Ester	4	L	1	pt/a	7 EPP	A							
3	AMS		WG	17	lb/100 gal	7 EPP	A							
3	Roundup WeatherMax	4.5	SL	22	fl oz/a	EPOS1	B							
3	ET	0.21	L	0.75	fl oz/a	EPOS1	B							
3	AMS		WG	17	lb/100 gal	EPOS1	B							
3	Roundup WeatherMax	4.5	SL	22	fl oz/a	EPOS2	C							
3	ET	0.21	L	0.75	fl oz/a	EPOS2	C							
3	AMS		WG	17	lb/100 gal	EPOS2	C							
4	Roundup WeatherMax	4.5	SL	22	fl oz/a	7 EPP	A	0	0	0	0	0	0	0
4	2,4-D Ester	4	L	1	pt/a	7 EPP	A							
4	AMS		WG	17	lb/100 gal	7 EPP	A							
4	Untreated													
5	Roundup WeatherMax	4.5	SL	22	fl oz/a	7 EPP	A					0	94	92
5	2,4-D Ester	4	L	1	pt/a	7 EPP	A							
5	AMS		WG	17	lb/100 gal	7 EPP	A							
5	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS1	D							
5	AMS		WG	17	lb/100 gal	MPOS1	D							
6	Roundup WeatherMax	4.5	SL	22	fl oz/a	7 EPP	A					40	97	91
6	2,4-D Ester	4	L	1	pt/a	7 EPP	A							
6	AMS		WG	17	lb/100 gal	7 EPP	A							
6	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS1	D							
6	ET	0.21	L	0.75	fl oz/a	MPOS1	D							
6	AMS		WG	17	lb/100 gal	MPOS1	D							
7	Roundup WeatherMax	4.5	SL	22	fl oz/a	7 EPP	A					63	98	99
7	2,4-D Ester	4	L	1	pt/a	7 EPP	A							
7	AMS		WG	17	lb/100 gal	7 EPP	A							
7	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS1	D							
7	ET	0.21	L	0.75	fl oz/a	MPOS1	D							
7	AMS		WG	17	lb/100 gal	MPOS1	D							
7	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS2	E							
7	ET	0.21	L	0.75	fl oz/a	MPOS2	E							
7	AMS		WG	17	lb/100 gal	MPOS2	E							

LSD (P=.05)	2.3	5.5	11.6	5.0	2.8	3.2	5.7
Standard Deviation	1.4	3.4	7.3	3.1	1.9	2.2	3.9
CV	7.45	6.16	13.21	5.75	9.07	2.65	4.71

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.

MSU Weed Science Research Program

Evaluation of Postemergence Applications of ET on Soybean

Trial ID: NTS03-07
 Conducted: C-13W Campus

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Weed Code								ANGR	AMBEL	CHEAL	
Crop Code								GLXMA			
Rating Data Type								injury	control	control	control
Rating Unit								percent	percent	percent	percent
Rating Date								6/29/07	6/29/07	6/29/07	6/29/07
Trt-Eval Interval								53 DA-A	53 DA-A	53 DA-A	53 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	8	9	10	11
1	Roundup WeatherMax	4.5	SL	22	fl oz/a	7 EPP	A	0	78	99	93
1	2,4-D Ester	4	L	1	pt/a	7 EPP	A				
1	AMS		WG	17	lb/100 gal	7 EPP	A				
1	Roundup WeatherMax	4.5	SL	22	fl oz/a	EPOS1	B				
1	AMS		WG	17	lb/100 gal	EPOS1	B				
2	Roundup WeatherMax	4.5	SL	22	fl oz/a	7 EPP	A	0	76	91	87
2	2,4-D Ester	4	L	1	pt/a	7 EPP	A				
2	AMS		WG	17	lb/100 gal	7 EPP	A				
2	Roundup WeatherMax	4.5	SL	22	fl oz/a	EPOS1	B				
2	ET	0.21	L	0.75	fl oz/a	EPOS1	B				
2	AMS		WG	17	lb/100 gal	EPOS1	B				
3	Roundup WeatherMax	4.5	SL	22	fl oz/a	7 EPP	A	13	70	95	84
3	2,4-D Ester	4	L	1	pt/a	7 EPP	A				
3	AMS		WG	17	lb/100 gal	7 EPP	A				
3	Roundup WeatherMax	4.5	SL	22	fl oz/a	EPOS1	B				
3	ET	0.21	L	0.75	fl oz/a	EPOS1	B				
3	AMS		WG	17	lb/100 gal	EPOS1	B				
3	Roundup WeatherMax	4.5	SL	22	fl oz/a	EPOS2	C				
3	ET	0.21	L	0.75	fl oz/a	EPOS2	C				
3	AMS		WG	17	lb/100 gal	EPOS2	C				
4	Roundup WeatherMax	4.5	SL	22	fl oz/a	7 EPP	A	0	0	0	0
4	2,4-D Ester	4	L	1	pt/a	7 EPP	A				
4	AMS		WG	17	lb/100 gal	7 EPP	A				
4	Untreated										
5	Roundup WeatherMax	4.5	SL	22	fl oz/a	7 EPP	A	0	88	99	98
5	2,4-D Ester	4	L	1	pt/a	7 EPP	A				
5	AMS		WG	17	lb/100 gal	7 EPP	A				
5	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS1	D				
5	AMS		WG	17	lb/100 gal	MPOS1	D				
6	Roundup WeatherMax	4.5	SL	22	fl oz/a	7 EPP	A	23	89	99	99
6	2,4-D Ester	4	L	1	pt/a	7 EPP	A				
6	AMS		WG	17	lb/100 gal	7 EPP	A				
6	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS1	D				
6	ET	0.21	L	0.75	fl oz/a	MPOS1	D				
6	AMS		WG	17	lb/100 gal	MPOS1	D				
7	Roundup WeatherMax	4.5	SL	22	fl oz/a	7 EPP	A	58	91	99	99
7	2,4-D Ester	4	L	1	pt/a	7 EPP	A				
7	AMS		WG	17	lb/100 gal	7 EPP	A				
7	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS1	D				
7	ET	0.21	L	0.75	fl oz/a	MPOS1	D				
7	AMS		WG	17	lb/100 gal	MPOS1	D				
7	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS2	E				
7	ET	0.21	L	0.75	fl oz/a	MPOS2	E				
7	AMS		WG	17	lb/100 gal	MPOS2	E				
LSD (P=.05)								7.3	9.5	8.0	10.7
Standard Deviation								4.9	6.4	5.4	7.2
CV								37.23	9.15	6.51	9.04

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.