

Commercial Comparisons in No-Till Soybean

Trial ID: NTS03-08  
 Conducted: T-16 Botany

Study Dir.: Sprague, Powell  
 Investigator: Christy Sprague

Date Planted: 5/13/08  
 Variety: Asgrow 2107  
 Population: 210,000 seeds/Acre  
 Soil Type: Sandy Loam  
 Plot Size: 10 X 40 FT

Row Spacing: 7.5 IN  
 No. of Reps: 5  
 % OM: 2.6  
 pH: 6.3  
 Design: RANDOMIZED COMPLETE BLOCK

Tillage: No-till into standing corn stubble  
 Fertilizer: None at planting

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	STEME	CHICKWEED, COMMON	STELLARIA MEDIA (L.)
2.	TAROF	DANDELION, COMMON	TARAXACUM OFFICINALE
3.	ERICA	HORSEWEED (Marestail)	CONYZA CANADENSIS L.
4.	SONAR	SOWTHISTLE, PERENNIAL	SONCHUS ARVENSIS L.
5.	CAPBP	SHEPHERDSPURSE	CAPSELLA BURSA-PASTORIS (L.)
6.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
7.	THLAR	PENNYCRESS, FIELD	THLASPI ARVENSE L.
8.	LACSE	LETTUCE, PRI CKLY	LACTUCA SERRIOLA L. /TORN.
9.	VERPG	SPEEDWELL, PURSLANE	VERONICA PEREGRINA L.
10.	ANGR	mainly foxtail species	SETARIA SP.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

	A	B	C	D	E	F	G
Application Timing:	14 EPP	7 EPP	PRE	EPOS	MPOS	POST	L POST
Date Treated:	4/28/08	5/5/08	5/13/08	6/12/08	6/18/08	6/23/08	7/8/08
Time Treated:	7:00 PM	2:30 PM	8:00 PM	2:45 PM	3:15 PM	10:45 AM	5:30 PM
% Cloud Cover:	40	50	10	90	100	0	60
Air Temp., Unit:	49 F	71 F	63 F	85 F	60 F	70 F	82 F
% Relative Humidity:	34	33	42	57	64	63	73
Wind Speed/Unit/Dir:	10 mph NE	5 mph W	S	6 mph S	8 mph NW	3 mph NW	3 mph SW
Soil Temp., Unit:	57 F	67 F	60 F	76 F	65 F	67 F	75 F
Soil/Leaf Surface M:	5 5	5 5	5 5	4 5	5 5	4 5	3 5
Soil Moist (1=w 5=d):	5	5	4	4	5	4	3

Crop Stage at Each Application

	A	B	C	D	E	F	G
Crop Name:	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Height (In.):	--	--	--	2-4	3-6	5-6	8-10
Stage (L):	--	--	--	UNI -V1	V2-V3	V1-V2	R1

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	Weed Stage at Each Application						
	A	B	C	D	E	F	G
Weed 1 Name:	STEME	STEME	STEME	STEME	STEME	STEME	STEME
Height (In.):	5-12 dia	2-4 dia	6-12 dia	--	--	--	-
Stage (L):	many-flwr	flowering	flowering	---	--	--	-
Weed 2 Name:	TAROF	TAROF	TAROF	TAROF	TAROF	TAROF	TAROF
Height (In.):	4-10 dia	4-10 dia	6-10 dia	6-12 dia	6-12 dia	8-12 dia	12-18 dia
Stage (L):	many-flwr	flowering	flowering	rosette	rose-flwr	many-flwr	flower
Weed 3 Name:	ERI CA	ERI CA	ERI CA	ERI CA	ERI CA	ERI CA	ERI CA
Height (In.):	1-4 dia	1-4 dia	4-8	--	8-10	--	8-12
Stage (L):	many	rosette	many	--	many	--	bolting
Weed 4 Name:	SONAR	SONAR	SONAR	SONAR	SONAR	SONAR	SONAR
Height (In.):	--	--	--	--	--	--	-
Stage (L):	many	many	--	--	--	--	-
Weed 5 Name:	CAPBP	CAPBP	CAPBP	CAPBP	CAPBP	CAPBP	CAPBP
Height (In.):	6-12 ht	6-12 ht	12-18 ht	--	--	--	-
Stage (L):	flowering	flowering	flowering	--	--	--	-
Weed 6 Name:	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL
Height (In.):	--	.25-.5	.5-2	--	1-6	1-10	1-10
Stage (L):	--	coty-8	coty-8	--	4-many	4-many	many
Weed 7 Name:	THLAR	THLAR	THLAR	THLAR	THLAR	THLAR	THLAR
Height (In.):	--	2	--	--	--	--	-
Stage (L):	--	rosette	--	--	--	--	-
Weed 8 Name:	LACSE	LACSE	LACSE	LACSE	LACSE	LACSE	LACSE
Height (In.):	--	--	10-12	--	--	--	-
Stage (L):	--	--	many	--	--	--	-
Weed 9 Name:	VERPG	VERPG	VERPG	VERPG	VERPG	VERPG	VERPG
Height (In.):	--	---	4-6	1-4	4-5	--	-
Stage (L):	--	--	many-flwr	many	many	--	-
Weed10 Name:	ANGR	ANGR	ANGR	ANGR	ANGR	ANGR	ANGR
Height (In.):	--	--	--	--	1-3	1-5	1-3
Stage (L):	--	--	--	--	2	1-3	1-3

	Weed Density (plants/sq. ft.)							
	1	2	3	4	5	6	7	8
Date:	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08
Weed Name:	ANGR	BRAKA	CHEAL	POAAN	VERPG	ERI CA	TAROF	LACSE
Density:	2.1	0.3	1.6	0.1	1.3	1.5	1.2	0.3

Appl	Sprayer Type	Speed MPH	Nozzle Type	Application Equipment			Boom Width	GPA	Carrier	PSI
				Nozzle Size	Nozzle Height	Nozzle Spacing				
A	Cub	3.8	AirMix	11003	24	20	100	19	water	28
B	Cub	3.8	AirMix	11003	24	20	100	19	water	28
C	Cub	3.8	AirMix	11003	24	20	100	19	water	28
D	Cub	3.8	AirMix	11003	24	20	100	19	water	28
E	Cub	3.8	AirMix	11003	26	20	100	19	water	28
F	Cub	3.8	AirMix	11003	27	20	100	19	water	28
G	Cub	3.8	AirMix	11003	27	20	100	19	water	28

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Weed Code	ANGR	CHEAL	ERICA	GLXMA	GLXMA
Crop Code	injury	control	control	moisture	yield
Rating Data Type	percent	percent	percent	percent	bu/acre
Rating Unit	6/18/08	7/21/08	7/21/08	10/21/08	10/21/08
Rating Date	51 DA-A	84 DA-A	84 DA-A	176 DA-A	at 13% M
Trt-Eval Interval					

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
1	Canopy	75	DF	2.25	oz/a	14 EPP	A	0	99	99	99	14.1	41.9
1	2,4-D Ester	3.8	L	1	pt/a	14 EPP	A						
1	COC		L	1	% v/v	14 EPP	A						
1	Roundup PowerMax	4.5	SL	22	fl oz/a	LPOS	G						
1	AMS		WG	17	lb/100 gal	LPOS	G						
2	Envive (2.5 oz/A)							0	99	99	99	14.3	40.1
2	Classic	25	DF	0.92	oz/a	14 EPP	A						
2	Valor SX	51	WG	1.43	oz/a	14 EPP	A						
2	Harmony	50	SG	0.15	oz/a	14 EPP	A						
2	2,4-D Ester	3.8	L	1	pt/a	14 EPP	A						
2	COC		L	1	% v/v	14 EPP	A						
2	Roundup PowerMax	4.5	SL	22	fl oz/a	LPOS	G						
2	AMS		WG	17	lb/100 gal	LPOS	G						
3	Roundup PowerMax	4.5	SL	22	fl oz/a	14 EPP	A	0	99	99	99	14.4	42.7
3	2,4-D Ester	3.8	L	1	pt/a	14 EPP	A						
3	AMS		WG	17	lb/100 gal	14 EPP	A						
3	Roundup PowerMax	4.5	SL	32	fl oz/a	MPOS	E						
3	AMS		WG	17	lb/100 gal	MPOS	E						
3	Roundup PowerMax	4.5	SL	22	fl oz/a	LPOS	G						
3	AMS		WG	17	lb/100 gal	LPOS	G						
4	Extreme	2.17	L	3	pt/a	7 EPP	B	1	99	99	99	14.2	39.5
4	2,4-D Ester	3.8	L	1	pt/a	7 EPP	B						
4	Activator 90		L	0.25	% v/v	7 EPP	B						
4	AMS		WG	17	lb/100 gal	7 EPP	B						
4	Roundup PowerMax	4.5	SL	22	fl oz/a	LPOS	G						
4	AMS		WG	17	lb/100 gal	LPOS	G						
5	Prowl H2O	3.8	L	2.6	pt/a	7 EPP	B	0	99	99	99	14.2	37.2
5	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	B						
5	2,4-D Ester	3.8	L	1	pt/a	7 EPP	B						
5	AMS		WG	17	lb/100 gal	7 EPP	B						
5	Roundup PowerMax	4.5	SL	22	fl oz/a	LPOS	G						
5	AMS		WG	17	lb/100 gal	LPOS	G						
6	Authority First	70	DF	3.2	oz/a	7 EPP	B	0	99	99	99	14.6	37.9
6	Rage D-Tech	4	EC	0.75	pt/a	7 EPP	B						
6	Roundup PowerMax	4.5	SL	16	fl oz/a	7 EPP	B						
6	AMS		WG	17	lb/100 gal	7 EPP	B						
6	Roundup PowerMax	4.5	SL	22	fl oz/a	LPOS	G						
6	AMS		WG	17	lb/100 gal	LPOS	G						
7	Authority MTZ	45	DF	12	oz/a	7 EPP	B	0	99	99	99	14.6	40.4
7	Rage D-Tech	4	EC	0.75	pt/a	7 EPP	B						
7	Roundup PowerMax	4.5	SL	16	fl oz/a	7 EPP	B						
7	AMS		WG	17	lb/100 gal	7 EPP	B						
7	Roundup PowerMax	4.5	SL	22	fl oz/a	LPOS	G						
7	AMS		WG	17	lb/100 gal	LPOS	G						
8	Authority Assist	4	L	5	fl oz/a	7 EPP	B	0	99	99	99	14.8	35.6
8	Rage D-Tech	4	EC	0.75	pt/a	7 EPP	B						
8	Roundup PowerMax	4.5	SL	16	fl oz/a	7 EPP	B						
8	AMS		WG	17	lb/100 gal	7 EPP	B						
8	Roundup PowerMax	4.5	SL	22	fl oz/a	LPOS	G						
8	AMS		WG	17	lb/100 gal	LPOS	G						

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Crop Code	injury	control	control	moisture	yield
Rating Data Type	percent	percent	percent	percent	bu/acre
Rating Unit	6/18/08	7/21/08	7/21/08	10/21/08	10/21/08
Rating Date	51 DA-A	84 DA-A	84 DA-A	176 DA-A	at 13% M
Trt-Eval Interval					

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
9	Untreated							0	0	0	0	18.2	15.8
10	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	B	0	99	99	99	14.5	37.6
10	2,4-D Ester	3.8	L	1	pt/a	7 EPP	B						
10	AMS		WG	17	lb/100 gal	7 EPP	B						
10	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	F						
10	AMS		WG	17	lb/100 gal	POST	F						
11	Gamoxone Inteon	2	SL	2.5	pt/a	7 EPP	B	0	98	99	99	14.6	38.8
11	Boundary	6.5	EC	1.5	pt/a	7 EPP	B						
11	2,4-D Ester	3.8	L	1	pt/a	7 EPP	B						
11	COC		L	1	% v/v	7 EPP	B						
11	Touchdown Total	4.17	SL	24	fl oz/a	POST	F						
11	AMS		WG	17	lb/100 gal	POST	F						
12	Gramoxone Inteon	2	SL	2.5	pt/a	7 EPP	B	0	99	99	99	14.5	38.7
12	2,4-D Ester	3.8	L	1	pt/a	7 EPP	B						
12	COC		L	1	% v/v	7 EPP	B						
12	Touchdown Total	4.17	SL	24	fl oz/a	MPOS	E						
12	AMS		WG	17	lb/100 gal	MPOS	E						
12	Touchdown Total	4.17	SL	24	fl oz/a	LPOS	G						
12	AMS		WG	17	lb/100 gal	LPOS	G						
13	Gramoxone Inteon	2	SL	2.5	pt/a	7 EPP	B	6	99	99	99	14.2	40.2
13	2,4-D Ester	3.8	L	1	pt/a	7 EPP	B						
13	COC		L	1	% v/v	7 EPP	B						
13	Sequence	5.25	EW	3.5	pt/a	EPOS	D						
13	AMS		WG	17	lb/100 gal	EPOS	D						
13	Touchdown Total	4.17	SL	24	fl oz/a	LPOS	G						
13	AMS		WG	17	lb/100 gal	LPOS	G						
14	Gramoxone Inteon	2	SL	2.5	pt/a	7 EPP	B	0	99	99	99	14.4	41.6
14	2,4-D Ester	3.8	L	1	pt/a	7 EPP	B						
14	COC		L	1	% v/v	7 EPP	B						
14	Prefix	5.29	L	2	pt/a	7 EPP	B						
14	Touchdown Total	4.17	SL	24	fl oz/a	POST	F						
14	AMS		WG	17	lb/100 gal	POST	F						
15	Valor SX	51	WG	2	oz/a	7 EPP	B	0	99	99	99	14.2	45.6
15	Roundup PowerMax	4.5	SL	22	fl oz/a	7 EPP	B						
15	2,4-D Ester	3.8	L	1	pt/a	7 EPP	B						
15	AMS		WG	17	lb/100 gal	7 EPP	B						
15	Roundup PowerMax	4.5	SL	22	fl oz/a	LPOS	G						
15	AMS		WG	17	lb/100 gal	LPOS	G						
16	Valor XLT	40	WG	3	oz/a	PRE	C	1	99	99	99	13.9	45.8
16	Roundup PowerMax	4.5	SL	22	fl oz/a	PRE	C						
16	AMS		WG	17	lb/100 gal	PRE	C						
16	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	F						
16	AMS		WG	17	lb/100 gal	POST	F						

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Rating Date	51 DA-A	84 DA-A	84 DA-A	84 DA-A	176 DA-A
Trt-Eval Interval	at 13% M				

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
17	Valor SX	51	WG	2	oz/a	PRE	C	0	99	99	99	14.2	43.7
17	Roundup PowerMax	4.5	SL	22	fl oz/a	PRE	C						
17	AMS		WG	17	lb/100 gal	PRE	C						
17	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	F						
17	AMS		WG	17	lb/100 gal	POST	F						
17	Roundup PowerMax	4.5	SL	22	fl oz/a	LPOS	G						
17	AMS		WG	17	lb/100 gal	LPOS	G						
18	IntRRo	4	EC	1.5	qt/a	PRE	C	0	97	99	99	14.2	43.8
18	Roundup PowerMax	4.5	SL	22	fl oz/a	PRE	C						
18	AMS		WG	17	lb/100 gal	PRE	C						
18	Roundup PowerMax	4.5	SL	22	fl oz/a	POST	F						
18	AMS		WG	17	lb/100 gal	POST	F						
19	Roundup PowerMax	4.5	SL	22	fl oz/a	PRE	C	0	99	99	99	14.2	43.7
19	AMS		WG	17	lb/100 gal	PRE	C						
19	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS	E						
19	AMS		WG	17	lb/100 gal	MPOS	E						
19	Roundup WeatherMax	4.5	SL	22	fl oz/a	LPOS	G						
19	AMS		WG	17	lb/100 gal	LPOS	G						
20	Weed-free							0	99	99	99	14.0	43.2
20	Roundup WeatherMax	4.5	SL	22	fl oz/a	14 EPP	A						
20	2,4-D Ester	3.8	L	1	pt/a	14 EPP	A						
20	AMS		WG	17	lb/100 gal	14 EPP	A						
20	Roundup WeatherMax	4.5	SL	22	fl oz/a	PRE	C						
20	AMS		WG	17	lb/100 gal	PRE	C						
20	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS	E						
20	AMS		WG	17	lb/100 gal	MPOS	E						
20	Roundup WeatherMax	4.5	SL	22	fl oz/a	LPOS	G						
20	AMS		WG	17	lb/100 gal	LPOS	G						

LSD (P=.10)	1.0	0.6	0.1	0.0	0.91	5.33
Standard Deviation	0.9	0.6	0.1	0.0	0.86	5.04
CV	249.06	0.61	0.11	0.0	5.94	12.71