

Long-Term Tillage by Herbicide Study in a Transgenic Corn and Soybean Rotation.

Project Code: 07-9B-SOYBEANS Location: Belleville Research Center
 Investigator: Bryan Young

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
 Trial Status: Final Updated: 1-23-08

Objective:

To evaluate weed control and weed population shifts over a long period of time in transgenic crops.

Weed Code	Common Name	Scientific Name
1. HORPU	barley, little	Hordeum pusillum Nutt.
2. AMBEL	ragweed, common	Ambrosia artemisiifolia L.
3. POLPY	smartweed, Pennsylvania	Polygonum pennsylvanicum L.
4. AMBTR	ragweed, giant	Ambrosia trifida L.
5. SETPA	foxtail, giant	Setaria faberi Herrm.
6. CYPES	nutsedge, yellow	Cyperus esculentus L.
7. XANST	cocklebur, common	Xanthium strumarium L.
8. IPOHE	morningglory, ivyleaf	Ipomoea hederacea (L.) Jacq.
9. AMAPA	amaranth, Palmer	Amaranthus palmeri S.Wats.

Crop 1: GLXMA soybean Variety: Asgrow 4404 RR/STS
 Planting Method: Seeded Planting Date: 6-5-07
 Rate: 75 lb/A Depth: 1.0 IN
 Row Spacing: 30 IN

Plot Width, Unit: 10 FT Plot Length, Unit: 27 FT Reps: 4
 Tillage Type: See treatment list Study Design: Randomized complete block
 Previous Crop, Year: ZEAMX, 2006
 Field Prep./Maintenance: N 0 LB/A, P205 0 LB/A, K20 100 LB/A

Soil Name: Ebbert % OM: 2.2 pH: 6.7 CEC: 12
 Texture: Silt loam Fert. Level: P1: 87 LB/A, K: 353 LB/A

APPLICATION DESCRIPTION	A	B	C	D	E	F	G	H
Application Date:	6-6-07	6-25-07	7-2-07	7-5-07	7-9-07	7-3-07	6-26-07	7-13-07
Time of Day:	8:00	9:00	13:30	9:45	10:30	10:30	11:00	9:15
Application Method:	Spray	Spray	Spray	Spray	Spray	Spray	Spray	Spray
Application Timing:	PRE	2-4"W-1	4-6"W	10DA2-4"1	2WA2-4"1	2-4"W-2	2-4"W-3-1	10DA2-4"2
Applic. Placement:	BROSIO	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	68 F	76 F	80 F	89 F	89 F	80 F	86 F	78 F
% Relative Humidity:	90	92	52	62	76	50	92	92
Wind Velocity, Unit:	3-5 MPH	2-4 MPH	3-5 MPH	1-2 MPH	1-2 MPH	1-2 MPH	1-3 MPH	1-2 MPH
Dew Presence (Y/N):	Y	N	N	N	N	N	N	N
Soil Moisture:	NORMAL	NORMAL	ABONOR	ABONOR	NORMAL	ABONOR	NORMAL	ABONOR
% Cloud Cover:		20	0	0	0	0		0
	I	J						
Application Date:	7-17-07	7-3-07						
Time of Day:	10:30	10:30						
Application Method:	Spray	Spray						
Application Timing:	2WA2-4"2	2-4"W-3-2						
Applic. Placement:	BROFOL	BROFOL						
Air Temp., Unit:	82 F	80 F						
% Relative Humidity:	90	50						
Wind Velocity, Unit:	3-5 MPH	1-2 MPH						
Dew Presence (Y/N):		N						
Soil Moisture:	NORMAL	ABONOR						
% Cloud Cover:		0						

CROP STAGE AT EACH APPLICATION	A	B	C	D	E	F	G	H
Crop 1 Code, Stage:	GLXMA NA	GLXMA V1	GLXMA V2	GLXMA V3	GLXMA V5	GLXMA V2-V3	GLXMA V1	GLXMA V5-V6
Height, Unit:	NA NA	5-6 IN	8 IN	10 IN	12-13 IN	8-9 IN	5-6 IN	12-14 IN
	I	J						
Crop 1 Code, Stage:	GLXMA V6-V7	GLXMA V2-V3						
Height, Unit:	16-18 IN	8-9 IN						

WEED STAGE AT EACH APPLICATION	A	B	C	D	E	F	G	H
Weed 2 Code:	AMBEL		AMBEL		AMBEL	AMBEL		
Stage (leaves):	14-18		8-10		2-4	4-6		
Height (inches):	6-10		4-8		1-2	2-6		
Density:	Medium		Low		Low	Low		
Weed 3 Code:	POLPY		POLPY			POLPY		
Stage (leaves):	18-22		10-20			10-20		
Height (inches):	4-6		8-12			4-10		
Density:	Low		Low			Low		
Weed 4 Code:	AMBTR		AMBTR	AMBTR	AMBTR	AMBTR		AMBTR
Stage (leaves):	8-12		8-12	2-4	2-4	2-8		6-8
Height (inches):	10-14		6-12	1-3	2-4	2-10		6-10
Density:	High		Medium	Low	Low	Medium		Low

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Weed 5 Code:	SETFA	SETFA	SETFA	SETFA	SETFA	SETFA	SETFA	SETFA
Stage (leaves):	4-6	3-5	5-10	4-8	2-4	4-10	3-5	4-10
Height (inches):	4-6	2-4	4-10	1-4	1-3	4-10	2-4	2-8
Density:	Low	Medium	Medium	Medium	Low	Medium	Medium	Medium
Weed 6 Code:	CYPES	CYPES	CYPES	CYPES	CYPES	CYPES	CYPES	CYPES
Stage (leaves):	6-10	6-10	8-12	8-20	8-12	6-12	6-10	6-12
Height (inches):	1-3	2-5	6-10	2-8	2-5	4-8	2-5	3-6
Density:	Low	Medium	Low	Medium	Medium	Medium	Medium	Medium
Weed 7 Code:		XANST	XANST	XANST	XANST		XANST	
Stage (leaves):		4-6	6-8	Coty-2	2-4		4-6	
Height (inches):		3-5	6-10	1-3	2-4		3-5	
Density:		Medium	Medium	Medium	Medium		Medium	
Weed 8 Code:		IPOHE	IPOHE	IPOHE	IPOHE	IPOHE		IPOHE
Stage (leaves):		2-3	Coty-6	Coty-2	1-3	Coty-10		Coty-2
Height (inches):		2-3	2-6	1-3	2-4	2-5		1-2
Density:		Low	Medium	High	High	Medium		Low
Weed 9 Code:		AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	
Stage (leaves):		6-12	10-24	6-10	2-4	8-12	6-12	
Height (inches):		2-6	6-14	1-3	1-3	4-8	2-6	
Density:		High	High	Low	Medium	Low	High	

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Weed 2 Code:		AMBEL
Stage (leaves):		4-10
Height (inches):		2-8
Density:		Medium
Weed 3 Code:		POLPY
Stage (leaves):		10-20
Height (inches):		4-10
Density:		Medium
Weed 4 Code:	AMBTR	AMBTR
Stage (leaves):	6-10	4-10
Height (inches):	8-10	2-8
Density:	Low	Medium
Weed 5 Code:		SETFA
Stage (leaves):		4-10
Height (inches):		4-8
Density:		Medium
Weed 6 Code:	CYPES	CYPES
Stage (leaves):	6-12	6-12
Height (inches):	4-6	4-8
Density:	Low	Medium
Weed 7 Code:		
Stage (leaves):		
Height (inches):		
Density:		
Weed 8 Code:		IPOHE
Stage (leaves):		Coty-6
Height (inches):		1-3
Density:		Low
Weed 9 Code:		AMAPA
Stage (leaves):		8-12
Height (inches):		4-8
Density:		Low

APPLICATION EQUIPMENT

	A	B	C	D	E	F	G	H
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI	40 PSI	40 PSI	40 PSI	40 PSI	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan	Flat fan	Flat fan	Flat fan	Flat fan	Flat fan
Nozzle Size:	XR 8003	XR 8002	XR 8002	XR 8002	XR 8002	XR 8002	XR 8002	XR 8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	20 GPA	20 GPA	20 GPA	20 GPA	20 GPA	20 GPA	20 GPA	20 GPA
	I	J						
Appl. Equipment:	CO2 sprayer	CO2 sprayer						
Operating Pressure:	40 PSI	40 PSI						
Nozzle Type:	Flat fan	Flat fan						
Nozzle Size:	XR 8002	XR 8002						
Boom Length, Unit:	7.5 FT	7.5 FT						
Spray Volume, Unit:	20 GPA	20 GPA						

NOTES:

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Weed Code								GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	HORPU	AMBEL		
Crop Code								Height	Moisture	Yield	Injury	Injury	Injury	Control	Control		
Rating Data Type								Inches	Percent	bu/A	Percent	Percent	Percent	Percent	Percent		
Rating Unit								10-30-07	10-30-07	10-30-07	14 DAT	28 DAT	56 DAT	10 DA-A	10 DA-A		
Rating Date																	
Trt-Eval Interval																	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code								
1	SOYBEAN IN 2007									0 c		0 g	0 a	0 a	0 a	90 b	0 b
1	NO-TILL																
1	NONTREATED																
2	SOYBEAN IN 2007									41 ab	12.9 ab	53 ab	0 a	0 a	0 a	100 a	90 a
2	NO-TILL																
2	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
2	HANDWEED																
3	SOYBEAN IN 2007									41 ab	12.7 ab	27 e	0 a	0 a	0 a	100 a	90 a
3	NO-TILL																
3	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
3	PROWL	3.3	EC	1.0	lb ai/a	2.4	pt/a	PRE	A								
3	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A								
3	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A								
4	SOYBEAN IN 2007									40 ab	12.7 ab	56 a	0 a	0 a	0 a	100 a	90 a
4	NO-TILL																
4	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
4	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A								
4	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A								
4	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2-4"W-3-2	J								
5	SOYBEAN IN 2007									39 b	12.9 ab	39 cd	0 a	0 a	0 a	100 a	90 a
5	NO-TILL																
5	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
5	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A								
5	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A								
5	SELECT	2	EC	0.094	lb ai/a	6.0	oz/a	2-4"W-3-2	J								
5	PRIME OIL COC	100	LIQ	1.0	% v/v	1.0	% v/v	2-4"W-3-2	J								
6	SOYBEAN IN 2007									40 ab	12.8 ab	56 a	0 a	0 a	0 a	100 a	90 a
6	NO-TILL																
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
6	PROWL	3.3	EC	1.0	lb ai/a	2.4	pt/a	PRE	A								
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	4-6"W	C								
7	SOYBEAN IN 2007									42 ab	12.8 ab	56 a	0 a	0 a	0 a	100 a	90 a
7	NO-TILL																
7	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
7	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2-4"W-2	F								
7	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2WA2-4"2	I								
8	SOYBEAN IN 2007									43 a	12.7 ab	55 a	0 a	0 a	0 a	100 a	90 a
8	NO-TILL																
8	TOUCHDOWN TOTAL	4.17	SC	0.77	lb ae/a	23.6	fl oz/a	PRE	A								
8	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	4-6"W	C								
9	SOYBEAN IN 2007									40 ab	12.5 b	45 bc	0 a	0 a	0 a	100 a	90 a
9	NO-TILL																
9	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
9	STORM	4	EC	0.75	lb ai/a	1.5	pt/a	2-4"W-2	F								
9	SELECT	2	EC	0.125	lb ai/a	8.0	oz/a	2-4"W-2	F								
9	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-2	F								
9	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	2-4"W-2	F								
10	SOYBEAN IN 2007									40 ab	12.7 ab	54 ab	0 a	0 a	0 a	100 a	90 a
10	NO-TILL																
10	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
10	STORM	4	EC	0.75	lb ai/a	1.5	pt/a	2-4"W-2	F								
10	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-2	F								
10	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	2-4"W-2	F								
10	SELECT	2	EC	0.094	lb ai/a	6	oz/a	10DA2-4"2	H								
10	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	10DA2-4"2	H								
11	SOYBEAN IN 2007									39 b	12.9 ab	16 f	0 a	0 a	0 a		
11	REDUCED-TILL																
11	NONTREATED																
12	SOYBEAN IN 2007									41 ab	13.0 a	56 a	0 a	0 a	0 a		
12	REDUCED-TILL																
12	HANDWEED																

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Weed Code		GLXMA						HORPU	AMBEL
Crop Code		Height	Moisture	Yield	Injury	Injury	Injury	Control	Control
Rating Data Type		Inches	Percent	bu/A	Percent	Percent	Percent	Percent	Percent
Rating Unit		10-30-07	10-30-07	10-30-07	14 DAT	28 DAT	56 DAT	10 DA-A	10 DA-A
Rating Date									
Trt-Eval Interval									
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	
13	SOYBEAN IN 2007								40 ab 12.6 ab 38 cd 0 a 0 a 0 a
13	REDUCED-TILL								
13	PROWL	3.3	EC	1.0 lb ai/a	2.4	pt/a	PRE	A	
13	AUTHORITY	75	WG	0.25 lb ai/a	5.3	oz/a	PRE	A	
13	FIRSTRATE	84	WG	0.031 lb ai/a	0.59	oz/a	PRE	A	
14	SOYBEAN IN 2007								41 ab 12.9 ab 58 a 0 a 0 a 0 a
14	REDUCED-TILL								
14	AUTHORITY	75	WG	0.25 lb ai/a	5.3	oz/a	PRE	A	
14	FIRSTRATE	84	WG	0.031 lb ai/a	0.59	oz/a	PRE	A	
14	ROUNDUP W-MAX	4.5	SL	0.58 lb ae/a	16.5	fl oz/a	2-4"W-3-1	G	
15	SOYBEAN IN 2007								39 b 12.5 ab 32 de 0 a 0 a 0 a
15	REDUCED-TILL								
15	AUTHORITY	75	WG	0.25 lb ai/a	5.3	oz/a	PRE	A	
15	FIRSTRATE	84	WG	0.031 lb ai/a	0.59	oz/a	PRE	A	
15	SELECT	2	EC	0.094 lb ai/a	6	oz/a	2-4"W-3-1	G	
15	PRIME OIL COC	100	LIQ	1.0 % v/v	1	% v/v	2-4"W-3-1	G	
16	SOYBEAN IN 2007								41 ab 12.6 ab 56 a 0 a 0 a 0 a
16	REDUCED-TILL								
16	PROWL	3.3	EC	1.0 lb ai/a	2.4	pt/a	PRE	A	
16	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	4-6"W	C	
17	SOYBEAN IN 2007								41 ab 13.0 a 59 a 0 a 0 a 0 a
17	REDUCED-TILL								
17	ROUNDUP W-MAX	4.5	SL	0.58 lb ae/a	16.5	fl oz/a	2-4"W-1	B	
17	ROUNDUP W-MAX	4.5	SL	0.58 lb ae/a	16.5	fl oz/a	2WA2-4"1	E	
18	SOYBEAN IN 2007								42 ab 12.8 ab 58 a 0 a 0 a 0 a
18	REDUCED-TILL								
18	ROUNDUP W-MAX	4.5	SL	0.77 lb ae/a	22	fl oz/a	4-6"W	C	
19	SOYBEAN IN 2007								40 b 12.6 ab 39 cd 0 a 0 a 0 a
19	REDUCED-TILL								
19	STORM	4	EC	0.75 lb ai/a	1.5	pt/a	2-4"W-1	B	
19	SELECT	2	EC	0.125 lb ai/a	8.0	oz/a	2-4"W-1	B	
19	PRIME OIL COC	100	LIQ	1.0 % v/v	1	% v/v	2-4"W-1	B	
19	28% UAN	100	LIQ	2.0 qt/a	2	qt/a	2-4"W-1	B	
20	SOYBEAN IN 2007								40 b 12.7 ab 33 de 0 a 0 a 0 a
20	REDUCED-TILL								
20	STORM	4	EC	0.75 lb ai/a	1.5	pt/a	2-4"W-1	B	
20	PRIME OIL COC	100	LIQ	1.0 % v/v	1	% v/v	2-4"W-1	B	
20	28% UAN	100	LIQ	2.0 qt/a	2	qt/a	2-4"W-1	B	
20	SELECT	2	EC	0.094 lb ai/a	6	oz/a	10DA2-4"1	D	
20	PRIME OIL COC	100	LIQ	1.0 % v/v	1	% v/v	10DA2-4"1	D	
LSD (P=.05)									2.7 0.47 10.0 0.0 0.0 0.0 0.0 0.0
Replicate F									6.703 0.650 1.370 0.000 0.000 0.000 0.000 0.000
Replicate Prob(F)									0.0006 0.5866 0.2616 1.0000 1.0000 1.0000 1.0000 1.0000
Treatment F									89.323 0.844 21.216 0.000 0.000 0.000 0.000 0.000
Treatment Prob(F)									0.0001 0.6425 0.0001 1.0000 1.0000 1.0000 1.0000 1.0000

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

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Weed Code	POLPY	AMBTR	AMBTR	AMBTR	AMBTR	SETFA	SETFA	SETFA
Crop Code	Control	Control	Control	Control	Control	Control	Control	Control
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit	6-16-07	6-16-07						
Rating Date	10 DA-A	10 DA-A	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT
Trt-Eval Interval								

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code								
1	SOYBEAN IN 2007										0 c	0 b	23 b	23 b	23 b	23 d	23 d
1	NO-TILL																
1	NONTREATED																
2	SOYBEAN IN 2007										86 b	90 a	100 a	100 a	100 a	100 a	100 a
2	NO-TILL																
2	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
2	HANDWEED																
3	SOYBEAN IN 2007										90 a	90 a	99 a	94 a	94 a	50 c	50 c
3	NO-TILL																
3	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
3	PROWL	3.3	EC	1.0	lb ai/a	2.4	pt/a	PRE	A								
3	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A								
3	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A								
4	SOYBEAN IN 2007										90 a	90 a	97 a	99 a	99 a	99 a	99 a
4	NO-TILL																
4	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
4	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A								
4	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A								
4	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2-4"W-3-2	J								
5	SOYBEAN IN 2007										90 a	90 a	93 a	93 a	93 a	99 a	99 a
5	NO-TILL																
5	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
5	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A								
5	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A								
5	SELECT	2	EC	0.094	lb ai/a	6.0	oz/a	2-4"W-3-2	J								
5	PRIME OIL COC	100	LIQ	1.0	% v/v	1.0	% v/v	2-4"W-3-2	J								
6	SOYBEAN IN 2007										86 b	90 a	98 a	98 a	98 a	99 a	99 a
6	NO-TILL																
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
6	PROWL	3.3	EC	1.0	lb ai/a	2.4	pt/a	PRE	A								
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	4-6"W	C								
7	SOYBEAN IN 2007										86 b	90 a	99 a	99 a	99 a	99 a	99 a
7	NO-TILL																
7	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
7	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2-4"W-2	F								
7	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2WA2-4"2	I								
8	SOYBEAN IN 2007										86 b	90 a	99 a	99 a	99 a	99 a	99 a
8	NO-TILL																
8	TOUCHDOWN TOTAL	4.17	SC	0.77	lb ae/a	23.6	fl oz/a	PRE	A								
8	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	4-6"W	C								
9	SOYBEAN IN 2007										86 b	90 a	95 a	95 a	95 a	99 a	98 a
9	NO-TILL																
9	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
9	STORM	4	EC	0.75	lb ai/a	1.5	pt/a	2-4"W-2	F								
9	SELECT	2	EC	0.125	lb ai/a	8.0	oz/a	2-4"W-2	F								
9	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-2	F								
9	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	2-4"W-2	F								
10	SOYBEAN IN 2007										85 b	90 a	97 a	97 a	97 a	99 a	99 a
10	NO-TILL																
10	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A								
10	STORM	4	EC	0.75	lb ai/a	1.5	pt/a	2-4"W-2	F								
10	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-2	F								
10	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	2-4"W-2	F								
10	SELECT	2	EC	0.094	lb ai/a	6	oz/a	10DA2-4"2	H								
10	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	10DA2-4"2	H								
11	SOYBEAN IN 2007												0 c	0 c	0 c	0 e	0 e
11	REDUCED-TILL																
11	NONTREATED																
12	SOYBEAN IN 2007												100 a	100 a	100 a	100 a	100 a
12	REDUCED-TILL																
12	HANDWEED																

Long-Term Tillage by Herbicide Study in a Transgenic Corn and Soybean Rotation.

Project Code: 07-9B-SOYBEANS Location: Belleville Research Center
 Investigator: Bryan Young

Weed Code	POLPY	AMBTR	AMBTR	AMBTR	AMBTR	SETFA	SETFA	SETFA
Crop Code	Control	Control	Control	Control	Control	Control	Control	Control
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit	6-16-07	6-16-07						
Rating Date	10 DA-A	10 DA-A	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT
Trt-Eval Interval								

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code								
13	SOYBEAN IN 2007											87 a	87 a	87 a	80 b	80 b	80 b
13	REDUCED-TILL																
13	PROWL	3.3	EC	1.0	lb ai/a	2.4	pt/a	PRE	A								
13	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A								
13	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A								
14	SOYBEAN IN 2007											99 a	99 a	99 a	99 a	99 a	99 a
14	REDUCED-TILL																
14	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A								
14	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A								
14	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2-4"W-3-1	G								
15	SOYBEAN IN 2007											99 a	99 a	99 a	99 a	99 a	99 a
15	REDUCED-TILL																
15	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A								
15	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A								
15	SELECT	2	EC	0.094	lb ai/a	6	oz/a	2-4"W-3-1	G								
15	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-3-1	G								
16	SOYBEAN IN 2007											99 a	99 a	99 a	99 a	99 a	99 a
16	REDUCED-TILL																
16	PROWL	3.3	EC	1.0	lb ai/a	2.4	pt/a	PRE	A								
16	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	4-6"W	C								
17	SOYBEAN IN 2007											99 a	99 a	99 a	99 a	99 a	99 a
17	REDUCED-TILL																
17	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2-4"W-1	B								
17	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2WA2-4"1	E								
18	SOYBEAN IN 2007											99 a	99 a	99 a	99 a	99 a	99 a
18	REDUCED-TILL																
18	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	4-6"W	C								
19	SOYBEAN IN 2007											99 a	99 a	99 a	99 a	99 a	99 a
19	REDUCED-TILL																
19	STORM	4	EC	0.75	lb ai/a	1.5	pt/a	2-4"W-1	B								
19	SELECT	2	EC	0.125	lb ai/a	8.0	oz/a	2-4"W-1	B								
19	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-1	B								
19	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	2-4"W-1	B								
20	SOYBEAN IN 2007											99 a	99 a	99 a	99 a	99 a	99 a
20	REDUCED-TILL																
20	STORM	4	EC	0.75	lb ai/a	1.5	pt/a	2-4"W-1	B								
20	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-1	B								
20	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	2-4"W-1	B								
20	SELECT	2	EC	0.094	lb ai/a	6	oz/a	10DA2-4"1	D								
20	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	10DA2-4"1	D								

LSD (P=.05)	2.3	0.0	16.1	16.2	16.2	15.9	15.9	15.9
Replicate F	10.346	0.000	2.070	1.912	1.912	0.248	0.263	0.263
Replicate Prob(F)	0.0001	1.0000	0.1143	0.1379	0.1379	0.8624	0.8520	0.8520
Treatment F	1238.383	0.000	22.354	22.091	22.091	25.903	25.841	25.841
Treatment Prob(F)	0.0001	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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

Long-Term Tillage by Herbicide Study in a Transgenic Corn and Soybean Rotation.

Project Code: 07-9B-SOYBEANS Location: Belleville Research Center
 Investigator: Bryan Young

Weed Code	CYPES	CYPES	CYPES	XANST	XANST	XANST	IPOHE	IPOHE	IPOHE
Crop Code	Control	Control	Control	Control	Control	Control	Control	Control	Control
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit									
Rating Date									
Trt-Eval Interval	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code										
1	SOYBEAN IN 2007									23 c	23 c	23 c	97 ab	97 a	97 a	97 a	97 a	97 a	97 a
1	NO-TILL																		
1	NONTREATED																		
2	SOYBEAN IN 2007									100 a	100 a	100 a	100 a	100 a	100 a	100 a	100 a	100 a	100 a
2	NO-TILL																		
2	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A										
2	HANDWEED																		
3	SOYBEAN IN 2007									88 a	88 ab	88 ab	99 a	99 a	99 a	99 a	99 a	99 a	99 a
3	NO-TILL																		
3	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A										
3	PROWL	3.3	EC	1.0	lb ai/a	2.4	pt/a	PRE	A										
3	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A										
3	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A										
4	SOYBEAN IN 2007									96 a	96 a	96 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a
4	NO-TILL																		
4	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A										
4	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A										
4	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A										
4	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2-4"W-3-2	J										
5	SOYBEAN IN 2007									89 a	86 ab	86 ab	99 a	99 a	99 a	99 a	99 a	99 a	99 a
5	NO-TILL																		
5	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A										
5	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A										
5	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A										
5	SELECT	2	EC	0.094	lb ai/a	6.0	oz/a	2-4"W-3-2	J										
5	PRIME OIL COC	100	LIQ	1.0	% v/v	1.0	% v/v	2-4"W-3-2	J										
6	SOYBEAN IN 2007									95 a	95 a	95 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a
6	NO-TILL																		
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A										
6	PROWL	3.3	EC	1.0	lb ai/a	2.4	pt/a	PRE	A										
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	4-6"W	C										
7	SOYBEAN IN 2007									95 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a
7	NO-TILL																		
7	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A										
7	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2-4"W-2	F										
7	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2WA2-4"2	I										
8	SOYBEAN IN 2007									92 a	92 ab	92 ab	99 a	99 a	99 a	99 a	99 a	99 a	99 a
8	NO-TILL																		
8	TOUCHDOWN TOTAL	4.17	SC	0.77	lb ae/a	23.6	fl oz/a	PRE	A										
8	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	4-6"W	C										
9	SOYBEAN IN 2007									99 a	98 a	98 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a
9	NO-TILL																		
9	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A										
9	STORM	4	EC	0.75	lb ai/a	1.5	pt/a	2-4"W-2	F										
9	SELECT	2	EC	0.125	lb ai/a	8.0	oz/a	2-4"W-2	F										
9	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-2	F										
9	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	2-4"W-2	F										
10	SOYBEAN IN 2007									99 a	97 a	97 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a
10	NO-TILL																		
10	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A										
10	STORM	4	EC	0.75	lb ai/a	1.5	pt/a	2-4"W-2	F										
10	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-2	F										
10	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	2-4"W-2	F										
10	SELECT	2	EC	0.094	lb ai/a	6	oz/a	10DA2-4"2	H										
10	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	10DA2-4"2	H										
11	SOYBEAN IN 2007									0 c	0 c	0 c	0 d	0 d	0 d	0 d	0 d	0 d	0 d
11	REDUCED-TILL																		
11	NONTREATED																		
12	SOYBEAN IN 2007									100 a	100 a	100 a	100 a	100 a	100 a	100 a	100 a	100 a	100 a
12	REDUCED-TILL																		
12	HANDWEED																		

Long-Term Tillage by Herbicide Study in a Transgenic Corn and Soybean Rotation.

Project Code: 07-9B-SOYBEANS Location: Belleville Research Center
 Investigator: Bryan Young

Weed Code	CYPES	CYPES	CYPES	XANST	XANST	XANST	IPOHE	IPOHE	IPOHE
Crop Code	Control	Control	Control	Control	Control	Control	Control	Control	Control
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit									
Rating Date									
Trt-Eval Interval	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT	14 DAT	28 DAT	56 DAT

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code									
13	SOYBEAN IN 2007									80 a	80 ab	80 ab	71 c	71 b	71 b	80 c	80 b	80 b
13	REDUCED-TILL																	
13	PROWL	3.3	EC	1.0	lb ai/a	2.4	pt/a	PRE	A									
13	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A									
13	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A									
14	SOYBEAN IN 2007									99 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a	99 a
14	REDUCED-TILL																	
14	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A									
14	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A									
14	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2-4"W-3-1	G									
15	SOYBEAN IN 2007									97 a	97 a	97 a	75 c	60 b	60 b	97 a	97 a	97 a
15	REDUCED-TILL																	
15	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A									
15	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A									
15	SELECT	2	EC	0.094	lb ai/a	6	oz/a	2-4"W-3-1	G									
15	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-3-1	G									
16	SOYBEAN IN 2007									99 a	99 a	99 a	97 ab	95 a	95 a	94 ab	95 a	95 a
16	REDUCED-TILL																	
16	PROWL	3.3	EC	1.0	lb ai/a	2.4	pt/a	PRE	A									
16	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	4-6"W	C									
17	SOYBEAN IN 2007									90 a	99 a	99 a	90 b	99 a	99 a	90 b	97 a	97 a
17	REDUCED-TILL																	
17	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2-4"W-1	B									
17	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2WA2-4"1	E									
18	SOYBEAN IN 2007									94 a	94 a	94 a	98 a	98 a	98 a	95 ab	95 a	95 a
18	REDUCED-TILL																	
18	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	4-6"W	C									
19	SOYBEAN IN 2007									90 a	92 ab	92 ab	90 b	33 c	33 c	90 b	69 c	69 c
19	REDUCED-TILL																	
19	STORM	4	EC	0.75	lb ai/a	1.5	pt/a	2-4"W-1	B									
19	SELECT	2	EC	0.125	lb ai/a	8.0	oz/a	2-4"W-1	B									
19	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-1	B									
19	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	2-4"W-1	B									
20	SOYBEAN IN 2007									50 b	70 b	70 b	90 b	13 d	13 d	90 b	73 bc	73 bc
20	REDUCED-TILL																	
20	STORM	4	EC	0.75	lb ai/a	1.5	pt/a	2-4"W-1	B									
20	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-1	B									
20	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	2-4"W-1	B									
20	SELECT	2	EC	0.094	lb ai/a	6	oz/a	10DA2-4"1	D									
20	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	10DA2-4"1	D									
LSD (P=.05)										24.8	22.5	22.5	7.5	16.8	16.8	6.5	8.5	8.5
Replicate F										0.401	0.050	0.050	0.418	1.054	1.054	2.862	5.679	5.679
Replicate Prob(F)										0.7526	0.9850	0.9850	0.7410	0.3759	0.3759	0.0446	0.0018	0.0018
Treatment F										9.777	11.164	11.164	72.448	27.880	27.880	92.288	57.963	57.963
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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

Long-Term Tillage by Herbicide Study in a Transgenic Corn and Soybean Rotation.

Project Code: 07-9B-SOYBEANS Location: Belleville Research Center
 Investigator: Bryan Young

Weed Code	AMAPA	AMAPA	AMAPA
Crop Code			
Rating Data Type	Control	Control	Control
Rating Unit	Percent	Percent	Percent
Rating Date			
Trt-Eval Interval	14 DAT	28 DAT	56 DAT

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code			
1	SOYBEAN IN 2007									97 a	97 a	97 a
1	NO-TILL											
1	NONTREATED											
2	SOYBEAN IN 2007									100 a	100 a	100 a
2	NO-TILL											
2	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A			
2	HANDWEED											
3	SOYBEAN IN 2007									98 a	93 a	93 a
3	NO-TILL											
3	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A			
3	PROWL	3.3	EC	1.0	lb ai/a	2.4	pt/a	PRE	A			
3	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A			
3	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A			
4	SOYBEAN IN 2007									99 a	99 a	99 a
4	NO-TILL											
4	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A			
4	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A			
4	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A			
4	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2-4"W-3-2	J			
5	SOYBEAN IN 2007									85 ab	83 ab	83 ab
5	NO-TILL											
5	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A			
5	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A			
5	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A			
5	SELECT	2	EC	0.094	lb ai/a	6.0	oz/a	2-4"W-3-2	J			
5	PRIME OIL COC	100	LIQ	1.0	% v/v	1.0	% v/v	2-4"W-3-2	J			
6	SOYBEAN IN 2007									99 a	99 a	99 a
6	NO-TILL											
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A			
6	PROWL	3.3	EC	1.0	lb ai/a	2.4	pt/a	PRE	A			
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	4-6"W	C			
7	SOYBEAN IN 2007									99 a	99 a	99 a
7	NO-TILL											
7	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A			
7	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2-4"W-2	F			
7	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2WA2-4"2	I			
8	SOYBEAN IN 2007									99 a	99 a	99 a
8	NO-TILL											
8	TOUCHDOWN TOTAL	4.17	SC	0.77	lb ae/a	23.6	fl oz/a	PRE	A			
8	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	4-6"W	C			
9	SOYBEAN IN 2007									99 a	98 a	98 a
9	NO-TILL											
9	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A			
9	STORM	4	EC	0.75	lb ai/a	1.5	pt/a	2-4"W-2	F			
9	SELECT	2	EC	0.125	lb ai/a	8.0	oz/a	2-4"W-2	F			
9	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-2	F			
9	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	2-4"W-2	F			
10	SOYBEAN IN 2007									99 a	99 a	99 a
10	NO-TILL											
10	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	PRE	A			
10	STORM	4	EC	0.75	lb ai/a	1.5	pt/a	2-4"W-2	F			
10	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-2	F			
10	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	2-4"W-2	F			
10	SELECT	2	EC	0.094	lb ai/a	6	oz/a	10DA2-4"2	H			
10	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	10DA2-4"2	H			
11	SOYBEAN IN 2007									0 d	0 c	0 c
11	REDUCED-TILL											
11	NONTREATED											
12	SOYBEAN IN 2007									100 a	100 a	100 a
12	REDUCED-TILL											
12	HANDWEED											

Long-Term Tillage by Herbicide Study in a Transgenic Corn and Soybean Rotation.

Project Code: 07-9B-SOYBEANS Location: Belleville Research Center
 Investigator: Bryan Young

Weed Code	AMAPA	AMAPA	AMAPA
Crop Code			
Rating Data Type	Control	Control	Control
Rating Unit	Percent	Percent	Percent
Rating Date			
Trt-Eval Interval	14 DAT	28 DAT	56 DAT

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code			
13	SOYBEAN IN 2007									80	bc	70 b 70 b
13	REDUCED-TILL											
13	PROWL	3.3	EC	1.0	lb ai/a	2.4	pt/a	PRE	A			
13	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A			
13	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A			
14	SOYBEAN IN 2007									99	a	99 a 99 a
14	REDUCED-TILL											
14	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A			
14	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A			
14	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2-4"W-3-1	G			
15	SOYBEAN IN 2007									69	c	69 b 69 b
15	REDUCED-TILL											
15	AUTHORITY	75	WG	0.25	lb ai/a	5.3	oz/a	PRE	A			
15	FIRSTRATE	84	WG	0.031	lb ai/a	0.59	oz/a	PRE	A			
15	SELECT	2	EC	0.094	lb ai/a	6	oz/a	2-4"W-3-1	G			
15	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-3-1	G			
16	SOYBEAN IN 2007									99	a	98 a 98 a
16	REDUCED-TILL											
16	PROWL	3.3	EC	1.0	lb ai/a	2.4	pt/a	PRE	A			
16	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	4-6"W	C			
17	SOYBEAN IN 2007									99	a	99 a 99 a
17	REDUCED-TILL											
17	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2-4"W-1	B			
17	ROUNDUP W-MAX	4.5	SL	0.58	lb ae/a	16.5	fl oz/a	2WA2-4"1	E			
18	SOYBEAN IN 2007									97	a	96 a 96 a
18	REDUCED-TILL											
18	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	4-6"W	C			
19	SOYBEAN IN 2007									90	ab	85 ab 85 ab
19	REDUCED-TILL											
19	STORM	4	EC	0.75	lb ai/a	1.5	pt/a	2-4"W-1	B			
19	SELECT	2	EC	0.125	lb ai/a	8.0	oz/a	2-4"W-1	B			
19	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-1	B			
19	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	2-4"W-1	B			
20	SOYBEAN IN 2007									97	a	97 a 97 a
20	REDUCED-TILL											
20	STORM	4	EC	0.75	lb ai/a	1.5	pt/a	2-4"W-1	B			
20	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	2-4"W-1	B			
20	28% UAN	100	LIQ	2.0	qt/a	2	qt/a	2-4"W-1	B			
20	SELECT	2	EC	0.094	lb ai/a	6	oz/a	10DA2-4"1	D			
20	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	10DA2-4"1	D			
LSD (P=.05)										15.8	17.7	17.7
Replicate F										2.090	2.308	2.308
Replicate Prob(F)										0.1116	0.0862	0.0862
Treatment F										16.526	13.535	13.535
Treatment Prob(F)										0.0001	0.0001	0.0001

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

Trial Comments

1. Protocol: SIU - RFK. Study conducted since 1998 on same area.
2. Ratings:
3. Tillages are no-till and reduced-till, see treatment list.
4. DA-A = Days after PRE (burndown) application. DAT = days after various treatments.
 14 days after PRE, 2-4"W-1, 2-4"W-2, 2-4"W-3-1, 2-4"W-3-2, and 4-6"W was on 6-20-07, 7-9-07, 7-17-07, 7-10-07, 7-10-07, and 7-16-07, respectively.
 28 days after PRE, 2-4"W-1, 2-4"W-2, 2-4"W-3-1, 2-4"W-3-2, and 4-6"W was on 7-4-07, 7-23-07, 7-31-07, 7-24-07, 7-24-07, and 7-30-07, respectively.
 56 days after PRE, 2-4"W-1, 2-4"W-2, 2-4"W-3-1, 2-4"W-3-2, and 4-6"W was on 8-1-07, 8-20-07, 8-28-07, 8-21-07, 8-21-07, and 8-27-07, respectively.
5. Following the PRE application only 0.08 inches of rainfall was recorded during the next 18 days.
6. Harvested 10-30-07, (2) 30 inch rows by 24 feet.