

Harmony GT plus Classic Tank Mixtures with Glyphosate.

Project Code: 05-2A-M60 Location: Belleville Research Center  
Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA  
Trial Status: Final Updated: 11-03-05**Objective:**

Evaluate the benefit of adding Harmony GT XP and/or Classic to Roundup WeatherMax for control of large lambsquarters and smartweed.

Weed Code	Common Name	Scientific Name
1. SETFA	foxtail, giant	Setaria faberi Herrm.
2. AMBEL	ragweed, common	Ambrosia artemisiifolia L.
3. XANST	cocklebur, common	Xanthium strumarium L.
4. POLPY	smartweed, Pennsylvania	Polygonum pennsylvanicum L.
5. ABUTH	velvetleaf	Abutilon theophrasti Medicus

Crop 1:	GLXMA soybean	Variety:	P94M40 RR/STS
Planting Method:	Seeded	Planting Date:	5-19-05
Rate:	75 lb/A	Depth:	1.0 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	28 FT	Reps:	3
Tillage Type:	Reduced-Till	Study Design:	Randomized complete block		
Previous Crop, Year:	ZEAMX, 2004				

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K20 100 LB/A

Soil Name:	Weir	% OM:	1.6	pH:	6.2	CEC:	7
Texture:	Silt loam	Fert. Level:	P1: 93 LB/A, K: 448 LB/A				

**APPLICATION DESCRIPTION**

Application Date:	06-20-05
Time of Day:	8:15
Application Method:	Spray
Application Timing:	8-12"LQ
Applic. Placement:	BROFOL
Air Temp., Unit:	64 F
% Relative Humidity:	92
Wind Velocity, Unit:	3 MPH
Soil Moisture:	NORMAL

**CROP STAGE AT EACH APPLICATION**

Crop 1 Code, Stage:	GLXMA V3
Height, Unit:	6-7 IN

**WEED STAGE AT EACH APPLICATION**

Weed 1 Code:	SETFA
Stage (leaves):	4-5
Height (inches):	6-10
Density:	High
Weed 2 Code:	AMBEL
Stage (leaves):	8-10
Height (inches):	8-12
Density:	High
Weed 3 Code:	XANST
Stage (leaves):	6-9
Height (inches):	10-12
Density:	Medium
Weed 4 Code:	POLPY
Stage (leaves):	7-9
Height (inches):	8-10
Density:	Medium
Weed 5 Code:	ABUTH
Stage (leaves):	5-6
Height (inches):	4-6
Density:	Medium

**APPLICATION EQUIPMENT**

Appl. Equipment:	CO2 sprayer
Operating Pressure:	40 PSI
Nozzle Type:	Flat fan
Nozzle Size:	8002
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	20 GPA

NOTES:

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Weed Code  
 Crop Code  
 Rating Data Type  
 Rating Unit  
 Rating Date  
 Trt-Eval Interval

GLXMA GLXMA GLXMA SETFA SETFA SETFA  
 Injury Injury Injury Control Control Control  
 Percent Percent Percent Percent Percent Percent  
 06-27-05 07-04-05 07-18-05 07-04-05 07-18-05 08-01-05  
 7 DA-A 14 DA-A 28 DA-A 14 DA-A 28 DA-A 42 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	GLXMA Injury Percent	GLXMA Injury Percent	GLXMA Injury Percent	SETFA Control Percent	SETFA Control Percent	SETFA Control Percent
1	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"	LQ A	0	0	0	99	99	99
1	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A						
2	HARMONY GT XP	75	WG	0.00391	lb ai/a	0.083	oz/a	8-12"	LQ A	0	0	0	99	99	99
2	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"	LQ A						
2	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A						
3	HARMONY GT XP	75	WG	0.00781	lb ai/a	0.167	oz/a	8-12"	LQ A	0	0	0	99	99	99
3	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"	LQ A						
3	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A						
4	HARMONY GT XP	75	WG	0.0156	lb ai/a	0.333	oz/a	8-12"	LQ A	0	0	0	99	99	99
4	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"	LQ A						
4	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A						
5	CLASSIC	25	WG	0.0117	lb ai/a	0.75	oz/a	8-12"	LQ A	0	0	0	99	99	99
5	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"	LQ A						
5	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A						
6	HARMONY GT XP	75	WG	0.0156	lb ai/a	0.333	oz/a	8-12"	LQ A	0	0	0	99	99	99
6	CLASSIC	25	WG	0.0117	lb ai/a	0.75	oz/a	8-12"	LQ A						
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"	LQ A						
6	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A						
7	SYNCHRONY XP	28.4	WG			0.75	oz/a	8-12"	LQ A	0	0	0	99	99	99
7	->HARMONY GT XP	75	WG	0.00325	lb ai/a			8-12"	LQ A						
7	->CLASSIC	25	WG	0.0101	lb ai/a			8-12"	LQ A						
7	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"	LQ A						
7	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A						
8	HARMONY GT XP	75	WG	0.0156	lb ai/a	0.333	oz/a	8-12"	LQ A	3	0	0	35	62	65
8	CLASSIC	25	WG	0.0117	lb ai/a	0.75	oz/a	8-12"	LQ A						
8	SELECT	2	EC	0.125	lb ai/a	8	fl oz/a	8-12"	LQ A						
8	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	8-12"	LQ A						
8	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A						
9	NONTREATED									0	0	0	0	0	0
LSD (P=.05)										1.7	0.0	0.0	2.9	4.4	2.9
Replicate F										1.000	0.000	0.000	1.000	1.000	1.000
Replicate Prob(F)										0.3897	1.0000	1.0000	0.3897	0.3897	0.3897
Treatment F										4.000	0.000	0.000	1477.560	528.211	1213.860
Treatment Prob(F)										0.0088	1.0000	1.0000	0.0001	0.0001	0.0001

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Weed Code								AMBEL	AMBEL	AMBEL	XANST	XANST	XANST		
Crop Code								Control	Control	Control	Control	Control	Control		
Rating Data Type								Percent	Percent	Percent	Percent	Percent	Percent		
Rating Unit								07-04-05	07-18-05	08-01-05	07-04-05	07-18-05	08-01-05		
Rating Date								14 DA-A	28 DA-A	42 DA-A	14 DA-A	28 DA-A	42 DA-A		
Trt-Eval Interval															
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
1	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"	LQ A	95	95	95	99		
1	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A				88		
2	HARMONY GT XP	75	WG	0.00391	lb ai/a	0.083	oz/a	8-12"	LQ A	94	94	96	99		
2	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"	LQ A				91		
2	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A				86		
3	HARMONY GT XP	75	WG	0.00781	lb ai/a	0.167	oz/a	8-12"	LQ A	95	92	95	99		
3	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"	LQ A				94		
3	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A				80		
4	HARMONY GT XP	75	WG	0.0156	lb ai/a	0.333	oz/a	8-12"	LQ A	97	97	96	99		
4	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"	LQ A				92		
4	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A				83		
5	CLASSIC	25	WG	0.0117	lb ai/a	0.75	oz/a	8-12"	LQ A	94	92	95	99		
5	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"	LQ A				98		
5	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A				94		
6	HARMONY GT XP	75	WG	0.0156	lb ai/a	0.333	oz/a	8-12"	LQ A	95	96	97	99		
6	CLASSIC	25	WG	0.0117	lb ai/a	0.75	oz/a	8-12"	LQ A				98		
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"	LQ A				98		
6	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A						
7	SYNCHRONY XP	28.4	WG			0.75	oz/a	8-12"	LQ A	92	92	96	99		
7	->HARMONY GT XP	75	WG	0.00325	lb ai/a			8-12"	LQ A				98		
7	->CLASSIC	25	WG	0.0101	lb ai/a			8-12"	LQ A				93		
7	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"	LQ A						
7	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A						
8	HARMONY GT XP	75	WG	0.0156	lb ai/a	0.333	oz/a	8-12"	LQ A	47	73	67	43		
8	CLASSIC	25	WG	0.0117	lb ai/a	0.75	oz/a	8-12"	LQ A				95		
8	SELECT	2	EC	0.125	lb ai/a	8	fl oz/a	8-12"	LQ A				96		
8	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	8-12"	LQ A						
8	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"	LQ A						
9	NONTREATED									0	0	0	0		
LSD (P=.05)										7.4	5.1	3.2	3.3	5.9	13.5
Replicate F										0.775	9.258	0.691	1.000	5.827	4.210
Replicate Prob(F)										0.4774	0.0021	0.5153	0.3897	0.0126	0.0340
Treatment F										185.498	340.199	920.963	1036.983	259.440	45.697
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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Weed Code								POLPY	POLPY	POLPY	ABUTH	ABUTH	ABUTH		
Crop Code								Control	Control	Control	Control	Control	Control		
Rating Data Type								Percent	Percent	Percent	Percent	Percent	Percent		
Rating Unit								07-04-05	07-18-05	08-01-05	07-04-05	07-18-05	08-01-05		
Rating Date								14 DA-A	28 DA-A	42 DA-A	14 DA-A	28 DA-A	42 DA-A		
Trt-Eval Interval															
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code						
1	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"LQ	A	98	99	99	95		
1	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"LQ	A				90		
2	HARMONY GT XP	75	WG	0.00391	lb ai/a	0.083	oz/a	8-12"LQ	A	98	99	99	92		
2	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"LQ	A				88		
2	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"LQ	A				83		
3	HARMONY GT XP	75	WG	0.00781	lb ai/a	0.167	oz/a	8-12"LQ	A	96	99	99	92		
3	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"LQ	A				92		
3	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"LQ	A				93		
4	HARMONY GT XP	75	WG	0.0156	lb ai/a	0.333	oz/a	8-12"LQ	A	98	99	99	95		
4	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"LQ	A				92		
4	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"LQ	A				92		
5	CLASSIC	25	WG	0.0117	lb ai/a	0.75	oz/a	8-12"LQ	A	97	99	99	89		
5	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"LQ	A				88		
5	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"LQ	A				88		
6	HARMONY GT XP	75	WG	0.0156	lb ai/a	0.333	oz/a	8-12"LQ	A	96	99	99	95		
6	CLASSIC	25	WG	0.0117	lb ai/a	0.75	oz/a	8-12"LQ	A				92		
6	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"LQ	A				94		
6	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"LQ	A						
7	SYNCHRONY XP	28.4	WG			0.75	oz/a	8-12"LQ	A	96	99	99	89		
7	->HARMONY GT XP	75	WG	0.00325	lb ai/a			8-12"LQ	A				87		
7	->CLASSIC	25	WG	0.0101	lb ai/a			8-12"LQ	A				89		
7	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	8-12"LQ	A						
7	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"LQ	A						
8	HARMONY GT XP	75	WG	0.0156	lb ai/a	0.333	oz/a	8-12"LQ	A	37	77	92	37		
8	CLASSIC	25	WG	0.0117	lb ai/a	0.75	oz/a	8-12"LQ	A				78		
8	SELECT	2	EC	0.125	lb ai/a	8	fl oz/a	8-12"LQ	A				80		
8	PRIME OIL COC	100	LIQ	1.0	% v/v	1	% v/v	8-12"LQ	A						
8	AMS	100	DRY	2.0	% w/w	17	lb/100 gal	8-12"LQ	A						
9	NONTREATED									0	0	0	0		
LSD (P=.05)										4.0	1.7	3.3	7.1	7.5	8.3
Replicate F										1.951	1.000	1.000	1.867	6.339	9.645
Replicate Prob(F)										0.1745	0.3897	0.3897	0.1868	0.0094	0.0018
Treatment F										731.321	3508.930	870.595	205.550	142.406	119.274
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Trial Comments

1. Protocol: DuPont.
2. CI 7, 14 and 28 DAT; WC 14, 28 and 42 DAT.
3. Other weed targets are morningglory, smartweed, and nutsedge.
4. DA-A = Days after 8-12"LQ application.
5. Common lambsquarter population too low to rate.