

## Burndown Programs in Liberty Link Soybean.

Project Code: 06-5D-N90      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:**      7-19-06

**Objective:**

Evaluate Liberty programs in no-till soybean production.

Weed Code	Common Name	Scientific Name
1.	HORPU barley, little	Hordeum pusillum Nutt.
2.	ERICA horseweed	Conyza canadensis (L.) Crong.
3.	AMBEL ragweed, common	Ambrosia artemisiifolia L.
4.	PANDI panicum, fall	Panicum dichotomiflorum Michx.
5.	AMATA waterhemp, common	Amaranthus rudis Sauer

**Crop 1:**      GLXMA      soybean      **Variety:**      37335LL  
**Planting Method:** Seeded      **Planting Date:** 5-24-06  
**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:** No-Till      **Study Design:** Randomized complete block  
**Previous Crop, Year:** GLXMA, 2005  
**Field Prep./Maintenance:** N 0 LB/A, P205 50 LB/A, K20 150 LB/A

**Soil Name:** Weir      **% OM:** 1.5      **pH:** 6.6      **CEC:** 7  
**Texture:** Silt loam      **Fert. Level:** P1: 81 LB/A, K: 313 LB/A

**APPLICATION DESCRIPTION**

	A	B	C
<b>Application Date:</b>	5-17-06	6-9-06	6-23-06
<b>Time of Day:</b>	11:00	10:00	9:30
<b>Application Method:</b>	Spray	Spray	Spray
<b>Application Timing:</b>	EPP7	1-3"W	3-4"W
<b>Applic. Placement:</b>	BROFOL	BROFOL	BROFOL
<b>Air Temp., Unit:</b>	74 F	82 F	76 F
<b>% Relative Humidity:</b>	60	78	92
<b>Wind Velocity, Unit:</b>	5-6 MPH	2-4 MPH	3-4 MPH
<b>Soil Moisture:</b>	NORMAL	NORMAL	ABONOR

**CROP STAGE AT EACH APPLICATION**

	A	B	C
<b>Crop 1 Code, Stage:</b>	GLXMA NA	GLXMA V1	GLXMA V2
<b>Height, Unit:</b>	NA NA	2-4 IN	4-5 IN

**WEED STAGE AT EACH APPLICATION**

	A	B	C
<b>Weed 1 Code:</b>	HORPU		
<b>Stage (leaves):</b>	3-4		
<b>Height (inches):</b>	14-16		
<b>Density:</b>	High		
<b>Weed 2 Code:</b>	ERICA		
<b>Stage (leaves):</b>	24-26		
<b>Height (inches):</b>	8-10		
<b>Density:</b>	High		
<b>Weed 3 Code:</b>	AMBEL	AMBEL	
<b>Stage (leaves):</b>	4-6	2-6	
<b>Height (inches):</b>	4-5	0-3	
<b>Density:</b>	Low	Low	
<b>Weed 4 Code:</b>			PANDI
<b>Stage (leaves):</b>			5-6
<b>Height (inches):</b>			3-4
<b>Density:</b>			Low
<b>Weed 5 Code:</b>		AMATA	AMATA
<b>Stage (leaves):</b>		2-8	6-8
<b>Height (inches):</b>		0-3	3-4
<b>Density:</b>		Medium	Low

**APPLICATION EQUIPMENT**

	A	B	C
<b>Appl. Equipment:</b>	CO2 sprayer	CO2 sprayer	CO2 sprayer
<b>Operating Pressure:</b>	40 PSI	40 PSI	40 PSI
<b>Nozzle Type:</b>	Flat fan	Flat fan	Flat fan
<b>Nozzle Size:</b>	8003	8002	8002
<b>Boom Length, Unit:</b>	7.5 FT	7.5 FT	7.5 FT
<b>Spray Volume, Unit:</b>	20 GPA	20 GPA	20 GPA

**NOTES:**

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Weed Code		Crop Code		Rating Data Type		Rating Unit		Rating Date		Trt-Eval Interval		GLXMA	GLXMA	GLXMA	HORPU	ERICA	ERICA	ERICA
												Injury	Injury	Injury	Control	Control	Control	Control
												Percent	Percent	Percent	Percent	Percent	Percent	Percent
												6-16-06	6-23-06	7-14-06	5-31-06	5-31-06	6-23-06	7-14-06
												7 DA-B	14 DA-B	35 DA-B	14 DA-A	14 DA-A	14 DA-B	35 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code									
1	NONTREATED											0	0	0	0	0	0	0
2	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPP7	A			0	0	0	99	98	99	99
2	2,4-D LV4	3.8	EC	0.475	lb ae/a	1.0	pt/a	EPP7	A									
2	AMS	100	DRY	1.5	lb/a	1.5	lb/a	EPP7	A									
2	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	1-3"W	B									
2	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	1-3"W	B									
3	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPP7	A			0	0	0	98	96	99	99
3	SENCOR	75	WG	0.47	lb ai/a	10	oz/a	EPP7	A									
3	AMS	100	DRY	1.5	lb/a	1.5	lb/a	EPP7	A									
3	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	1-3"W	B									
3	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	1-3"W	B									
4	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPP7	A			0	0	0	99	99	99	99
4	PURSUIT PLUS	2.9	EC			2.5	pt/a	EPP7	A									
4	->PURSUIT	2	SL	0.0621	lb ai/a			EPP7	A									
4	->PROWL	3.3	EC	0.8379	lb ai/a			EPP7	A									
4	AMS	100	DRY	1.5	lb/a	1.5	lb/a	EPP7	A									
4	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	1-3"W	B									
4	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	1-3"W	B									
5	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPP7	A			0	0	0	99	99	99	99
5	2,4-D LV4	3.8	EC	0.475	lb ae/a	1.0	pt/a	EPP7	A									
5	AMS	100	DRY	1.5	lb/a	1.5	lb/a	EPP7	A									
5	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	1-3"W	B									
5	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	1-3"W	B									
5	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	3-4"W	C									
5	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	3-4"W	C									
6	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	EPP7	A			0	0	0	99	99	99	99
6	2,4-D LV4	3.8	EC	0.475	lb ae/a	1.0	pt/a	EPP7	A									
6	AMS	100	DRY	1.5	lb/a	1.5	lb/a	EPP7	A									
6	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	1-3"W	B									
6	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	1-3"W	B									
7	PURSUIT PLUS	2.9	EC			2.5	pt/a	EPP7	A			0	0	0	87	52	96	99
7	->PURSUIT	2	SL	0.0621	lb ai/a			EPP7	A									
7	->PROWL	3.3	EC	0.8379	lb ai/a			EPP7	A									
7	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	1-3"W	B									
7	AMS	100	DRY	1.5	lb/a	1.5	lb/a	1-3"W	B									
7	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	3-4"W	C									
7	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	3-4"W	C									
8	PURSUIT PLUS	2.9	EC			2.5	pt/a	EPP7	A			0	0	0	85	38	93	93
8	->PURSUIT	2	SL	0.0621	lb ai/a			EPP7	A									
8	->PROWL	3.3	EC	0.8379	lb ai/a			EPP7	A									
8	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	1-3"W	B									
8	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	1-3"W	B									
9	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPP7	A				13	0	99	98	99	99
9	2,4-D LV4	3.8	EC	0.475	lb ae/a	1.0	pt/a	EPP7	A									
9	AMS	100	DRY	1.5	lb/a	1.5	lb/a	EPP7	A									
9	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	1-3"W	B									
9	FUSION	2.56	EC	0.2	lb ai/a	10	fl oz/a	1-3"W	B									
LSD (P=.05)											0.0	1.7	0.0	3.3	2.8	1.8	1.7	
Replicate F											0.000	1.000	0.000	2.805	0.102	1.405	0.789	
Replicate Prob(F)											1.0000	0.3897	1.0000	0.0903	0.9039	0.2740	0.4713	
Treatment F											0.000	64.000	0.000	876.872	1574.280	3118.946	3273.550	
Treatment Prob(F)											1.0000	0.0001	1.0000	0.0001	0.0001	0.0001	0.0001	

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Weed Code	AMBEL	AMBEL	AMBEL	PANDI	PANDI	AMATA	AMATA
Crop Code							
Rating Data Type	Control	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Date	5-31-06	6-23-06	7-14-06	6-23-06	7-14-06	6-23-06	7-14-06
Trt-Eval Interval	14 DA-A	14 DA-B	35 DA-B	14 DA-B	35 DA-B	14 DA-B	35 DA-B

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	AMBEL	AMBEL	AMBEL	PANDI	PANDI	AMATA	AMATA
1	NONTREATED									0	0	0	0	0	0	0
2	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPP7	A	99	99	99	94	53	98	85
2	2,4-D LV4	3.8	EC	0.475	lb ae/a	1.0	pt/a	EPP7	A							
2	AMS	100	DRY	1.5	lb/a	1.5	lb/a	EPP7	A							
2	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	1-3"W	B							
2	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	1-3"W	B							
3	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPP7	A	99	99	99	96	62	99	86
3	SENCOR	75	WG	0.47	lb ai/a	10	oz/a	EPP7	A							
3	AMS	100	DRY	1.5	lb/a	1.5	lb/a	EPP7	A							
3	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	1-3"W	B							
3	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	1-3"W	B							
4	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPP7	A	99	99	99	99	98	98	93
4	PURSUIT PLUS	2.9	EC			2.5	pt/a	EPP7	A							
4	->PURSUIT	2	SL	0.0621	lb ai/a			EPP7	A							
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4	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	1-3"W	B							
5	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPP7	A	99	99	99	94	97	97	98
5	2,4-D LV4	3.8	EC	0.475	lb ae/a	1.0	pt/a	EPP7	A							
5	AMS	100	DRY	1.5	lb/a	1.5	lb/a	EPP7	A							
5	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	1-3"W	B							
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5	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	3-4"W	C							
5	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	3-4"W	C							
6	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	EPP7	A	99	99	99	95	55	98	86
6	2,4-D LV4	3.8	EC	0.475	lb ae/a	1.0	pt/a	EPP7	A							
6	AMS	100	DRY	1.5	lb/a	1.5	lb/a	EPP7	A							
6	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	1-3"W	B							
6	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	1-3"W	B							
7	PURSUIT PLUS	2.9	EC			2.5	pt/a	EPP7	A	87	99	99	98	98	98	98
7	->PURSUIT	2	SL	0.0621	lb ai/a			EPP7	A							
7	->PROWL	3.3	EC	0.8379	lb ai/a			EPP7	A							
7	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	1-3"W	B							
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7	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	3-4"W	C							
8	PURSUIT PLUS	2.9	EC			2.5	pt/a	EPP7	A	88	99	97	99	93	98	92
8	->PURSUIT	2	SL	0.0621	lb ai/a			EPP7	A							
8	->PROWL	3.3	EC	0.8379	lb ai/a			EPP7	A							
8	AE F039866	2.34	SL	0.40	lb ai/a	22	fl oz/a	1-3"W	B							
8	AMS	100	DRY	1.5	lb ai/a	1.5	lb/a	1-3"W	B							
9	ROUNDUP W-MAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPP7	A	99	99	99	99	99	99	99
9	2,4-D LV4	3.8	EC	0.475	lb ae/a	1.0	pt/a	EPP7	A							
9	AMS	100	DRY	1.5	lb/a	1.5	lb/a	EPP7	A							
9	FLEXSTAR	1.88	EC	0.294	lb ai/a	20	fl oz/a	1-3"W	B							
9	FUSION	2.56	EC	0.2	lb ai/a	10	fl oz/a	1-3"W	B							
LSD (P=.05)										3.5	0.3	2.4	4.0	7.8	2.2	8.0
Replicate F										2.000	1.000	1.134	1.613	5.023	0.163	3.353
Replicate Prob(F)										0.1678	0.3897	0.3462	0.2301	0.0203	0.8512	0.0608
Treatment F										757.180	88135.759	1743.045	598.329	169.886	2019.163	138.841
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Trial Comments

1. Protocol: Bayer (JNH).
2. Ratings: CI 7, 14, + 35 DA "B"; WC 14 DA "A" + 14 + 35 DA "B".
3. Mixing instructions: AE F039866 was a 1.67 SL last year, use the 2.34 SL in 2006.
4. Destroy crop prior to maturity.
5. DA-A = Days after EPP7 application. DA-B = Days after 1-3"W application.  
 Ratings at 14 DA-B were at the 3-4"W application.  
 Ratings at 35 DA-B were also 21 days after the 3-4"W application.
6. Not harvested.