

## Soybean Variety Comparison on Weed Competition.

Project Code: 04-ARC-3      Location: Agronomy Research Center  
 Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country:      Carbondale      IL 62901 USA  
 Trial Status: Final      Updated:      12-17-04

## Objective:

Determine the influence of soybean variety on weed competition stress.

Weed Code Common Name Scientific Name  
 1. NA

Crop 1:      GLXMA soybean      Variety:      See treatment list  
 Planting Method: Seeded      Planting Date: 6-4-04  
 Rate:      140000 S/A      Depth:      1.0 IN  
 Row Spacing:      30 IN

Plot Width, Unit: 10      FT      Plot Length, Unit: 24      FT      Reps: 4  
 Tillage Type:      Reduced-Till      Study Design: Randomized complete block  
 Previous Crop, Year: ZEAMX, 2003

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K20 150 LB/A

Soil Name: Weir      % OM: 1.6      pH: 6.5      CEC: 8.7  
 Texture: Silt loam      Fert. Level: P1: 84 LB/A, K: 306 LB/A

## APPLICATION DESCRIPTION

A  
 Application Date:      6-4-04  
 Time of Day:      14:00  
 Application Method:      Spray  
 Application Timing:      PRE  
 Applic. Placement:      BROSOT  
 Air Temp., Unit:      80      F  
 % Relative Humidity:      44  
 Dew Presence (Y/N):      N  
 Soil Temp., Unit:      73      F  
 Soil Moisture:      NORMAL  
 % Cloud Cover:      25

## CROP STAGE AT EACH APPLICATION

A  
 Crop 1 Code, Stage:      GLXMA NA  
 Height, Unit:      NA      NA

## APPLICATION EQUIPMENT

A  
 Appl. Equipment:      CO2 sprayer  
 Operating Pressure:      40 PSI  
 Nozzle Type:      Flat fan  
 Nozzle Size:      8003  
 Boom Length, Unit:      10      FT  
 Spray Volume, Unit:      20      GPA

## NOTES:

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Weed Code	GLXMA	GLXMA	GLXMA
Crop Code	Moisture	Test wt.	Yield
Rating Data Type	Percent	lb/bu	bu/A
Rating Unit	11-16-04	11-16-04	11-16-04
Rating Date			
Trt-Eval Interval			

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	GLXMA Moisture Percent	GLXMA Test wt. lb/bu	GLXMA Yield bu/A
1	Asgrow 3903									16.9	52.3	43
1	DUAL II MAGNUM	7.64	EC	1.27	LB A/A	1.33	PT/A	PRE	A			
1	FIRSTRATE	84	WG	0.0315	LB A/A	0.6	OZ/A	PRE	A			
1	HANDWEED											
2	Asgrow 3903									17.1	52.0	40
2	DUAL II MAGNUM	7.64	EC	0.635	LB A/A	0.66	PT/A	PRE	A			
2	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	PRE	A			
3	Asgrow 3903									17.5	53.6	14
3	NONTREATED											
4	Asgrow 4403									17.4	52.9	44
4	DUAL II MAGNUM	7.64	EC	1.27	LB A/A	1.33	PT/A	PRE	A			
4	FIRSTRATE	84	WG	0.0315	LB A/A	0.6	OZ/A	PRE	A			
4	HANDWEED											
5	Asgrow 4403									16.9	53.0	49
5	DUAL II MAGNUM	7.64	EC	0.635	LB A/A	0.66	PT/A	PRE	A			
5	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	PRE	A			
6	Asgrow 4403									16.6	53.8	20
6	NONTREATED											
7	Asgrow 4603									17.2	51.9	46
7	DUAL II MAGNUM	7.64	EC	1.27	LB A/A	1.33	PT/A	PRE	A			
7	FIRSTRATE	84	WG	0.0315	LB A/A	0.6	OZ/A	PRE	A			
7	HANDWEED											
8	Asgrow 4603									17.4	52.1	42
8	DUAL II MAGNUM	7.64	EC	0.635	LB A/A	0.66	PT/A	PRE	A			
8	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	PRE	A			
9	Asgrow 4603									17.4	53.1	11
9	NONTREATED											
10	Forrest									17.2	52.6	30
10	DUAL II MAGNUM	7.64	EC	1.27	LB A/A	1.33	PT/A	PRE	A			
10	FIRSTRATE	84	WG	0.0315	LB A/A	0.6	OZ/A	PRE	A			
10	HANDWEED											
11	Forrest									17.1	53.0	19
11	DUAL II MAGNUM	7.64	EC	0.635	LB A/A	0.66	PT/A	PRE	A			
11	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	PRE	A			
12	Forrest									17.1	53.7	11
12	NONTREATED											
13	Essex									17.4	53.3	39
13	DUAL II MAGNUM	7.64	EC	1.27	LB A/A	1.33	PT/A	PRE	A			
13	FIRSTRATE	84	WG	0.0315	LB A/A	0.6	OZ/A	PRE	A			
13	HANDWEED											

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Rating Date			
Trt-Eval Interval			

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	GLXMA Moisture	GLXMA Test wt.	GLXMA Yield
14	Essex									17.5	53.0	36
14	DUAL II MAGNUM	7.64	EC	0.635	LB A/A	0.66	PT/A	PRE	A			
14	FIRSTRATE	84	WG	0.0157	LB A/A	0.3	OZ/A	PRE	A			
15	Essex									17.7	52.9	22
15	NONTREATED											
LSD (P=.05)										0.92	0.95	12.1
Replicate F										3.023	1.381	0.981
Replicate Prob(F)										0.0404	0.2622	0.4113
Treatment F										0.751	3.281	10.423
Treatment Prob(F)										0.7117	0.0015	0.0001

Trial Comments

1. Protocol: SIU: Young/Wood.
2. Ratings: Observe weed control/competition estimates throughout season.
3. Seed quality and yield.