

LSU Northeast Research Station

SYNCHRONY USE IN STS/RR STACKED TRAIT SOYBEAN

Trial ID: Study Dir.:
 Location: Investigator: Donnie Miller

CROP AND WEED DESCRIPTION

Weed Code	Common Name	Scientific Name
1. ECHCG	Barnyardgrass, common	Echinochloa crus-galli
2. SORHA	Johnson grass	Sorghum halepense
3. IPOLA	Morningglory, pitted	Ipomoea lacunosa
4. IPOHG	Morningglory, entireleaf	Ipomoea hederacea integriuscul
5. SEBEX	Coffeebean	Sesbania exaltata
6. CASOB	Sickle pod	Cassia obtusifolia

Crop 1: GLXMA SOYBEAN Variety: DP 4919 RRS
 Planting Date: 3/May/2007

SITE AND DESIGN

Plot Width, Unit: 6.67 FT Plot Length, Unit: 25 FT Reps: 4
 Study Design: RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

% Sand: 16 % OM: 1.4 Texture: SILTY CLAY LOAM
 % Silt: 54 pH: 6.1
 % Clay: 30 CEC: 13.7

APPLICATION DESCRIPTION

A

Application Date: 1/Jun/2007
 Time of Day: 10:30 AM
 Application Method: SPRAY
 Application Timing: EAPOWE
 Applic. Placement: BROFOL
 Air Temp., Unit: 80 F
 % Relative Humidity: 52
 Wind Velocity, Unit: 6.1 MPH
 Dew Presence (Y/N): N
 Water Hardness: N
 Soil Temp., Unit: 77 F
 Soil Moisture: DRY
 % Cloud Cover: 20

CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage: GLXMA 3-4TRIFOL
 Stage Scale:
 Height, Unit:

WEED STAGE AT EACH APPLICATION

A

Weed 1 Code, Stage: ECHCG 3-5"
Stage Scale:
Density, Unit:
Weed 2 Code, Stage: SORHA 12"
Stage Scale:
Density, Unit:
Weed 3 Code, Stage: IPOLA 3-5"
Stage Scale:
Density, Unit:
Weed 4 Code, Stage: IPOHG 3-5"
Stage Scale:
Density, Unit:
Weed 5 Code, Stage: SEBEX 3-5"
Stage Scale:
Density, Unit:
Weed 6 Code, Stage: CASOB 3-5"
Stage Scale:
Density, Unit:

APPLICATION EQUIPMENT

A

Appl. Equipment: CO2 BCPCCK
Operating Pressure: 33 psi
Nozzle Type: DG
Nozzle Size: 11002
Nozzle Spacing, Unit: 20 IN
Nozzles/Row: 2
Band Width, Unit:
Boom Length, Unit:
Boom Height, Unit:
Ground Speed, Unit: 3.2 MPH
Incorporation Equip.:
Hours to Incorp.:
Incorp. Depth, Unit:
Carrier: WATER
Spray Volume, Unit: 15 GPA
Spray pH:
Propellant:
Tank Mix (Y/N):

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Trial ID:		Study Dir.:									
Location:		Investigator: Donnie Miller									
Weed Code		ECHCG	SORHA	IPOLA	IPOHG	SEBEX	CASOB		ECHCG		
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		GLXMA
Rating Data Type		CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	INJURY		CONTROL
Rating Unit		%	%	%	%	%	%	%	%		%
Rating Date		8/Jun/2007	8/Jun/2007	8/Jun/2007	8/Jun/2007	8/Jun/2007	8/Jun/2007	8/Jun/2007	8/Jun/2007		15/Jun/2007
Trt-Eval Interval		7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A		14 DA-A
Trt Treatment											
No. Name	Rate	Unit	Appl Code	1	2	3	4	5	6	7	8
1 SEQUENCE	2.5	pt/a	A	77.50 a	91.67 a	57.50 b	57.50 b	77.50 b	72.50 a	8.08 b	80.00 ab
2 SEQUENCE	2.5	pt/a	A	82.50 a	83.75 a	66.25 a	66.25 a	86.25 ab	75.37 a	7.50 b	78.75 ab
CLASSIC	0.108	oz ai/a	A								
HARMONY GT	0.0345	oz ai/a	A								
3 SEQUENCE	2.5	pt/a	A	77.50 a	81.25 a	65.00 a	65.00 a	87.50 ab	75.00 a	10.00 b	78.75 ab
CLASSIC	0.161	oz ai/a	A								
HARMONY GT	0.052	oz ai/a	A								
4 SEQUENCE	2.5	pt/a	A	77.50 a	83.75 a	62.50 ab	62.50 ab	87.50 ab	73.75 a	11.35 ab	72.50 b
CLASSIC	0.215	oz ai/a	A								
HARMONY GT	0.069	oz ai/a	A								
5 ROUNDUP WEATHERMAX	22	oz/a	A	85.00 a	82.50 a	65.00 a	65.00 a	78.75 b	76.25 a	0.38 c	86.25 a
6 ROUNDUP WEATHERMAX	22	oz/a	A	83.75 a	88.75 a	63.75 ab	63.75 ab	91.25 a	73.26 a	0.00 c	81.25 ab
CLASSIC	0.108	oz ai/a	A								
HARMONY GT	0.0345	oz ai/a	A								
7 ROUNDUP WEATHERMAX	22	oz/a	A	85.00 a	90.00 a	65.00 a	65.00 a	95.00 a	73.75 a	1.25 c	87.50 a
CLASSIC	0.161	oz ai/a	A								
HARMONY GT	0.052	oz ai/a	A								
8 ROUNDUP WEATHERMAX	22	oz/a	A	80.00 a	85.00 a	67.50 a	67.50 a	93.75 a	72.50 a	0.19 c	78.75 ab
CLASSIC	0.215	oz ai/a	A								
HARMONY GT	0.069	oz ai/a	A								
9 ROUNDUP WEATHERMAX	22	oz/a	A	81.25 a	90.00 a	68.75 a	68.75 a	93.75 a	72.87 a	16.25 a	81.25 ab
DUAL MAGNUM	1	pt/a	A								
CLASSIC	0.215	oz ai/a	A								
HARMONY GT	0.069	oz ai/a	A								
10 NONTREATED				0.00 b	0.00 b	0.00 c	0.00 c	0.00 c	0.00 b	0.00 c	0.00 c
LSD (P=.05)				9.803	10.615	7.385	7.385	11.298	6.029	5.442	11.937
Standard Deviation				6.756	7.217	5.089	5.089	7.786	4.131	3.720	8.227
CV				9.26	9.29	8.76	8.76	9.84	6.21	67.63	11.35
Grand Mean				73.0	77.67	58.13	58.13	79.13	66.53	5.5	72.5
Bartlett's X2				4.129	10.544	6.682	6.682	11.481	2.44	3.543	5.176
P(Bartlett's X2)				0.845	0.16	0.571	0.571	0.119	0.932	0.617	0.739
Replicate F				8.434	0.707	1.054	1.054	0.450	0.670	0.766	3.620
Replicate Prob(F)				0.0004	0.5588	0.3850	0.3850	0.7192	0.5787	0.5247	0.0257
Treatment F				58.424	58.189	65.858	65.858	53.380	128.447	10.070	39.378
Treatment Prob(F)				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)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

LSU Northeast Research Station

Weed Code		SORHA	IPOLA	IPOHG	SEBEX	CASOB		ECHCG	SORHA		
Crop Code		GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA		
Rating Data Type		CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	INJURY	CONTROL	CONTROL		
Rating Unit		%	%	%	%	%	%	%	%		
Rating Date		15/Jun/2007	15/Jun/2007	15/Jun/2007	15/Jun/2007	15/Jun/2007	15/Jun/2007	29/Jun/2007	29/Jun/2007		
Trt-Eval Interval		14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	28 DA-A	28 DA-A		
Trt Treatment											
No. Name	Rate	Unit	Appl Code	9	10	11	12	13	14	15	16
1 SEQUENCE	2.5	pt/a	A	91.25 a	70.00 ab	91.25 a	77.50 b	87.50 a	13.75 ab	85.00 ab	95.00 a
2 SEQUENCE	2.5	pt/a	A	87.50 a	76.25 a	91.25 a	93.75 a	90.00 a	15.00 a	82.50 ab	92.50 a
CLASSIC	0.108	oz ai/a	A								
HARMONY GT	0.0345	oz ai/a	A								
3 SEQUENCE	2.5	pt/a	A	87.50 a	71.25 ab	91.25 a	93.75 a	81.25 a	17.50 a	83.75 ab	95.00 a
CLASSIC	0.161	oz ai/a	A								
HARMONY GT	0.052	oz ai/a	A								
4 SEQUENCE	2.5	pt/a	A	83.75 a	67.50 ab	86.25 b	93.75 a	88.75 a	17.50 a	77.50 b	95.00 a
CLASSIC	0.215	oz ai/a	A								
HARMONY GT	0.069	oz ai/a	A								
5 ROUNDUP WEATHERMAX	22	oz/a	A	87.50 a	63.75 b	92.50 a	83.75 b	88.75 a	1.25 cd	90.00 a	93.75 a
6 ROUNDUP WEATHERMAX	22	oz/a	A	90.00 a	70.00 ab	91.25 a	92.50 a	86.25 a	1.25 cd	88.75 a	95.00 a
CLASSIC	0.108	oz ai/a	A								
HARMONY GT	0.0345	oz ai/a	A								
7 ROUNDUP WEATHERMAX	22	oz/a	A	90.00 a	70.00 ab	91.25 a	92.50 a	81.25 a	1.25 cd	87.50 ab	93.75 a
CLASSIC	0.161	oz ai/a	A								
HARMONY GT	0.052	oz ai/a	A								
8 ROUNDUP WEATHERMAX	22	oz/a	A	86.25 a	73.75 ab	92.50 a	95.00 a	86.25 a	7.50 bc	83.75 ab	92.50 a
CLASSIC	0.215	oz ai/a	A								
HARMONY GT	0.069	oz ai/a	A								
9 ROUNDUP WEATHERMAX	22	oz/a	A	92.50 a	72.50 ab	91.25 a	95.00 a	90.00 a	20.00 a	86.25 ab	95.00 a
DUAL MAGNUM	1	pt/a	A								
CLASSIC	0.215	oz ai/a	A								
HARMONY GT	0.069	oz ai/a	A								
10 NONTREATED				0.00 b	0.00 c	0.00 c	0.00 c	0.00 b	0.00 d	0.00 c	0.00 b
LSD (P=.05)				12.250	10.851	3.525	8.366	9.480	6.608	11.187	3.532
Standard Deviation				8.442	7.478	2.430	5.765	6.533	4.554	7.710	2.434
CV				10.6	11.78	2.97	7.05	8.38	47.94	10.08	2.87
Grand Mean				79.63	63.5	81.88	81.75	78.0	9.5	76.5	84.75
Bartlett's X2				7.431	7.234	2.624	22.204	4.288	10.857	11.172	2.571
P(Bartlett's X2)				0.491	0.512	0.956	0.001*	0.83	0.21	0.192	0.463
Replicate F				1.318	7.242	4.059	2.532	1.445	4.661	1.935	1.547
Replicate Prob(F)				0.2889	0.0010	0.0167	0.0781	0.2517	0.0095	0.1478	0.2252
Treatment F				44.295	36.427	562.882	103.212	71.330	12.536	49.458	599.250
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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Weed Code			IPOLA	IPOHG	SEBEX	CASOB	ECHCG	SORHA	IPOLA	IPOHG	
Crop Code			GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
Rating Data Type			CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
Rating Unit			%	%	%	%	%	%	%	%	
Rating Date			29/Jun/2007	29/Jun/2007	29/Jun/2007	29/Jun/2007	27/Jul/2007	27/Jul/2007	27/Jul/2007	27/Jul/2007	
Trt-Eval Interval			28 DA-A	28 DA-A	28 DA-A	28 DA-A	56 DA-A	56 DA-A	56 DA-A	56 DA-A	
Trt Treatment											
No. Name	Rate	Unit	Appl Code	17	18	19	20	21	22	23	24
1 SEQUENCE	2.5	pt/a	A	72.50 a	95.00 a	88.75 b	95.00 a	51.25 a	91.25 a	58.75 b	58.75 b
2 SEQUENCE	2.5	pt/a	A	76.25 a	93.75 ab	95.00 a	95.00 a	47.50 a	88.75 a	65.00 ab	65.00 ab
CLASSIC	0.108	oz ai/a	A								
HARMONY GT	0.0345	oz ai/a	A								
3 SEQUENCE	2.5	pt/a	A	76.25 a	95.00 a	95.00 a	92.50 ab	52.50 a	90.00 a	70.00 a	70.00 a
CLASSIC	0.161	oz ai/a	A								
HARMONY GT	0.052	oz ai/a	A								
4 SEQUENCE	2.5	pt/a	A	71.25 a	91.25 b	95.00 a	93.75 a	47.50 a	88.75 a	65.00 ab	65.00 ab
CLASSIC	0.215	oz ai/a	A								
HARMONY GT	0.069	oz ai/a	A								
5 ROUNDUP WEATHERMAX	22	oz/a	A	71.25 a	92.50 ab	88.75 b	95.00 a	62.50 a	90.00 a	62.50 ab	62.50 ab
6 ROUNDUP WEATHERMAX	22	oz/a	A	73.75 a	95.00 a	93.75 a	92.50 ab	61.25 a	88.75 a	65.00 ab	65.00 ab
CLASSIC	0.108	oz ai/a	A								
HARMONY GT	0.0345	oz ai/a	A								
7 ROUNDUP WEATHERMAX	22	oz/a	A	75.00 a	93.75 ab	95.00 a	88.75 b	57.50 a	90.00 a	62.50 ab	62.50 ab
CLASSIC	0.161	oz ai/a	A								
HARMONY GT	0.052	oz ai/a	A								
8 ROUNDUP WEATHERMAX	22	oz/a	A	76.25 a	95.00 a	95.00 a	93.75 a	47.50 a	90.00 a	63.75 ab	63.75 ab
CLASSIC	0.215	oz ai/a	A								
HARMONY GT	0.069	oz ai/a	A								
9 ROUNDUP WEATHERMAX	22	oz/a	A	71.25 a	95.00 a	95.00 a	92.50 ab	68.75 a	91.25 a	63.75 ab	63.75 ab
DUAL MAGNUM	1	pt/a	A								
CLASSIC	0.215	oz ai/a	A								
HARMONY GT	0.069	oz ai/a	A								
10 NONTREATED				0.00 b	0.00 c	0.00 c	0.00 c	0.00 b	0.00 b	0.00 c	0.00 c
LSD (P=.05)				12.408	3.176	4.912	3.893	26.179	5.633	7.993	7.993
Standard Deviation				8.551	2.189	3.385	2.683	18.043	3.882	5.509	5.509
CV				12.88	2.59	4.02	3.2	36.36	4.8	9.56	9.56
Grand Mean				66.38	84.63	84.13	83.88	49.63	80.88	57.63	57.63
Bartlett's X2				4.187	1.876	3.33	2.993	12.033	3.728	6.063	6.063
P(Bartlett's X2)				0.84	0.598	0.189	0.701	0.15	0.881	0.532	0.532
Replicate F				7.667	0.130	1.364	1.707	1.912	16.300	1.503	1.503
Replicate Prob(F)				0.0007	0.9412	0.2750	0.1891	0.1515	0.0001	0.2361	0.2361
Treatment F				29.999	739.435	307.279	484.524	4.390	214.567	55.078	55.078
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0013	0.0001	0.0001	0.0001

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

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LSU Northeast Research Station

Weed Code		SEBEX	CASOB			
Crop Code		GLXMA	GLXMA			
Rating Data Type		CONTROL	CONTROL			
Rating Unit		%	%			
Rating Date		27/Jul/2007	27/Jul/2007			
Trt-Eval Interval		56 DA-A	56 DA-A			
Trt	Treatment	Rate	Appl			
No.	Name	Rate	Unit	Code	25	26
1	SEQUENCE	2.5	pt/a	A	77.50 a	81.25 ab
2	SEQUENCE	2.5	pt/a	A	81.25 a	80.00 ab
	CLASSIC	0.108	oz ai/a	A		
	HARMONY GT	0.0345	oz ai/a	A		
3	SEQUENCE	2.5	pt/a	A	77.50 a	77.50 ab
	CLASSIC	0.161	oz ai/a	A		
	HARMONY GT	0.052	oz ai/a	A		
4	SEQUENCE	2.5	pt/a	A	82.50 a	87.50 a
	CLASSIC	0.215	oz ai/a	A		
	HARMONY GT	0.069	oz ai/a	A		
5	ROUNDUP WEATHERMAX	22	oz/a	A	77.50 a	81.25 ab
6	ROUNDUP WEATHERMAX	22	oz/a	A	76.25 a	80.00 ab
	CLASSIC	0.108	oz ai/a	A		
	HARMONY GT	0.0345	oz ai/a	A		
7	ROUNDUP WEATHERMAX	22	oz/a	A	77.50 a	72.50 b
	CLASSIC	0.161	oz ai/a	A		
	HARMONY GT	0.052	oz ai/a	A		
8	ROUNDUP WEATHERMAX	22	oz/a	A	81.25 a	75.00 b
	CLASSIC	0.215	oz ai/a	A		
	HARMONY GT	0.069	oz ai/a	A		
9	ROUNDUP WEATHERMAX	22	oz/a	A	77.50 a	78.75 ab
	DUAL MAGNUM	1	pt/a	A		
	CLASSIC	0.215	oz ai/a	A		
	HARMONY GT	0.069	oz ai/a	A		
10	NONTREATED				0.00 b	0.00 c
LSD (P=.05)					11.579	10.686
Standard Deviation					7.980	7.365
CV					11.26	10.32
Grand Mean					70.88	71.38
Bartlett's X2					3.801	6.73
P(Bartlett's X2)					0.875	0.566
Replicate F					6.474	10.245
Replicate Prob(F)					0.0019	0.0001
Treatment F					39.238	47.566
Treatment Prob(F)					0.0001	0.0001

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.