

LSU Northeast Research Station

BURNDOWN AND RESIDUAL WEED CONTROL IN NO-TILL SOYBEAN WITH QER54

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

CROP AND WEED DESCRIPTION

Weed Code	Common Name	Scientific Name
1. COPSS	Swinecress	Coronopus sp.
2. MEDPO	California burclover	Medicago polymorpha
3. ECHCG	Barnyardgrass, common	Echinochloa crus-galli
4. SORHA		
5. IPOLA	Morningglory, pitted	Ipomoea lacunosa
6. IPOHG	Morningglory, entireleaf	Ipomoea hederacea integruscul
7. SEBEX	Coffebean	Sesbania exaltata
8. CASOB	Sickle pod	Cassia obtusifolia
9. AMARE	Carelessweed	Amaranthus retroflexus

Crop 1: GLXMA SOYBEAN Variety: PIONEER 94B73 RR
 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: 12 CEC: 13.7

APPLICATION DESCRIPTION

	A	B
Application Date:	13/Apr/2007	1/Jan/2007
Time of Day:	10:40 AM	10:00 AM
Application Method:	SPRAY	SPRAY
Application Timing:	PREPLA	EAPOCR
Applic. Placement:	BROFOL	BROFOL
Air Temp., Unit:	67 F	80 F
% Relative Humidity:	45	52
Wind Velocity, Unit:	7.7 MPH	6.1 MPH
Dew Presence (Y/N):	N	N
Water Hardness:	N	N
Soil Temp., Unit:	62 F	77 F
Soil Moisture:	MOIST	DRY
% Cloud Cover:	10	20

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	GLXMA N/A	GLXMA 3-4TRIFOL
Stage Scale:		
Height, Unit:		

WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	COPSS 4-6"	COPSS N/A
Stage Scale:		
Density, Unit:		
Weed 2 Code, Stage:	MEDPO 6-8"	MEDPO N/A
Stage Scale:		
Density, Unit:		
Weed 3 Code, Stage:	ECHCG N/A	ECHCG 3-5"
Stage Scale:		
Density, Unit:		
Weed 4 Code, Stage:	SORHA N/A	SORHA 12"
Stage Scale:		
Density, Unit:		
Weed 5 Code, Stage:	IPOLA N/A	IPOLA 3-5"
Stage Scale:		
Density, Unit:		
Weed 6 Code, Stage:	IPOHG N/A	IPOHG 3-5"
Stage Scale:		
Density, Unit:		
Weed 7 Code, Stage:	SEBEX N/A	SEBEX 3-5"
Stage Scale:		
Density, Unit:		
Weed 8 Code, Stage:	CASOB N/A	CASOB 3-5"
Stage Scale:		
Density, Unit:		
Weed 9 Code, Stage:	AMARE N/A	AMARE 3-5"
Stage Scale:		
Density, Unit:		

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2 BCPCCK	CO2 BCPCCK
Operating Pressure:	37 PSI	33 psi
Nozzle Type:	DG	DG
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	20 "	20 IN
Nozzles/Row:	2	2
Band Width, Unit:		
Boom Length, Unit:		
Boom Height, Unit:		
Ground Speed, Unit:	3.2 MPH	3.2 MPH
Incorporation Equip.:		
Hours to Incorp.:		
Incorp. Depth, Unit:		
Carrier:	WATER	WATER
Spray Volume, Unit:	15 GPA	15 GPA
Spray pH:		
Propellant:		
Tank Mix (Y/N):		

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Trial ID:		Study Dir.:								
Location:		Investigator: Donnie Miller								
Weed Code			COPSS	MEDPO	ECHCG	SORHA	IPOLA	IPOHG	SEBEX	
Crop Code					GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	
Rating Data Type			CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
Rating Unit			%	%	%	%	%	%	%	
Rating Date			3/May/2007	3/May/2007	31/May/2007	31/May/2007	31/May/2007	31/May/2007	31/May/2007	
Trt-Eval Interval			20 DA-A	20 DA-A	28 DAP	28 DAP	28 DAP	28 DAP	28 DAP	
Trt Treatment										
No. Name	Rate	Rate Unit	Appl Code	1	2	3	4	5	6	7
1 NIS	0.25 % v/v	A		100.00 a	100.00 a	73.75 a	62.50 a	85.00 a	91.25 abc	81.25 ab
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A								
SALVO	8 oz ai/a	A								
CLASSIC	0.23 oz ai/a	A								
HARMONY GT	0.0738 oz ai/a	A								
VALOR	0.72 oz ai/a	A								
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B								
AMMONIUM SULFATE	32 oz ai/a	B								
2 NIS	0.25 % v/v	A		100.00 a	100.00 a	75.00 a	55.00 a	82.50 a	87.50 abc	78.75 ab
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A								
SALVO	8 oz ai/a	A								
CLASSIC	0.32 oz ai/a	A								
HARMONY GT	0.104 oz ai/a	A								
VALOR	1 oz ai/a	A								
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B								
AMMONIUM SULFATE	32 oz ai/a	B								
3 NIS	0.25 % v/v	A		100.00 a	100.00 a	76.25 a	57.50 a	82.50 a	92.50 ab	80.00 ab
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A								
SALVO	8 oz ai/a	A								
CLASSIC	0.42 oz ai/a	A								
HARMONY GT	0.133 oz ai/a	A								
VALOR	1.15 oz ai/a	A								
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B								
AMMONIUM SULFATE	32 oz ai/a	B								
4 NIS	0.25 % v/v	A		100.00 a	100.00 a	70.00 a	63.75 a	83.75 a	91.25 abc	77.50 ab
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A								
SALVO	8 oz ai/a	A								
VALOR XLT	1.01 oz ai/a	A								
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B								
AMMONIUM SULFATE	32 oz ai/a	B								
5 NIS	0.25 % v/v	A		100.00 a	100.00 a	78.75 a	72.50 a	83.75 a	90.00 abc	77.50 ab
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A								
SALVO	8 oz ai/a	A								
AUTHORITY FIRST	2.26 oz ai/a	A								
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B								
AMMONIUM SULFATE	32 oz ai/a	B								
6 NIS	0.25 % v/v	A		100.00 a	100.00 a	78.75 a	68.75 a	90.00 a	93.75 a	77.50 ab
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A								
SALVO	8 oz ai/a	A								
AUTHORITY FIRST	4.51 oz ai/a	A								
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B								
AMMONIUM SULFATE	32 oz ai/a	B								
7 NIS	0.25 % v/v	A		100.00 a	100.00 a	75.00 a	73.75 a	86.25 a	92.50 ab	72.50 b
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A								
SALVO	8 oz ai/a	A								
AUTHORITY FIRST	5.60 oz ai/a	A								
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B								
AMMONIUM SULFATE	32 oz ai/a	B								
8 NIS	0.25 % v/v	A		100.00 a	100.00 a	73.75 a	60.00 a	66.25 b	87.50 abc	80.00 ab
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A								
SALVO	8 oz ai/a	A								
PREFIX	16.76 oz ai/a	A								
REFLEX	4 oz ai/a	A								
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B								
AMMONIUM SULFATE	32 oz ai/a	B								
9 NIS	0.25 % v/v	A		100.00 a	100.00 a	76.25 a	57.50 a	77.50 ab	80.00 c	75.00 ab
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A								
SALVO	8 oz ai/a	A								
CANOPY	1.69 oz ai/a	A								
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B								
AMMONIUM SULFATE	32 oz ai/a	B								
10 NIS	0.25 % v/v	A		100.00 a	100.00 a	72.50 a	66.25 a	80.00 ab	81.25 bc	73.75 ab
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A								
SALVO	8 oz ai/a	A								
CANOPY	2.25 oz ai/a	A								
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B								
AMMONIUM SULFATE	32 oz ai/a	B								
11 NIS	0.25 % v/v	A		100.00 a	100.00 a	65.00 a	63.75 a	81.25 ab	82.50 abc	73.75 ab

ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A							
SALVO	8 oz ai/a	A							
CANOPY	3 oz ai/a	A							
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B							
AMMONIUM SULFATE	32 oz ai/a	B							
12 NIS	0.25 % v/v	A	100.00 a	100.00 a	76.25 a	67.50 a	85.00 a	87.50 abc	87.50 a
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A							
SALVO	8 oz ai/a	A							
CLASSIC	0.08 oz ai/a	A							
HARMONY GT	0.248 oz ai/a	A							
VALOR	1.02 oz ai/a	A							
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B							
AMMONIUM SULFATE	32 oz ai/a	B							
13 NIS	0.25 % v/v	A	100.00 a	100.00 a	66.25 a	68.75 a	76.25 ab	80.00 c	80.00 ab
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A							
SALVO	8 oz ai/a	A							
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B							
AMMONIUM SULFATE	32 oz ai/a	B							
14 NONTREATED			100.00 a	100.00 a	0.00 b	0.00 b	0.00 c	0.00 d	0.00 c
LSD (P=.05)			0.000	0.000	14.738	22.337	15.182	11.470	14.987
Standard Deviation			0.000	0.000	10.313	15.631	10.624	8.026	10.487
CV			0.0	0.0	15.08	26.13	14.03	9.88	14.47
Grand Mean			100.0	100.0	68.39	59.82	75.71	81.25	72.5
Bartlett's X2			0.0	0.0	3.973	4.519	16.493	13.067	10.645
P(Bartlett's X2)			.	.	0.984	0.952	0.17	0.364	0.56
Replicate F			0.000	0.000	0.241	1.240	0.696	0.323	0.487
Replicate Prob(F)			1.0000	1.0000	0.8675	0.3083	0.5600	0.8084	0.6932
Treatment F			0.000	0.000	15.209	5.371	17.948	35.388	16.366
Treatment Prob(F)			1.0000	1.0000	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.

ROUNDUP ORIGINAL MAX	15.13 oz ai/a B							
AMMONIUM SULFATE	32 oz ai/a B							
12 NIS	0.25 % v/v A	90.00 a	95.00 a	0.00 a	90.00 abc	95.00 a	88.75 a	93.75 a
ROUNDUP ORIGINAL MAX	15.13 oz ai/a A							
SALVO	8 oz ai/a A							
CLASSIC	0.08 oz ai/a A							
HARMONY GT	0.248 oz ai/a A							
VALOR	1.02 oz ai/a A							
ROUNDUP ORIGINAL MAX	15.13 oz ai/a B							
AMMONIUM SULFATE	32 oz ai/a B							
13 NIS	0.25 % v/v A	85.00 a-d	92.50 b	0.00 a	82.50 c	95.00 a	78.75 bc	95.00 a
ROUNDUP ORIGINAL MAX	15.13 oz ai/a A							
SALVO	8 oz ai/a A							
ROUNDUP ORIGINAL MAX	15.13 oz ai/a B							
AMMONIUM SULFATE	32 oz ai/a B							
14 NONTREATED		0.00 f	0.00 c	0.00 a	0.00 d	0.00 b	0.00 d	0.00 b
LSD (P=.05)		11.851	1.910	0.000	8.914	1.368	9.876	1.368
Standard Deviation		8.293	1.336	0.000	6.238	0.957	6.911	0.957
CV		10.78	1.52	0.0	7.52	1.09	8.47	1.09
Grand Mean		76.96	88.04	0.0	82.95	88.04	81.61	88.04
Bartlett's X2		9.855	0.0	0.0	11.35	0.0	9.407	0.0
P(Bartlett's X2)		0.629	.	.	0.414	1.00	0.668	1.00
Replicate F		2.813	1.000	0.000	0.226	0.650	0.262	0.650
Replicate Prob(F)		0.0518	0.4031	1.0000	0.8780	0.5877	0.8525	0.5877
Treatment F		30.839	1439.154	0.000	60.093	2805.300	48.653	2805.300
Treatment Prob(F)		0.0001	0.0001	1.0000	0.0001	0.0001	0.0001	0.0001

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Weed Code		SEBEX	CASOB	AMARE
Crop Code		GLXMA	GLXMA	GLXMA
Rating Data Type		CONTROL	CONTROL	CONTROL
Rating Unit		%	%	%
Rating Date		28/Jun/2007	28/Jun/2007	28/Jun/2007
Trt-Eval Interval		56 DAP	56 DAP	56 DAP
Trt Treatment	Rate	Appl		
No. Name	Rate	Unit	Code	
1 NIS	0.25 % v/v	A	15	
			92.50 ab	93.75 a
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A		95.00 a
SALVO	8 oz ai/a	A		
CLASSIC	0.23 oz ai/a	A		
HARMONY GT	0.0738 oz ai/a	A		
VALOR	0.72 oz ai/a	A		
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B		
AMMONIUM SULFATE	32 oz ai/a	B		
2 NIS	0.25 % v/v	A	95.00 a	95.00 a
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A		
SALVO	8 oz ai/a	A		
CLASSIC	0.32 oz ai/a	A		
HARMONY GT	0.104 oz ai/a	A		
VALOR	1 oz ai/a	A		
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B		
AMMONIUM SULFATE	32 oz ai/a	B		
3 NIS	0.25 % v/v	A	91.25 ab	93.75 a
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A		
SALVO	8 oz ai/a	A		
CLASSIC	0.42 oz ai/a	A		
HARMONY GT	0.133 oz ai/a	A		
VALOR	1.15 oz ai/a	A		
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B		
AMMONIUM SULFATE	32 oz ai/a	B		
4 NIS	0.25 % v/v	A	90.00 ab	93.75 a
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A		
SALVO	8 oz ai/a	A		
VALOR XLT	1.01 oz ai/a	A		
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B		
AMMONIUM SULFATE	32 oz ai/a	B		
5 NIS	0.25 % v/v	A	82.50 c	92.50 a
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A		
SALVO	8 oz ai/a	A		
AUTHORITY FIRST	2.26 oz ai/a	A		
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B		
AMMONIUM SULFATE	32 oz ai/a	B		
6 NIS	0.25 % v/v	A	93.75 ab	92.50 a
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A		
SALVO	8 oz ai/a	A		
AUTHORITY FIRST	4.51 oz ai/a	A		
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B		
AMMONIUM SULFATE	32 oz ai/a	B		
7 NIS	0.25 % v/v	A	93.75 ab	93.75 a
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A		
SALVO	8 oz ai/a	A		
AUTHORITY FIRST	5.60 oz ai/a	A		
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B		
AMMONIUM SULFATE	32 oz ai/a	B		
8 NIS	0.25 % v/v	A	92.50 ab	95.00 a
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A		
SALVO	8 oz ai/a	A		
PREFIX	16.76 oz ai/a	A		
REFLEX	4 oz ai/a	A		
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B		
AMMONIUM SULFATE	32 oz ai/a	B		
9 NIS	0.25 % v/v	A	87.50 bc	92.50 a
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A		
SALVO	8 oz ai/a	A		
CANOPY	1.69 oz ai/a	A		
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B		
AMMONIUM SULFATE	32 oz ai/a	B		
10 NIS	0.25 % v/v	A	91.25 ab	92.50 a
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A		
SALVO	8 oz ai/a	A		
CANOPY	2.25 oz ai/a	A		
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	B		
AMMONIUM SULFATE	32 oz ai/a	B		
11 NIS	0.25 % v/v	A	92.50 ab	93.75 a
ROUNDUP ORIGINAL MAX	15.13 oz ai/a	A		
SALVO	8 oz ai/a	A		
CANOPY	3 oz ai/a	A		

	ROUNDUP ORIGINAL MAX	15.13 oz ai/a B			
	AMMONIUM SULFATE	32 oz ai/a B			
12	NIS	0.25 % v/v A	95.00 a	95.00 a	95.00 a
	ROUNDUP ORIGINAL MAX	15.13 oz ai/a A			
	SALVO	8 oz ai/a A			
	CLASSIC	0.08 oz ai/a A			
	HARMONY GT	0.248 oz ai/a A			
	VALOR	1.02 oz ai/a A			
	ROUNDUP ORIGINAL MAX	15.13 oz ai/a B			
	AMMONIUM SULFATE	32 oz ai/a B			
13	NIS	0.25 % v/v A	93.75 ab	91.25 a	95.00 a
	ROUNDUP ORIGINAL MAX	15.13 oz ai/a A			
	SALVO	8 oz ai/a A			
	ROUNDUP ORIGINAL MAX	15.13 oz ai/a B			
	AMMONIUM SULFATE	32 oz ai/a B			
14	NONTREATED		0.00 d	0.00 b	0.00 b
LSD (P=.05)			7.051	4.292	0.000
Standard Deviation			4.934	3.003	0.000
CV			5.8	3.46	0.0
Grand Mean			85.09	86.79	88.21
Bartlett's X2			12.407	9.489	0.0
P(Bartlett's X2)			0.259	0.393	.
Replicate F			0.947	5.939	0.000
Replicate Prob(F)			0.4272	0.0019	1.0000
Treatment F			100.329	277.234	0.000
Treatment Prob(F)			0.0001	0.0001	1.0000

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

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