

# LSU Northeast Research Station

## EVALUATION OF TOUCHDOWN TOTAL WEED CONTROL PROGRAMS IN ROUNDUP READY COTTON

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

### SITE AND DESIGN

Plot Width, Unit: 6.67 FT Plot Length, Unit: 30 FT Reps: 4  
 Site Type: \_\_\_\_\_  
 Tillage Type: \_\_\_\_\_ Study Design: RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

### APPLICATION DESCRIPTION

	A	B	C
Application Date:	21/Jun/2005	1/Jul/2005	20/Jul/2005
Time of Day:	12:00 PM	12:00 PM	2:00 PM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	POSPOS	POSPOS	POSPOS
Applic. Placement:	BROFOL	BROFOL	BRODIR
Air Temp., Unit:	87 F	95 F	93 F
% Relative Humidity:	50	66	53
Wind Velocity, Unit:	2.9 MPH	4 MPH	2 MPH
Dew Presence (Y/N):			
Water Hardness:			
Soil Temp., Unit:	92 F	99 F	102 F
Soil Moisture:	DRY	DRY	DRY
% Cloud Cover:	20	35	35

### WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	ECHCG N/A	ECHCG 1-2 LF	ECHCG
Stage Scale:			
Density, Unit:			
Weed 2 Code, Stage:	SEBEX N/A	SEBEX 1-2 LF	SEBEX
Stage Scale:			
Density, Unit:			
Weed 3 Code, Stage:	CASOB N/A	CASOB 1-2 LF	CASOB
Stage Scale:			
Density, Unit:			
Weed 4 Code, Stage:	IPOLA N/A	IPOLA 1-2 LF	IPOLA
Stage Scale:			
Density, Unit:			
Weed 5 Code, Stage:	IPOHG N/A	IPOHG 1-2 LF	IPOHG
Stage Scale:			
Density, Unit:			
Weed 6 Code, Stage:	DIGSA N/A	DIGSA 1-2 LF	DIGSA
Stage Scale:			
Density, Unit:			
Weed 7 Code, Stage:	ELEIN N/A	ELEIN 1-2 LF	ELEIN
Stage Scale:			
Density, Unit:			
Weed 8 Code, Stage:	AMARE N/A	AMARE 1-2 LF	AMARE
Stage Scale:			
Density, Unit:			

# LSU Northeast Research Station

## APPLICATION EQUIPMENT

	A	B	C
<b>Appl. Equipment:</b>	TRACTOR	CO2 BCPCCK	CO2 BCPCCK
<b>Operating Pressure:</b>		32 PSI	39 PSI
<b>Nozzle Type:</b>		AI	TK
<b>Nozzle Size:</b>		11002	2.5
<b>Nozzle Spacing, Unit:</b>	20 IN	20 IN	40 IN
<b>Nozzles/Row:</b>	2	2	1
<b>Band Width, Unit:</b>			
<b>Boom Length, Unit:</b>			
<b>Boom Height, Unit:</b>			
<b>Ground Speed, Unit:</b>		3.2 MPH	3.2 MPH
<b>Incorporation Equip.:</b>			
<b>Hours to Incorp.:</b>			
<b>Incorp. Depth, Unit:</b>			
<b>Carrier:</b>	WATER	WATER	WATER
<b>Spray Volume, Unit:</b>	15 GPA	15 GPA	15 GPA
<b>Spray pH:</b>			
<b>Propellant:</b>			
<b>Tank Mix (Y/N):</b>			

# LSU Northeast Research Station

Trial ID:				Study Dir.:					
Location:				Investigator: Donnie Miller					
Weed Code	ECHCG	SORHA	SEBEX	CASOB	IPOLA	IPOHG			
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI			
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL			
Rating Unit	%	%	%	%	%	%			
Rating Date	3/Aug/2005	3/Aug/2005	3/Aug/2005	3/Aug/2005	3/Aug/2005	3/Aug/2005			
Trt-Eval Interval	14 DAT	14 DAT	14 DAT	14 DAT	14 DAT	14 DAT			
ARM Action Codes									
# Subsamples, Dec.									
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6
1	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a	95 a	95 a
	ENVOKE	0.1	oz/a						
	NIS	0.25	% v/v						
	SUPREND	1.0	lb/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
2	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a	95 a	95 a
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
3	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a	95 a	95 a
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	STAPLE	0.6	oz/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	VALOR	2	oz/a						
4	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a	95 a	95 a
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	STAPLE	0.6	oz/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	LAYBY PRO	2	pt/a						
5	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a	95 a	95 a
	SEQUENCE	2.5	pt/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	SUPREND	1.0	lb/a						
6	NONTREATED			95 a	95 a	95 a	95 a	95 a	95 a
LSD (P=.05)				0.0	0.0	0.0	0.0	0.0	0.0
Standard Deviation				0.0	0.0	0.0	0.0	0.0	0.0
CV				0.0	0.0	0.0	0.0	0.0	0.0
Grand Mean				95.0	95.0	95.0	95.0	95.0	95.0
Bartlett's X2				0.0	0.0	0.0	0.0	0.0	0.0
P(Bartlett's X2)				.	.	.	.	.	.
Replicate F				0.000	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)				1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F				0.000	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)				1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

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

## LSU Northeast Research Station

Weed Code				DIGSA	ELEIN	AMARE		ECHCG	SORHA	SEBEX
Crop Code				GOSHI	GOSHI	GOSHI		GOSHI	GOSHI	GOSHI
Rating Data Type				CONTROL	CONTROL	CONTROL		CONTROL	CONTROL	CONTROL
Rating Unit				%	%	%		%	%	%
Rating Date				3/Aug/2005	3/Aug/2005	3/Aug/2005		17/Aug/2005	17/Aug/2005	17/Aug/2005
Trt-Eval Interval				14 DAT	14 DAT	14 DAT		28 DAT	28 DAT	28 DAT
ARM Action Codes										
# Subsamples, Dec.										
Trt No.	Treatment Name	Rate	Unit	7	8	9	10	11	12	13
1	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a		95 a	95 a	95 a
	ENVOKE	0.1	oz/a							
	NIS	0.25	% v/v							
	SUPREND	1.0	lb/a							
	TOUCHDOWN TOTAL	0.75	lb ai/a							
2	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a		95 a	95 a	95 a
	TOUCHDOWN TOTAL	0.75	lb ai/a							
	TOUCHDOWN TOTAL	0.75	lb ai/a							
3	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a		95 a	95 a	95 a
	TOUCHDOWN TOTAL	0.75	lb ai/a							
	STAPLE	0.6	oz/a							
	TOUCHDOWN TOTAL	0.75	lb ai/a							
	VALOR	2	oz/a							
4	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a		95 a	95 a	95 a
	TOUCHDOWN TOTAL	0.75	lb ai/a							
	STAPLE	0.6	oz/a							
	TOUCHDOWN TOTAL	0.75	lb ai/a							
	LAYBY PRO	2	pt/a							
5	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a		95 a	95 a	95 a
	SEQUENCE	2.5	pt/a							
	TOUCHDOWN TOTAL	0.75	lb ai/a							
	SUPREND	1.0	lb/a							
6	NONTREATED			95 a	95 a	95 a		0 b	0 b	0 b
	LSD (P=.05)			0.0	0.0	0.0	.	0.0	0.0	0.0
	Standard Deviation			0.0	0.0	0.0	.	0.0	0.0	0.0
	CV			0.0	0.0	0.0	.	0.0	0.0	0.0
	Grand Mean			95.0	95.0	95.0	.	79.17	79.17	79.17
	Bartlett's X2			0.0	0.0	0.0	.	0.0	0.0	0.0
	P(Bartlett's X2)			.	.	.	.	.	.	.
	Replicate F			0.000	0.000	0.000		0.000	0.000	0.000
	Replicate Prob(F)			1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
	Treatment F			0.000	0.000	0.000		0.000	0.000	0.000
	Treatment Prob(F)			1.0000	1.0000	1.0000		1.0000	1.0000	1.0000

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## LSU Northeast Research Station

Weed Code				CASOB	IPOLA	IPOHG	DIGSA	ELEIN	AMARE
Crop Code				GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type				CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit				%	%	%	%	%	%
Rating Date				17/Aug/2005	17/Aug/2005	17/Aug/2005	17/Aug/2005	17/Aug/2005	17/Aug/2005
Trt-Eval Interval				28 DAT	28 DAT	28 DAT	28 DAT	28 DAT	28 DAT
ARM Action Codes									
# Subsamples, Dec.									
Trt No.	Treatment Name	Rate	Unit	14	15	16	17	18	19
1	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a	95 a	95 a
	ENVOKE	0.1	oz/a						
	NIS	0.25	% v/v						
	SUPREND	1.0	lb/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
2	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a	95 a	95 a
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
3	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a	95 a	95 a
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	STAPLE	0.6	oz/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	VALOR	2	oz/a						
4	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a	95 a	95 a
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	STAPLE	0.6	oz/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	LAYBY PRO	2	pt/a						
5	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a	95 a	95 a
	SEQUENCE	2.5	pt/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	SUPREND	1.0	lb/a						
6	NONTREATED			0 b	0 b	0 b	0 b	0 b	0 b
LSD (P=.05)				0.0	0.0	0.0	0.0	0.0	0.0
Standard Deviation				0.0	0.0	0.0	0.0	0.0	0.0
CV				0.0	0.0	0.0	0.0	0.0	0.0
Grand Mean				79.17	79.17	79.17	79.17	79.17	79.17
Bartlett's X2				0.0	0.0	0.0	0.0	0.0	0.0
P(Bartlett's X2)				.	.	.	.	.	.
Replicate F				0.000	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)				1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F				0.000	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)				1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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## LSU Northeast Research Station

Weed Code				ECHCG	SORHA	SEBEX	CASOB	IPOLA	
Crop Code				GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	
Rating Data Type				CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
Rating Unit				%	%	%	%	%	
Rating Date				14/Sep/2005	14/Sep/2005	14/Sep/2005	14/Sep/2005	14/Sep/2005	
Trt-Eval Interval				56 DAT	56 DAT	56 DAT	56 DAT	56 DAT	
ARM Action Codes									
# Subsamples, Dec.									
Trt No.	Treatment Name	Rate	Unit	20	21	22	23	24	25
1	TOUCHDOWN TOTAL	0.75	lb ai/a		95 a	95 a	95 a	95 a	95 a
	ENVOKE	0.1	oz/a						
	NIS	0.25	% v/v						
	SUPREND	1.0	lb/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
2	TOUCHDOWN TOTAL	0.75	lb ai/a		95 a	95 a	95 a	95 a	95 a
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
3	TOUCHDOWN TOTAL	0.75	lb ai/a		95 a	95 a	95 a	95 a	95 a
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	STAPLE	0.6	oz/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	VALOR	2	oz/a						
4	TOUCHDOWN TOTAL	0.75	lb ai/a		95 a	95 a	95 a	95 a	95 a
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	STAPLE	0.6	oz/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	LAYBY PRO	2	pt/a						
5	TOUCHDOWN TOTAL	0.75	lb ai/a		95 a	95 a	95 a	95 a	95 a
	SEQUENCE	2.5	pt/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	SUPREND	1.0	lb/a						
6	NONTREATED				0 b	0 b	0 b	0 b	0 b
	LSD (P=.05)			.	0.0	0.0	0.0	0.0	0.0
	Standard Deviation			.	0.0	0.0	0.0	0.0	0.0
	CV			.	0.0	0.0	0.0	0.0	0.0
	Grand Mean			.	79.17	79.17	79.17	79.17	79.17
	Bartlett's X2			.	0.0	0.0	0.0	0.0	0.0
	P(Bartlett's X2)			.	.	.	.	.	.
	Replicate F				0.000	0.000	0.000	0.000	0.000
	Replicate Prob(F)				1.0000	1.0000	1.0000	1.0000	1.0000
	Treatment F				0.000	0.000	0.000	0.000	0.000
	Treatment Prob(F)				1.0000	1.0000	1.0000	1.0000	1.0000

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

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## LSU Northeast Research Station

Weed Code			IPOHG	DIGSA	ELEIN	AMARE		GOSHI	
Crop Code			GOSHI	GOSHI	GOSHI	GOSHI		GOSHI	
Rating Data Type			CONTROL	CONTROL	CONTROL	CONTROL		YIELD	
Rating Unit			%	%	%	%		LBS	
Rating Date			14/Sep/2005	14/Sep/2005	14/Sep/2005	14/Sep/2005		27/Oct/2005	
Trt-Eval Interval			56 DAT	56 DAT	56 DAT	56 DAT			
ARM Action Codes									
# Subsamples, Dec.									
Trt No.	Treatment Name	Rate	Unit	26	27	28	29	30	31
1	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a		8 a
	ENVOKE	0.1	oz/a						
	NIS	0.25	% v/v						
	SUPREND	1.0	lb/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
2	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a		8 a
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
3	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a		7 a
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	STAPLE	0.6	oz/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	VALOR	2	oz/a						
4	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a		9 a
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	STAPLE	0.6	oz/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	LAYBY PRO	2	pt/a						
5	TOUCHDOWN TOTAL	0.75	lb ai/a	95 a	95 a	95 a	95 a		9 a
	SEQUENCE	2.5	pt/a						
	TOUCHDOWN TOTAL	0.75	lb ai/a						
	SUPREND	1.0	lb/a						
6	NONTREATED			0 b	0 b	0 b	0 b		4 b
LSD (P=.05)			0.0	0.0	0.0	0.0	0.0	.	1.8
Standard Deviation			0.0	0.0	0.0	0.0	0.0	.	1.2
CV			0.0	0.0	0.0	0.0	0.0	.	16.3
Grand Mean			79.17	79.17	79.17	79.17	79.17	.	7.41
Bartlett's X2			0.0	0.0	0.0	0.0	0.0	.	5.23
P(Bartlett's X2)			.	.	.	.	.	.	0.388
Replicate F			0.000	0.000	0.000	0.000	0.000		0.532
Replicate Prob(F)			1.0000	1.0000	1.0000	1.0000	1.0000		0.6670
Treatment F			0.000	0.000	0.000	0.000	0.000		7.383
Treatment Prob(F)			1.0000	1.0000	1.0000	1.0000	1.0000		0.0011

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

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

## LSU Northeast Research Station

Weed Code					
Crop Code					GOSHI
Rating Data Type					YIELD
Rating Unit					LB/A
Rating Date					27/Oct/2005
Trt-Eval Interval					
ARM Action Codes					TY1
# Subsamples, Dec.					1
Trt No.	Treatment Name	Rate	Unit		32
1	TOUCHDOWN TOTAL	0.75	lb ai/a		1714.3 a
	ENVOKE	0.1	oz/a		
	NIS	0.25	% v/v		
	SUPREND	1.0	lb/a		
	TOUCHDOWN TOTAL	0.75	lb ai/a		
2	TOUCHDOWN TOTAL	0.75	lb ai/a		1640.3 a
	TOUCHDOWN TOTAL	0.75	lb ai/a		
	TOUCHDOWN TOTAL	0.75	lb ai/a		
3	TOUCHDOWN TOTAL	0.75	lb ai/a		1625.6 a
	TOUCHDOWN TOTAL	0.75	lb ai/a		
	STAPLE	0.6	oz/a		
	TOUCHDOWN TOTAL	0.75	lb ai/a		
	VALOR	2	oz/a		
4	TOUCHDOWN TOTAL	0.75	lb ai/a		1906.4 a
	TOUCHDOWN TOTAL	0.75	lb ai/a		
	STAPLE	0.6	oz/a		
	TOUCHDOWN TOTAL	0.75	lb ai/a		
	LAYBY PRO	2	pt/a		
5	TOUCHDOWN TOTAL	0.75	lb ai/a		1871.1 a
	SEQUENCE	2.5	pt/a		
	TOUCHDOWN TOTAL	0.75	lb ai/a		
	SUPREND	1.0	lb/a		
6	NONTREATED				924.1 b
	LSD (P=.05)				396.32
	Standard Deviation				263.02
	CV				16.3
	Grand Mean				1613.64
	Bartlett's X2				5.23
	P(Bartlett's X2)				0.388
	Replicate F				0.532
	Replicate Prob(F)				0.6670
	Treatment F				7.383
	Treatment Prob(F)				0.0011

Means followed by same letter do not significantly differ  
(P=.05, Student-Newman-Keuls)

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

Column 32: TY1 = 217.6911\*[31]