

# LSU Northeast Research Station

REFLEX:COTTON: EPP AND PRE ON MEDIUM TEXTURED SOILS UNDER REDUCED TILLAGE

## GENERAL TRIAL INFORMATION

Study Director: SYNGENTA  
Investigator: Donnie Miller  
TRIAL LOCATION: ST JOSEPH, LA

## CROP AND WEED DESCRIPTION

Weed Code	Common Name	Scientific Name
1. COPSS	Swinecress	Coronopus sp.
2. OEOLA	Eveningprimrose, cutleaf	Oenothera laciniata
3. HORPU	Barley, little	Hordeum pusillum

Crop 1: GOSHI COTTON  
Variety: DP164B2RF  
Planting Date: 5/May/2008

## SITE AND DESIGN

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

## SOIL DESCRIPTION

% Sand: 50 % OM: 0.5  
% Silt: 28 pH: 6.8  
% Clay: 22 CEC: 12.8  
Texture: SILT LOAM

## APPLICATION DESCRIPTION

	A	B
Application Date:	21/Apr/2008	5/May/2008
Time of Day:	10:30 AM	3:45 PM
Application Method:	SPRAY	SPRAY
Application Timing:	EARPRE	PREPRE
Applic. Placement:	BROSOI	BROSOI
Air Temp., Unit:	75 F	75 F
% Relative Humidity:	32	45
Wind Velocity, Unit:	7.9 MPH	2.1 MPH
Dew Presence (Y/N):	N	N
Water Hardness:	N	N
Soil Temp., Unit:	69 F	84 F
Soil Moisture:	MOIST	MOIST
% Cloud Cover:	0	100

## CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	GOSHI N/A	GOSHI N/A

## WEED STAGE AT EACH APPLICATION

	A	B
Weed 1 Code, Stage:	COPSS 6-8"	COPSS N/A
Weed 2 Code, Stage:	OEOLA 6-9"	OEOLA N/A
Weed 3 Code, Stage:	HORPU 6-12"	HORPU N/A

## APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	CO2 BCPCK	CO2 BCPCK
Operating Pressure:	34 psi	34 psi
Nozzle Type:	DG	DG
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	20 IN	20 IN
Nozzles/Row:	2	2
Ground Speed, Unit:	3.2 MPH	3.2 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	15 GPA	15 GPA



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Weed Code	COPSS	OEOLA	HORPU	COPSS	IPOLA	OEOLA	IPOHG	HORPU	SEBEX
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%	%	%	%
Rating Date	5/May/2008	5/May/2008	5/May/2008	12/May/2008	12/May/2008	12/May/2008	12/May/2008	12/May/2008	12/May/2008
Trt-Eval Interval	AT PLANT	AT PLANT	AT PLANT	7 DA-B	7 DA-B	7 DA-B	7 DA-B	7 DA-B	7 DA-B
ARM Action Codes									
# Subsamples, Dec.									

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6	7	8	9
13	GRAMOXONE INTEON	40	oz/a	A	85.00 a	90.00 a	100.00 a	100.00 a	97.50 a	100.00 a	98.75 a	100.00 a	95.00 a
	NIS	0.25	% v/v	A									
	PROWL H2O	16	oz/a	B									
	REFLEX	24	oz/a	B									
	GRAMOXONE INTEON	40	oz/a	B									
	NIS	0.25	% v/v	B									
14	GRAMOXONE INTEON	40	oz/a	A	82.50 a	92.50 a	100.00 a	100.00 a	96.25 a	100.00 a	97.50 a	100.00 a	97.50 a
	NIS	0.25	% v/v	A									
	CAPAROL	1.5	pt/a	B									
	REFLEX	16	oz/a	B									
	GRAMOXONE INTEON	40	oz/a	B									
	NIS	0.25	% v/v	B									
LSD (P=.05)					14.601	12.799	0.955	0.000	4.065	9.597	5.760	0.000	5.462
Standard Deviation					10.217	8.956	0.668	0.000	2.845	6.716	4.030	0.000	3.822
CV					11.54	9.62	0.67	0.0	2.9	6.98	4.14	0.0	3.91
Grand Mean					88.57	93.13	99.91	100.0	98.13	96.25	97.41	100.0	97.86
Bartlett's X2					25.416	7.509	0.0	0.0	2.618	6.803	11.02	0.0	7.865
P(Bartlett's X2)					0.02*	0.677	.	.	0.998	0.45	0.442	.	0.642
Replicate F					0.490	19.909	1.000	0.000	0.644	10.281	0.467	0.000	0.978
Replicate Prob(F)					0.6910	0.0001	0.4031	1.0000	0.5917	0.0001	0.7068	1.0000	0.4130
Treatment F					1.666	1.208	1.000	0.000	0.446	1.471	1.152	0.000	0.687
Treatment Prob(F)					0.1085	0.3104	0.4697	1.0000	0.9412	0.1724	0.3486	1.0000	0.7639

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	DIGSA	CASOB	AMARE	IPOLA	IPOHG	SEBEX	DIGSA	CASOB				
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI				
Rating Data Type	CONTROL	CONTROL	CONTROL	INJURY	CONTROL	CONTROL	CONTROL	CONTROL				
Rating Unit	%	%	%	%	%	%	%	%				
Rating Date	12/May/2008	12/May/2008	12/May/2008	19/Jun/2008	26/May/2008	26/May/2008	26/May/2008	26/May/2008				
Trt-Eval Interval	7 DA-B	7 DA-B	7 DA-B	7 DAE	14 DAE	14 DAE	14 DAE	14 DAE				
ARM Action Codes												
# Subsamples, Dec.												
Trt Treatment												
No. Name	Rate	Unit	Appl Code	10	11	12	13	14	15	16	17	18
14 GRAMOXONE INTEON	40 oz/a	A		96.25 a	80.00 a	100.00 a	7.50 bc	95.00 a	98.75 a	92.50 a	96.25 a	67.50 a
NIS	0.25 % v/v	A										
CAPAROL	1.5 pt/a	B										
REFLEX	16 oz/a	B										
GRAMOXONE INTEON	40 oz/a	B										
NIS	0.25 % v/v	B										
LSD (P=.05)				11.123	19.196	1.368	3.631	8.043	8.762	15.212	12.726	23.492
Standard Deviation				7.783	13.433	0.957	2.541	5.628	6.131	10.645	8.905	16.439
CV				8.4	17.55	0.96	33.88	5.92	6.64	12.51	9.99	24.23
Grand Mean				92.68	76.52	99.82	7.5	95.09	92.32	85.09	89.11	67.86
Bartlett's X2				22.572	19.593	0.0	1.439	13.019	16.937	15.565	23.833	16.011
P(Bartlett's X2)				0.047*	0.106	1.00	0.999	0.446	0.202	0.273	0.033*	0.249
Replicate F				0.206	0.913	0.650	0.553	2.194	1.409	7.096	1.028	2.110
Replicate Prob(F)				0.8914	0.4436	0.5877	0.6491	0.1042	0.2546	0.0006	0.3906	0.1146
Treatment F				1.522	0.944	0.900	8.787	0.925	1.889	1.896	3.946	0.496
Treatment Prob(F)				0.1532	0.5195	0.5604	0.0001	0.5373	0.0627	0.0617	0.0004	0.9133

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# LSU Northeast Research Station

Weed Code	AMARE	ECHCG		IPOLA	IPOHG	SEBEX	DIGSA	CASOB	AMARE
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	CONTROL	CONTROL	INJURY	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%	%	%	%
Rating Date	26/May/2008	26/May/2008	26/May/2008	26/May/2008	26/May/2008	26/May/2008	26/May/2008	26/May/2008	26/May/2008
Trt-Eval Interval	14 DAE	14 DAE	14 DAE	14 DAE	14 DAE	14 DAE	14 DAE	14 DAE	14 DAE

ARM Action Codes

# Subsamples, Dec.

Trt	Treatment	Rate	Unit	Appl	19	20	21	22	23	24	25	26	27
No.	Name			Code									
14	GRAMOXONE INTEON	40	oz/a	A	100.00 a	93.75 a	2.50 b	100.00 a	97.50 ab	91.25 a	92.50 ab	51.00 a	100.00 a
	NIS	0.25	% v/v	A									
	CAPAROL	1.5	pt/a	B									
	REFLEX	16	oz/a	B									
	GRAMOXONE INTEON	40	oz/a	B									
	NIS	0.25	% v/v	B									

LSD (P=.05)	4.080	9.494	3.350	5.279	6.507	24.581	8.270	28.395	10.544
Standard Deviation	2.855	6.644	2.344	3.694	4.553	17.201	5.787	19.870	7.378
CV	2.87	7.7	145.85	3.76	4.75	21.92	6.57	32.17	7.55
Grand Mean	99.46	86.25	1.61	98.21	95.8	78.48	88.12	61.77	97.68
Bartlett's X2	7.646	16.915	3.571	10.825	13.455	18.803	19.798	14.111	25.458
P(Bartlett's X2)	0.022*	0.203	0.828	0.146	0.337	0.129	0.071	0.366	0.001*
Replicate F	0.803	0.499	7.475	0.436	0.366	4.146	1.575	2.308	1.542
Replicate Prob(F)	0.4996	0.6852	0.0005	0.7283	0.7778	0.0121	0.2114	0.0915	0.2190
Treatment F	0.910	3.355	2.350	1.530	2.997	0.930	6.765	0.556	1.234
Treatment Prob(F)	0.5510	0.0017	0.0198	0.1501	0.0040	0.5324	0.0001	0.8728	0.2937

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# LSU Northeast Research Station

Weed Code	ECHCG	ELEIN	BRAPP			
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	CONTROL	CONTROL	CONTROL	INJURY	YIELD	YIELD
Rating Unit	%	%	%	%	LB	LB/A
Rating Date	26/May/2008	26/May/2008	26/May/2008	26/May/2008	9/Oct/2008	9/Oct/2008
Trt-Eval Interval	14 DAE	14 DAE	14 DAE	14 DAE		
ARM Action Codes						TY1
# Subsamples, Dec.						1

Trt No.	Treatment Name	Rate	Unit	Appl Code	Rating					
					28	29	30	31	32	33
1	GRAMOXONE INTEON	40 oz/a	A		73.75 e	87.50 a	95.00 a	0.00 a	5.07 a	1324.4 a
	NIS	0.25 % v/v	A							
	GRAMOXONE INTEON	40 oz/a	B							
2	REFLEX	16 oz/a	A		71.25 e	90.00 a	90.00 bc	0.00 a	3.20 a	834.6 a
	GRAMOXONE INTEON	40 oz/a	A							
	NIS	0.25 % v/v	B							
3	REFLEX	24 oz/a	A		82.50 a-e	86.25 a	95.00 a	0.00 a	3.31 a	864.7 a
	GRAMOXONE INTEON	40 oz/a	A							
	NIS	0.25 % v/v	A							
4	REFLEX	48 oz/a	A		88.75 abc	78.75 a	93.75 ab	0.00 a	2.85 a	744.5 a
	GRAMOXONE INTEON	40 oz/a	A							
	NIS	0.25 % v/v	A							
5	VALOR	2 oz/a	A		77.50 cde	82.50 a	93.75 ab	0.00 a	2.94 a	766.7 a
	GRAMOXONE INTEON	40 oz/a	A							
	NIS	0.25 % v/v	A							
6	PROWL H2O	16 oz/a	A		87.50 a-d	82.50 a	93.75 ab	0.00 a	3.49 a	911.6 a
	REFLEX	16 oz/a	A							
	GRAMOXONE INTEON	40 oz/a	A							
7	PROWL H2O	16 oz/a	A		82.50 a-e	91.25 a	92.50 abc	0.00 a	3.98 a	1038.4 a
	REFLEX	24 oz/a	A							
	GRAMOXONE INTEON	40 oz/a	A							
8	CAPAROL	1.5 pt/a	A		76.25 de	86.25 a	88.75 c	0.00 a	4.60 a	1200.3 a
	REFLEX	16 oz/a	A							
	GRAMOXONE INTEON	40 oz/a	A							
9	GRAMOXONE INTEON	40 oz/a	A		78.75 b-e	78.75 a	93.75 ab	0.00 a	2.80 a	731.4 a
	NIS	0.25 % v/v	A							
	REFLEX	16 oz/a	B							
10	GRAMOXONE INTEON	40 oz/a	A		87.50 a-d	82.50 a	95.00 a	0.00 a	3.53 a	920.8 a
	NIS	0.25 % v/v	A							
	REFLEX	24 oz/a	B							
11	GRAMOXONE INTEON	40 oz/a	A		92.50 a	86.25 a	95.00 a	2.50 a	3.08 a	803.3 a
	NIS	0.25 % v/v	A							
	REFLEX	48 oz/a	B							
12	GRAMOXONE INTEON	40 oz/a	A		80.00 b-e	88.75 a	88.75 c	0.00 a	4.03 a	1051.4 a
	NIS	0.25 % v/v	A							
	PROWL H2O	16 oz/a	B							
13	GRAMOXONE INTEON	40 oz/a	A		90.00 ab	87.50 a	95.00 a	0.00 a	2.41 a	629.6 a
	NIS	0.25 % v/v	A							
	PROWL H2O	16 oz/a	B							

# LSU Northeast Research Station

Weed Code	ECHCG	ELEIN	BRAPP			
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	CONTROL	CONTROL	CONTROL	INJURY	YIELD	YIELD
Rating Unit	%	%	%	%	LB	LB/A
Rating Date	26/May/2008	26/May/2008	26/May/2008	26/May/2008	9/Oct/2008	9/Oct/2008
Trt-Eval Interval	14 DAE	14 DAE	14 DAE	14 DAE		

ARM Action Codes TY1  
 # Subsamples, Dec. 1

Trt	Treatment	Rate	Unit	Appl Code	28	29	30	31	32	33
No.	Name									
14	GRAMOXONE INTEON	40	oz/a	A	88.75 abc	88.75 a	95.00 a	0.00 a	2.70 a	705.3 a
	NIS	0.25	% v/v	A						
	CAPAROL	1.5	pt/a	B						
	REFLEX	16	oz/a	B						
	GRAMOXONE INTEON	40	oz/a	B						
	NIS	0.25	% v/v	B						

LSD (P=.05)	11.384	10.509	4.688	1.910	2.312	603.96
Standard Deviation	7.966	7.354	3.280	1.336	1.618	422.63
CV	9.64	8.6	3.52	748.33	47.23	47.23
Grand Mean	82.68	85.54	93.21	0.18	3.43	894.8
Bartlett's X2	16.512	10.382	9.182	0.0	22.307	22.307
P(Bartlett's X2)	0.223	0.662	0.24	.	0.051	0.051

Replicate F	1.247	0.715	0.553	1.000	0.458	0.458
Replicate Prob(F)	0.3057	0.5487	0.6491	0.4031	0.7134	0.7134
Treatment F	2.771	1.151	2.030	1.000	0.877	0.877
Treatment Prob(F)	0.0070	0.3497	0.0442	0.4697	0.5826	0.5826

Means followed by same letter do not significantly differ (P=.05, LSD)  
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 Column 33: TY1 = 261.2294\*[32]