

LSU Northeast Research Station

EVALUATION OF ROUNDUP READY FLEX COTTON WEED CONTROL PROGRAMS

Trial ID: FLEX 2
Location: ALEXANDRIA

Study Dir.: DEREK SCROGGS
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:	27/May/2005	9/Jun/2005	21/Jun/2005
Time of Day:	5:30 PM	3:25 PM	3:45 PM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	POSPOS	POSPOS	POSPOS
Applic. Placement:	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	85 F	88 F	96 F
% Relative Humidity:	49	70	48
Wind Velocity, Unit:	2.3 MPH	1.7 MPH	1.8 MPH
Dew Presence (Y/N):			
Water Hardness:			
Soil Temp., Unit:	97 F	89 F	99 F
Soil Moisture:	MOIST	DRY	DRY
% Cloud Cover:	20	20	40

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	ECHCG 1-2"	ECHCG 3-4"	ECHCG
Stage Scale:			
Density, Unit:			
Weed 2 Code, Stage:	SORHA 1-2"	SORHA 3-4"	SORHA
Stage Scale:			
Density, Unit:			
Weed 3 Code, Stage:	AMARE 1-2"	AMARE 3-4"	AMARE
Stage Scale:			
Density, Unit:			
Weed 4 Code, Stage:	SEBEX 1-2"	SEBEX 3-4"	SEBEX
Stage Scale:			
Density, Unit:			
Weed 5 Code, Stage:	IPOLA 1-2"	IPOLA 3-4"	IPOLA
Stage Scale:			
Density, Unit:			
Weed 6 Code, Stage:	IPOHG 1-2"	IPOHG 3-4"	IPOHG
Stage Scale:			
Density, Unit:			
Weed 7 Code, Stage:	CASOB 1-2"	CASOB 3-4"	CASOB
Stage Scale:			
Density, Unit:			

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APPLICATION EQUIPMENT

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

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SEQUENCE, STAPLE, AND ENVOKE USED IN A ROUNDUP READY FLEX SYSTEM

Trial ID: FLEX 2

Study Dir.: DEREK SCROGGS

Location: ALEXANDRIA

Investigator: Donnie Miller

Weed Code	ECHCG	SORHA	AMARE	SEBEX	IPOLA	IPOHG	CASOB	
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
Rating Unit	%	%	%	%	%	%	%	
Rating Date	5/Jul/2005	5/Jul/2005	5/Jul/2005	5/Jul/2005	5/Jul/2005	5/Jul/2005	5/Jul/2005	
Trt-Eval Interval	14 DAT	14 DAT	14 DAT	14 DAT	14 DAT	14 DAT	14 DAT	
ARM Action Codes								
# Subsamples, Dec.								
Trt Treatment	Rate	Rate	Rate	Rate	Rate	Rate	Rate	
No. Name	Unit	1	2	3	4	5	6	7
1 SEQUENCE	1.75 lb ae/a	95 a	95 a	95 a	91 ab	95 a	95 a	79 b
MON 3539	22 oz/a							
2 MON 3539	22 oz/a	95 a	95 a	95 a	95 a	95 a	95 a	93 a
SEQUENCE	1.75 lb ae/a							
3 MON 3539	22 oz/a	66 c	95 a	95 a	81 b	91 a	90 b	76 b
SEQUENCE	42.7 oz/a							
4 STAPLE	1.2 oz/a	84 b	95 a	95 a	93 ab	95 a	95 a	91 a
MON 3539	22 oz/a							
MON 3539	22 oz/a							
5 MON 3539	22 oz/a	93 a	95 a	95 a	95 a	95 a	95 a	95 a
STAPLE	1.2 oz/a							
MON 3539	22 oz/a							
6 MON 3539	22 oz/a	68 c	95 a	95 a	89 ab	93 a	91 ab	75 b
STAPLE	1.2 oz/a							
MON 3539	22 oz/a							
7 ENVOKE	0.101 oz/a	91 a	95 a	95 a	95 a	95 a	95 a	91 a
MON 3539	22 oz/a							
MON 3539	22 oz/a							
8 MON 3539	22 oz/a	90 a	93 b	95 a	94 a	95 a	95 a	93 a
ENVOKE	0.101 oz/a							
MON 3539	22 oz/a							
9 MON 3539	22 oz/a	68 c	95 a	95 a	93 ab	94 a	93 ab	75 b
ENVOKE	0.101 oz/a							
MON 3539	22 oz/a							
10 MON 3539	22 oz/a	95 a	95 a	95 a	95 a	95 a	95 a	95 a
MON 3539	22 oz/a							
MON 3539	22 oz/a							
11 NONTREATED		0 d	0 c	0 b	0 c	0 b	0 c	0 c
LSD (P=.05)		6.0	1.3	0.0	8.1	2.7	2.5	7.9
Standard Deviation		4.1	0.9	0.0	5.6	1.8	1.8	5.5
CV		5.41	1.01	0.0	6.74	2.14	2.05	7.0
Grand Mean		76.7	86.14	86.36	83.64	85.68	85.34	78.41
Bartlett's X2		7.55	0.0	0.0	13.957	1.439	0.771	10.499
P(Bartlett's X2)		0.273	.	.	0.016*	0.487	0.68	0.162
Replicate F		3.205	1.000	0.000	1.289	1.124	0.185	1.332
Replicate Prob(F)		0.0372	0.4064	1.0000	0.2962	0.3552	0.9056	0.2826
Treatment F		182.683	4312.201	0.000	99.057	960.101	1048.704	98.879
Treatment Prob(F)		0.0001	0.0001	1.0000	0.0001	0.0001	0.0001	0.0001

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.

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Weed Code	ECHCG	SORHA	AMARE	SEBEX	IPOLA	IPOHG			
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI			
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL			
Rating Unit	%	%	%	%	%	%			
Rating Date	19/Jul/2005	19/Jul/2005	19/Jul/2005	19/Jul/2005	19/Jul/2005	19/Jul/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	8	9	10	11	12	13
1	SEQUENCE	1.75	lb ae/a	94 a	95 a	95 a	94 a	90 a	90 a
	MON 3539	22	oz/a						
2	MON 3539	22	oz/a	90 a	95 a	95 a	95 a	93 a	93 a
	SEQUENCE	1.75	lb ae/a						
3	MON 3539	22	oz/a	76 a	95 a	95 a	85 a	89 a	89 a
	SEQUENCE	42.7	oz/a						
4	STAPLE	1.2	oz/a	84 a	95 a	95 a	90 a	91 a	91 a
	MON 3539	22	oz/a						
	MON 3539	22	oz/a						
5	MON 3539	22	oz/a	86 a	95 a	95 a	95 a	93 a	93 a
	STAPLE	1.2	oz/a						
	MON 3539	22	oz/a						
6	MON 3539	22	oz/a	74 a	95 a	95 a	88 a	88 a	88 a
	STAPLE	1.2	oz/a						
	MON 3539	22	oz/a						
7	ENVOKE	0.101	oz/a	89 a	95 a	95 a	93 a	89 a	90 a
	MON 3539	22	oz/a						
	MON 3539	22	oz/a						
8	MON 3539	22	oz/a	81 a	89 a	94 a	94 a	90 a	90 a
	ENVOKE	0.101	oz/a						
	MON 3539	22	oz/a						
9	MON 3539	22	oz/a	75 a	94 a	95 a	95 a	93 a	91 a
	ENVOKE	0.101	oz/a						
	MON 3539	22	oz/a						
10	MON 3539	22	oz/a	91 a	95 a	95 a	95 a	94 a	94 a
	MON 3539	22	oz/a						
	MON 3539	22	oz/a						
11	NONTREATED			23 b	24 b	24 b	24 b	21 b	21 b
LSD (P=.05)				20.6	20.7	20.7	22.1	19.2	19.2
Standard Deviation				14.2	14.3	14.3	15.3	13.3	13.3
CV				18.17	16.29	16.19	17.79	15.73	15.77
Grand Mean				78.41	87.84	88.41	86.02	84.43	84.43
Bartlett's X2				55.327	24.827	13.322	42.197	53.768	51.991
P(Bartlett's X2)				0.001*	0.001*	0.001*	0.001*	0.001*	0.001*
Replicate F				1.205	1.075	1.039	0.760	1.326	1.320
Replicate Prob(F)				0.3247	0.3744	0.3897	0.5256	0.2843	0.2863
Treatment F				7.690	8.891	8.978	7.485	10.044	9.982
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

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Weed Code	CASOB	ECHCG	SORHA	AMARE	SEBEX	IPOLA			
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI			
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL			
Rating Unit	%	%	%	%	%	%			
Rating Date	19/Jul/2005	16/Aug/2005	16/Aug/2005	16/Aug/2005	16/Aug/2005	16/Aug/2005			
Trt-Eval Interval	28 DAT	56 DAT	56 DAT	56 DAT	56 DAT	56 DAT			
ARM Action Codes									
# Subsamples, Dec.									
Trt No.	Treatment Name	Rate	Unit	14	15	16	17	18	19
1	SEQUENCE	1.75	lb ae/a	86 a	95 a	95 a	95 a	94 a	95 a
	MON 3539	22	oz/a						
2	MON 3539	22	oz/a	83 a	95 a	95 a	95 a	95 a	95 a
	SEQUENCE	1.75	lb ae/a						
3	MON 3539	22	oz/a	81 a	86 a	95 a	95 a	91 a	95 a
	SEQUENCE	42.7	oz/a						
4	STAPLE	1.2	oz/a	90 a	90 a	95 a	95 a	93 a	95 a
	MON 3539	22	oz/a						
	MON 3539	22	oz/a						
5	MON 3539	22	oz/a	94 a	90 a	95 a	95 a	95 a	95 a
	STAPLE	1.2	oz/a						
	MON 3539	22	oz/a						
6	MON 3539	22	oz/a	80 a	90 a	95 a	95 a	95 a	95 a
	STAPLE	1.2	oz/a						
	MON 3539	22	oz/a						
7	ENVOKE	0.101	oz/a	90 a	94 a	95 a	95 a	95 a	95 a
	MON 3539	22	oz/a						
	MON 3539	22	oz/a						
8	MON 3539	22	oz/a	81 a	90 a	94 a	94 a	95 a	95 a
	ENVOKE	0.101	oz/a						
	MON 3539	22	oz/a						
9	MON 3539	22	oz/a	85 a	89 a	95 a	95 a	94 a	95 a
	ENVOKE	0.101	oz/a						
	MON 3539	22	oz/a						
10	MON 3539	22	oz/a	91 a	95 a	95 a	95 a	95 a	95 a
	MON 3539	22	oz/a						
	MON 3539	22	oz/a						
11	NONTREATED			21 b	0 b	0 b	0 b	0 b	0 b
LSD (P=.05)				19.7	7.1	1.1	1.1	3.4	0.0
Standard Deviation				13.7	4.9	0.8	0.8	2.4	0.0
CV				17.04	5.91	0.87	0.87	2.79	0.0
Grand Mean				80.23	83.07	86.25	86.25	85.57	86.36
Bartlett's X2				51.316	5.62	0.0	0.0	2.44	0.0
P(Bartlett's X2)				0.001*	0.467	.	.	0.486	.
Replicate F				1.042	3.231	1.000	1.000	0.633	0.000
Replicate Prob(F)				0.3881	0.0362	0.4064	0.4064	0.5993	1.0000
Treatment F				8.652	127.453	5761.800	5761.800	568.120	0.000
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0001	1.0000

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

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Weed Code				IPOHG	CASOB	GOSHI	GOSHI
Crop Code				GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type				CONTROL	CONTROL	YIELD	YIELD
Rating Unit				%	%	LBS	LB/A
Rating Date				16/Aug/2005	16/Aug/2005	11/Oct/2005	11/Oct/2005
Trt-Eval Interval				56 DAT	56 DAT	137 DA-A	137 DA-A
ARM Action Codes							TY1
# Subsamples, Dec.							1
Trt No.	Treatment Name	Rate	Unit	20	21	22	23
1	SEQUENCE	1.75	lb ae/a	95 a	90 ab	11 a	2477.3 a
	MON 3539	22	oz/a				
2	MON 3539	22	oz/a	95 a	85 ab	11 a	2298.3 a
	SEQUENCE	1.75	lb ae/a				
3	MON 3539	22	oz/a	95 a	84 b	9 a	1892.3 a
	SEQUENCE	42.7	oz/a				
4	STAPLE	1.2	oz/a	95 a	93 ab	11 a	2355.4 a
	MON 3539	22	oz/a				
	MON 3539	22	oz/a				
5	MON 3539	22	oz/a	95 a	95 a	11 a	2368.5 a
	STAPLE	1.2	oz/a				
	MON 3539	22	oz/a				
6	MON 3539	22	oz/a	95 a	89 ab	9 a	1922.8 a
	STAPLE	1.2	oz/a				
	MON 3539	22	oz/a				
7	ENVOKE	0.101	oz/a	95 a	94 ab	10 a	2196.0 a
	MON 3539	22	oz/a				
	MON 3539	22	oz/a				
8	MON 3539	22	oz/a	95 a	89 ab	9 a	1960.9 a
	ENVOKE	0.101	oz/a				
	MON 3539	22	oz/a				
9	MON 3539	22	oz/a	95 a	89 ab	9 a	1871.1 a
	ENVOKE	0.101	oz/a				
	MON 3539	22	oz/a				
10	MON 3539	22	oz/a	95 a	94 ab	10 a	2196.5 a
	MON 3539	22	oz/a				
	MON 3539	22	oz/a				
11	NONTREATED			0 b	0 c	0 b	83.3 b
LSD (P=.05)				0.0	6.7	1.9	418.26
Standard Deviation				0.0	4.6	1.3	289.67
CV				0.0	5.63	14.74	14.74
Grand Mean				86.36	81.82	9.03	1965.65
Bartlett's X2				0.0	12.805	23.907	23.907
P(Bartlett's X2)				.	0.119	0.008*	0.008*
Replicate F				0.000	3.137	1.228	1.227
Replicate Prob(F)				1.0000	0.0399	0.3169	0.3170
Treatment F				0.000	141.021	20.749	20.748
Treatment Prob(F)				1.0000	0.0001	0.0001	0.0001

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 23: TY1 = 217.6911*[22]