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Comparison of directed herbicide programs in Roundup Ready cotton.

Trial ID: C21-07

Protocol ID:

Location: Sunbelt Expo

Study Director: Stanley Culpepper

Investigator: Stanley Culpepper

Reps: 4

Plots: 9 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 1.5 liters (min 1.1575)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Growth Unit	Stage	Appl Code	Amt Product to Measure	Plot No. By Rep			
										1	2	3	4
1	Non-treated									101	225	321	425
2	Prometryn COC	4	L	L	2 PT/A 1 % V/V	PD PD	A A	A A	25.34 ml/mx 15.0 ml/mx	102	232	320	421
3	Fluometuron COC	4	L	L	2 PT/A 1 % V/V	PD PD	A A	A A	25.34 ml/mx 15.0 ml/mx	103	224	308	410
4	Linuron COC	4	L	L	2 PT/A 1 % V/V	PD PD	A A	A A	25.34 ml/mx 15.0 ml/mx	104	219	325	419
5	Diuron COC	4	L	L	2 PT/A 1 % V/V	PD PD	A A	A A	25.34 ml/mx 15.0 ml/mx	105	213	303	431
6	Parallel PCS COC	8	L	L	1 PT/A 1 % V/V	PD PD	A A	A A	12.67 ml/mx 15.0 ml/mx	106	228	304	413
7	Fluometuron Diuron COC	4 4	L L	L	1 PT/A 1 PT/A 1 % V/V	PD PD PD	A A A	A A A	12.67 ml/mx 12.67 ml/mx 15.0 ml/mx	107	202	316	411
8	Fluometuron Diuron COC	4 4	L L	L	1 PT/A 1.5 PT/A 1 % V/V	PD PD PD	A A A	A A A	12.67 ml/mx 19.0 ml/mx 15.0 ml/mx	108	203	301	424
9	Fluometuron Prometryn COC	4 4	L L	L	1 PT/A 0.8 PT/A 1 % V/V	PD PD PD	A A A	A A A	12.67 ml/mx 10.13 ml/mx 15.0 ml/mx	109	229	323	428
10	Fluometuron Linuron COC	4 4	L L	L	1 PT/A 1.5 PT/A 1 % V/V	PD PD PD	A A A	A A A	12.67 ml/mx 19.0 ml/mx 15.0 ml/mx	110	212	329	414
11	Diuron Linuron COC	4 4	L L	L	0.8 PT/A 0.8 PT/A 1 % V/V	PD PD PD	A A A	A A A	10.13 ml/mx 10.13 ml/mx 15.0 ml/mx	111	204	315	412
12	Diuron Linuron COC	4 4	L L	L	1.2 PT/A 1.2 PT/A 1 % V/V	PD PD PD	A A A	A A A	15.2 ml/mx 15.2 ml/mx 15.0 ml/mx	112	206	318	430
13	Diuron Prometryn COC	4 4	L L	L	1 PT/A 0.8 PT/A 1 % V/V	PD PD PD	A A A	A A A	12.67 ml/mx 10.13 ml/mx 15.0 ml/mx	113	222	332	408
14	Prometryn Linuron COC	4 4	L L	L	0.8 PT/A 0.8 PT/A 1 % V/V	PD PD PD	A A A	A A A	10.13 ml/mx 10.13 ml/mx 15.0 ml/mx	114	217	305	420
15	Diuron Parallel PCS COC	4 8	L L	L	1 PT/A 1 PT/A 1 % V/V	PD PD PD	A A A	A A A	12.67 ml/mx 12.67 ml/mx 15.0 ml/mx	115	214	327	401
16	Diuron Parallel PCS COC	4 8	L L	L	1.5 PT/A 1 PT/A 1 % V/V	PD PD PD	A A A	A A A	19.0 ml/mx 12.67 ml/mx 15.0 ml/mx	116	231	326	429
17	Prometryn Parallel PCS COC	4 8	L L	L	0.8 PT/A 1 PT/A 1 % V/V	PD PD PD	A A A	A A A	10.13 ml/mx 12.67 ml/mx 15.0 ml/mx	117	201	311	405
18	Fluometuron Parallel PCS COC	4 8	L L	L	1 PT/A 1 PT/A 1 % V/V	PD PD PD	A A A	A A A	12.67 ml/mx 12.67 ml/mx 15.0 ml/mx	118	211	309	416

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Reps: 4

Plots: 9 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 1.5 liters (min 1.1575)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Growth Unit	Stage	Appl Code	Amt Product to Measure	Plot No. By Rep			
										1	2	3	4
19	Linuron	4	L		0.8	PT/A	PD	A	10.13 ml/mx	119	221	313	432
	Parallel PCS	8	L		1	PT/A	PD	A	12.67 ml/mx				
	COC		L		1	% V/V	PD	A	15.0 ml/mx				
20	Aim	2	EC		1.6	OZ/A	PD	A	1.267 ml/mx	120	209	310	415
	COC		L		1	% V/V	PD	A	15.0 ml/mx				
21	Envoke	75	DF		0.15	OZ/A	PD	A	0.1139 g/mx	121	226	312	423
	COC		L		1	% V/V	PD	A	15.0 ml/mx				
22	Suprend	80	DG		1.25	LB/A	PD	A	15.18 g/mx	122	207	324	417
	COC		L		1	% V/V	PD	A	15.0 ml/mx				
23	Staple	3.2	L		2.55	OZ/A	PD	A	2.019 ml/mx	123	215	317	418
	COC		L		1	% V/V	PD	A	15.0 ml/mx				
24	Diuron	4	L		2	PT/A	PD	A	25.34 ml/mx	124	216	314	406
	MSMA	6	L		2.67	PT/A	PD	A	33.82 ml/mx				
	COC		L		1	% V/V	PD	A	15.0 ml/mx				
25	Roundup WeatherMax	4.5	L		22	OZ/A	PD	A	17.42 ml/mx	125	227	302	404
	Roundup WeatherMax	4.5	L		22	OZ/A	PD	A	17.42 ml/mx	126	230	331	407
Direx	4	L		1.5	PT/A	PD	A	19.0 ml/mx					
27	Diuron	4	L		2	PT/A	PD	A	25.34 ml/mx	127	218	330	422
	MSMA	6	L		2.67	PT/A	PD	A	33.82 ml/mx				
	COC		L		1	% V/V	PD	A	15.0 ml/mx				
	Parallel	8	L		16	OZ/A	PD	A	12.67 ml/mx				
28	Roundup WeatherMax	4.5	L		22	OZ/A	PD	A	17.42 ml/mx	128	210	322	427
	Diuron	4	L		1.5	PT/A	PD	A	19.0 ml/mx				
	Parallel	8	L		16	OZ/A	PD	A	12.67 ml/mx				
29	Valor	51	DG		2	OZ/A	PD	A	1.518 g/mx	129	205	319	402
	MSMA	6	L		2.67	PT/A	PD	A	33.82 ml/mx				
	COC		L		1	% V/V	PD	A	15.0 ml/mx				
30	Roundup WeatherMax	4.5	L		22	OZ/A	PD	A	17.42 ml/mx	130	208	328	403
	Valor	51	DG		2	OZ/A	PD	A	1.518 g/mx				
31	Valor	51	DG		2	OZ/A	PD	A	1.518 g/mx	131	223	307	409
	MSMA	6	L		2.67	PT/A	PD	A	33.82 ml/mx				
	COC		L		1	% V/V	PD	A	15.0 ml/mx				
	Parallel	8	L		16	OZ/A	PD	A	12.67 ml/mx				
32	Roundup WeatherMax	4.5	L		22	OZ/A	PD	A	17.42 ml/mx	132	220	306	426
	Valor	51	DG		2	OZ/A	PD	A	1.518 g/mx				
	Parallel	8	L		16	OZ/A	PD	A	12.67 ml/mx				

Sort Order: Treatment

Product quantities required for listed treatments and applications in one trial:

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
82.339	ml	Prometryn	4	L	
487.449	ml	COC		L	
110.841	ml	Fluometuron	4	L	
112.425	ml	Linuron	4	L	
245.434	ml	Diuron	4	L	
95.007	ml	Parallel PCS	8	L	
1.584	ml	Aim	2	EC	
0.142	g	Envoke	75	DF	
18.976	g	Suprend	80	DG	
2.524	ml	Staple	3.2	L	

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Reps: 4

Plots: 9 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 1.5 liters (min 1.1575)

Trt No.	Tr> N>	Form Conc	Form Unit	Form Type	Rate	Plot No. By Rep
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Product quantities required for listed treatments and applications in one trial:

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
169.112	ml	MSMA	6	L	
108.874	ml	Roundup WeatherMax	4.5	L	
23.752	ml	Direx	4	L	
63.345	ml	Parallel	8	L	
7.590	g	Valor	51	DG	

* 'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 1.5 liters (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

* 'Per volume' calculations use spray volume= 14.8 gal/ac, mix size= 1.5 liters.

Trial Comments

OBJECTIVE: Compare directed herbicide options for the control of grasses and problem broadleaf weeds.

Cotton Response:

1. Weeds were rather large at time of application; thus, the boom was raised to cover the weeds thereby causing more cotton injury.
2. Because of the application method, stem necrosis and leaf drop by Aim and Valor mixed with Roundup or Parallel was greater than 20% at 8 and 13 DAT.
3. Treatments with substituted urea herbicides causes more chlorosis than necrosis with injury typically between 10 and 15%.
4. Envoke, Staple, Parallel, or Fluometuron plus COC as well as Roundup alone caused less than 10% injury.

Large crabgrass:

1. Grass control was poor by most treatments; however, excellent control with glyphosate mixtures as well as Diuron plus MSMA was noted; also Valor plus MSMA plus Parallel and Suprend provide 70 to 80% control at 31 DAT.
2. Control by fluometuron, prometryn, linuron, and diuron applied alone was poor with unacceptable results. MSMA must be added with these products for excellent control as noted with 90% control with diuron plus MSMA compared to only 24% control with diuron plus COC. The loss of MSMA will greatly reduce the activity of the substituted urea herbicides.

Pitted morningglory:

1. Control by fluometuron, prometryn, linuron, and diuron applied alone was poor to fair with unacceptable results. MSMA must be added with these products for excellent control as noted with 93% control with diuron plus MSMA compared to only 74% with diuron plus COC. The loss of MSMA will greatly reduce the fit of the substituted urea herbicides as directed applications.
2. Excellent control 31 DAT was noted with Aim, Envoke, Suprend, Diuron plus MSMA, Roundup + Direx, and all Valor combinations.

Tropical spiderwort:

1. There was so much grass present in the trial little later emerging spiderwort was noted, thus the addition of metolachlor was minimal.
2. Control of emerged plants was excellent with Aim, Diuron plus MSMA, Roundup + Direx, and Valor programs.
3. Trends for greater control were noted with higher rates of diuron compared to other substituted urea herbicides when applied alone or in combinations.

GENERAL COMMENTS:

May 28: Overspray entire trial with 22 oz. of WMax.

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Trial ID: C21-07
Location: Sunbelt Expo

Protocol ID:
Study Director: Stanley Culpepper
Investigator: Stanley Culpepper

Pest Type			W Weed	W Weed	W Weed	W Weed	W Weed	W Weed		
Pest Code			DIGSA	DIGSA	DIGSA	IPOLA	IPOLA	IPOLA		
Crop Code	GOSHI	GOSHI								
BBCH Scale	BCOT	BCOT								
Rating Date	Jul-02-07	Jul-07-07	Jul-02-07	Jul-07-07	Jul-25-07	Jul-02-07	Jul-07-07	Jul-25-07		
Rating Data Type	%	%	%	%	%	%	%	%		
Rating Unit	injury	injury	control	control	control	control	control	control		
Days After First/Last Applic.	8	13	8	13	31	8	13	31		
Trt-Eval Interval	8 DA-A	13 DA-A	8 DA-A	13 DA-A	31 DA-A	8 DA-A	13 DA-A	31 DA-A		
Trt No.	Treatment Name	Rate								
		Rate Unit	1	2	3	4	5	6		
			7	8						
1	Non-treated	0 g	0 i	0 k	0 m	0 l	0 m	0 m	0 l	
2	Prometryn COC	2 PT/A 1 % V/V	12 c-f	11 d-g	63 a-g	56 cd	40 fgh	63 ijk	68 hij	51 hij
3	Fluometuron COC	2 PT/A 1 % V/V	5 efg	8 fgh	45 d-j	14 j-m	9 jkl	66 h-k	74 e-j	80 a-e
4	Linuron COC	2 PT/A 1 % V/V	13 b-f	14 def	66 a-g	59 cd	38 f-i	59 k	58 jk	44 j
5	Diuron COC	2 PT/A 1 % V/V	12 c-f	11 d-g	58 b-h	35 e-i	24 g-k	85 a-g	79 b-h	74 b-g
6	Parallel PCS COC	1 PT/A 1 % V/V	5 efg	7 f-i	20 ijk	8 klm	8 jkl	21 l	15 l	20 k
7	Fluometuron Diuron COC	1 PT/A 1 PT/A 1 % V/V	10 c-f	14 def	36 f-j	27 h-k	20 h-l	80 a-j	81 a-h	89 a-d
8	Fluometuron Diuron COC	1 PT/A 1.5 PT/A 1 % V/V	15 b-e	12 d-g	48 d-j	62 cd	35 f-i	78 b-j	87 a-f	87 a-d
9	Fluometuron Prometryn COC	1 PT/A 0.8 PT/A 1 % V/V	12 c-f	12 d-g	49 d-j	42 d-h	15 i-l	90 a-e	70 f-j	84 a-e
10	Fluometuron Linuron COC	1 PT/A 1.5 PT/A 1 % V/V	13 b-f	13 d-g	69 a-f	49 c-f	28 f-k	76 c-k	68 hij	63 e-j
11	Diuron Linuron COC	0.8 PT/A 0.8 PT/A 1 % V/V	9 c-g	14 def	53 c-i	30 f-j	18 i-l	79 a-j	71 f-j	58 f-j
12	Diuron Linuron COC	1.2 PT/A 1.2 PT/A 1 % V/V	10 c-f	13 def	60 a-h	68 bc	46 ef	73 d-k	78 c-i	65 e-i
13	Diuron Prometryn COC	1 PT/A 0.8 PT/A 1 % V/V	12 c-f	14 def	60 a-h	50 c-f	29 f-j	75 c-k	64 h-k	68 d-h
14	Prometryn Linuron COC	0.8 PT/A 0.8 PT/A 1 % V/V	13 b-f	16 def	58 b-h	30 f-j	15 i-l	70 f-k	48 k	45 ij
15	Diuron Parallel PCS COC	1 PT/A 1 PT/A 1 % V/V	13 b-f	13 def	50 c-j	28 g-j	18 i-l	70 f-k	59 jk	53 g-j
16	Diuron Parallel PCS COC	1.5 PT/A 1 PT/A 1 % V/V	12 c-f	9 e-h	58 b-h	69 bc	45 efg	84 a-h	69 g-j	73 c-h

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Pest Type			W Weed	W Weed	W Weed	W Weed	W Weed	W Weed		
Pest Code			DIGSA	DIGSA	DIGSA	IPOLA	IPOLA	IPOLA		
Crop Code	GOSHI	GOSHI								
BBCH Scale	BCOT	BCOT								
Rating Date	Jul-02-07	Jul-07-07	Jul-02-07	Jul-07-07	Jul-25-07	Jul-02-07	Jul-07-07	Jul-25-07		
Rating Data Type	%	%	%	%	%	%	%	%		
Rating Unit	injury	injury	control	control	control	control	control	control		
Days After First/Last Applic.	8	13	8	13	31	8	13	31		
Trt-Eval Interval	8 DA-A	13 DA-A	8 DA-A	13 DA-A	31 DA-A	8 DA-A	13 DA-A	31 DA-A		
Trt No.	Treatment Name	Rate	1	2	3	4	5	6	7	8
		Unit								
17	Prometryn Parallel PCS COC	0.8 PT/A 1 PT/A 1 % V/V	15 bcd	12 d-g	71 a-f	51 cde	30 f-j	89 a-f	77 d-i	79 a-f
18	Fluometuron Parallel PCS COC	1 PT/A 1 PT/A 1 % V/V	8 c-g	7 f-i	38 f-j	33 e-j	20 h-l	82 a-h	69 g-j	78 a-f
19	Linuron Parallel PCS COC	0.8 PT/A 1 PT/A 1 % V/V	11 c-f	13 d-g	40 e-j	48 d-g	21 h-l	62 jk	60 ijk	73 c-h
20	Aim COC	1.6 OZ/A 1 % V/V	28 a	25 ab	18 jk	6 lm	5 kl	97 a	97 a	94 abc
21	Envoke COC	0.15 OZ/A 1 % V/V	8 c-g	5 ghi	28 h-k	25 h-l	10 jkl	75 c-k	86 a-g	90 abc
22	Suprend COC	1.25 LB/A 1 % V/V	13 b-f	15 def	92 ab	88 a	76 bcd	80 a-j	90 a-e	91 abc
23	Staple COC	2.55 OZ/A 1 % V/V	6 d-g	9 e-h	34 g-j	16 i-m	5 kl	69 g-k	89 a-e	78 a-f
24	Diuron MSMA COC	2 PT/A 2.67 PT/A 1 % V/V	14 b-e	12 d-g	75 a-d	98 a	91 abc	82 a-i	92 a-d	93 abc
25	Roundup WeatherMax	22 OZ/A	4 fg	2 hi	70 a-f	98 a	87 abc	71 e-k	78 c-i	73 c-h
26	Roundup WeatherMax Direx	22 OZ/A 1.5 PT/A	13 b-f	17 cde	93 a	97 a	98 ab	82 a-h	92 a-d	92 abc
27	Diuron MSMA COC Parallel	2 PT/A 2.67 PT/A 1 % V/V 16 OZ/A	14 b-e	14 def	88 ab	95 a	91 abc	91 a-d	94 a-d	88 a-d
28	Roundup WeatherMax Diuron Parallel	22 OZ/A 1.5 PT/A 16 OZ/A	11 c-f	12 d-g	88 ab	98 a	99 a	86 a-g	97 a	95 ab
29	Valor MSMA COC	2 OZ/A 2.67 PT/A 1 % V/V	16 bc	19 bcd	67 a-g	86 ab	63 de	87 a-g	95 abc	91 abc
30	Roundup WeatherMax Valor	22 OZ/A 2 OZ/A	22 ab	24 abc	70 a-f	96 a	91 abc	94 abc	97 a	97 a
31	Valor MSMA COC Parallel	2 OZ/A 2.67 PT/A 1 % V/V 16 OZ/A	25 a	30 a	73 a-e	82 ab	74 cd	96 ab	96 ab	94 abc
32	Roundup WeatherMax Valor Parallel	22 OZ/A 2 OZ/A 16 OZ/A	24 a	28 a	84 abc	99 a	96 ab	89 a-e	99 a	95 abc
LSD (P=.05)			8.0	7.0	28.3	17.5	18.7	15.3	14.7	18.2
Standard Deviation			5.7	5.0	20.2	12.5	13.3	10.9	10.5	13.0
CV			46.42	37.97	35.61	22.93	31.8	14.57	14.02	17.69
Bartlett's X2			62.654	43.127	50.01	79.093	71.498	38.18	59.25	72.967
P(Bartlett's X2)			0.001*	0.044*	0.012*	0.001*	0.001*	0.145	0.001*	0.001*

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Pest Type			W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code			DIGSA	DIGSA	DIGSA	IPOLA	IPOLA	IPOLA
Crop Code	GOSHI	GOSHI						
BBCH Scale	BCOT	BCOT						
Rating Date	Jul-02-07	Jul-07-07	Jul-02-07	Jul-07-07	Jul-25-07	Jul-02-07	Jul-07-07	Jul-25-07
Rating Data Type	%	%	%	%	%	%	%	%
Rating Unit	injury	injury	control	control	control	control	control	control
Days After First/Last Applic.	8	13	8	13	31	8	13	31
Trt-Eval Interval	8 DA-A	13 DA-A	8 DA-A	13 DA-A	31 DA-A	8 DA-A	13 DA-A	31 DA-A

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Pest Type			W Weed	W Weed	W Weed
Pest Code			COMBE	COMBE	COMBE
Crop Code					
BBCH Scale					
Rating Date			Jul-02-07	Jul-07-07	Jul-25-07
Rating Data Type			%	%	%
Rating Unit			control	control	control
Days After First/Last Applic.			8	13	31
Trt-Eval Interval			8 DA-A	13 DA-A	31 DA-A
Trt No.	Treatment Name	Rate Unit	9	10	11
1	Non-treated		0 k	0 m	0 o
2	Prometryn COC	2 PT/A 1 % V/V	79 a-g	73 d-h	50 lm
3	Fluometuron COC	2 PT/A 1 % V/V	66 d-h	67 e-i	78 a-i
4	Linuron COC	2 PT/A 1 % V/V	54 ghi	60 f-j	35 mn
5	Diuron COC	2 PT/A 1 % V/V	89 a-d	80 a-e	86 a-e
6	Parallel PCS COC	1 PT/A 1 % V/V	30 j	35 l	68 e-l
7	Fluometuron Diuron COC	1 PT/A 1 PT/A 1 % V/V	67 d-h	80 a-e	84 a-f
8	Fluometuron Diuron COC	1 PT/A 1.5 PT/A 1 % V/V	75 a-g	85 a-e	80 a-g
9	Fluometuron Prometryn COC	1 PT/A 0.8 PT/A 1 % V/V	80 a-f	55 h-k	58 h-l
10	Fluometuron Linuron COC	1 PT/A 1.5 PT/A 1 % V/V	73 b-g	53 i-l	56 i-l
11	Diuron Linuron COC	0.8 PT/A 0.8 PT/A 1 % V/V	66 d-h	68 e-i	53 klm
12	Diuron Linuron COC	1.2 PT/A 1.2 PT/A 1 % V/V	75 a-g	79 b-f	63 f-l
13	Diuron Prometryn COC	1 PT/A 0.8 PT/A 1 % V/V	71 c-h	51 i-l	58 h-l
14	Prometryn Linuron COC	0.8 PT/A 0.8 PT/A 1 % V/V	56 f-i	39 kl	26 n
15	Diuron Parallel PCS COC	1 PT/A 1 PT/A 1 % V/V	68 d-h	53 i-l	55 j-m
16	Diuron Parallel PCS COC	1.5 PT/A 1 PT/A 1 % V/V	87 a-e	77 c-f	79 a-h
17	Prometryn Parallel PCS COC	0.8 PT/A 1 PT/A 1 % V/V	79 a-g	56 g-k	61 g-l
18	Fluometuron Parallel PCS COC	1 PT/A 1 PT/A 1 % V/V	74 a-g	68 e-i	70 d-l

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Pest Type	W Weed	W Weed	W Weed
Pest Code	COMBE	COMBE	COMBE
Crop Code			
BBCH Scale			
Rating Date	Jul-02-07	Jul-07-07	Jul-25-07
Rating Data Type	%	%	%
Rating Unit	control	control	control
Days After First/Last Applic.	8	13	31
Trt-Eval Interval	8 DA-A	13 DA-A	31 DA-A
Trt No.	Treatment Name	Rate	Unit
9	10	11	
19	Linuron Parallel PCS COC	0.8 1 1	PT/A PT/A % V/V
20	Aim COC	1.6 1	OZ/A % V/V
21	Envoke COC	0.15 1	OZ/A % V/V
22	Suprend COC	1.25 1	LB/A % V/V
23	Staple COC	2.55 1	OZ/A % V/V
24	Diuron MSMA COC	2 2.67 1	PT/A PT/A % V/V
25	Roundup WeatherMax	22	OZ/A
26	Roundup WeatherMax Direx	22 1.5	OZ/A PT/A
27	Diuron MSMA COC Parallel	2 2.67 1 16	PT/A PT/A % V/V OZ/A
28	Roundup WeatherMax Diuron Parallel	22 1.5 16	OZ/A PT/A OZ/A
29	Valor MSMA COC	2 2.67 1	OZ/A PT/A % V/V
30	Roundup WeatherMax Valor	22 2	OZ/A OZ/A
31	Valor MSMA COC Parallel	2 2.67 1 16	OZ/A PT/A % V/V OZ/A
32	Roundup WeatherMax Valor Parallel	22 2 16	OZ/A OZ/A OZ/A
LSD (P=.05)		20.8	16.3
Standard Deviation		14.8	11.7
CV		21.02	16.54
Bartlett's X2		29.118	77.042
P(Bartlett's X2)		0.459	0.001*

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Crop Description			
Crop 1: GOSHI <i>Gossypium hirsutum</i>		Cotton, American upland	
Variety: DP 143 BRR	Description: cotton		
BBCH Scale: BCOT	Planting Date: May-08-07		
Planting Method: seeded	Rate, Unit: 1 4 in		
Depth, Unit: 0.5 in	Perennial Age, Unit: _____		
Row Spacing, Unit: 36 inch	Spacing Within Row, Unit: 4 inch		
Seed Bed: flat	Soil Temperature, Unit: 78 F		
Soil Moisture: irrigated	Emergence Date: May-13-07		
Harvest Date: _____	Harvest Equipment: _____		
Harvested Width, Unit: _____	Harvested Length, Unit: _____		
% Standard Moisture: _____	Moisture Meter: _____		
Weighing Equipment: _____			

Pest Description	
Pest 1 Type: W	Code: DIGSA <i>Digitaria sanguinalis</i> Common Name: <i>Digitaria sanguinalis</i> Description: _____
Pest 2 Type: W	Code: IPOLA Morningglory, pitted Common Name: <i>Ipomoea lacunosa</i> Description: _____
Pest 3 Type: W	Code: COMBE Wanderingjew, Bengal Common Name: <i>Commelina benghalensis</i> Description: Tropical spiderwort

Site and Design			
Plot Width, Unit: 9 FT	Site Type: Sunbelt Expo		
Plot Length, Unit: 25 FT	Tillage Type: Conservation		
Replications: 4	Study Design: Randomized Complete Block		
% Slope: _____	Soil Drainage: _ _____		

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

Maintenance								
No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Tank Mix
1.								

Comment:

Field Prep./Maintenance:

Soil Description			
Description Name: _____			
% Sand: 88	% OM: 1.2	Texture: .	
% Silt: 12	pH: 6	Soil Name: _____	
% Clay: 0	CEC: _____	Fert. Level: _____	
Analyzed By: _____			

Additional Measured Elements		
Element	Quantity	Unit

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Moisture Conditions

Overall Moisture Conditions: Irrigated

Closest Weather Station: Sunbelt Expo

Distance: 100

Unit: YD

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Application Description

	A
Application Date:	Jun-24-07
Time of Day:	3:00 pm
Application Method:	broadcast
Application Timing:	PD
Application Placement:	directed
Applied By:	AM
Air Temperature, Unit:	94 F
% Relative Humidity:	48
Wind Velocity, Unit:	3 mph
Wind Direction:	
Dew Presence (Y/N):	N
Water Hardness:	
Soil Temperature, Unit:	100 F
Soil Moisture:	moist
% Cloud Cover:	95
Next Rain Occurred On:	

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GOSHI BCOT
Stage Scale Used:	BBCH
Stage Majority, Percent:	12 lf 80
Stage Minimum, Percent:	11 lf 10
Stage Maximum, Percent:	13 lf 10
Diameter, Unit:	0. in
Height, Unit:	16 in
Height Minimum, Maximum:	18 14

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Pest Stage At Each Application

	A	
Pest 1 Code, Disc., Scale:	DIGSA	W .
Stage Majority, Percent:	. 0	
Stage Minimum, Percent:	. 0	
Stage Maximum, Percent:	. 0	
Diameter, Unit:	0.	.
Height, Unit:	4	in
Height Minimum, Maximum:	1	4
Density, Unit:	10	sqft
Coverage, Unit:		
Pest 2 Code, Disc., Scale:	IPOLA	W .
Stage Majority, Percent:	. 0	
Stage Minimum, Percent:	. 0	
Stage Maximum, Percent:	. 0	
Diameter, Unit:	0.	.
Height, Unit:	6	in
Height Minimum, Maximum:	4	8
Density, Unit:	1	sqft
Coverage, Unit:		
Pest 3 Code, Disc., Scale:	COMBE	W .
Stage Majority, Percent:	. 0	
Stage Minimum, Percent:	. 0	
Stage Maximum, Percent:	. 0	
Diameter, Unit:	0.	.
Height, Unit:	3.5	in
Height Minimum, Maximum:	2	5
Density, Unit:	8	sqft
Coverage, Unit:		

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Application Equipment

	A
Appl. Equipment:	backpack
Operating Pressure, Unit:	26 PSI
Nozzle Type:	floodjet
Nozzle Size:	D2
Nozzle Spacing, Unit:	36 in
Nozzles/Row:	1
Nozzle Calibration, Unit:	
Band Width, Unit:	
Boom ID:	
Boom Length, Unit:	
Boom Height, Unit:	12 in
Ground Speed, Unit:	3 mph
Incorporation Equip.:	
Hours to Incorp.:	
Incorp. Depth, Unit:	
Carrier:	water
Spray Volume, Unit:	15 GAL/AC
Mix Size, Unit:	
Spray pH:	
Propellant:	CO2
Tank Mix (Y/N):	Y

Equipment Comment:

Trt No Treatment Application Comment

Date By Notes

Date By Deviations

Reasons: