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Germinating cotton response to residual soil herbicides when influenced with cotton vigor, seed depth, and irrigation.

Trial ID: C69-11(start dry)
Location: TVP

Study Dir.: Stanley Culpepper
Investigator: Stanley Culpepper

Use 2 liters(s) per treatment mixture to spray 14.8 gal/ac

Plots: 12 by 25 feet

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No.	By Rep	1	2	3	4
1	Non-treated								101	206	304	407		
2	Reflex	2	SL	1	pt/a	PRE	A	16.89 ml/mx	102	208	307	406		
3	Staple 3.2 SL	3.2	SL	2	oz/a	PRE	A	2.111 ml/mx	103	207	303	402		
4	Warrant	3	CS	3	pt/a	PRE	A	50.67 ml/mx	104	201	305	401		
5	Diuron	4	L	1.5	pt/a	PRE	A	25.34 ml/mx	105	204	302	408		
6	Prowl H20	3.3	L	2.1	pt/a	PRE	A	35.47 ml/mx	106	203	301	404		
7	Prowl H20	3.3	L	2.1	pt/a	PRE	A	35.47 ml/mx	107	205	308	403		
	Reflex	2	SL	1	pt/a	PRE	A	16.89 ml/mx						
	Staple 3.2 SL	3.2	SL	2	oz/a	PRE	A	2.111 ml/mx						
8	Dual Magnum	7.64	L	1	pt/a	PRE	A	16.89 ml/mx	108	202	306	405		

Sort Order: Treatment

Trial Comments

OBJECTIVE: Determine the influence of seedling vigor, seedling depth, and irrigation on injury by various herbicides.

NOTE: This study started dry and received irrigation as noted below. Also see comments below to understand abbreviations.

VISUAL INJURY:

1. WRF Deep: Staple and Staple + Reflex + Prowl stunted cotton up to 26%; Reflex caused up to 14% necrosis. Injury was less than 8% with other herbicides.
2. WRF Shallow: Reflex or Staple caused as much as 32% injury; Reflex + Staple + Prowl caused up to 24% injury; Dual caused up to 29% stunting; injury from diuron, Prowl or Warrant was less than 9%.
3. DP Deep: Staple, Staple + Reflex + Prowl, and Dual caused up to 28-34% injury; Reflex up to 18% injury; Prowl up to 10%, Warrant up to 9%, and diuron up to 3%.
4. DP Shallow: Dual caused up to 61% injury; Reflex up to 41%, Staple and Staple + Reflex + Prowl up to 28-3%, Prowl up to 13%, Warrant up to 11% and diuron up to 3%.

STAND COUNTS (Taken 4, 9, 14, 21 DAP for entire plot):

1. WRF Deep was not influenced by herbicides.
2. WRF shallow was slightly delayed by Staple, Prowl + Reflex + Staple, and Dual Magnum.
3. DP deep was not influenced by herbicides.
4. DP shallow was not influenced by herbicides.

EARLY LEAF COUNTS (Taken 14 and 21 DAP for 10 plants per plot):

1. WRF Deep: At 14 and 21 d, systems with Staple were delayed.
2. WRF Shallow: At 21 d, systems with Staple or Dual were delayed.
3. DP Deep: At 21 d, systems with Staple were delayed.
4. DP Shallow: herbicides had no influence.
5. WRF was at least 1 leaf ahead of DP when comparing similar planting depths.

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COTTON HEIGHTS: (Taken 9, 14, 21, 28, and 36 DAT for 10 plants per plot).

1. WRF Deep: cotton heights were reduced by Staple systems, Warrant, and Dual.
2. WRF Shallow: Staple systems, Dual, Reflex and Warrant reduced growth during at least one measurement.
3. DP Deep: Staple systems and Dual reduced plant growth.
4. DP Shallow: Staple systems and Dual reduced plant growth.
5. In the control at 21 DAT, WRF cotton was at least 5 cm taller than DP.

ABNORMAL SEEDLING DEVELOPMENT:

1. Measurements taken by digging up 5 seedlings per evaluation.
2. WRF Deep: Less than 11% abnormal plant development in control.
3. WRF Shallow: Less than 11% abnormal plant development in control.
4. DP Deep: 30 to 46% abnormal plant development in control.
5. DP Shallow: 16 to 30% abnormal plant development in control.
6. Herbicides did not impact abnormal seedling development.

SHOOT LENGTH (5 plants carried to lab for each evaluation):

1. WRF Deep 11 DAT: Injury was noted with Staple systems.
2. WRF Deep 24 DAT: All herbicides except diuron and Prowl reduced plant growth.
3. WRF Shallow 11 DAT: Injury was noted with Staple.
4. WRF Shallow 24 DAT: All herbicides reduced plant growth.
5. DP Deep 11 DAT: No impact, likely due to how small cotton was.
6. DP Deep 24 DAT: Staple systems reduced shoot growth.
7. DP Shallow 11 DAT: All herbicides except diuron reduced shoot growth.
8. DP Shallow 24 DAT: All herbicides except Prowl reduced shoot growth.
9. At 24 DAT in the control, WRF was 5-6 cm taller than DP

ROOT LENGTH (5 plants carried to lab for each evaluation):

1. WRF Deep 11 DAT: Injury not noted.
2. WRF Deep 24 DAT: Staple systems reduced growth.
3. WRF Shallow 11 DAT: Reflex, Staple, and Dual reduced growth.
4. WRF Shallow 24 DAT: Reflex, Staple systems, and Dual reduced growth.
5. DP Deep 11 DAT: Prowl + Reflex + Staple system reduced growth.
6. DP Deep 24 DAT: Staple system reduced growth.
7. DP Shallow 11 DAT: Staple systems, Warrant, and Dual reduced growth.
8. DP Shallow 24 DAT: All systems except for Warrant, Prowl and diuron reduced growth.
9. At 24 DAT in the control, WRF hand roots 3-4 cm longer.

WEIGHT OF HARVESTED SEEDLINGS (5 plants carried to lab for each evaluation):

1. WRF DEEP: Lower weights were noted with Staple systems.
2. WRF Shallow: All herbicides except Prowl and diuron reduced weights.
3. DP DEEP: Lower weights were noted with Staple systems.
4. DP Shallow: All herbicides except Prowl and diuron reduced weights.

IRRIGATION/RAINFALL

Aug 29: Planted

Aug 29: 0.4" irrigation

Aug 30: 0.3" irrigation

Aug 31: 0.4" irrigation

Sept 2: 0.5" irrigation

Sept 4: 0.59" rain

Sept 5: 0.49" rain

Sept 9: 0.3" irrigation

SOIL TEMP:

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Aug 29: 114F

Aug 30: 114F

Sept 1: 102F

Sept 2: 107 F

Sept 3: 91 F

General Comments:

1. WRF Deep = PHY 499 WRF cotton planted 1 inch.
2. WRF Shallow = PHY 499 WRF cotton planted 0.5 inch
3. DP Deep = DP 1034 B2RF cotton planted 1 inch
4. DP Shallow = DP 1034 B2RF cotton planted 0.5 inch

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Trial ID: C69-11(start dry)
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Weed Code	WRF DEEP	WRF DEEP	WRF DEEP	WRF DEEP	WRF DEEP	WRF SHW
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	INJURY	INJURY	INJURY	INJURY	INJURY	INJURY
Rating Unit	%	%	%	%	%	%
Rating Date	9/6/2011	9/14/2011	9/22/2011	10/3/2011	10/28/2011	9/6/2011
Crop Stage						
Crop Stage Scale						
Assessed By	SC	SC	SC	JS	JS	SC
Trt-Eval Interval	8 DA-A	16 DA-A	24 DA-A	35 DA-A	60 DA-A	8 DA-A
ARM Action Codes						

Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7					
1	Non-treated			0.0	c	0.0	d	0.0	b	0.0	d				
2	Reflex	1	pt/a	13.8	b	12.0	bc	5.0	b	1.3	c	0.0	b	28.0	a
3	Staple 3.2 SL	2	oz/a	18.8	ab	20.0	a	26.3	a	14.8	a	10.0	a	18.8	b
4	Warrant	3	pt/a	1.3	c	3.3	d	6.3	b	0.0	c	2.5	b	1.3	d
5	Diuron	1.5	pt/a	0.0	c	0.0	d	0.0	b	0.0	c	0.0	b	0.0	d
6	Prowl H20	2.1	pt/a	0.0	c	1.3	d	1.3	b	0.0	c	0.0	b	0.0	d
7	Prowl H20	2.1	pt/a	21.3	a	17.5	ab	25.0	a	16.8	a	8.8	a	23.8	ab
	Reflex	1	pt/a												
	Staple 3.2 SL	2	oz/a												
8	Dual Magnum	1	pt/a	3.8	c	5.8	cd	5.0	b	7.5	b	2.5	b	10.0	c
LSD (P=.05)				6.35		6.76		6.88		5.00		4.86		7.77	
Standard Deviation				4.32		4.59		4.68		3.40		3.30		5.28	
CV				58.79		61.51		54.47		67.6		111.21		51.69	
Bartlett's X2				8.773		7.965		6.664		4.295		1.197		6.067	
P(Bartlett's X2)				0.067		0.158		0.247		0.231		0.754		0.194	
Replicate F				0.936		1.328		2.983		3.526		4.276		3.206	
Replicate Prob(F)				0.4408		0.2918		0.0545		0.0327		0.0167		0.0440	
Treatment F				17.671		12.163		21.224		17.460		6.215		19.781	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		0.0005		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.

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Weed Code	WRF SHW	WRF SHW	WRF SHW	WRF SHW	DP DEEP	DP DEEP	DP DEEP
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	INJURY	INJURY	INJURY	INJURY	INJURY	INJURY	INJURY
Rating Unit	%	%	%	%	%	%	%
Rating Date	9/14/2011	9/22/2011	10/3/2011	10/28/2011	9/6/2011	9/14/2011	9/22/2011
Crop Stage							
Crop Stage Scale							
Assessed By	SC	SC	JS	JS	SC	SC	SC
Trt-Eval Interval	16 DA-A	24 DA-A	35 DA-A	60 DA-A	8 DA-A	16 DA-A	24 DA-A
ARM Action Codes							

Trt No.	Treatment Name	Rate	Unit	8	9	10	11	12	13	14	15	
1	Non-treated			0.0	b 0.0	b 0.0	c 1.3	cd	0.0	d 0.0	d 0.0	c
2	Reflex	1	pt/a	25.0	a 32.5	a 3.8	bc 1.3	cd	18.0	b 13.3	bc 16.3	b
3	Staple 3.2 SL	2	oz/a	23.8	a 32.5	a 14.8	a 8.8	a	18.8	b 25.0	a 28.8	a
4	Warrant	3	pt/a	5.8	b 8.3	b 0.0	c 0.0	d	1.3	cd 8.3	cd 8.8	bc
5	Diuron	1.5	pt/a	0.0	b 0.0	b 0.0	c 0.0	d	0.0	d 1.3	d 2.5	c
6	Prowl H20	2.1	pt/a	1.3	b 1.3	b 0.0	c 0.0	d	0.0	d 3.8	d 10.0	bc
7	Prowl H20	2.1	pt/a	21.3	a 23.8	a 16.8	a 3.8	bc	25.0	a 21.3	ab 33.8	a
	Reflex	1	pt/a									
	Staple 3.2 SL	2	oz/a									
8	Dual Magnum	1	pt/a	20.5	a 28.8	a 7.5	b 5.0	b	6.3	c 15.8	bc 32.5	a
LSD (P=.05)				9.45	10.27	5.87	3.50	.	6.21	9.22	10.48	
Standard Deviation				6.43	6.98	3.99	2.38	.	4.22	6.27	7.12	
CV				52.73	43.97	74.65	95.12	.	48.8	56.65	43.01	
Bartlett's X2				13.408	10.701	1.954	2.364	.	5.543	13.677	4.756	
P(Bartlett's X2)				0.02*	0.058	0.582	0.669	.	0.236	0.033*	0.576	
Replicate F				2.620	2.735	3.794	3.316		2.234	2.017	1.704	
Replicate Prob(F)				0.0776	0.0693	0.0256	0.0397		0.1141	0.1424	0.1968	
Treatment F				12.551	18.255	12.210	6.947		23.758	8.799	14.349	
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0002		0.0001	0.0001	0.0001	

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Weed Code	DP DEEP	DP DEEP	DP SHW	DP SHW	DP SHW	DP SHW	DP SHW
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	INJURY	INJURY	INJURY	INJURY	INJURY	INJURY	INJURY
Rating Unit	%	%	%	%	%	%	%
Rating Date	10/3/2011	10/28/2011	9/6/2011	9/14/2011	9/22/2011	10/3/2011	10/28/2011
Crop Stage							
Crop Stage Scale							
Assessed By	JS	JS	SC	SC	SC	JS	JS
Trt-Eval Interval	35 DA-A	60 DA-A	8 DA-A	16 DA-A	24 DA-A	35 DA-A	60 DA-A
ARM Action Codes							

Trt No.	Treatment Name	Rate	Unit	16	17	18	19	20	21	22	23	24
1	Non-treated			0.0	b 0.0	b	0.0	d 0.0	b 0.0	e 0.0	d 3.8	c
2	Reflex	1	pt/a	2.5	b 0.0	b	27.0	a 28.8	a 41.3	b 6.3	c 5.0	c
3	Staple 3.2 SL	2	oz/a	14.8	a 7.5	a	18.8	bc 26.3	a 33.8	bc 14.8	b 15.0	b
4	Warrant	3	pt/a	1.3	b 1.3	b	2.5	d 9.8	b 11.3	de 2.5	cd 2.5	c
5	Diuron	1.5	pt/a	2.0	b 0.0	b	0.0	d 1.3	b 2.5	de 0.0	d 0.0	c
6	Prowl H20	2.1	pt/a	0.0	b 1.3	b	0.0	d 3.8	b 13.0	d 1.3	cd 7.5	bc
7	Prowl H20	2.1	pt/a	19.5	a 6.3	a	25.0	ab 25.0	a 27.5	c 17.5	b 3.8	c
	Reflex	1	pt/a									
	Staple 3.2 SL	2	oz/a									
8	Dual Magnum	1	pt/a	14.5	a 6.3	a	13.8	c 31.3	a 61.3	a 42.5	a 32.5	a
LSD (P=.05)				6.76	4.98	.	7.63	13.66	12.47	5.62	9.83	.
Standard Deviation				4.59	3.39	.	5.19	9.29	8.48	3.82	6.68	.
CV				67.43	120.36	.	47.73	58.98	35.6	36.09	76.36	.
Bartlett's X2				5.326	6.344	.	3.689	19.802	11.915	4.736	6.559	.
P(Bartlett's X2)				0.377	0.175	.	0.45	0.003*	0.064	0.449	0.364	.
Replicate F				1.886	3.182		2.038	3.261	0.715	0.920	0.187	
Replicate Prob(F)				0.1629	0.0451		0.1393	0.0418	0.5540	0.4482	0.9043	
Treatment F				12.148	3.701		20.251	8.233	24.765	57.833	10.040	
Treatment Prob(F)				0.0001	0.0092		0.0001	0.0001	0.0001	0.0001	0.0001	

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Weed Code	WRF DEEP	WRF DEEP	WRF DEEP	WRF DEEP	WRF SHW	WRF SHW
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	STAND CT	STAND CT	STAND CT	STAND CT	STAND CT	STAND CT
Rating Unit	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT
Rating Date	9/2/2011	9/7/2011	9/12/2011	9/19/2011	9/2/2011	9/7/2011
Crop Stage						
Crop Stage Scale						
Assessed By						
Trt-Eval Interval	4 DA-A	9 DA-A	14 DA-A	21 DA-A	4 DA-A	9 DA-A
ARM Action Codes						

Trt No.	Treatment Name	Rate	Unit	25	26	27	28	29	30	31	
1	Non-treated			8.0	a 13.0	a 15.3	a 14.8	a	12.5	ab 15.5	a
2	Reflex	1	pt/a	5.8	a 16.5	a 16.3	a 16.0	a	11.8	ab 13.3	a
3	Staple 3.2 SL	2	oz/a	0.0	a 14.8	a 15.3	a 14.0	a	0.0	c 12.5	a
4	Warrant	3	pt/a	3.0	a 15.3	a 16.5	a 15.3	a	8.8	abc 13.0	a
5	Diuron	1.5	pt/a	3.8	a 15.8	a 15.8	a 16.5	a	16.0	a 13.8	a
6	Prowl H20	2.1	pt/a	3.8	a 16.0	a 17.8	a 17.0	a	11.8	ab 16.0	a
7	Prowl H20	2.1	pt/a	1.5	a 14.5	a 16.3	a 16.3	a	3.8	bc 15.0	a
	Reflex	1	pt/a								
	Staple 3.2 SL	2	oz/a								
8	Dual Magnum	1	pt/a	4.3	a 16.8	a 16.5	a 15.8	a	4.3	bc 13.0	a
LSD (P=.05)				5.02	2.78	3.24	2.58	.	9.97	3.66	
Standard Deviation				3.41	1.89	2.20	1.75	.	6.78	2.49	
CV				90.94	12.33	13.61	11.16	.	78.9	17.79	
Bartlett's X2				8.348	5.073	2.69	6.355	.	9.542	8.181	
P(Bartlett's X2)				0.214	0.651	0.912	0.499	.	0.145	0.317	
Replicate F				3.031	3.751	1.280	3.874		0.546	0.605	
Replicate Prob(F)				0.0520	0.0266	0.3071	0.0238		0.6561	0.6193	
Treatment F				2.063	1.678	0.541	1.252		2.564	1.117	
Treatment Prob(F)				0.0941	0.1689	0.7937	0.3199		0.0447	0.3892	

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.

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Weed Code	WRF SHW	WRF SHW	DP DEEP	DP DEEP	DP DEEP	DP DEEP
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	STAND CT	STAND CT	STAND CT	STAND CT	STAND CT	STAND CT
Rating Unit	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLOT
Rating Date	9/12/2011	9/19/2011	9/2/2011	9/7/2011	9/12/2011	9/19/2011
Crop Stage						
Crop Stage Scale						
Assessed By						
Trt-Eval Interval	14 DA-A	21 DA-A	4 DA-A	9 DA-A	14 DA-A	21 DA-A
ARM Action Codes						

Trt No.	Treatment Name	Rate	Rate Unit	32	33	34	35	36	37	38	39
1	Non-treated			17.0	a 16.0	a	2.8	a 13.0	a 13.0	a 12.5	a
2	Reflex	1	pt/a	15.3	a 14.8	a	2.3	a 14.8	a 15.3	a 14.5	a
3	Staple 3.2 SL	2	oz/a	15.3	a 13.8	a	0.0	a 14.0	a 16.3	a 14.3	a
4	Warrant	3	pt/a	15.0	a 15.5	a	0.8	a 15.3	a 16.0	a 14.8	a
5	Diuron	1.5	pt/a	15.8	a 15.8	a	1.8	a 13.8	a 16.3	a 17.0	a
6	Prowl H20	2.1	pt/a	17.8	a 16.0	a	2.3	a 13.0	a 15.3	a 15.8	a
7	Prowl H20	2.1	pt/a	14.8	a 15.0	a	1.8	a 16.8	a 16.3	a 15.0	a
	Reflex	1	pt/a								
	Staple 3.2 SL	2	oz/a								
8	Dual Magnum	1	pt/a	13.3	a 14.5	a	1.3	a 12.8	a 11.5	a 11.5	a
LSD (P=.05)				2.85	3.30	.	2.56	4.27	3.36	3.46	.
Standard Deviation				1.94	2.25	.	1.74	2.90	2.29	2.35	.
CV				12.49	14.82	.	109.24	20.52	15.28	16.34	.
Bartlett's X2				15.486	2.311	.	7.368	11.421	6.879	2.727	.
P(Bartlett's X2)				0.03*	0.941	.	0.288	0.121	0.442	0.909	.
Replicate F				0.689	0.155		5.893	1.683	1.455	0.051	
Replicate Prob(F)				0.5689	0.9253		0.0044	0.2011	0.2554	0.9845	
Treatment F				2.038	0.509		1.059	0.889	2.408	2.177	
Treatment Prob(F)				0.0978	0.8174		0.4226	0.5326	0.0562	0.0793	

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.

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Weed Code	DP SHW	DP SHW	DP SHW	DP SHW	WRF DEEP	WRF DEEP	WRF SHW
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	STAND CT	STAND CT	STAND CT	STAND CT	LEAF CT	LEAF CT	LEAF CT
Rating Unit	#/PLOT	#/PLOT	#/PLOT	#/PLOT	#/PLANT	#/PLANT	#/PLANT
Rating Date	9/2/2011	9/7/2011	9/12/2011	9/19/2011	9/12/2011	9/19/2011	9/12/2011
Crop Stage					AVG10PLA	AVG10PLA	AVG10PLA

Crop Stage Scale

Assessed By

Trt-Eval Interval

ARM Action Codes

Trt	Treatment	Rate	Unit	40	41	42	43	56	68	80	
No.	Name										
1	Non-treated			5.5	a 11.5	a 13.5	a 14.3	a 1.18	a 2.58	ab 0.88	a
2	Reflex	1	pt/a	7.8	a 12.3	a 14.8	a 15.3	a 1.28	a 3.05	a 1.08	a
3	Staple 3.2 SL	2	oz/a	2.0	a 11.8	a 16.0	a 14.8	a 0.03	d 2.00	c 0.08	a
4	Warrant	3	pt/a	7.5	a 12.8	a 13.0	a 12.8	a 0.60	bc 2.45	bc 0.48	a
5	Diuron	1.5	pt/a	9.5	a 15.8	a 15.8	a 15.3	a 0.93	ab 3.13	a 1.13	a
6	Prowl H20	2.1	pt/a	8.8	a 12.5	a 14.8	a 13.5	a 0.80	ab 2.95	ab 1.08	a
7	Prowl H20	2.1	pt/a	2.8	a 11.0	a 12.5	a 13.5	a 0.18	cd 1.98	c 0.38	a
	Reflex	1	pt/a								
	Staple 3.2 SL	2	oz/a								
8	Dual Magnum	1	pt/a	2.3	a 11.8	a 12.0	a 12.0	a 0.88	ab 2.48	bc 0.73	a
LSD (P=.05)				6.27	5.22	3.81	4.28	0.572	0.552	0.810	
Standard Deviation				4.26	3.55	2.59	2.91	0.389	0.375	0.551	
CV				74.15	28.6	18.46	20.92	53.16	14.57	75.95	
Bartlett's X2				10.478	12.168	3.558	6.785	24.266	4.448	9.547	
P(Bartlett's X2)				0.163	0.095	0.829	0.452	0.001*	0.727	0.216	
Replicate F				6.789	1.042	1.955	0.555	0.598	2.420	0.278	
Replicate Prob(F)				0.0022	0.3947	0.1518	0.6503	0.6232	0.0946	0.8409	
Treatment F				2.059	0.680	1.335	0.658	5.221	5.620	1.951	
Treatment Prob(F)				0.0948	0.6870	0.2831	0.7042	0.0015	0.0009	0.1116	

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.

University of Georgia

Weed Code				WRF SHW		DP DEEP		DP DEEP		DP SHW		DP SHW		WRF DEEP		WRF DEEP	
Crop Code				GOSHI		GOSHI		GOSHI		GOSHI		GOSHI		GOSHI		GOSHI	
Rating Data Type				LEAF CT		LEAF CT		LEAF CT		LEAF CT		LEAF CT		HEIGHTS		HEIGHTS	
Rating Unit				#/PLANT		#/PLANT		#/PLANT		#/PLANT		#/PLANT		CM		CM	
Rating Date				9/19/2011		9/12/2011		9/19/2011		9/12/2011		9/19/2011		9/7/2011		9/12/2011	
Crop Stage				AVG10PLA		AVG10PLA		AVG10PLA		AVG10PLA		AVG10PLA		AVG10PLA		AVG10PLA	
Crop Stage Scale																	
Assessed By																	
Trt-Eval Interval				21 DA-A		14 DA-A		21 DA-A		14 DA-A		21 DA-A		9 DA-A		14 DA-A	
ARM Action Codes				T4		T5		T6		T7		T8		T9		T10	
Trt	Treatment	Rate	Rate	92		104		116		128		140		152		164	
No.	Name		Unit														
1	Non-treated			2.88	ab	0.10	a	1.73	ab	0.25	a	1.35	a	5.50	a	8.53	a
2	Reflex	1	pt/a	2.08	bcd	0.23	a	1.93	a	0.10	a	1.25	a	5.50	a	7.88	ab
3	Staple 3.2 SL	2	oz/a	1.83	d	0.00	a	1.45	bc	0.00	a	1.00	a	3.73	a	6.33	c
4	Warrant	3	pt/a	2.48	a-d	0.15	a	1.50	bc	0.05	a	1.15	a	3.93	a	6.80	bc
5	Diuron	1.5	pt/a	3.18	a	0.08	a	1.68	ab	0.15	a	1.73	a	4.98	a	8.50	a
6	Prowl H20	2.1	pt/a	2.70	abc	0.10	a	1.50	bc	0.23	a	1.28	a	4.58	a	8.28	a
7	Prowl H20	2.1	pt/a	2.38	a-d	0.00	a	1.25	c	0.00	a	1.30	a	4.00	a	6.38	c
	Reflex	1	pt/a														
	Staple 3.2 SL	2	oz/a														
8	Dual Magnum	1	pt/a	1.85	cd	0.05	a	1.58	bc	0.15	a	1.05	a	4.93	a	7.38	abc
LSD (P=.05)				0.870		0.202		0.329		0.238		0.861		1.475		1.371	
Standard Deviation				0.592		0.137		0.224		0.162		0.585		1.003		0.932	
CV				24.47		156.74		14.21		139.85		46.36		21.62		12.42	
Bartlett's X2				4.408		5.155		15.724		5.083		14.729		11.579		6.353	
P(Bartlett's X2)				0.732		0.397		0.028*		0.406		0.04*		0.115		0.499	
Replicate F				5.579		0.000		7.965		1.000		0.372		1.314		1.670	
Replicate Prob(F)				0.0056		1.0000		0.0010		0.4123		0.7738		0.2963		0.2039	
Treatment F				2.706		1.215		3.278		1.392		0.584		1.951		3.908	
Treatment Prob(F)				0.0364		0.3379		0.0163		0.2603		0.7613		0.1116		0.0070	

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.

University of Georgia

Weed Code				WRF DEEP	WRF DEEP	WRF DEEP	WRF SHW	WRF SHW	WRF SHW	WRF SHW	WRF SHW	WRF SHW	WRF SHW	WRF SHW	WRF SHW	WRF SHW
Crop Code				GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type				HEIGHTS	HEIGHTS	HEIGHTS	HEIGHTS	HEIGHTS	HEIGHTS	HEIGHTS	HEIGHTS	HEIGHTS	HEIGHTS	HEIGHTS	HEIGHTS	HEIGHTS
Rating Unit				CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM	CM
Rating Date				9/19/2011	9/26/2011	10/4/2011	9/7/2011	9/12/2011	9/19/2011	9/19/2011	9/19/2011	9/19/2011	9/19/2011	9/19/2011	9/26/2011	9/26/2011
Crop Stage				AVG10PLA	AVG10PLA	AVG10PLA	AVG10PLA	AVG10PLA	AVG10PLA	AVG10PLA	AVG10PLA	AVG10PLA	AVG10PLA	AVG10PLA	AVG10PLA	AVG10PLA
Crop Stage Scale																
Assessed By																
Trt-Eval Interval				21 DA-A	28 DA-A	36 DA-A	9 DA-A	14 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A	28 DA-A	28 DA-A
ARM Action Codes				T11	T12	T13	T14	T15	T16	T16	T16	T16	T16	T16	T17	T17
Trt No.	Treatment Name	Rate	Unit	176	188	200	212	224	236	248						
1	Non-treated			14.13	ab	23.70	a	30.30	a	5.68	a	8.75	abc	15.13	a	20.73
2	Reflex	1	pt/a	14.68	a	23.83	a	30.35	a	5.90	a	7.10	cd	12.23	bc	17.35
3	Staple 3.2 SL	2	oz/a	9.80	d	17.75	c	21.98	d	3.83	a	5.85	d	9.70	c	15.03
4	Warrant	3	pt/a	11.23	cd	20.65	bc	26.00	bc	4.68	a	7.35	bcd	11.55	c	16.30
5	Diuron	1.5	pt/a	14.53	ab	24.35	a	30.70	a	5.95	a	9.40	a	14.73	ab	20.50
6	Prowl H20	2.1	pt/a	13.28	ab	22.98	ab	29.38	ab	5.65	a	9.13	ab	14.85	ab	20.85
7	Prowl H20	2.1	pt/a	10.00	d	17.78	c	23.15	cd	4.10	a	6.55	d	11.10	c	15.55
	Reflex	1	pt/a													
	Staple 3.2 SL	2	oz/a													
8	Dual Magnum	1	pt/a	12.63	bc	19.10	c	26.03	bc	4.80	a	7.28	bcd	11.73	c	15.30
LSD (P=.05)				2.030		3.048		3.718		1.699		1.876		2.798		3.730
Standard Deviation				1.380		2.072		2.528		1.155		1.276		1.902		2.536
CV				11.02		9.74		9.28		22.77		16.62		15.07		14.33
Bartlett's X2				1.818		8.029		11.48		8.995		7.379		2.074		14.556
P(Bartlett's X2)				0.969		0.33		0.119		0.253		0.391		0.956		0.042*
Replicate F				0.572		0.752		1.629		0.072		0.149		1.071		2.026
Replicate Prob(F)				0.6394		0.5334		0.2129		0.9743		0.9289		0.3828		0.1410
Treatment F				8.171		7.257		7.424		2.093		4.013		4.518		4.134
Treatment Prob(F)				0.0001		0.0002		0.0002		0.0900		0.0062		0.0033		0.0053

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.

University of Georgia

Weed Code				WRF SHW		DP DEEP		DP DEEP		DP DEEP		DP DEEP		DP DEEP		DP SHW	
Crop Code				GOSHI		GOSHI		GOSHI		GOSHI		GOSHI		GOSHI		GOSHI	
Rating Data Type				HEIGHTS		HEIGHTS		HEIGHTS		HEIGHTS		HEIGHTS		HEIGHTS		HEIGHTS	
Rating Unit				CM		CM		CM		CM		CM		CM		CM	
Rating Date				10/4/2011		9/7/2011		9/12/2011		9/19/2011		9/26/2011		10/4/2011		9/7/2011	
Crop Stage				AVG10PLA		AVG10PLA		AVG10PLA		AVG10PLA		AVG10PLA		AVG20PLA		AVG10PLA	
Crop Stage Scale																	
Assessed By																	
Trt-Eval Interval				36 DA-A		9 DA-A		14 DA-A		21 DA-A		28 DA-A		36 DA-A		9 DA-A	
ARM Action Codes				T18		T19		T20		T21		T22		T23		T24	
Trt	Treatment	Rate	Unit														
No.	Name	Rate	Unit	260		272		284		296		308		320		332	
1	Non-treated			28.33	ab	3.23	a	5.73	a	9.10	ab	16.18	a	19.95	ab	4.18	a
2	Reflex	1	pt/a	24.43	abc	3.15	a	5.98	a	8.90	b	14.28	abc	18.15	bc	3.60	abc
3	Staple 3.2 SL	2	oz/a	20.50	cd	2.28	a	4.78	a	7.23	cd	13.40	bcd	15.88	cd	2.85	cd
4	Warrant	3	pt/a	23.63	bc	2.63	a	4.75	a	8.45	bc	14.70	ab	19.18	ab	3.85	ab
5	Diuron	1.5	pt/a	28.68	a	3.50	a	6.00	a	10.33	a	15.08	ab	21.33	a	4.38	a
6	Prowl H20	2.1	pt/a	28.48	a	2.55	a	5.28	a	8.93	b	14.88	ab	18.53	abc	3.83	ab
7	Prowl H20	2.1	pt/a	22.50	cd	2.60	a	4.00	a	6.63	d	11.23	d	14.93	d	2.65	d
	Reflex	1	pt/a														
	Staple 3.2 SL	2	oz/a														
8	Dual Magnum	1	pt/a	17.95	d	2.83	a	4.85	a	8.05	bc	12.30	cd	17.10	bcd	3.18	bcd
LSD (P=.05)				4.823		0.782		1.563		1.350		2.260		2.991		0.888	
Standard Deviation				3.280		0.532		1.062		0.918		1.536		2.033		0.604	
CV				13.49		18.7		20.55		10.86		10.97		11.22		16.95	
Bartlett's X2				14.068		7.716		9.452		8.983		18.479		15.659		3.442	
P(Bartlett's X2)				0.05*		0.358		0.222		0.254		0.01*		0.028*		0.841	
Replicate F				1.277		0.818		1.059		0.560		2.678		2.140		3.293	
Replicate Prob(F)				0.3080		0.4983		0.3875		0.6474		0.0733		0.1256		0.0406	
Treatment F				5.910		2.400		1.751		6.346		4.398		4.310		4.198	
Treatment Prob(F)				0.0007		0.0569		0.1510		0.0004		0.0038		0.0042		0.0049	

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.

University of Georgia

Weed Code	DP SHW	DP SHW	DP SHW	DP SHW	WRF DEEP	WRF DEEP
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	HEIGHTS	HEIGHTS	HEIGHTS	HEIGHTS	ABN ROOTS	ABN ROOTS
Rating Unit	CM	CM	CM	CM	#/5plant	#/5plant
Rating Date	9/12/2011	9/19/2011	9/26/2011	10/4/2011	9/9/2011	9/23/2011
Crop Stage	AVG10PLA	AVG10PLA	AVG10PLA	AVG10PLA	IN LAB	IN LAB

Crop Stage Scale

Assessed By

Trt-Eval Interval

ARM Action Codes

14 DA-A

T25

21 DA-A

T26

28 DA-A

T27

36 DA-A

T28

11 DA-A

25 DA-A

Trt No.	Treatment Name	Rate	Unit	344		356		368		380		382		383	
1	Non-treated			6.15	ab	9.50	a	17.35	ab	19.53	ab	0.3	a	0.5	b
2	Reflex	1	pt/a	5.78	abc	8.18	a	15.58	b	18.73	ab	0.8	a	0.3	b
3	Staple 3.2 SL	2	oz/a	4.53	c	7.10	a	14.33	bc	16.73	bc	0.8	a	2.8	a
4	Warrant	3	pt/a	5.68	abc	8.28	a	14.65	bc	17.85	abc	0.0	a	0.5	b
5	Diuron	1.5	pt/a	6.95	a	10.60	a	20.23	a	22.35	a	1.0	a	0.3	b
6	Prowl H20	2.1	pt/a	6.20	ab	9.85	a	17.58	ab	21.00	ab	1.0	a	0.8	b
7	Prowl H20	2.1	pt/a	4.60	bc	6.93	a	14.98	b	17.58	bc	1.0	a	3.0	a
	Reflex	1	pt/a												
	Staple 3.2 SL	2	oz/a												
8	Dual Magnum	1	pt/a	4.35	c	7.53	a	11.00	c	13.70	c	0.3	a	0.5	b
LSD (P=.05)				1.620		3.086		3.817		4.768		1.17		1.20	
Standard Deviation				1.101		2.098		2.595		3.242		0.79		0.81	
CV				19.92		24.7		16.52		17.59		127.09		76.5	
Bartlett's X2				2.8		9.617		9.979		9.772		3.554		7.964	
P(Bartlett's X2)				0.903		0.211		0.19		0.202		0.737		0.241	
Replicate F				2.478		0.605		0.440		0.889		1.981		2.081	
Replicate Prob(F)				0.0893		0.6188		0.7266		0.4631		0.1477		0.1333	
Treatment F				2.920		1.659		4.442		2.697		1.019		7.757	
Treatment Prob(F)				0.0268		0.1740		0.0036		0.0368		0.4468		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.

University of Georgia

Weed Code	WRF SHW	WRF SHW	DP DEEP	DP DEEP	DP SHW	DP SHW
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	ABN ROOTS	ABN ROOTS	ABN ROOTS	ABN ROOTS	ABN ROOTS	ABN ROOTS
Rating Unit	#/5plant	#/5plant	#/5plant	#/5plant	#/5plant	#/5plant
Rating Date	9/9/2011	9/23/2011	9/9/2011	9/23/2011	9/9/2011	9/23/2011
Crop Stage	IN LAB	IN LAB	IN LAB	IN LAB	IN LAB	IN LAB
Crop Stage Scale						
Assessed By						
Trt-Eval Interval	11 DA-A	25 DA-A	11 DA-A	25 DA-A	11 DA-A	25 DA-A
ARM Action Codes						

Trt No.	Treatment Name	Rate	Rate Unit	385	386	388	389	391	392	
1	Non-treated			0.5	b 0.3	a 2.3	a 1.5	b 0.8	a 1.5	a
2	Reflex	1	pt/a	1.3	b 0.5	a 1.8	a 2.8	ab 1.8	a 2.3	a
3	Staple 3.2 SL	2	oz/a	1.3	b 2.0	a 2.3	a 3.5	a 3.0	a 2.3	a
4	Warrant	3	pt/a	1.8	ab 0.8	a 1.5	a 1.5	b 2.5	a 1.8	a
5	Diuron	1.5	pt/a	0.5	b 0.0	a 1.5	a 2.8	ab 1.8	a 1.5	a
6	Prowl H20	2.1	pt/a	1.0	b 0.8	a 1.3	a 1.3	b 2.5	a 1.5	a
7	Prowl H20	2.1	pt/a	0.5	b 1.3	a 4.0	a 4.3	a 1.8	a 1.8	a
	Reflex	1	pt/a							
	Staple 3.2 SL	2	oz/a							
8	Dual Magnum	1	pt/a	3.0	a 1.8	a 2.5	a 1.5	b 2.5	a 3.0	a
LSD (P=.05)				1.37	1.50	1.86	1.71	1.62	1.75	
Standard Deviation				0.93	1.02	1.27	1.16	1.10	1.19	
CV				76.29	112.7	59.66	48.84	53.56	61.56	
Bartlett's X2				7.293	7.784	4.084	7.675	4.293	6.389	
P(Bartlett's X2)				0.399	0.254	0.77	0.362	0.746	0.495	
Replicate F				1.193	0.270	1.296	0.681	1.741	0.498	
Replicate Prob(F)				0.3366	0.8466	0.3018	0.5732	0.1892	0.6877	
Treatment F				3.341	1.913	1.911	3.664	1.624	0.791	
Treatment Prob(F)				0.0149	0.1182	0.1185	0.0097	0.1832	0.6030	

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.

University of Georgia

Weed Code				WRF DEEP			WRF SHW			DP DEEP			DP SHW			WRF DEEP			WRF DEEP
Crop Code				GOSHI			GOSHI			GOSHI			GOSHI			GOSHI			GOSHI
Rating Data Type				plant			plant			plant			plant			shoots			shoots
Rating Unit				CM			CM			CM			CM			CM			CM
Rating Date				9/2/2011			9/2/2011			9/2/2011			9/2/2011			9/9/2011			9/22/2011
Crop Stage				AVG5PLAN			AVG5PLAN			AVG5PLAN			AVG5PLAN			AVG5PLAN			AVG5PLAN
Crop Stage Scale																			
Assessed By																			
Trt-Eval Interval				4 DA-A			4 DA-A			4 DA-A			4 DA-A			11 DA-A			24 DA-A
ARM Action Codes				T29			T30			T31			T32			T33			T34
Trt	Treatment	Rate	Unit																
No.	Name	Rate	Unit	400			407			414			421			428			435
1	Non-treated			8.5550012	a	9.0700006	a	5.5700007	a	8.1250008	a	4.9000001	a	12.940	a				
2	Reflex	1	pt/a	10.6900006	a	8.2700003	a	8.1200007	a	7.2000005	a	4.7050004	a	10.365	b				
3	Staple 3.2 SL	2	oz/a	7.7900007	a	5.6550003	a	5.6950003	a	4.4600005	a	3.4350005	bc	7.485	cd				
4	Warrant	3	pt/a	10.0300017	a	7.5050009	a	6.6749999	a	5.3550010	a	4.8500009	a	9.995	b				
5	Diuron	1.5	pt/a	10.4499999	a	9.6700010	a	6.9250009	a	8.7400006	a	4.8900004	a	11.430	ab				
6	Prowl H20	2.1	pt/a	9.2550001	a	9.2000007	a	6.5450007	a	8.3350009	a	4.1400008	ab	11.365	ab				
7	Prowl H20	2.1	pt/a	6.9200008	a	5.9250003	a	5.7750011	a	4.2900004	a	2.7150004	c	5.660	d				
	Reflex	1	pt/a																
	Staple 3.2 SL	2	oz/a																
8	Dual Magnum	1	pt/a	9.2150011	a	9.0900011	a	7.0600011	a	5.8200003	a	4.1350006	ab	9.520	bc				
LSD (P=.05)				2.59148791			4.05750601			1.73436027			3.84120860			1.14654588			2.1720
Standard Deviation				1.76197952			2.75874046			1.17920959			2.61167767			0.77954848			1.4768
CV				19.33			34.28			18.02			39.93			18.47			15.0
Bartlett's X2				6.415			13.739			9.362			4.769			5.872			10.589
P(Bartlett's X2)				0.492			0.056			0.228			0.688			0.555			0.158
Replicate F				1.964			1.161			8.114			1.421			1.651			8.811
Replicate Prob(F)				0.1503			0.3481			0.0009			0.2647			0.2080			0.0006
Treatment F				2.212			1.251			2.126			1.870			4.173			9.926
Treatment Prob(F)				0.0753			0.3205			0.0857			0.1261			0.0050			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.

University of Georgia

Weed Code	WRF SHW	WRF SHW	DP DEEP	DP DEEP	DP SHW	DP SHW
Crop Code	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type	shoots	shoots	shoots	shoots	shoots	shoots
Rating Unit	CM	CM	CM	CM	CM	CM
Rating Date	9/9/2011	9/22/2011	9/9/2011	9/22/2011	9/9/2011	9/22/2011
Crop Stage	AVG5PLAN	AVG5PLAN	AVG5PLAN	AVG5PLAN	AVG5PLAN	AVG5PLAN
Crop Stage Scale						
Assessed By						
Trt-Eval Interval	11 DA-A	24 DA-A	11 DA-A	24 DA-A	11 DA-A	24 DA-A
ARM Action Codes	T35	T36	T37	T38	T39	T48

Trt No.	Treatment Name	Rate	Unit	442	449	456	463	470	477
1	Non-treated			5.300 ab	13.85000177 a	2.425 a	7.0150006 a	4.08000033 a	8.6150006 a
2	Reflex	1	pt/a	4.305 bc	9.65500070 cd	2.955 a	6.3850009 a	2.90500050 bc	6.3950001 bcd
3	Staple 3.2 SL	2	oz/a	2.965 c	7.21499992 ef	1.770 a	4.4250002 b	1.60500018 d	5.2500005 de
4	Warrant	3	pt/a	3.650 bc	7.90500100 de	2.880 a	6.6900002 a	2.15000031 cd	6.2700011 cd
5	Diuron	1.5	pt/a	6.300 a	11.61500093 b	2.970 a	6.7400014 a	3.24000010 ab	7.1200006 bc
6	Prowl H20	2.1	pt/a	4.625 abc	10.28000076 bc	2.695 a	5.8550001 a	2.74000028 bc	7.6400006 ab
7	Prowl H20	2.1	pt/a	3.870 bc	8.28500068 de	1.365 a	3.6000005 b	1.98000022 cd	4.9450002 ef
	Reflex	1	pt/a						
	Staple 3.2 SL	2	oz/a						
8	Dual Magnum	1	pt/a	3.795 bc	5.51000078 f	1.830 a	5.9300009 a	2.03000017 cd	3.8050004 f
LSD (P=.05)				1.8458	1.903587651	1.2978	1.22751165	1.018573267	1.28534223
Standard Deviation				1.2550	1.294268976	0.8824	0.83459791	0.692538569	0.87391755
CV				28.84	13.93	37.37	14.32	26.73	13.97
Bartlett's X2				5.364	8.7	5.003	1.263	5.144	14.643
P(Bartlett's X2)				0.616	0.275	0.66	0.989	0.642	0.041*
Replicate F				0.086	2.852	1.436	6.451	1.830	10.581
Replicate Prob(F)				0.9668	0.0618	0.2605	0.0029	0.1726	0.0002
Treatment F				2.804	16.659	2.005	8.399	5.497	12.708
Treatment Prob(F)				0.0316	0.0001	0.1028	0.0001	0.0011	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.

University of Georgia

Weed Code											
Crop Code											
Rating Data Type											
Rating Unit											
Rating Date											
Crop Stage											
Crop Stage Scale											
Assessed By											
Trt-Eval Interval											
ARM Action Codes											
Trt	Treatment	Rate	Unit	484	491	498	505	512			
No.	Name										
1	Non-treated			8.84000104	a 14.0500006	a 8.7000007	a 13.6900019	ab 9.55000115	ab		
2	Reflex	1	pt/a	8.04000077	a 13.2550014	a 6.5500008	bc 10.3400012	cd 8.17000089	bc		
3	Staple 3.2 SL	2	oz/a	8.55000105	a 9.4350004	b 5.9250008	c 8.1650017	d 7.75000078	bc		
4	Warrant	3	pt/a	9.32000063	a 13.5850014	a 7.0950010	abc 10.5750009	bcd 10.38000115	a		
5	Diuron	1.5	pt/a	9.70000173	a 14.0350013	a 8.4550008	a 14.6500011	a 8.73500053	abc		
6	Prowl H20	2.1	pt/a	9.67500116	a 14.3900018	a 7.8800004	ab 12.6300023	abc 9.03000159	ab		
7	Prowl H20	2.1	pt/a	7.33500077	a 10.2400008	b 7.3100007	abc 8.5050010	d 6.96000073	c		
	Reflex	1	pt/a								
	Staple 3.2 SL	2	oz/a								
8	Dual Magnum	1	pt/a	9.98500066	a 13.8750014	a 5.9400007	c 9.1550006	d 8.36500061	bc		
LSD (P=.05)				1.920557333	1.96828361	1.85939319	3.34958062	1.978163679			
Standard Deviation				1.305806887	1.33825649	1.26422072	2.27741479	1.344974056			
CV				14.62	10.41	17.48	20.77	15.61			
Bartlett's X2				6.921	1.133	6.067	10.866	12.015			
P(Bartlett's X2)				0.437	0.992	0.532	0.145	0.10			
Replicate F				4.963	2.685	3.327	2.009	0.644			
Replicate Prob(F)				0.0093	0.0728	0.0393	0.1436	0.5956			
Treatment F				1.978	8.119	2.838	4.571	2.503			
Treatment Prob(F)				0.1071	0.0001	0.0301	0.0031	0.0489			

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.

University of Georgia

Weed Code				DP DEEP		DP SHW		DP SHW		WRF DEEP		WRF SHW		DP DEEP	
Crop Code				GOSHI		GOSHI		GOSHI		GOSHI		GOSHI		GOSHI	
Rating Data Type				roots		roots		roots		WEIGHT		WEIGHT		WEIGHT	
Rating Unit				CM		CM		CM		GRAMS		GRAMS		GRAMS	
Rating Date				9/22/2011		9/9/2011		9/22/2011		9/22/2011		9/22/2011		9/22/2011	
Crop Stage				AVG5PLAN		AVG5PLAN		AVG5plan		5 PLANTS		5 PLANTS		5 PLANTS	
Crop Stage Scale															
Assessed By															
Trt-Eval Interval				24 DA-A		11 DA-A		24 DA-A		24 DA-A		24 DA-A		24 DA-A	
ARM Action Codes				T45		T46		T47							
Trt	Treatment	Rate	Rate												
No.	Name	Rate	Unit	519		526		533		535		536		537	
1	Non-treated			10.50000105	ab	8.74000065	a	10.3200007	a	15.0	ab	17.8	a	5.8	ab
2	Reflex	1	pt/a	10.40500173	ab	7.30500104	abc	6.5250007	cd	12.0	ab	9.3	bc	5.0	abc
3	Staple 3.2 SL	2	oz/a	7.77000076	c	5.33500057	c	5.8000003	d	5.8	c	7.3	c	2.8	cd
4	Warrant	3	pt/a	11.94500089	a	6.37500064	bc	9.0300016	ab	11.0	b	9.3	bc	5.0	abc
5	Diuron	1.5	pt/a	10.06500154	ab	7.14000010	abc	9.4000015	ab	13.0	ab	17.3	a	6.8	a
6	Prowl H20	2.1	pt/a	9.84500125	b	7.73500043	ab	8.7850007	ab	15.8	a	14.0	ab	7.5	a
7	Prowl H20	2.1	pt/a	7.13500094	c	5.90000021	bc	8.0550011	bc	5.3	c	7.0	c	2.3	d
	Reflex	1	pt/a												
	Staple 3.2 SL	2	oz/a												
8	Dual Magnum	1	pt/a	10.40000066	ab	5.32500082	c	6.4300009	cd	10.8	b	7.8	c	3.8	bcd
LSD (P=.05)				2.072673051		2.212330324		1.71336799		4.30		6.23		2.64	
Standard Deviation				1.409231923		1.504186423		1.16493678		2.93		4.24		1.79	
CV				14.44		22.34		14.48		26.46		37.88		37.06	
Bartlett's X2				3.412		6.313		5.487		12.938		15.563		7.635	
P(Bartlett's X2)				0.844		0.504		0.601		0.074		0.029*		0.366	
Replicate F				1.342		4.330		1.851		2.067		0.694		3.010	
Replicate Prob(F)				0.2877		0.0159		0.1689		0.1352		0.5661		0.0531	
Treatment F				4.920		2.597		7.785		6.953		4.458		4.233	
Treatment Prob(F)				0.0020		0.0426		0.0001		0.0002		0.0035		0.0047	

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.

University of Georgia

Weed Code DP SHW
 Crop Code GOSHI
 Rating Data Type WEIGHT
 Rating Unit GRAMS
 Rating Date 9/22/2011
 Crop Stage 5 PLANTS
 Crop Stage Scale
 Assessed By
 Trt-Eval Interval 24 DA-A
 ARM Action Codes

Trt No.	Treatment Name	Rate	Unit	538	
1	Non-treated		8.0	a	
2	Reflex	1	pt/a	3.5	b
3	Staple 3.2 SL	2	oz/a	2.5	b
4	Warrant	3	pt/a	4.0	b
5	Diuron	1.5	pt/a	7.0	a
6	Prowl H20	2.1	pt/a	7.8	a
7	Prowl H20	2.1	pt/a	3.0	b
	Reflex	1	pt/a		
	Staple 3.2 SL	2	oz/a		
8	Dual Magnum	1	pt/a	2.8	b

LSD (P=.05) 2.27
 Standard Deviation 1.54
 CV 32.02
 Bartlett's X2 10.171
 P(Bartlett's X2) 0.179

Replicate F 3.035
 Replicate Prob(F) 0.0518
 Treatment F 9.346
 Treatment Prob(F) 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.

University of Georgia

Germinating cotton response to residual soil herbicides when influenced with cotton vigor, seed depth, and irrigation.

Trial ID: C69-11(start dry)
Location: TVP

Study Dir.: Stanley Culpepper
Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Stanley Culpepper	Title: Ext. Weed Science
Affiliation: Univ. of Georgia	
Postal Code: 31793	
Investigator: Stanley Culpepper	Title: Ext. Weed Science
Affiliation: Univ. of Georgia	
Postal Code: 31793	

TRIAL LOCATION

City: Tifton	Trial Status: completed
State/Prov.: GA	Trial Reliability: excellent
Postal Code: 31793	Initiation Date: 8/29/2011
Country: USA	

Conducted Under GLP (Y/N): N

Conducted Under GEP (Y/N): N

Crop 1: GOSHI COTTON **Variety:** PHY 499 WRF
Planting Date: 8/29/2011 **Planting Method:** seeded
Rate: 1 3.5 IN **Depth:** 1 in
Row Spacing: 36 IN **Spacing Within Row:** 3.5 IN **Seed Bed:** FLAT
Soil Temperature: 86 F **Soil Moisture:** DRY **Emergence Date:** 9/1/2011

Crop 2: GOSHI COTTON **Variety:** PHY 499 WRF
Planting Date: 8/29/2011 **Planting Method:** seeded
Rate: 1 3.5 IN **Depth:** 0.5 in
Row Spacing: 36 IN **Spacing Within Row:** 3.5 IN **Seed Bed:** FLAT
Soil Temperature: 86 F **Soil Moisture:** DRY **Emergence Date:** 9/1/2011

Crop 3: GOSHI COTTON **Variety:** DP 1034 B2RF
Planting Date: 8/29/2011 **Planting Method:** seeded
Rate: 1 3.5 IN **Depth:** 1 in
Row Spacing: 36 IN **Spacing Within Row:** 3.5 IN **Seed Bed:** FLAT
Soil Temperature: 86 F **Soil Moisture:** DRY **Emergence Date:** 9/1/2011

Crop 4: GOSHI COTTON **Variety:** DP 1034 B2RF
Planting Date: 8/29/2011 **Planting Method:** seeded
Rate: 1 3.5 IN **Depth:** 0.5 in
Row Spacing: 36 IN **Spacing Within Row:** 3.5 IN **Seed Bed:** FLAT
Soil Temperature: 86 F **Soil Moisture:** DRY **Emergence Date:** 9/1/2011

SITE AND DESIGN

Plot Width, Unit: 12 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: TIFTON VEGETABLE PARK
Tillage Type: BARE GROUND **Study Design:** RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

% Sand: 88 **% OM:** 1.1
% Silt: 10 **pH:** 6.6 **Soil Name:** TIFTON SANDY LOAM
% Clay: 2 **CEC:** 390

Overall Moisture Conditions: very dry at planting, irrigation noted in comments
Closest Weather Station: WWW.GRIFFIN.UGA.EDU/AEMN/ **Distance:** 250 **Unit:** yd

APPLICATION DESCRIPTION

A
Application Date: 8/29/2011
Time of Day: 8 AM
Application Method: BROADCAST
Application Timing: PRE
Applic. Placement: OVERTOP
Air Temp., Unit: 86 F
% Relative Humidity: 56
Wind Velocity, Unit: 0 MPH
Dew Presence (Y/N): N
Soil Temp., Unit: 86 F
Soil Moisture: DRY
% Cloud Cover: 0

University of Georgia

CROP STAGE AT EACH APPLICATION

A

Crop 1 Code, Stage: GOSHI
Stage Scale: PRE
Height, Unit: 0 inch
Crop 2 Code, Stage: GOSHI
Stage Scale: PRE
Height, Unit: 0 inch
Crop 3 Code, Stage: GOSHI
Stage Scale: PRE
Height, Unit: 0 inch
Crop 4 Code, Stage: GOSHI
Stage Scale: PRE
Height, Unit: 0 inch

APPLICATION EQUIPMENT

A

Appl. Equipment: BACKPACK
Operating Pressure: 26 PSI
Nozzle Type: FLAT FAN
Nozzle Size: 11002
Nozzle Spacing, Unit: 18 IN
Nozzles/Row: 4
Boom Length, Unit: 4.5 FT
Boom Height, Unit: 15 IN
Ground Speed, Unit: 3 MPH
Carrier: WATER
Spray Volume, Unit: 14.8 GPS
Propellant: CO2
Tank Mix (Y/N): Y