

# University of Georgia

Length of residual control of AMAPA in no till PHY WRF Cotton.

MON protocol 2011-01-24-05

Trial ID: C18-11

Study Dir.: Stanley Culpepper

Location: Macon County

Investigator: Stanley Culpepper

Use 1 liters(s) per treatment mixture to spray 14.8 gal/ac

Plots: 6 by 25 feet

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. 1	By 2	Rep 3	4
1	Roundup Powermax CHECK	4.5	L	0.75	lb ae/a	Preplant	A	11.26 ml/mx	101	203	305	406
2	Reflex	2	L	0.375	lb ai/a	Preplant	A	12.67 ml/mx	102	211	309	403
	Roundup Powermax	4.5	L	0.75	lb ae/a	Preplant	A	11.26 ml/mx				
	Cotoran	4.0	L	1.0	lb ai/a	PRE	B	16.89 ml/mx				
3	Goal 2XL	2	L	0.375	lb ai/a	Preplant	A	12.67 ml/mx	103	212	306	412
	Roundup Powermax	4.5	L	0.75	lb ae/a	Preplant	A	11.26 ml/mx				
4	Cotoran	4	L	1.0	lb ai/a	Preplant	A	16.89 ml/mx	104	202	307	408
	Roundup Powermax	4.5	L	0.75	lb ae/a	Preplant	A	11.26 ml/mx				
5	Valor	51	WDG	2	oz/a	Preplant	A	1.012 g/mx	105	209	313	409
	Roundup Powermax	4.5	L	0.75	lb ae/a	Preplant	A	11.26 ml/mx				
6	Caparol	4.0	L	1	lb ai/a	Preplant	A	16.89 ml/mx	106	201	310	405
	Roundup Powermax	4.5	L	0.75	lb ae/a	Preplant	A	11.26 ml/mx				
7	Direx	4.0	L	1	lb ai/a	Preplant	A	16.89 ml/mx	107	208	301	402
	Roundup Powermax	4.5	L	0.75	lb ae/a	Preplant	A	11.26 ml/mx				
8	Reflex	2.0	L	0.375	lb ai/a	Preplant	A	12.67 ml/mx	108	204	302	413
	Roundup Powermax	4.5	L	0.75	lb ae/a	Preplant	A	11.26 ml/mx				
	Ignite 280	2.34	L	29	fl oz/a	PRE	B	15.31 ml/mx				
9	Reflex	2.0	L	0.375	lb ai/a	Preplant	A	12.67 ml/mx	109	206	304	410
	Roundup Powermax	4.5	L	0.75	lb ae/a	Preplant	A	11.26 ml/mx				
	Cotoran	4.0	L	1.0	lb ai/a	PRE	B	16.89 ml/mx				
	Ignite 280	2.34	L	29	fl oz/a	PRE	B	15.31 ml/mx				
	Warrant	3.0	L	1.125	lb ai/a	POST 1	C	25.34 ml/mx				
	Roundup Powermax	4.5	L	0.75	lb ae/a	POST 1	C	11.26 ml/mx				
10	Reflex	2.0	L	0.375	lb ai/a	Preplant	A	12.67 ml/mx	110	207	311	401
	Roundup Powermax	4.5	L	0.75	lb ae/a	Preplant	A	11.26 ml/mx				
	Cotoran	4.0	L	1.0	lb ai/a	PRE	B	16.89 ml/mx				
	Ignite 280	2.34	L	29	fl oz/a	PRE	B	15.31 ml/mx				
	Warrant	3.0	L	1.125	lb ai/a	POST 1	C	25.34 ml/mx				
	Roundup Powermax	4.5	L	0.75	lb ae/a	POST 1	C	11.26 ml/mx				
	Warrant	3.0	L	1.125	lb ai/a	POST 2	D	25.34 ml/mx				
	Roundup Powermax	4.5	L	0.75	lb ae/a	POST 2	D	11.26 ml/mx				
11	Reflex	2.0	L	0.375	lb ai/a	Preplant	A	12.67 ml/mx	111	213	303	411
	Roundup Powermax	4.5	L	0.75	lb ae/a	Preplant	A	11.26 ml/mx				
	Warrant	3.0	L	1.125	lb ai/a	POST 1	C	25.34 ml/mx				
	Roundup Powermax	4.5	L	0.75	lb ae/a	POST 1	C	11.26 ml/mx				
12	Roundup Powermax	4.5	L	0.75	lb ae/a	Preplant	A	11.26 ml/mx	112	205	314	407
	Cotoran	4.0	L	1.0	lb ai/a	PRE	B	16.89 ml/mx				
	Ignite 280	2.34	L	29	fl oz/a	PRE	B	15.31 ml/mx				
	Warrant	3.0	L	1.125	lb ai/a	POST 1	C	25.34 ml/mx				
	Roundup Powermax	4.5	L	0.75	lb ae/a	POST 1	C	11.26 ml/mx				
13	Reflex	2.0	L	0.375	lb ai/a	Preplant	A	12.67 ml/mx	113	214	308	414
	Roundup Powermax	4.5	L	0.75	lb ae/a	Preplant	A	11.26 ml/mx				
	Warrant	3.0	L	1.125	lb ai/a	POST 1	C	25.34 ml/mx				
	Roundup Powermax	4.5	L	0.75	lb ae/a	POST 1	C	11.26 ml/mx				
	Warrant	3.0	L	1.125	lb ai/a	POST 2	D	25.34 ml/mx				
	Roundup Powermax	4.5	L	0.75	lb ae/a	POST 2	D	11.26 ml/mx				



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Plots: 6 by 25 feet

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. 1	By Rep 2	Rep 3	Rep 4
14	Roundup Powermax	4.5	L	0.75	lb ae/a	Preplant	A	11.26 ml/mx	114	210	312	404
	Cotoran	4.0	L	1.0	lb ai/a	PRE	B	16.89 ml/mx				
	Ignite 280	2.34	L	29	fl oz/a	PRE	B	15.31 ml/mx				
	Warrant	3.0	L	1.125	lb ai/a	POST 1	C	25.34 ml/mx				
	Roundup Powermax	4.5	L	0.75	lb ae/a	POST 1	C	11.26 ml/mx				
	Warrant	3.0	L	1.125	lb ai/a	POST 2	D	25.34 ml/mx				
	Roundup Powermax	4.5	L	0.75	lb ae/a	POST 2	D	11.26 ml/mx				

Sort Order: Treatment

## Trial Comments

OBJECTIVE: Develop the most effective system for the control of GR Palmer amaranth.

NOTE: This location was a dryland location. Burndown applications were made on April 25 with the intention of planting within 2 weeks. Rainfall of 0.1" fell on April 28 but the next rain did not occur until June the 15 th. Therefore, burndown applications were actually put out nearly 2 months prior to planting.

### GR PALMER CONTROL:

- At 38 d after burndown but prior to planting, residual control from Valor and Reflex was excellent and at least 90%, followed by diuron 81%, followed by Cotoran and Caparol 60 to 72%.
- At 11, 19, and 31 d after PRE and after several good rains, there was an obvious difference in row middle control as compared to control in the strip where the strip till rig was run prior to planting. Thus control was rated as the middle (MD) or the strip (ST)

A. Residual from Valor in the middles provided over 95% control over this time period, in the strip no control was noted by 19 and 31 days.

B. Reflex followed by Cotoran PRE provided at least 93% control in the middle, and control was greater than 90% through 19 d after PRE in the strip. Control was not much different if Ignite was applied in combination with Ignite showing that the plant bed was clean when planting. Additionally the strip tillage rig had little effect likely due to the PRE Cotoran application after running the strip till rig.

C. Reflex followed by Ignite provided excellent early control but continual emergence was a problem.

D. Reflex preplant, Cotoran PRE, and Warrant post provided the greatest level of control throughout the period supporting the concept of overlapping residuals.

E. Programs with Reflex preplant followed by Warrant POST had too large of a gap with ineffective residual control.

F. Programs with POST treatments (even Ignite) but without a preplant option provided poor control by 19 d after PRE due to the inability of controlling the plants at planting.

- In mid-August only a couple of systems provided at least 50% overall control (row middle and row):

- Reflex preplant, Cotoran PRE, Warrant POST 1 and 2, (81%)
- Reflex preplant, Cotoran PRE, Warrant POST (75% control)
- Reflex preplant, Cotoran PRE (61% control)
- Reflex preplant, Warrant POST 1, Warrant POST 2 (50%).

### COTTON RESPONSE:

- PRE applications of Cotoran caused 4 to 7% chlorosis, injury was short lived.
- POST 1 applications of Roundup + Warrant caused 9 to 12% speckling, injury was short lived.
- POST 2 applications of Roundup + Warrant caused 20 to 25% speckling, injury was significant!

### CONCLUSIONS:

- A burndown of diuron or Valor is needed on every acre.
- Two at-plant options such as Reflex + diuron or Prowl is needed PRE.
- Two post applications with residual herbicides are needed.
- Layby option should include diuron plus MSMA plus COC!

## Macon County Rainfall 2011

4/25: 0.5 inch

4/28: 0.1 inch



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6/15: 0.4 inch  
6/17: 1.5 inch  
6/23: 0.3 inch  
7/11: 0.1 inch  
7/15: 1.2 inch  
7/16: 0.9 inch  
7/28: 0.6 inch  
8/8: 0.6 inch  
9/5: 0.7 inch  
10/10: 0.9 inch  
10/14: 0.7 inch



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Weed Code	AMAPA	AMAPA MD	AMAPA ST	AMAPA MD	AMAPA ST	AMAPA MD	AMAPA ST			
Crop Code	SC	SC	SC	SC	SC	SC	SC			
Rating Data Type	control	control	control	control	control	control	control			
Rating Unit	%	%	%	%	%	%	%			
Rating Date	6/3/2011	6/27/2011	6/27/2011	7/5/2011	7/5/2011	7/19/2011	7/19/2011			
Trt-Eval Interval	39 DA-A	11 DA-B	11 DA-B	8 DA-C	8 DA-C	4 DA-D	4 DA-D			
Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4	5	6	7
1	Roundup Powermax CHECK	0.75	lb ae/a	0.0 e	0.0	h 0.0	g 0.0	e 0.0	c 0.0	f 0.0 e
2	Reflex	0.375	lb ai/a	89.5 ab	96.5	a 94.5	a 93.3	a 92.0	a 92.3	ab 76.0 abc
	Roundup Powermax	0.75	lb ae/a							
	Cotoran	1.0	lb ai/a							
3	Goal 2XL	0.375	lb ai/a	91.3 ab	66.0	d 20.0	e 67.0	c 5.0	c 51.8	d 15.0 de
	Roundup Powermax	0.75	lb ae/a							
4	Cotoran	1.0	lb ai/a	68.8 d	31.3	f 17.5	e 25.0	d 0.0	c 6.3	f 0.0 e
	Roundup Powermax	0.75	lb ae/a							
5	Valor	2	oz/a	95.3 a	96.0	a 73.0	d 95.3	a 7.5	c 97.0	a 0.0 e
	Roundup Powermax	0.75	lb ae/a							
6	Caparol	1	lb ai/a	66.3 d	18.8	g 10.0	f 7.5	e 2.5	c 0.0	f 0.0 e
	Roundup Powermax	0.75	lb ae/a							
7	Direx	1	lb ai/a	81.8 bc	50.0	e 18.8	e 30.0	d 0.0	c 3.8	f 0.0 e
	Roundup Powermax	0.75	lb ae/a							
8	Reflex	0.375	lb ai/a	93.3 a	92.0	ab 87.0	b 80.8	b 61.3	b 77.0	bc 12.5 de
	Roundup Powermax	0.75	lb ae/a							
	Ignite 280	29	fl oz/a							
9	Reflex	0.375	lb ai/a	90.5 ab	96.3	a 96.3	a 97.3	a 93.5	a 91.5	ab 87.0 ab
	Roundup Powermax	0.75	lb ae/a							
	Cotoran	1.0	lb ai/a							
	Ignite 280	29	fl oz/a							
	Warrant	1.125	lb ai/a							
	Roundup Powermax	0.75	lb ae/a							
10	Reflex	0.375	lb ai/a	92.3 ab	96.3	a 96.3	a 96.5	a 95.0	a 92.8	ab 90.3 a
	Roundup Powermax	0.75	lb ae/a							
	Cotoran	1.0	lb ai/a							
	Ignite 280	29	fl oz/a							
	Warrant	1.125	lb ai/a							
	Roundup Powermax	0.75	lb ae/a							
	Warrant	1.125	lb ai/a							
	Roundup Powermax	0.75	lb ae/a							
11	Reflex	0.375	lb ai/a	96.8 a	91.8	ab 85.0	b 80.5	b 69.5	b 78.8	bc 60.5 c
	Roundup Powermax	0.75	lb ae/a							
	Warrant	1.125	lb ai/a							
	Roundup Powermax	0.75	lb ae/a							
12	Roundup Powermax	0.75	lb ae/a	63.0 d	78.5	c 78.5	cd 76.0	bc 71.0	b 26.3	e 20.0 d
	Cotoran	1.0	lb ai/a							
	Ignite 280	29	fl oz/a							
	Warrant	1.125	lb ai/a							
	Roundup Powermax	0.75	lb ae/a							
13	Reflex	0.375	lb ai/a	92.0 ab	93.8	a 85.0	b 76.3	bc 70.0	b 75.0	c 68.8 bc
	Roundup Powermax	0.75	lb ae/a							
	Warrant	1.125	lb ai/a							
	Roundup Powermax	0.75	lb ae/a							
	Warrant	1.125	lb ai/a							
	Roundup Powermax	0.75	lb ae/a							
14	Roundup Powermax	0.75	lb ae/a	72.0 cd	82.8	bc 82.8	bc 76.8	bc 71.3	b 41.3	de 7.5 de
	Cotoran	1.0	lb ai/a							
	Ignite 280	29	fl oz/a							
	Warrant	1.125	lb ai/a							
	Roundup Powermax	0.75	lb ae/a							
	Warrant	1.125	lb ai/a							
	Roundup Powermax	0.75	lb ae/a							
LSD (P=.05)				11.38	9.51	6.09	11.20	10.88	16.26	18.83
Standard Deviation				7.96	6.66	4.26	7.83	7.62	11.38	13.17
CV				10.21	9.41	7.06	12.16	16.7	21.71	42.16
Bartlett's X2				15.222	30.072	16.657	27.372	22.791	41.828	22.713
P(Bartlett's X2)				0.23	0.003*	0.082	0.007*	0.012*	0.001*	0.004*



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Weed Code	AMAPA	AMAPA MD	AMAPA ST	AMAPA MD	AMAPA ST	AMAPA MD	AMAPA ST
Crop Code	SC	SC	SC	SC	SC	SC	SC
Rating Data Type	control	control	control	control	control	control	control
Rating Unit	%	%	%	%	%	%	%
Rating Date	6/3/2011	6/27/2011	6/27/2011	7/5/2011	7/5/2011	7/19/2011	7/19/2011
Trt-Eval Interval	39 DA-A	11 DA-B	11 DA-B	8 DA-C	8 DA-C	4 DA-D	4 DA-D

Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4	5	6	7
Replicate F				1.675	0.540	0.012	0.912	1.154	0.814	0.294
Replicate Prob(F)				0.1882	0.6577	0.9982	0.4442	0.3394	0.4938	0.8297
Treatment F				40.402	96.902	305.914	75.074	110.306	45.987	30.210
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	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	AMAPA												
Crop Code	SC												
Rating Data Type	control												
Rating Unit	%												
Rating Date	8/3/2011												
Trt-Eval Interval	19 DA-D												
Trt No.	Treatment Name	Rate	Rate Unit	8	9	10	11	12	13	14			
1	Roundup Powermax CHECK	0.75	lb ae/a	0.0	g	0.0	d	0.0	d	0.0	a	0.0	b
2	Reflex	0.375	lb ai/a	61.3	bc	6.8	a	4.3	c	0.0	a	0.0	b
	Roundup Powermax	0.75	lb ae/a										
	Cotoran	1.0	lb ai/a										
3	Goal 2XL	0.375	lb ai/a	5.0	fg	0.5	cd	0.0	d	0.0	a	0.0	b
	Roundup Powermax	0.75	lb ae/a										
4	Cotoran	1.0	lb ai/a	0.0	g	0.5	cd	1.8	d	0.0	a	0.0	b
	Roundup Powermax	0.75	lb ae/a										
5	Valor	2	oz/a	10.0	fg	0.8	cd	0.0	d	0.0	a	0.0	b
	Roundup Powermax	0.75	lb ae/a										
6	Caparol	1	lb ai/a	2.5	g	0.8	cd	0.0	d	0.0	a	0.0	b
	Roundup Powermax	0.75	lb ae/a										
7	Direx	1	lb ai/a	0.0	g	0.0	d	0.0	d	0.0	a	0.0	b
	Roundup Powermax	0.75	lb ae/a										
8	Reflex	0.375	lb ai/a	20.0	def	1.0	bcd	0.0	d	0.0	a	0.0	b
	Roundup Powermax	0.75	lb ae/a										
	Ignite 280	29	fl oz/a										
9	Reflex	0.375	lb ai/a	75.0	ab	4.5	abc	11.5	a	0.0	a	0.0	b
	Roundup Powermax	0.75	lb ae/a										
	Cotoran	1.0	lb ai/a										
	Ignite 280	29	fl oz/a										
	Warrant	1.125	lb ai/a										
	Roundup Powermax	0.75	lb ae/a										
10	Reflex	0.375	lb ai/a	81.3	a	5.3	ab	10.5	ab	0.0	a	25.0	a
	Roundup Powermax	0.75	lb ae/a										
	Cotoran	1.0	lb ai/a										
	Ignite 280	29	fl oz/a										
	Warrant	1.125	lb ai/a										
	Roundup Powermax	0.75	lb ae/a										
	Warrant	1.125	lb ai/a										
	Roundup Powermax	0.75	lb ae/a										
11	Reflex	0.375	lb ai/a	27.5	de	0.0	d	12.0	a	0.0	a	0.0	b
	Roundup Powermax	0.75	lb ae/a										
	Warrant	1.125	lb ai/a										
	Roundup Powermax	0.75	lb ae/a										
12	Roundup Powermax	0.75	lb ae/a	11.3	efg	5.8	a	9.0	b	0.0	a	0.0	b
	Cotoran	1.0	lb ai/a										
	Ignite 280	29	fl oz/a										
	Warrant	1.125	lb ai/a										
	Roundup Powermax	0.75	lb ae/a										
13	Reflex	0.375	lb ai/a	50.0	c	0.0	d	11.0	ab	0.0	a	25.0	a
	Roundup Powermax	0.75	lb ae/a										
	Warrant	1.125	lb ai/a										
	Roundup Powermax	0.75	lb ae/a										
	Warrant	1.125	lb ai/a										
	Roundup Powermax	0.75	lb ae/a										
14	Roundup Powermax	0.75	lb ae/a	28.8	d	6.3	a	10.5	ab	0.0	a	26.3	a
	Cotoran	1.0	lb ai/a										
	Ignite 280	29	fl oz/a										
	Warrant	1.125	lb ai/a										
	Roundup Powermax	0.75	lb ae/a										
	Warrant	1.125	lb ai/a										
	Roundup Powermax	0.75	lb ae/a										
LSD (P=.05)				16.45	.	4.48	2.24	0.00	4.91	1.93			
Standard Deviation				11.51	.	3.13	1.57	0.00	3.44	1.35			
CV				43.26	.	137.01	31.09	0.0	63.08	95.73			
Bartlett's X2				11.767	.	23.657	13.332	0.0	0.36	0.525			
P(Bartlett's X2)				0.301	.	0.005*	0.064	.	0.835	0.769			
Replicate F				0.022		0.782	0.942	0.000	0.240	1.028			
Replicate Prob(F)				0.9954		0.5114	0.4295	1.0000	0.8682	0.3907			
Treatment F				25.104		2.980	45.812	0.000	39.727	17.327			
Treatment Prob(F)				0.0001		0.0042	0.0001	1.0000	0.0001	0.0001			



# University of Georgia

Weed Code	AMAPA						
Crop Code	SC	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	
Rating Data Type	control	injury	injury	injury	injury	injury	
Rating Unit	%	%	%	%	%	%	
Rating Date	8/3/2011	6/27/2011	7/2/2011	7/10/2011	7/19/2011	8/3/2011	
Trt-Eval Interval	19 DA-D	11 DA-B	5 DA-C	13 DA-C	4 DA-D	19 DA-D	

Trt	Treatment	Rate	Rate							
No.	Name	Rate	Unit	8	9	10	11	12	13	14

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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Length of residual control of AMAPA in no till PHY WRF Cotton.

MON protocol 2011-01-24-05

Trial ID: C18-11

Study Dir.: Stanley Culpepper

Location: Macon County

Investigator: Stanley Culpepper

## GENERAL TRIAL INFORMATION

<b>Study Director:</b> Stanley Culpepper	<b>Title:</b> Ext. Weed Science
<b>Affiliation:</b> University of Georgia	
<b>Postal Code:</b> 31794	
<b>Investigator:</b> Stanley Culpepper	<b>Title:</b> Ext Weed Science
<b>Affiliation:</b> University of Georgia	
<b>Postal Code:</b> 31794	

## TRIAL LOCATION

<b>City:</b> Macon CO	<b>Trial Status:</b> completed
<b>State/Prov.:</b> Georgia	<b>Trial Reliability:</b> good
	<b>Initiation Date:</b> 4/25/2011
<b>Country:</b> USA	

Conducted Under GLP (Y/N): N

Conducted Under GEP (Y/N): N

## CROP AND WEED DESCRIPTION

Weed Code	Common Name	Scientific Name
1.	AMAPA Palmer amaranth	Amaranthus palmeri

<b>Crop 1:</b> GOSHI COTTON, SHORT STAPLE	<b>Variety:</b> PHY 499 WRF
<b>Planting Date:</b> 6/16/2011	<b>Planting Method:</b> hill drop
<b>Rate:</b> 2 9 inch	<b>Depth:</b> 0.75 in
<b>Row Spacing:</b> 36 in	<b>Spacing Within Row:</b> 2 /9"
<b>Soil Temperature:</b> 94 F	<b>Soil Moisture:</b> moist
	<b>Seed Bed:</b> strip till/flat
	<b>Emergence Date:</b> 6/20/2011

## SITE AND DESIGN

<b>Plot Width, Unit:</b> 6 FT	<b>Plot Length, Unit:</b> 25 FT	<b>Reps:</b> 4
<b>Site Type:</b> On Farm		
<b>Tillage Type:</b> Conventional	<b>Study Design:</b> RANDOMIZED COMPLETE BLOCK	

## SOIL DESCRIPTION

<b>% Sand:</b> 82	<b>% OM:</b> 2.0	<b>Texture:</b> Loamy sand
<b>% Silt:</b> 14	<b>pH:</b> 6.3	
<b>% Clay:</b> 4		

**Overall Moisture Conditions:** very dry

**Closest Weather Station:** rainfall taken on site

**Distance:** 300 **Unit:** yd

## APPLICATION DESCRIPTION

	A	B	C	D
<b>Application Date:</b>	4/25/2011	6/16/2011	6/27/2011	7/15/2011
<b>Time of Day:</b>	9:00 am	7:00 pm	8:00 am	7:00 am
<b>Application Method:</b>	broadcast	broadcast	broadcast	broadcast
<b>Application Timing:</b>	preplant	PRE	POST 1	POST
<b>Applic. Placement:</b>	overtop	on soil	overtop	overtop
<b>Air Temp., Unit:</b>	78 F	88 F	76 F	75 F
<b>% Relative Humidity:</b>	74	65	68	86
<b>Wind Velocity, Unit:</b>	3 mph	4 mph	0 mph	4 mph
<b>Dew Presence (Y/N):</b>	N	Y	Y	Y
<b>Soil Temp., Unit:</b>	78 F	93 F	78 F	76 F
<b>Soil Moisture:</b>	moist	fair	moist	wet
<b>% Cloud Cover:</b>		20	95	100

## CROP STAGE AT EACH APPLICATION

	A	B	C	D
<b>Crop 1 Code, Stage:</b>	GOSHI preplant	GOSHI PRE	GOSHI POST1	GOSHI POST2
<b>Stage Scale:</b>	not up	not up	1 lf	6 lf
<b>Height, Unit:</b>	0 inch	0 inch	2.5 in	10 in

## WEED STAGE AT EACH APPLICATION

	A	B	C	D
<b>Weed 1 Code, Stage:</b>	AMAPA preplant	AMAPA POST	AMAPA POST1	AMAPA POST2
<b>Stage Scale:</b>	none up	0"PP, 12"	2.5"newfl	20-40"
<b>Density, Unit:</b>	0 ydsq	1 ydsq	75 ydsq	75 ydsq



# University of Georgia

## APPLICATION EQUIPMENT

	A	B	C	D
<b>Appl. Equipment:</b>	backpack	backpack	backpack	backpack
<b>Operating Pressure:</b>	25	25	25	25
<b>Nozzle Type:</b>	flat fan	flat fan	flat fan	flat fan
<b>Nozzle Size:</b>	11002	11002	11002	11002
<b>Nozzle Spacing, Unit:</b>	18 in	18 in	18 in	18 in
<b>Nozzles/Row:</b>	2	2	2	2
<b>Boom Length, Unit:</b>	4.5 ft	4.5 ft	4.5 ft	4.5 ft
<b>Boom Height, Unit:</b>	15 in	15 in	15 in	15 in
<b>Ground Speed, Unit:</b>	3 mph	3 mph	3 mph	3 mph
<b>Carrier:</b>	water	water	water	water
<b>Spray Volume, Unit:</b>	15 GPA	15 GPA	15 GPA	15 GPA
<b>Propellant:</b>	CO2	CO2	CO2	CO2
<b>Tank Mix (Y/N):</b>	Y	Y	Y	Y