

# University of Georgia

**Controlling glyphosate-resistant Palmer amaranth in conventional and strip tillage cotton.**

Trial ID: C4-07

Study Dir.: Kichler, Culpepper

Location: Macon County

Investigator: Stanley Culpepper

Reps: 3

Plots: 12 by 24 feet

Spray vol: 14.8 gal/ac

Mix size: 1.5 liters (min 1.1112)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Form Rate	Rate Unit	Grow Stg	Appl Code	Amt to Measure	Product	Plot No. By Rep		
											1	2	3
1	Conventional No in crop herbicide							A			105	205	310
2	Conventional Prowl H20	3.8		L	2.5	PT/A	PRE	A	31.67 ml/mx		106	209	303
	Roundup WeatherMax	4.5		L	22	OZ/A	3-5 leaf	B	17.42 ml/mx				
	Dual Magnum	7.62		L	16	OZ/A	3-5 leaf	B	12.67 ml/mx				
	Direx	4		L	32	OZ/A	layby	C	25.34 ml/mx				
	MSMA	6		L	2	LB A/A	layby	C	33.78 ml/mx				
	NIS			L	0.25	% V/V	layby	C	3.75 ml/mx				
3	Conventional Prowl H20	3.8		L	2.5	PT/A	PRE	A	31.67 ml/mx		107	206	309
	Reflex	2	2	L	16	OZ/A	PRE	A	12.67 ml/mx				
	Roundup WeatherMax	4.5		L	22	OZ/A	3-5 leaf	B	17.42 ml/mx				
	Dual Magnum	7.62		L	16	OZ/A	3-5 leaf	B	12.67 ml/mx				
	Direx	4		L	32	OZ/A	layby	C	25.34 ml/mx				
	MSMA	6		L	2	LB A/A	layby	C	33.78 ml/mx				
	NIS			L	0.25	% V/V	layby	C	3.75 ml/mx				
4	Conventional Prowl H20	3.8		L	2.5	PT/A	PRE	A	31.67 ml/mx		108	210	304
	Cotoran	4	2	L	40	OZ/A	PRE	A	31.67 ml/mx				
	Roundup WeatherMax	4.5		L	22	OZ/A	3-5 leaf	B	17.42 ml/mx				
	Dual Magnum	7.62		L	16	OZ/A	3-5 leaf	B	12.67 ml/mx				
	Direx	4		L	32	OZ/A	layby	C	25.34 ml/mx				
	MSMA	6		L	2	LB A/A	layby	C	33.78 ml/mx				
	NIS			L	0.25	% V/V	layby	C	3.75 ml/mx				
5	Conventional Prowl H20	3.8		L	2.5	PT/A	PRE	A	31.67 ml/mx		113	207	302
	Staple	3.2	2	L	1.7	OZ/A	PRE	A	1.346 ml/mx				
	Roundup WeatherMax	4.5		L	22	OZ/A	3-5 leaf	B	17.42 ml/mx				
	Dual Magnum	7.62		L	16	OZ/A	3-5 leaf	B	12.67 ml/mx				
	Direx	4		L	32	OZ/A	layby	C	25.34 ml/mx				
	MSMA	6		L	2	LB A/A	layby	C	33.78 ml/mx				
	NIS			L	0.25	% V/V	layby	C	3.75 ml/mx				
6	Conventional Prowl H20	3.8		L	2.5	PT/A	PRE	A	31.67 ml/mx		114	211	311
	Roundup WeatherMax	4.5		L	22	OZ/A	3-5 leaf	B	17.42 ml/mx				
	Staple	3.2		L	1.7	OZ/A	3-5 leaf	B	1.346 ml/mx				
	Direx	4		L	32	OZ/A	layby	C	25.34 ml/mx				
	MSMA	6		L	2	LB A/A	layby	C	33.78 ml/mx				
	NIS			L	0.25	% V/V	layby	C	3.75 ml/mx				
7	Conventional Prowl H20	3.8		L	2.5	PT/A	PRE	A	31.67 ml/mx		115	212	301
	Reflex	2	2	L	16	OZ/A	PRE	A	12.67 ml/mx				
	Roundup WeatherMax	4.5		L	22	OZ/A	3-5 leaf	B	17.42 ml/mx				
	Staple	3.2		L	1.7	OZ/A	3-5 leaf	B	1.346 ml/mx				
	Direx	4		L	32	OZ/A	layby	C	25.34 ml/mx				
	MSMA	6		L	2	LB A/A	layby	C	33.78 ml/mx				
	NIS			L	0.25	% V/V	layby	C	3.75 ml/mx				

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Reps: 3

Plots: 12 by 24 feet

Spray vol: 14.8 gal/ac

Mix size: 1.5 liters (min 1.1112)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep		
										1	2	3
8	Conventional									116	208	312
	Prowl H20	3.8		L	2.5	PT/A	PRE	A	31.67 ml/mx			
	Cotoran	4	2	L	40	OZ/A	PRE	A	31.67 ml/mx			
	Roundup WeatherMax	4.5		L	22	OZ/A	3-5 leaf	B	17.42 ml/mx			
	Staple	3.2		L	1.7	OZ/A	3-5 leaf	B	1.346 ml/mx			
	Direx	4		L	32	OZ/A	layby	C	25.34 ml/mx			
	MSMA	6		L	2	LB A/A	layby	C	33.78 ml/mx			
	NIS			L	0.25	% V/V	layby	C	3.75 ml/mx			
9	Strip Till (Wheat Cover)									101	204	316
	No in crop herbicide							A				
10	Strip Till (Wheat Cover)									102	216	314
	Prowl H20	3.8		L	2.5	PT/A	PRE	A	31.67 ml/mx			
	Roundup WeatherMax	4.5		L	22	OZ/A	3-5 leaf	B	17.42 ml/mx			
	Dual Magnum	7.62		L	16	OZ/A	3-5 leaf	B	12.67 ml/mx			
	Direx	4		L	32	OZ/A	layby	C	25.34 ml/mx			
	MSMA	6		L	2	LB A/A	layby	C	33.78 ml/mx			
	NIS			L	0.25	% V/V	layby	C	3.75 ml/mx			
11	Strip Till (Wheat Cover)									103	203	307
	Prowl H20	3.8		L	2.5	PT/A	PRE	A	31.67 ml/mx			
	Reflex	2	2	L	16	OZ/A	PRE	A	12.67 ml/mx			
	Roundup WeatherMax	4.5		L	22	OZ/A	3-5 leaf	B	17.42 ml/mx			
	Dual Magnum	7.62		L	16	OZ/A	3-5 leaf	B	12.67 ml/mx			
	Direx	4		L	32	OZ/A	layby	C	25.34 ml/mx			
	MSMA	6		L	2	LB A/A	layby	C	33.78 ml/mx			
	NIS			L	0.25	% V/V	layby	C	3.75 ml/mx			
12	Strip Till (Wheat Cover)									104	215	313
	Prowl H20	3.8		L	2.5	PT/A	PRE	A	31.67 ml/mx			
	Cotoran	4	2	L	40	OZ/A	PRE	A	31.67 ml/mx			
	Roundup WeatherMax	4.5		L	22	OZ/A	3-5 leaf	B	17.42 ml/mx			
	Dual Magnum	7.62		L	16	OZ/A	3-5 leaf	B	12.67 ml/mx			
	Direx	4		L	32	OZ/A	layby	C	25.34 ml/mx			
	MSMA	6		L	2	LB A/A	layby	C	33.78 ml/mx			
	NIS			L	0.25	% V/V	layby	C	3.75 ml/mx			
13	Strip Till (Wheat Cover)									109	202	306
	Prowl H20	3.8		L	2.5	PT/A	PRE	A	31.67 ml/mx			
	Staple	3.2	2	L	1.7	OZ/A	PRE	A	1.346 ml/mx			
	Roundup WeatherMax	4.5		L	22	OZ/A	3-5 leaf	B	17.42 ml/mx			
	Dual Magnum	7.62		L	16	OZ/A	3-5 leaf	B	12.67 ml/mx			
	Direx	4		L	32	OZ/A	layby	C	25.34 ml/mx			
	MSMA	6		L	2	LB A/A	layby	C	33.78 ml/mx			
	NIS			L	0.25	% V/V	layby	C	3.75 ml/mx			
14	Strip Till (Wheat Cover)									110	214	315
	Prowl H20	3.8		L	2.5	PT/A	PRE	A	31.67 ml/mx			
	Roundup WeatherMax	4.5		L	22	OZ/A	3-5 leaf	B	17.42 ml/mx			
	Staple	3.2		L	1.7	OZ/A	3-5 leaf	B	1.346 ml/mx			
	Direx	4		L	32	OZ/A	layby	C	25.34 ml/mx			
	MSMA	6		L	2	LB A/A	layby	C	33.78 ml/mx			
	NIS			L	0.25	% V/V	layby	C	3.75 ml/mx			
15	Strip Till (Wheat Cover)									111	201	305
	Prowl H20	3.8		L	2.5	PT/A	PRE	A	31.67 ml/mx			
	Reflex	2	2	L	16	OZ/A	PRE	A	12.67 ml/mx			
	Roundup WeatherMax	4.5		L	22	OZ/A	3-5 leaf	B	17.42 ml/mx			
	Staple	3.2		L	1.7	OZ/A	3-5 leaf	B	1.346 ml/mx			
	Direx	4		L	32	OZ/A	layby	C	25.34 ml/mx			
	MSMA	6		L	2	LB A/A	layby	C	33.78 ml/mx			
	NIS			L	0.25	% V/V	layby	C	3.75 ml/mx			

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Reps: 3                      Plots: 12 by 24 feet  
 Spray vol: 14.8 gal/ac      Mix size: 1.5 liters (min 1.1112)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code	Amt to Measure	Product	Plot No. By Rep		
											1	2	3
16	Strip Till (Wheat Cover)										112	213	308
	Prowl H20	3.8		L	2.5	PT/A	PRE	A	31.67 ml/mx				
	Cotoran	4	2	L	40	OZ/A	PRE	A	31.67 ml/mx				
	Roundup WeatherMax	4.5		L	22	OZ/A	3-5 leaf	B	17.42 ml/mx				
	Staple	3.2		L	1.7	OZ/A	3-5 leaf	B	1.346 ml/mx				
	Direx	4		L	32	OZ/A	layby	C	25.34 ml/mx				
	MSMA	6		L	2	LB A/A	layby	C	33.78 ml/mx				
	NIS			L	0.25	% V/V	layby	C	3.75 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
554.207	ml	Prowl H20	3.8	L	
304.847	ml	Roundup WeatherMax	4.5	L	
126.689	ml	Dual Magnum	7.62	L	
443.413	ml	Direx	4	L	
591.154	ml	MSMA	6	L	
65.618	ml	NIS		L	
63.345	ml	Reflex	2	L	L
158.362	ml	Cotoran	4	L	L
3.365	ml	Staple	3.2	L	L
10.096	ml	Staple	3.2	L	

- \* '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: Determine the impact of conservation tillage on our ability to control glyphosate-resistant Palmer amaranth.

NOTE: Rainfall did not occur until 17 d after planting and applying PRE herbicides.

**VISUAL COTTON INJURY:**

1. Cotton injury was less than 10% throughout the season and is not reported.

**PALMER CONTROL:**

1. Palmer control was greater in ALL strip tillage systems when compared to the respective herbicide program in conventional systems throughout the season.
2. Pooled over tillage options, the most effective herbicide program included Staple post which is in response to it not raining until 17 d after applying the PRE's which did not control the initial Palmer flush.
3. In general, programs using Reflex or Cotoran plus Prowl were more effective than Prowl alone. Again, without rainfall, PRE herbicides were not very effective with less than 60% control in conventional programs at 27 DAT.

**SEED COTTON YIELD:**

1. Conventional programs not using Staple POST could not be harvested.
2. Yields from strip-tillage systems were greater than the respective herbicide system in conventional tillage.
3. Greatest yields were noted with conservation tillage programs using Staple POST which suppressed or controlled the initial Palmer flush that was not controlled with PRE applied herbicides.

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## Controlling glyphosate-resistant Palmer amaranth in conventional and strip tillage cotton.

Trial ID: C4-07

Study Dir.: Kichler, Culpepper

Location: Macon County

Investigator: Stanley Culpepper

Weed Code	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	IPOZZ			
Crop Code										
Rating Data Type	control	control	control	control	control	control	control			
Rating Unit	%	%	%	%	%	%	%			
Rating Date	May-15-07	May-30-07	Jun-09-07	Jun-15-07	Jul-19-07	Aug-31-07	Jul-19-07			
Trt-Eval Interval	27 DA-A	15 DA-B	25 DA-B	31 DA-B	34 DA-C	77 DA-C	34 DA-C			
ARM Action Codes										
# Subsamples, Dec.										
Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4	5	6	7
1	Conventional No in crop herbicide			0 d	0 f	0 g	0 f	0 h	0 e	0 b
2	Conventional Prowl H20 Roundup WeatherMax Dual Magnum Direx MSMA NIS	2.5 22 16 32 2 0.25	PT/A OZ/A OZ/A OZ/A LB A/A % V/V	28 c	27 e	10 g	10 f	10 g	7 e	99 a
3	Conventional Prowl H20 Reflex Roundup WeatherMax Dual Magnum Direx MSMA NIS	2.5 16 22 16 32 2 0.25	PT/A OZ/A OZ/A OZ/A OZ/A LB A/A % V/V	55 b	45 d	28 f	42 de	25 ef	27 d	99 a
4	Conventional Prowl H20 Cotoran Roundup WeatherMax Dual Magnum Direx MSMA NIS	2.5 40 22 16 32 2 0.25	PT/A OZ/A OZ/A OZ/A OZ/A LB A/A % V/V	50 b	47 d	35 f	28 e	27 def	30 d	99 a
5	Conventional Prowl H20 Staple Roundup WeatherMax Dual Magnum Direx MSMA NIS	2.5 1.7 22 16 32 2 0.25	PT/A OZ/A OZ/A OZ/A OZ/A LB A/A % V/V	55 b	43 d	35 f	42 de	22 f	27 d	99 a
6	Conventional Prowl H20 Roundup WeatherMax Staple Direx MSMA NIS	2.5 22 1.7 32 2 0.25	PT/A OZ/A OZ/A OZ/A LB A/A % V/V	30 c	82 bc	52 de	62 bc	28 def	43 c	99 a

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Weed Code		AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	IPOZZ
Crop Code								
Rating Data Type		control	control	control	control	control	control	control
Rating Unit		%	%	%	%	%	%	%
Rating Date		May-15-07	May-30-07	Jun-09-07	Jun-15-07	Jul-19-07	Aug-31-07	Jul-19-07
Trt-Eval Interval		27 DA-A	15 DA-B	25 DA-B	31 DA-B	34 DA-C	77 DA-C	34 DA-C
ARM Action Codes								
# Subsamples, Dec.								
Trt Treatment	Rate							
No. Name	Rate Unit	1	2	3	4	5	6	7
7 Conventional		38 c	81 bc	58 cd	55 cd	35 d	48 c	99 a
Prowl H20	2.5 PT/A							
Reflex	16 OZ/A							
Roundup WeatherMax	22 OZ/A							
Staple	1.7 OZ/A							
Direx	32 OZ/A							
MSMA	2 LB A/A							
NIS	0.25 % V/V							
8 Conventional		60 b	83 b	50 de	60 bc	33 de	47 c	99 a
Prowl H20	2.5 PT/A							
Cotoran	40 OZ/A							
Roundup WeatherMax	22 OZ/A							
Staple	1.7 OZ/A							
Direx	32 OZ/A							
MSMA	2 LB A/A							
NIS	0.25 % V/V							
9 Strip Till (Wheat Cover)		94 a	73 c	38 ef	27 e	0 h	0 e	0 b
No in crop herbicide								
10 Strip Till (Wheat Cover)		94 a	95 a	55 d	53 cd	60 c	23 d	99 a
Prowl H20	2.5 PT/A							
Roundup WeatherMax	22 OZ/A							
Dual Magnum	16 OZ/A							
Direx	32 OZ/A							
MSMA	2 LB A/A							
NIS	0.25 % V/V							
11 Strip Till (Wheat Cover)		96 a	91 a	81 ab	75 ab	83 ab	67 ab	99 a
Prowl H20	2.5 PT/A							
Reflex	16 OZ/A							
Roundup WeatherMax	22 OZ/A							
Dual Magnum	16 OZ/A							
Direx	32 OZ/A							
MSMA	2 LB A/A							
NIS	0.25 % V/V							
12 Strip Till (Wheat Cover)		92 a	94 a	71 bc	66 abc	65 c	45 c	99 a
Prowl H20	2.5 PT/A							
Cotoran	40 OZ/A							
Roundup WeatherMax	22 OZ/A							
Dual Magnum	16 OZ/A							
Direx	32 OZ/A							
MSMA	2 LB A/A							
NIS	0.25 % V/V							
13 Strip Till (Wheat Cover)		96 a	94 a	84 ab	82 a	88 a	57 bc	99 a
Prowl H20	2.5 PT/A							
Staple	1.7 OZ/A							
Roundup WeatherMax	22 OZ/A							
Dual Magnum	16 OZ/A							
Direx	32 OZ/A							
MSMA	2 LB A/A							
NIS	0.25 % V/V							

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Weed Code	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	AMAPA	IPOZZ	
Crop Code								
Rating Data Type	control	control	control	control	control	control	control	
Rating Unit	%	%	%	%	%	%	%	
Rating Date	May-15-07	May-30-07	Jun-09-07	Jun-15-07	Jul-19-07	Aug-31-07	Jul-19-07	
Trt-Eval Interval	27 DA-A	15 DA-B	25 DA-B	31 DA-B	34 DA-C	77 DA-C	34 DA-C	
ARM Action Codes								
# Subsamples, Dec.								
Trt Treatment	Rate							
No. Name	Rate Unit	1	2	3	4	5	6	7
14 Strip Till (Wheat Cover)		94 a	95 a	88 a	75 ab	76 b	51 c	99 a
Prowl H20	2.5 PT/A							
Roundup WeatherMax	22 OZ/A							
Staple	1.7 OZ/A							
Direx	32 OZ/A							
MSMA	2 LB A/A							
NIS	0.25 % V/V							
15 Strip Till (Wheat Cover)		96 a	94 a	85 ab	82 a	85 ab	68 ab	99 a
Prowl H20	2.5 PT/A							
Reflex	16 OZ/A							
Roundup WeatherMax	22 OZ/A							
Staple	1.7 OZ/A							
Direx	32 OZ/A							
MSMA	2 LB A/A							
NIS	0.25 % V/V							
16 Strip Till (Wheat Cover)		95 a	93 a	83 ab	75 ab	83 ab	70 a	99 a
Prowl H20	2.5 PT/A							
Cotoran	40 OZ/A							
Roundup WeatherMax	22 OZ/A							
Staple	1.7 OZ/A							
Direx	32 OZ/A							
MSMA	2 LB A/A							
NIS	0.25 % V/V							
LSD (P=.05)		10.5	8.1	13.3	14.2	8.7	12.0	0.0
Standard Deviation		6.3	4.8	8.0	8.5	5.2	7.2	0.0
CV		9.39	6.82	14.88	16.36	11.61	18.87	0.0
Bartlett's X2		20.438	16.728	16.168	22.591	10.311	7.678	0.0
P(Bartlett's X2)		0.04*	0.16	0.24	0.02*	0.503	0.81	.

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

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Weed Code			IPOZZ	SEED	SEED
Crop Code				cotton	cotton
Rating Data Type			control	lb	YIELD
Rating Unit			%	plot	LB
Rating Date			Aug-31-07	Nov-02-07	Nov-02-07
Trt-Eval Interval			77 DA-C	140 DA-C	140 DA-C
ARM Action Codes					TY1
# Subsamples, Dec.					1
Trt No.	Treatment Name	Rate	8	9	10
		Rate Unit			
1	Conventional No in crop herbicide		0 b	0 f	0.0 f
2	Conventional Prowl H20 Roundup WeatherMax Dual Magnum Direx MSMA NIS	2.5 PT/A 22 OZ/A 16 OZ/A 32 OZ/A 2 LB A/A 0.25 % V/V	99 a	0 f	0.0 f
3	Conventional Prowl H20 Reflex Roundup WeatherMax Dual Magnum Direx MSMA NIS	2.5 PT/A 16 OZ/A 22 OZ/A 16 OZ/A 32 OZ/A 2 LB A/A 0.25 % V/V	99 a	0 f	0.0 f
4	Conventional Prowl H20 Cotoran Roundup WeatherMax Dual Magnum Direx MSMA NIS	2.5 PT/A 40 OZ/A 22 OZ/A 16 OZ/A 32 OZ/A 2 LB A/A 0.25 % V/V	99 a	0 f	0.0 f
5	Conventional Prowl H20 Staple Roundup WeatherMax Dual Magnum Direx MSMA NIS	2.5 PT/A 1.7 OZ/A 22 OZ/A 16 OZ/A 32 OZ/A 2 LB A/A 0.25 % V/V	99 a	0 f	0.0 f
6	Conventional Prowl H20 Roundup WeatherMax Staple Direx MSMA NIS	2.5 PT/A 22 OZ/A 1.7 OZ/A 32 OZ/A 2 LB A/A 0.25 % V/V	99 a	0 f	141.2 f
7	Conventional Prowl H20 Reflex Roundup WeatherMax Staple Direx MSMA NIS	2.5 PT/A 16 OZ/A 22 OZ/A 1.7 OZ/A 32 OZ/A 2 LB A/A 0.25 % V/V	99 a	1 de	520.3 de



# University of Georgia

Weed Code			IPOZZ	SEED	SEED
Crop Code				cotton	cotton
Rating Data Type			control	lb	YIELD
Rating Unit			%	plot	LB
Rating Date			Aug-31-07	Nov-02-07	Nov-02-07
Trt-Eval Interval			77 DA-C	140 DA-C	140 DA-C
ARM Action Codes					TY1
# Subsamples, Dec.					1
Trt No.	Treatment Name	Rate Unit	8	9	10
8	Conventional		99 a	1 e	425.5 e
	Prowl H20	2.5 PT/A			
	Cotoran	40 OZ/A			
	Roundup WeatherMax	22 OZ/A			
	Staple	1.7 OZ/A			
	Direx	32 OZ/A			
	MSMA	2 LB A/A			
	NIS	0.25 % V/V			
9	Strip Till (Wheat Cover) No in crop herbicide		0 b	0 f	0.0 f
10	Strip Till (Wheat Cover)		99 a	0 f	0.0 f
	Prowl H20	2.5 PT/A			
	Roundup WeatherMax	22 OZ/A			
	Dual Magnum	16 OZ/A			
	Direx	32 OZ/A			
	MSMA	2 LB A/A			
	NIS	0.25 % V/V			
11	Strip Till (Wheat Cover)		99 a	1 cd	639.3 cd
	Prowl H20	2.5 PT/A			
	Reflex	16 OZ/A			
	Roundup WeatherMax	22 OZ/A			
	Dual Magnum	16 OZ/A			
	Direx	32 OZ/A			
	MSMA	2 LB A/A			
	NIS	0.25 % V/V			
12	Strip Till (Wheat Cover)		99 a	0 f	161.3 f
	Prowl H20	2.5 PT/A			
	Cotoran	40 OZ/A			
	Roundup WeatherMax	22 OZ/A			
	Dual Magnum	16 OZ/A			
	Direx	32 OZ/A			
	MSMA	2 LB A/A			
	NIS	0.25 % V/V			
13	Strip Till (Wheat Cover)		99 a	1 bc	740.1 bc
	Prowl H20	2.5 PT/A			
	Staple	1.7 OZ/A			
	Roundup WeatherMax	22 OZ/A			
	Dual Magnum	16 OZ/A			
	Direx	32 OZ/A			
	MSMA	2 LB A/A			
	NIS	0.25 % V/V			
14	Strip Till (Wheat Cover)		99 a	2 b	915.6 b
	Prowl H20	2.5 PT/A			
	Roundup WeatherMax	22 OZ/A			
	Staple	1.7 OZ/A			
	Direx	32 OZ/A			
	MSMA	2 LB A/A			
	NIS	0.25 % V/V			

# University of Georgia

Weed Code	IPOZZ	SEED	SEED
Crop Code		cotton	cotton
Rating Data Type	control	lb	YIELD
Rating Unit	%	plot	LB
Rating Date	Aug-31-07	Nov-02-07	Nov-02-07
Trt-Eval Interval	77 DA-C	140 DA-C	140 DA-C
ARM Action Codes			TY1
# Subsamples, Dec.			1
Trt Treatment			
No. Name	Rate	Rate	Rate
	Unit	Unit	Unit
	8	9	10
15 Strip Till (Wheat Cover)	99 a	2 a	1125.3 a
Prowl H20	2.5 PT/A		
Reflex	16 OZ/A		
Roundup WeatherMax	22 OZ/A		
Staple	1.7 OZ/A		
Direx	32 OZ/A		
MSMA	2 LB A/A		
NIS	0.25 % V/V		
16 Strip Till (Wheat Cover)	99 a	2 a	1145.5 a
Prowl H20	2.5 PT/A		
Cotoran	40 OZ/A		
Roundup WeatherMax	22 OZ/A		
Staple	1.7 OZ/A		
Direx	32 OZ/A		
MSMA	2 LB A/A		
NIS	0.25 % V/V		
LSD (P=.05)	0.0	0.3	197.08
Standard Deviation	0.0	0.2	118.21
CV	0.0	32.53	32.53
Bartlett's X2	0.0	6.19	6.19
P(Bartlett's X2)	.	0.626	0.626

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

Column 10: TY1 = 605.0\*[C9]



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

### SOIL DESCRIPTION

% Sand: 82      % OM: 2.0      Texture: loamy sand  
 % Silt: 14      pH: 6.3      Soil Name: \_\_\_\_\_  
 % Clay: 4      CEC: \_\_\_\_\_      Fert. Level: \_\_\_\_\_

### ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

### MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							
2.							
3.							
4.							

Overall Moisture Conditions: dryland, very dry after POST applications

Closest Weather Station: \_\_\_\_\_ Distance: \_\_\_\_\_ Unit: \_\_\_\_

### APPLICATION DESCRIPTION

	A	B	C
Application Date:	Apr-18-07	May-15-07	Jun-15-07
Time of Day:	7:00 pm	7:00 pm	9:00 am
Application Method:	broadcast	broadcast	broadcast
Application Timing:	PRE	3-5 leaf	layby
Applic. Placement:	on soil	overtop	directed
Air Temp., Unit:	75 F	87 F	80 F
% Relative Humidity:	52	39	59
Wind Velocity, Unit:	2 mph	0 mph	3 mph
Dew Presence (Y/N):	N	N	N
Water Hardness:			
Soil Temp., Unit:	70 F	89 F	84 F
Soil Moisture:	moist	fair	moist
% Cloud Cover:	0	40	0

### CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	GOSHI PRE	GOSHI POST	GOSHI Layby
Stage Scale:	not up	2 leaf	BBCH
Height, Unit:	0 in	3 inch	12 in

### WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	AMAPA PRE	AMAPA POST	AMAPA Layby
Stage Scale:	not up	2-3 inch	up to 20"
Density, Unit:	0 ydsq	30 ydsq	45 ydsq

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## APPLICATION EQUIPMENT

	A	B	C
<b>Appl. Equipment:</b>	backpack	backpack	backpack
<b>Operating Pressure:</b>	24	24	26
<b>Nozzle Type:</b>	flat fan	flat fan	floodjet
<b>Nozzle Size:</b>	11002	11002	TK 2
<b>Nozzle Spacing, Unit:</b>	18 in	18 in	36 in
<b>Nozzles/Row:</b>	2	2	1
<b>Band Width, Unit:</b>			
<b>Boom Length, Unit:</b>	4.5 ft	4.5 ft	
<b>Boom Height, Unit:</b>	15 in	15 in	12 in
<b>Ground Speed, Unit:</b>	3 mph	3 mph	3 mph
<b>Incorporation Equip.:</b>			
<b>Hours to Incorp.:</b>			
<b>Incorp. Depth, Unit:</b>			
<b>Carrier:</b>	water	water	water
<b>Spray Volume, Unit:</b>	15 GPA	15 GPA	15 GPA
<b>Spray pH:</b>			
<b>Propellant:</b>	CO2	CO2	CO2
<b>Tank Mix (Y/N):</b>			

Trt No	Treatment Application Comment