Cotton response to mixtures of Staple, Sequence, and glyphosate.

(08/903)

Trial ID: C30-08 Study Dir.: Stanley Culpepper Location: Ponder Farm Investigator: Stanley Culpepper

Reps: 4 Plots: 12 by 25 feet

Spray vol: 14.8 gal/ac Mix size: 2 liters (min 1.5434)

Spr	ay vol: 14.8 gal/ac	Mix size	e: 2 lite	rs (min	1.543	4)							
Trt	Treatment	Form	Form	Form		Rate	Grow	Appl	Amt Product	Plot N	lo. By l	Rep	
No.	Name	Conc	Unit	Type	Rate	Unit	Stg	Code	to Measure	1	2	3	4
1	Roundup PowerMax	4.5		L	22	OZ/A	3 If	Α	23.23 ml/mx	101	211	309	401
2	Touchdown Total	4.17		L	24	OZ/A	3 If	Α	25.34 ml/mx	102	212	303	402
3	Sequence (GBL6A20T99)	5.25		L	2.5	PT/A	3 If	Α	42.23 ml/mx	103	206	307	403
4	Roundup PowerMax	4.5		L	22	OZ/A	3 If	Α	23.23 ml/mx	104	207	304	404
	Dual Magnum	7.62		L	16	OZ/A	3 If	Α	16.89 ml/mx				
5	Touchdown Total	4.17		L	24	OZ/A	3 If	Α	25.34 ml/mx	105	209	305	405
	Dual Magnum	7.62		L	16	OZ/A	3 If	Α	16.89 ml/mx				
6	Sequence (GBL6A20T99)	5.25		L	2.5	PT/A	3 If	Α	42.23 ml/mx	106	213	306	406
	Staple LX	3.2		L	1.7	OZ/A	3 If	Α	1.795 ml/mx				
7	Roundup PowerMax	4.5		L		OZ/A	-	Α	23.23 ml/mx	_	208	313	407
	Dual Magnum	7.62		L		OZ/A		Α	16.89 ml/mx				
	Staple LX	3.2		L	1.7			Α	1.795 ml/mx				
8	Touchdown Total	4.17		L		OZ/A		Α	25.34 ml/mx		202	310	408
	Dual Magnum	7.62		L		OZ/A		Α	16.89 ml/mx				
	Staple LX	3.2		L		OZ/A		Α	1.795 ml/mx				
9	Roundup PowerMax	4.5		L		OZ/A	-	Α	23.23 ml/mx	109	210	311	409
	Staple LX	3.2		L	1.7	OZ/A	3 If	Α	1.795 ml/mx				
10	Roundup PowerMax	4.5		L		OZ/A	-	Α	23.23 ml/mx	110	201	312	410
	Staple LX	3.2		L	2.7	OZ/A	3 If	Α	2.851 ml/mx				
11	Touchdown Total	4.17		L	24	OZ/A	3 If	Α	25.34 ml/mx	111	204	301	411
	Staple LX	3.2		L	1.7	OZ/A	3 If	Α	1.795 ml/mx				
12	Touchdown Total	4.17		L	24	OZ/A	3 If	Α	25.34 ml/mx	112	205	302	412
	Dual Magnum	7.62		L	16	OZ/A	3 If	Α	16.89 ml/mx				
	Staple LX	3.2		L	1.7	OZ/A	3 If	Α	1.795 ml/mx				
13	Non-treated									113	203	308	413
14	Sequence (GBL4FO2TD2	2) 5.25		L	2.5	PT/A	3 If	Α	42.23 ml/mx	114	214	314	414
	Staple LX	3.2		L	1.7	OZ/A	3 If	Α	1.795 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
145.165	ml	Roundup PowerMax	4.5	L	
158.362	ml	Touchdown Total	4.17	L	
105.563	ml	Sequence (GBL6A20T99)	5.25	L	
105.575	ml	Dual Magnum	7.62	L	
19.267	ml	Staple LX	3.2	L	
52.782	ml	Sequence (GBL4FO2TD2)	5.25	L	

<sup>\* &#</sup>x27;Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 2 liters (mix size basis).

 $<sup>^{\</sup>star}$  Product amount calculations increased 25 % for overage adjustment.

Cotton response to mixtures of Staple, Sequence, and glyphosate.

(08/903)

Trial ID: C30-08 Study Dir.: Stanley Culpepper Location: Ponder Farm Investigator: Stanley Culpepper

Trial Comments

OBJECTIVE: Determine cotton response to Staple/Dual mixtures.

#### Visual Cotton Response:

- 1. Injury was at its greatest 4 d after treatment (DAT).
- 2. Roundup and Touchdown caused minimal injury.
- 3. Seuqence and Roundup or Touchdown plus Dual Magnum mixtures caused less injury than normal (5% or less).
- 4. At 4 DAT, Roundup or Touchdown plus Staple injured cotton up to 21%.
- 5. At 4 DAT, all combinations of Staple and Dual caused 32 to 35% injury.
- 6. Cotton recovered rapidly.

#### Weed Response:

- 1. Palmer amaranth and Texas panicum were present in the study. All herbicide treatments provided excellent control of both species.
- 2. The trial was maintained weed free after June 23.

#### Cotton Response:

- 1. Herbicide treatments had no impact on seed cotton yield.
- 2. The study was conducted under a pivot and cotton was not stressed throughout the season.

#### **GENERAL COMMENTS:**

1. Trial was oversprayed with Roundup on June 23 and July 10.

Cotton response to mixtures of Staple, Sequence, and glyphosate. (08/903)

Trial ID: C30-08 Study Dir.: Stanley Culpepper Location: Ponder Farm Investigator: Stanley Culpepper

	ation: Ponder Farm		1111000	igator .	ourieg o	arp oppor			
Wee	ed Code					AMAPA	PANTE	Seed Yld	Seed Yld
Cro	p Code		GOSHI						
Rati	ng Data Type		injury	injury	injury	control	control	yield	yield
Rat	ing Unit		%	%	%	%	%	lb/2rowp	lb/acre
Rati	ng Date		Jun-11-08	Jun-23-08	Jul-03-08	Jun-23-08	Jun-23-08	Sep-15-08	Sep-15-08
Trt-l	Eval Interval		4 DA-A	16 DA-A	26 DA-A	16 DA-A	16 DA-A	100 DA-A	100 DA-A
ARN	A Action Codes								TY1
# Sı	ubsamples, Dec.								1
Trt	Treatment	Rate							
No.	Name	Rate Unit	1	2	3	4	5	6	7
1	Roundup PowerMax	22 OZ/A	0 e	0 e	0 a	97 a	99 a	8 a	2243.3 a
2	Touchdown Total	24 OZ/A	0 e	0 e	0 a	93 a	99 a	7 a	1920.3 a
3	Sequence (GBL6A20T99)	2.5 PT/A	5 d	2 cde	0 a	95 a	99 a	7 a	2021.9 a
4	Roundup PowerMax	22 OZ/A	4 de	0 e	0 a	96 a	99 a	7 a	1891.2 a
	Dual Magnum	16 OZ/A							
5	Touchdown Total	24 OZ/A	0 e	1 e	0 a	96 a	99 a	7 a	2047.3 a
	Dual Magnum	16 OZ/A							
6	Sequence (GBL6A20T99)	2.5 PT/A	35 a	6 ab	0 a	99 a	99 a	7 a	1913.0 a
	Staple LX	1.7 OZ/A	00 4	0 0.0	٠ ۵	۵0 ۵	00 0	. ~	
7	Roundup PowerMax	22 OZ/A	33 a	5 abc	0 a	96 a	99 a	7 a	2098.1 a
1	Dual Magnum	16 OZ/A	00 u	o abo	σα	00 u	00 u	, α	2000 4
	Staple LX	1.7 OZ/A							
8	Touchdown Total	24 OZ/A	35 a	3 b-e	0 a	99 a	99 a	8 a	2250.6 a
	Dual Magnum	16 OZ/A							
	Staple LX	1.7 OZ/A							
9	Roundup PowerMax	22 OZ/A	18 bc	1 de	0 a	96 a	99 a	7 a	2138.1 a
	Staple LX	1.7 OZ/A							
10	Roundup PowerMax	22 OZ/A	16 c	3 b-e	0 a	99 a	99 a	7 a	1996.5 a
	Staple LX	2.7 OZ/A			٠ ۵	۵0 ۵	00 0	. ~	
11	Touchdown Total	24 OZ/A	21 b	1 de	0 a	99 a	99 a	7 a	1916.6 a
Ι	Staple LX	1.7 OZ/A	210	1 40	o u	00 u	00 u	, α	1010.0 4
12	Touchdown Total	24 OZ/A	35 a	5 a-d	0 a	99 a	99 a	7 a	2011.0 a
12	Dual Magnum	16 OZ/A	55 a	J a-u	0 a	33 a	33 a	, α	2011.0 a
	Staple LX	1.7 OZ/A							
13	Non-treated	04/.	0 e	0 e	0 a	0 b	0 b	7 a	2087.3 a
_	Sequence (GBL4FO2TD2)	2.5 PT/A	35 a	7 a	0 a	99 a	99 a	7 a	2000.1 a
'¬	Staple LX	1.7 OZ/A	55 a	, α	o a	33 a	33 a	, α	2000.1 a
LSE	) (P=.05)		3.2	3.2	0.0	6.0	0.0	1.7	487.25
	ndard Deviation		2.3	2.2	0.0	4.2	0.0	1.2	340.96
CV			13.41	93.19	0.0	4.63	0.0	16.73	16.73
Bart	lett's X2		11.639	7.001	0.0	18.117	0.0	24.395	24.395
P(B	artlett's X2)		0.04*	0.637		0.02*		0.028*	0.028*

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

Column 7: TY1 = 290.4\*[6]

Jun-12-09 (C30-08) Site Description Page 4 of 6

	Un	liversity of Georgia	
	Cotton response to	mixtures of Staple, Sequence, an	d glyphosate.
		(08/903)	
Trial ID: C30-0		Study Dir.: Stanley Culpepper	
Location: Ponde	r Farm I	investigator: Stanley Culpepper	
	GENERAL TRIA	L INFORMATION	
Study Director:	Stanley Culpepper	Title: Ext. Weed	Science
Affiliation:	Univ. of Georgia		
Postal Code:	31794		
Investigator:	Stanley Culpepper	Title: Ext. Weed	Science
Affiliation:	Univ. of Georgia		
Postal Code:	31794		
	TRIAL	LOCATION	
City: Ty	Ty	Trial Status:	completed
State/Prov.: GA	<u>.</u>	Trial Reliability:	good
Postal Code: 31	795	Initiation Date:	May-20-08
Country: US		Planned Completion Date:	
	LL Corner °:		
Altitude of LL	Corner: Unit:	Angle y-axis to North °:	
Directions:			
Cooperator:	COOPERATO	DR/LANDOWNER Country:	
org:			
Address 1:			
Address 2:			
City:			
State/Prov:			
Postal Code:			
		Conducted Under GEP (Y/N): N	
Guidelines:	Guideline Des	scription:	
Objective:			
g			
Conclusions:			
	CROP AND WEE	D DESCRIPTION	
Weed Code	Common Name	Scientific Name	
1			
			<del></del>
Crop 1: GOSHI	COTTON, SHORT STAPLE	Variety: Phytoger	1 485 WSF
Planting Date:		anting Method: hill drop	

## C Soil Temperature: 84 F Soil Moisture: fair Emergence Date: May-25-08

SITE AND DESIGN

Site Type: Ponder Farm

Tillage Type: Conventional Study Design: RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

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

### SOIL DESCRIPTION

% Sand	: 94	% OM:	1.3	Texture:	sandy loam
% Silt	: 2	pH:	5.8	Soil Name:	
% Clay	: 4	CEC:		Fert. Level:	

### ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

### MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Туре	Interval	Unit
1.							

Overall Moisture Conditions:	irrigated		
Closest Weather Station:		Distance:	Unit:

### APPLICATION DESCRIPTION

	A
Application Date:	Jun-07-08
Time of Day:	11 am
Application Method:	broadcat
Application Timing:	3 lf
Applic. Placement:	overtop
Air Temp., Unit:	88 F
% Relative Humidity:	55
Wind Velocity, Unit:	2 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	88 F
Soil Moisture:	moist
% Cloud Cover:	25

### CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GOSHI A
Stage Scale:	3 leaf
Height, Unit:	5 inch

### WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	
Stage Scale:	
Density, Unit:	

### APPLICATION EQUIPMENT

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

Trt No	Treatment Application Comment