Winter weed maturity impact on cotton burndown herbicides.

Trial ID: C4-06 Study Dir.: Stanley Culpepper
Location: Jones Farm Investigator: Stanley Culpepper

Reps: 4 Plots: 6 by 30 feet

Spray vol: 14.8 gal/ac Mix size: 1 liters (min .92602)

Spra	ay vol: 14.8 gal/ac	Mix	size: 1	liters ((mın .9	2602)							
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	Late March Application						BD	Α		101	207	308	404
	Roundup WeatherMax	4.5		L	22	OZ/A			11.61 ml/mx				
2	Late March Application						BD	Α		102	212	310	409
	Roundup WeatherMax	4.5		L	22	OZ/A			11.61 ml/mx				
	Valor	51		WDG	1.5	OZ/A			0.759 g/mx				
3	Late March Application						BD	Α		103	204	307	412
	Roundup WeatherMax	4.5		L	22	OZ/A			11.61 ml/mx				
	2,4-D	4		L	1	PT/A			8.445 ml/mx				
4	Late March Application						BD	Α		104	203	305	401
	Ignite	2.8		L	23	OZ/A			12.14 ml/mx				
5	Late March Application						BD	Α		105	202	306	410
	Gramoxone Inteon	2		L		PT/A			21.11 ml/mx				
	COC			L	1	QT/A			16.89 ml/mx				
6	Late March Application						BD	Α		106	208	303	407
	Gramoxone Inteon	2		L		PT/A			21.11 ml/mx				
	Direx	4		L	_	PT/A			12.67 ml/mx				
	COC			L	1	QT/A			16.89 ml/mx				
7	Late April Application						BD	В		107	210	312	408
	Roundup WeatherMax	4.5		L	22	OZ/A			11.61 ml/mx				
8	Late April Application						BD	В		108	201	309	403
	Roundup WeatherMax	4.5		L		OZ/A			11.61 ml/mx				
	Valor	51		WDG	1.5	OZ/A			0.759 g/mx				
9	Late April Application	4 -			20	07/4	BD	В	44.041/	109	211	304	406
	Roundup WeatherMax 2,4-D	4.5 4		L L		OZ/A PT/A			11.61 ml/mx 8.445 ml/mx				
10	Late April Application	4				1 1/A	BD	В	0. 14 0 IIII/IIIX	110	209	301	405
10	Ignite	2.8		L	23	OZ/A		D	12.14 ml/mx	110	209	301	405
11	Late April Application	2.0			23	OZA	BD	В	12.14 1111/1118	111	206	311	402
1 1	Gramoxone Inteon	2		L	25	PT/A		Б	21.11 ml/mx	111	200	311	402
	COC	2		L		QT/A			16.89 ml/mx				
12	Late April Application			_	<u> </u>	<u> </u>	BD	В	. 0.00 1111/1111	112	205	302	411
12	Gramoxone Inteon	2		L	2.5	PT/A		ט	21.11 ml/mx	112	203	302	411
	Direx	4		Ĺ	_	PT/A			12.67 ml/mx				
	COC	•		L		QT/A			16.89 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
87.099	ml	Roundup WeatherMax	4.5	L	
1.898	g	Valor	51	WDG	
21.113	ml	2,4-D	4	L	
30.353	ml	Ignite	2.8	L	
105.563	ml	Gramoxone Inteon	2	L	
84.451	ml	COC		L	
31.669	ml	Direx	4	L	

Reps: 4 Plots: 6 by 30 feet

Spray vol: 14.8 gal/ac Mix size: 1 liters (min .92602)

		č				
Trt	Tr>	Form	Form	Form		Plot No. By Rep
No	. N>	Conc	Unit	Type	Rate	

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

_					
Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code

- * 'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 1 liters (mix size basis).
- * Product amount calculations increased 25 % for overage adjustment.

Trial Comments

OBJECTIVE: Determine the most effective application time for various burndown herbicides.

Primrose:

- 1. In March primrose was not blooming but by April primrose was in full bloom.
- 2. Roundup provided less than 75% control regardless of application timing.
- 3. Adding Valor to glyphosate was more effective with the April application as compared to the March application.
- 4. Mixing 2,4-D with Roundup provided complete control regardless of application timing.
- 5. Ignite and Gramoxone were 9 to 23% more effective when applied in April as compared to March.
- 6. Mixing Direx with Gramoxone improved control with the March application to 82% but the April application was more effective providing complete control.

Red Sorrel:

1. All treatments except Ignite provided excellent control. Control by Ignite was much greater with April applications when the red sorrel was "maturing out".

CONCLUSIONS:

1. 2,4-D mixtures with Roundup provide excellent primrose control. Only Gramoxone + Direx applied in April was as effective as 2,4-D plus Roundup followed closely by an April application of Ignite.

Winter weed maturity impact on cotton burndown herbicides.

Trial ID: C4-06 Study Dir.: Stanley Culpepper Location: Jones Farm Investigator: Stanley Culpepper

ПОС	ation: Jones Faill			1111	cbcigaco	I. Stanie	у сатрерро			-
Wee	ed Code			OEOLA	OEOLA	OEOLA	OEOLA	RUMAA	RUMAA	RUMAA
Rati	ng Data Type			control	control	control	control	control	control	control
	ng Unit			%	%	%	%	%	%	%
	ng Date					May-12-06	May-25-06		May-12-06	May-25-06
	essed By			SC	SC	sc	SC	SC	SC	SC
	Eval Interval			12 DA-A	30 DA-A				43 DA-A	56 DA-A
			Doto	12 57 (7)	00 27171	10 27 (7 (00 27171	00 27171	10 27 (7)	00 27171
	Treatment	Doto	Rate	4	2	2	4	_	6	7
	Name	Rate	Unit	1	2	3	4	5	6	7
1	Late March Application Roundup WeatherMax	22	OZ/A	69 c	90 abc	74 de	73 fg	97 ab	98 a	99 a
2	Late March Application			89 a	90 abc	85 bc	78 efg	99 a	99 a	99 a
	Roundup WeatherMax	22	OZ/A				- 3			
	Valor		OZ/A							
2	Late March Application			79 b	99 a	96 a	99 a	98 ab	98 a	99 a
3		22	OZ/A	79 0	99 a	90 a	99 a	90 ab	90 a	99 a
	Roundup WeatherMax									
-	2,4-D	1	PT/A							
4	Late March Application			92 a	84 c	83 cd	79 def	76 d	46 c	57 d
	Ignite	23	OZ/A							
5	Late March Application			90 a	94 ab	78 cde	72 g	94 abc	99 a	99 a
	Gramoxone Inteon	2.5	PT/A							
	COC	1	QT/A							
6	Late March Application		-	93 a	90 abc	82 cd	82 cde	99 a	99 a	99 a
0	Gramoxone Inteon	2.5	PT/A	35 a	30 abc	02 Cu	02 cue	33 a	33 a	33 a
	Direx		PT/A							
-	COC	- 1	QT/A							
7	Late April Application			0 d	59 e	72 e	73 fg	93 abc	99 a	99 a
	Roundup WeatherMax	22	OZ/A							
8	Late April Application			0 d	86 bc	96 a	86 cd	97 ab	99 a	99 a
	Roundup WeatherMax	22	OZ/A							
	Valor	1.5	OZ/A							
9	Late April Application			0 d	70 d	93 ab	99 a	89 bc	99 a	90 b
	Roundup WeatherMax	22	OZ/A	o u	70 G	00 45	00 u	00 50	00 u	00 5
	2,4-D		PT/A							
40	·		1 1//		00 1	0.4	00.1		70.1	7.4
10	Late April Application		07/4	0 d	93 abc	94 ab	89 bc	86 c	78 b	71 c
<u> </u>	Ignite	23	OZ/A							
11	Late April Application			0 d	96 a	96 a	95 ab	99 a	99 a	99 a
	Gramoxone Inteon		PT/A							
	COC	1	QT/A							
12	Late April Application			0 d	99 a	99 a	99 a	99 a	99 a	99 a
1	Gramoxone Inteon	2.5	PT/A			I				
	Direx		PT/A							
	COC		QT/A							
1.00			~.,,		0.0	0.0	^ -	0.0	0.0	7.1
	(P=.05)			8.2	8.3		6.7	8.0	9.6	7.4
	ndard Deviation			5.7	5.7	6.3	4.6	5.6	6.7	5.1
CV	L # 1/0			13.27	6.56		5.44	5.93	7.18	5.55
	lett's X2			4.907	34.002		4.775	13.672	20.839	2.137
P(B	artlett's X2)			0.427	0.001*	0.065	0.781	0.057	0.001*	0.343

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

	Winter weed a	maturity impact on cotton burndown herbicides.						
	wrucer weed i	medite, impact on coccon burndown neiblicides.	•					
Trial ID: C4-06		Study Dir.: Stanley Culpepper						
Location: Jones	Farm	Investigator: Stanley Culpepper						
GENERAL TRIAL INFORMATION								
Study Director:	Stanley Culpepper	Title: Ext. Weed Science						
Affiliation:	University of Georg	gia						
Postal Code:	31794							
Investigator:	Stanley Culpepper	Title: Ext Weed Science						
Affiliation:	University of Georg	gia						
Postal Code:								
	TRI	CAL LOCATION						
City: Tit	fton	Trial Status: completed						
State/Prov.: GA		Trial Reliability:						
Postal Code: 31	794	Initiation Date: Mar-30-06						
Country: USA		Planned Completion Date:						
		N-Latitude of LL Corner °:	_					
Altitude of LL (Corner: Uni	t: Angle y-axis to North °:						
Directions:								
	COORE	RATOR/LANDOWNER						
Cooperator:	COOPER	- ,						
_								
- 1 1								
								
								
Postal Code:								
Conducted Under	CID (V/N). N	Conducted Under GEP (Y/N): N						
		Description:						
		-	•					
Objective:								
Conclusions:								
	CPOP AND	WEED DESCRIPTION						
Weed Code	Common Name	Scientific Name						
1. OEOLA cutle	eaf eveningprimrose							
2. RUMAA red s	sorrel							
Crop 1: none	non crop	Variety: .						
Planting Date: N		Planting Method: .						
Rate: 0.		0 Perennial Age: 0						
	-	ithin Row: 0 Seed Bed: .						
		sture: Emergence Date:						

Plot Width, Unit: 6 FT Plot Length, Unit: 30 FT Reps: 4

SITE AND DESIGN

Site Type: Jones farm

Tillage Type: none Study Design: FACTORIAL

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

MAINTENANCE

Field Prep./Maintenance:

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

% Sand: 95 % OM: 5.8 Texture: Sand

% Silt: 2 **pH:** 0.67 Soil Name: Tifton sandy loam

% Clay: 3 CEC: Fert. Level: _

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Туре	Interval	Unit
1.							

Overall Moisture Conditions: wet

Closest Weather Station: _____ Distance: ____ Unit: __

APPLICATION DESCRIPTION

	AFFILICATION D				
	A	В			
Application Date:	Mar-30-06	Apr-20-06			
Time of Day:	7:30am	7:00am			
Application Method:	broadcast	broadcast			
Application Timing:	BD march	BD april			
Applic. Placement:	overtop	overtop			
Air Temp., Unit:	64 F	75 F			
% Relative Humidity:	71	66			
Wind Velocity, Unit:	0 mph	0 mph			
Dew Presence (Y/N):	У	У			
Water Hardness:					
Soil Temp., Unit:	61 F	74 F			
Soil Moisture:	dry	fair			
% Cloud Cover:	100	0			

CROP STAGE AT EACH APPLICATION

	A	В
Crop 1 Code, Stage:	none .	none .
Stage Scale:		
Height, Unit:		

WEED STAGE AT EACH APPLICATION

	A	В	
Weed 1 Code, Stage:	OEOLA BD-March	OEOLA BD-April	
Stage Scale:	2-8"	8-16"blom	
Density, Unit:	4 ydsq	4 ydsq	
Weed 2 Code, Stage:	RUMAA BD-March	RUMAA BD-April	
Stage Scale:	15 inch	18-20"	
Density, Unit:	6 ydsq	6 ydsq	

APPLICATION EQUIPMENT

			11 1011	DQUIT MDI
		A		В
Appl. Equipment:	backpack		backpack	
Operating Pressure:	23		23	
Nozzle Type:	flat	fan	flat	fan
Nozzle Size:	11002		11002	
Nozzle Spacing, Unit:	18	inch	18	inch
Nozzles/Row:				·
Band Width, Unit:				·
Boom Length, Unit:	4.5	feet	4.5	feet
Boom Height, Unit:	15	inch	15	inch
Ground Speed, Unit:	3	mph	3	mph
Incorporation Equip.:				
Hours to Incorp.:				
Incorp. Depth, Unit:				
Carrier:	wate	r	wate	r
Spray Volume, Unit:	14.8	GPA	14.8	GPA
Spray pH:				
Propellant:	CO2		CO2	
Tank Mix (Y/N):	У		У	

Trt No	Treatment Application Comment