	COTTO	n res	ponse	το ν	-10142	appile	α τορ	ically or d	irect	ea wi	.tn Ro
Tri	al ID: C32-05				Stud	dy Dir.	: Star	nley Culpep	per		
Loc	ation: Sunbelt Expo)			Invest	tigator	: Star	nley Culpep	per		
Rep	s: 3 Plo	ots: 12	by 30	feet							
Spra	ay vol: 14.8 gal/ac	Mix	size: 2	2 liters	(min 1.3	89)					
Trt	Treatment	Form	Form		Rate	Grow	Appl	Amt Product	Plot N	lo. By l	Rep
No.	Name	Conc	Туре	Rate	Unit	Stg	Code	to Measure	1	2	3
1	Untreated check								101	204	303
2	Roundup Weathermax	4.5	L	16	fl oz/a	POST 1	А	16.89 ml/mx	102	201	308
	Roundup Weathermax	4.5	L	16	fl oz/a	POST 2	В	16.89 ml/mx			
	Roundup Weathermax	4.5	L	16	fl oz/a	POST 3	С	16.89 ml/mx			
3	Roundup Weathermax	4.5	L	16	fl oz/a	POST 1	А	16.89 ml/mx	103	202	305
	Roundup Weathermax	4.5	L	16	fl oz/a	POST 2	В	16.89 ml/mx			
	V-10142	75	DF	0.2	lb ai/a	POST 2	В	4.318 g/mx			
	Roundup Weathermax	4.5	L	16	fl oz/a	POST 3	С	16.89 ml/mx			
4	Roundup Weathermax	4.5	L	16	fl oz/a	POST 1	А	16.89 ml/mx	104	208	302
	Roundup Weathermax	4.5	L	16	fl oz/a	POST 2	В	16.89 ml/mx			
	Envoke	75	DF	0.1	oz wt/a	POST 2	В	0.1012 g/mx			
	Roundup Weathermax	4.5	L	16	fl oz/a	POST 3	С	16.89 ml/mx			
5	Roundup Weathermax	4.5	L	16	fl oz/a	POST 1	А	16.89 ml/mx	105	206	304
	Roundup Weathermax	4.5	L	16	fl oz/a	POST 2	В	16.89 ml/mx			
	Roundup Weathermax	4.5	L	16	fl oz/a	POST 3	С	16.89 ml/mx			
L	V-10142	75	DF	0.2	lb ai/a	POST 3	С	4.318 g/mx			
6	Roundup Weathermax	4.5	L	16	fl oz/a	POST 1	А	16.89 ml/mx	106	205	301
	Roundup Weathermax	4.5	L	16	fl oz/a	POST 2	В	16.89 ml/mx			
	Roundup Weathermax	4.5	L	16	fl oz/a	POST 3	С	16.89 ml/mx			
L	Envoke	75	DF	0.1	oz wt/a	POST 3	С	0.1012 g/mx			
7	Roundup Weathermax	4.5	L	16	fl oz/a	POST 1	A	16.89 ml/mx	107	203	307
	Roundup Weathermax	4.5	L	16	fl oz/a	POST 2	В	16.89 ml/mx			
	Roundup Weathermax	4.5	L	16	fl oz/a	LPD	D	16.89 ml/mx			
	V-10142	75	DF	0.2	lb ai/a	LPD	D	4.318 g/mx			
8	Roundup Weathermax	4.5	L	16	fl oz/a	POST 1	A	16.89 ml/mx	108	207	306
	Roundup Weathermax	4.5	L	16	fl oz/a	POST 2	В	16.89 ml/mx			
	Roundup Weathermax	4.5	L	16	fl oz/a	LPD	D	16.89 ml/mx			
	V-10142	75	DF	0.4	lb ai/a	LPD	D	8.636 g/mx			

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Lot Code
443.413	ml	Roundup Weathermax 4.5 L	
26.988	g	V-10142 75 DF	
0.253	g	Envoke 75 DF	

'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 2 liters (mix size basis).
 Product amount calculations increased 25 % for overage adjustment.

Trial Comments

OBJECTIVE: Evaluate crop and weed response to Roundup/V-10142 or Roundup/Envoke mixtures.

VISUAL CROP RESPONSE:

1. Roundup did not visually injure cotton.

2. Mixing V-10142 or Envoke with Roundup and applying at 7-leaf injured cotton 20-21% at 6 DAT; 14 d later injury was not detectable by the Envoke mixture but injury was still 20% with the V-10142 mixture.

3. Mixing V-10142 or Envoke with Roundup and applying at 15-leaf caused 16 to 20% injury at 5 DAT; 20 d later injury was only 2% with the Envoke mixture but still 17% with the V-10142 mixture.

4. Directed applictions of V-10142 caused less than 10% injury.

WEED CONTROL:

Large crabgrass:

1. POST 3 and LPD applications of Roundup plus V-10142 were slower in controlling large crabgrass (rating date of July 11) than with Roundup alone or Roundup mixed with Envoke. Grass was up to 6 inches at this time. Eventually the grass did die from the application.

Pitted morningglory:

Six days after the second POST application, sequential Roundup alone treatments provided 72% control or less. Mixing V-10142 with Roundup imporved control at least 9% while mixing Envoke with Roundup improved control at least 21% when compared to Roundup alone.
 When three applications of Roundup were applied, control was excellent regardless of tank mix partner.

Doveweed:

- 1. Populations were late emerging and emerged after the POST 2 applications.
- 2. Roundup provided very poor control and mixing Envoke or V-10142 with Roundup was of little help.

Cotton res	ponse	to V-1014	2 applied	topicall	ly or dire	ected with	n Roundup	•
Trial ID: C32-05		Sti	udy Dir.:	Stanley	Culpepper			
Location: Sunbelt Expo		Inves	stigator:	Stanley	Culpepper			
Weed Code						DIGSA	DIGSA	DIGSA
Crop Code		GOSHI	GOSHI	GOSHI	GOSHI			
Rating Data Type		injury	injury	injury	injury	control	control	control
Rating Unit		percent	percent	percent	percent	percent	percent	percent
Rating Date		Jun-13-05	Jun-27-05	Jul-11-05	Aug-02-05	Jun-13-05	Jun-27-05	Jul-11-05
Trt-Eval Interval		25 DA-A	39 DA-A	53 DA-A	75 DA-A	25 DA-A	39 DA-A	53 DA-A
Trt Treatment	Rate							
No. Name Rate	Unit	1	2	3	4	5	6	7
1 Untreated check		0	0	0	0	0	0	0
2 Roundup Weathermax 16	fl oz/a	0	0	0	0	94	97	96
Roundup Weathermax 16	fl oz/a							
Roundup Weathermax 16	fl oz/a							
3 Roundup Weathermax 16	fl oz/a	20	20	8	2	94	99	99
Roundup Weathermax 16	fl oz/a							
V-10142 0.2	lb ai/a							
Roundup Weathermax 16	fl oz/a							
4 Roundup Weathermax 16	fl oz/a	21	0	0	0	95	99	99
Roundup Weathermax 16	fl oz/a							
Envoke 0.1 Boundun Woothormov 16	oz wt/a							
F. Deversion Maathamaa 10	11 02/a	0	0	00	47	05	0.4	05
5 Roundup Weathermax 16	floz/a	0	0	20	17	95	94	85
Roundup Weathermax 16	fl 0z/a							
V-10142 0.2	lb ai/a							
6 Roundun Weathermax 16	fl 07/2	0	0	16	2	Q/	96	93
Roundup Weathermax 16	fl oz/a	0	0	10	2	34	30	33
Roundup Weathermax 16	fl oz/a							
Envoke 0.1	oz wt/a							
7 Roundup Weathermax 16	fl oz/a	0	0	4	9	94	93	80
Roundup Weathermax 16	fl oz/a	-			-			
Roundup Weathermax 16	fl oz/a							
V-10142 0.2	lb ai/a							
8 Roundup Weathermax 16	fl oz/a	0	0	0	3	94	94	80
Roundup Weathermax 16	fl oz/a							
Roundup Weathermax 16	fl oz/a							
V-10142 0.4	lb ai/a							
LSD (P=.05)		2.5	3.1	5.8	4.0	1.1	4.8	5.7
Standard Deviation		1.4	1.8	3.3	2.3	0.6	2.7	3.3
CV		28.11	70.71	56.19	54.46	0.77	3.27	4.15

Means followed by same letter do not significantly differ (P=.05, LSD)

Weed Code		DIGSA	IPOLA	IPOLA	IPOLA	IPOLA	MUDNU	MUDNU
Crop Code								
Rating Data Type		control						
Rating Unit		percent						
Rating Date		Aug-02-05	Jun-13-05	Jun-27-05	JUI-11-05	Aug-02-05	Jun-27-05	JUI-11-05
	D (75 DA-A	25 DA-A	39 DA-A	53 DA-A	75 DA-A	39 DA-A	53 DA-A
Int Treatment	Rate	0	0	10	11	10	10	14
No. Name Rate	Unit	0	9	10	11	12	13	14
1 Untreated check		0	0	0	0	0	0	0
2 Roundup Weathermax 16	fl oz/a	99	70	99	87	98	28	17
Roundup Weathermax 16	fl oz/a							
Roundup weathermax 16	n oz/a							
3 Roundup Weathermax 16	fl oz/a	99	81	99	91	95	48	18
Roundup Weathermax 16	fl oz/a							
V-10142 0.2	ib ai/a							
Roundup weathermax 16	11 02/a							0.5
4 Roundup Weathermax 16	fl oz/a	97	93	99	94	96	69	35
Roundup weathermax 16	TI OZ/A							
Elivoke 0.1 Boundun Woathormay 16	oz wi/a fl.oz/a							
Roundup Weathermax 16	11 02/a	00	70	00	05	00		47
5 Roundup Weathermax 16	fi oz/a	98	72	99	85	98	28	17
Roundup Weathermax 16	fl oz/a							
V-101/2 02	li uz/a Ih ai/a							
6 Boundun Weathermay 16	fl oz/o	00	70	00	07	00	10	17
8 Roundup Weathermax 16	11 02/a fl.oz/a	99	70	99	07	99	10	17
Roundup Weathermax 16	fl oz/a							
Envoke 01	oz wt/a							
7 Boundun Weathermax 16	fl.oz/a	08	70	00	80	07	20	28
Roundup Weathermax 16	fl oz/a	90	10	33	00	31	20	20
Roundup Weathermax 16	fl oz/a							
V-10142 0.2	lb ai/a							
8 Roundup Weathermax 16	fl.oz/a	98	70	99	79	95	18	20
Roundup Weathermax 16	fl oz/a	00	10	00	10	00	10	20
Roundup Weathermax 16	fl oz/a							
V-10142 0.4	lb ai/a							
LSD (P=.05)		2.8	7.8	0.0	10.1	4.3	19.6	18.6
Standard Deviation		1.6	4.4	0.0	5.8	2.4	11.2	10.6
CV		1.84	6.74	0.0	7.64	2.89	40.45	56.06

Means followed by same letter do not significantly differ (P=.05, LSD)

Wee	ed Code			MUDNU
Cro	p Code		a a m f m a l	
Rati	ng Data Type	control		
Rati Pati				
Trt-F	Type Date			75 DA-A
Trt	Trootmont		Poto	10 0/(//
No.	Name	Rate	Unit	15
1	Untreated check		•	0
2	Roundup Weathermax	16	fl.oz/a	29
-	Roundup Weathermax	16	fl oz/a	20
	Roundup Weathermax	16	fl oz/a	
3	Roundup Weathermax	16	fl oz/a	31
Ũ	Roundup Weathermax	16	fl oz/a	0.
	V-10142	0.2	lb ai/a	
	Roundup Weathermax	16	fl oz/a	
4	Roundup Weathermax	16	fl oz/a	37
	Roundup Weathermax	16	fl oz/a	_
	Envoke	0.1	oz wt/a	
	Roundup Weathermax	16	fl oz/a	
5	Roundup Weathermax	16	fl oz/a	20
	Roundup Weathermax	16	fl oz/a	
	Roundup Weathermax	16	fl oz/a	
	V-10142	0.2	lb ai/a	
6	Roundup Weathermax	16	fl oz/a	22
	Roundup Weathermax	16	fl oz/a	
	Roundup Weathermax	16	fl oz/a	
	Envoke	0.1	oz wt/a	
7	Roundup Weathermax	16	fl oz/a	27
	Roundup Weathermax	16	fl oz/a	
	Roundup Weathermax	16	fl oz/a	
	V-10142	0.2	lb ai/a	
8	Roundup Weathermax	16	fl oz/a	23
	Roundup Weathermax	16	fl oz/a	
	Roundup Weathermax	16	fl oz/a	
	V-10142	0.4	lb ai/a	
LSD	0 (P=.05)			12.2
Star	ndard Deviation			7.0
CV				29.53

Means followed by same letter do not significantly differ (P=.05, LSD)

Mar-03-06 (C32-05)

University of Georgia

	Cotton response to N	V-10142 applied topically or direct	ed with Roundup.
Training TD. (22) (Study Dir · Stanley Gulperper	
Irial ID: C32-C		Study DIT.: Stanley Culpepper	
Location. Sumpe	elt Expo	investigator. Stanley Culpepper	
	GENERAL TR	RIAL 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		
	TRIA	AL LOCATION	
City: Ty	тту	Trial Status:	good
State/Prov.: GA	1	Trial Reliability:	completed
Postal Code: 31	.794	Initiation Date:	May-04-05
Country: US	A	Planned Completion Date:	
E-Longitude of	LL Corner °:	N-Latitude of LL Corner °:	
Altitude of LL	Corner: Unit	Angle y-axis to North °:	
Directions:			
	COOPERA	ATOR/LANDOWNER	
Cooperator:		Country:	
Org:		Phone No:	
Address 1:		Fax No:	
Address 2:			
City:			
State/Prov:			
Postal Code:			
Conducted Under	GLP (Y/N): N	Conducted Under GEP (Y/N): N	
Guidelines:	Guideline D	Description:	
Objective:			
Conclusions:			

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	DIGSA	large crabgrass	
2.	IPOLA	pitted morningglory	
3.	MUDNU	doveweed	

Crop 1: GOSHI cotton Planting Date: May-04-05	Planting Metho	Variety: RR Flex d: strip tillage	BG 2 (from Mon)
Rate: 2 8 in Dep	th: 0.5 in	Perennial Age:	
Row Spacing: 36 inch Spaci	ng Within Row: 0.	. Seed Bed: fl	lat
Soil Temperature: 76 F Soil	Moisture: moist	Emergence Date:	May-10-05
	SITE AND DESIGN		
Plot Width, Unit: 12 FT	Plot Length, Unit:	30 FT Reps:	3
<pre>Site Type: research station Tillage Type: strip till</pre>	Study Design:	RANDOMIZED COMPLETE	BLOCK
Muisl Initiation Comments.			

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

MAINTENANCE

Field Prep./Maintenance:

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

%	Sand:	88	% OM:	1.2
%	silt:	12	pH:	б
%	Clay:	0	CEC:	

SOIL DESCRIPTION Texture: loamy sand

Soil Name: Fert. Level: _____ _

ADDITIONAL M	IEASURED ELEMEN	TS
Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Туре	Interval	Unit
1.							

Overall Moisture Conditions: irrigated Closest Weather Station: _____ Distance: ____ Unit: ___

	APPLICATION DESCRIPTION					
	2	A	I	3		C
Application Date:	May-2	19-05	Jun-()7-05	Jul-	06-05
Time of Day:	11 ai	n	10 ar	n	9 am	
Application Method:	broad	dcast	broad	lcast	broa	dcast
Application Timing:	POST	1	POST	2	LPD	
Applic. Placement:	over	top	overt	cop	dire	cted
Air Temp., Unit:	83	F	78	F	77	F
% Relative Humidity:	40		67		74	
Wind Velocity, Unit:	3	mph	0	mph	0	mph
Dew Presence (Y/N):	n		n		n	
Water Hardness:						
Soil Temp., Unit:	84	F	77	F	73	F
Soil Moisture:	fair		wet		mois	t
% Cloud Cover:	25		0		0	

CROP STAGE AT EACH APPLICATION

	A	В	C
Crop 1 Code, Stage:	GOSHI POST 1	GOSHI POST 2	GOSHI LPD
Stage Scale:	cot1 lf	7 leaf	15 leaf
Height, Unit:	1.5 inch	9 inch	22 inch

WEED STAGE	AT	EACH	APPLICATION
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	A	В	C	
Weed 1 Code, Stage:	DIGSA POST 1	DIGSA POST 2	DIGSA POST 3	
Stage Scale:	< 1 inch	< 5 inch	< 6 inch	
Density, Unit:	15 ydsq	22 ydsq	22 ydsq	
Weed 2 Code, Stage:	IPOLA POST 1	IPOLA POST 2	IPOLA POST 3	
Stage Scale:	< 1 inch	< 5 inch	< 6 inch	
Density, Unit:	1 ydsq	3 ydsq	22 ydsq	
Weed 3 Code, Stage:	MUDNU POST 1	MUDNU POST 2	MUDNU POST 3	
Stage Scale:	none up	none up	< 3 inch	
Density, Unit:	0 ydsq	0 ydsq	150 ydsq	

APPLICATION EQUIPMENT

		A		в		С
Appl. Equipment:	back	pack	back	pack	backp	pack
Operating Pressure:	23		23		23	
Nozzle Type:	flat	fan	flat	fan	flat	fan
Nozzle Size:	11002	2	11002	2	11002	2
Nozzle Spacing, Unit:	18	inch	18	inch	18	inch
Nozzles/Row:	2		2		2	
Band Width, Unit:						
Boom Length, Unit:	4.5	feet	4.5	feet	4.5	feet
Boom Height, Unit:	15	inch	15	inch	15	inch
Ground Speed, Unit:	3	mph	3	mph	3	mph
Incorporation Equip.:						
Hours to Incorp.:						
Incorp. Depth, Unit:						
Carrier:	water	<u>_</u>	wate	r	water	<u>_</u>
Spray Volume, Unit:	14.8	GPA	14.8	GPA	14.8	GPA
Spray pH:						
Propellant:	CO2		CO2		CO2	
Tank Mix (Y/N):	Y		Y		Y	

Trt No	Treatment Application Comment