Evaluating the potential benefits from using fall Valor burndown applications

Trial ID: C1-05 Study Dir.: Culpepper

Location: Ponder (5120) Investigator: Stanley Culpepper

Reps: 3 Plots: 12 by 25 feet

Spray vol: 14.8 gal/ac Mix size: 2 liters (min 1.1575)

Spra	iy voi: 14.8 gai/ac	IVIIX SIZ	e. z iite	15 (IIII	n I. Io	175)					
Trt	Treatment	Form	Form		Rate	Grow	Appl	Amt Product	Plot N	lo. By	Rep
No.	Name	Conc	Type	Rate	Unit	Stg	Code	to Measure	1	2	3
1	Valor	51	WDG	2	oz/a	Fall	Α	2.024 g/mx	101	205	309
	Roundup WeatherMax	5.5	L	22	oz/a	Fall	Α	23.23 ml/mx			
	Roundup WeatherMax	5.5	L	22	oz/a	1 WBP	В	23.23 ml/mx			
	2,4-D	4	L	6	oz/a	1 WBP	В	6.334 ml/mx			
	Roundup Ready Cotton										
2	Valor	51	WDG	2	oz/a	Fall	Α	2.024 g/mx	102	204	307
	Roundup WeatherMax	5.5	L	22	oz/a	Fall	Α	23.23 ml/mx			
	Roundup WeatherMax	5.5	L	22	oz/a	1 WBP	В	23.23 ml/mx			
	2,4-D	4	L	6	oz/a	1 WBP	В	6.334 ml/mx			
	Roundup Ready Corn										
3	Valor	51	WDG	2	oz/a	Fall	Α	2.024 g/mx	103	206	308
	Roundup WeatherMax	5.5		22	oz/a	Fall	Α	23.23 ml/mx			
	Roundup WeatherMax	5.5		22	oz/a	1 WBP		23.23 ml/mx			
	2,4-D		L	6	oz/a	1 WBP	В	6.334 ml/mx			
	Roundup Ready Soybean										
4	Roundup WeatherMax	5.5		22	oz/a	Fall	Α	23.23 ml/mx	104	207	306
	Roundup WeatherMax	5.5			oz/a	1 WBP	_	23.23 ml/mx			
	2,4-D	4	L	6	oz/a	1 WBP	В	6.334 ml/mx			
	Roundup Ready Cotton										
5	Roundup WeatherMax	5.5			oz/a	Fall	Α	23.23 ml/mx	105	209	304
	Roundup WeatherMax	5.5			oz/a	1 WBP		23.23 ml/mx			
	2,4-D	4	L	6	oz/a	1 WBP	В	6.334 ml/mx			
	Roundup Ready Corn										
6	Roundup WeatherMax	5.5			oz/a	Fall	Α	23.23 ml/mx	106	208	305
	Roundup WeatherMax	5.5			oz/a	1 WBP		23.23 ml/mx			
	2,4-D		L	6	oz/a	1 WBP	В	6.334 ml/mx			
	Roundup Ready Soybean										
7	Roundup WeatherMax	5.5				1 WBP		23.23 ml/mx	107	202	303
	2,4-D	4	L	6	oz/a	1 WBP	В	6.334 ml/mx			
	Roundup Ready Cotton										
8	Roundup WeatherMax	5.5		22	oz/a	1 WBP		23.23 ml/mx	108	203	301
	2,4-D	4	L	6	oz/a	1 WBP	В	6.334 ml/mx			
	Roundup Ready Corn										
9	Roundup WeatherMax	5.5		22		1 WBP		23.23 ml/mx	109	201	302
	2,4-D		L	6	oz/a	1 WBP	В	6.334 ml/mx			
	Roundup Ready Soybean	1									

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Lot Code
7.590	g	Valor 51 WDG	
435.495	ml	Roundup WeatherMax 5.5 L	
71.263	ml	2,4-D 4 L	

^{* &#}x27;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.

Mar-03-06 (C01-05) Trial Comments Page 2 of 7

University of Georgia

Evaluating the potential benefits from using fall Valor burndown applications

Trial ID: C1-05 Study Dir.: Culpepper

Location: Ponder (5120) Investigator: Stanley Culpepper

Trial Comments

OBJECTIVE: Determine if there is a benefit from applying Valor in the fall for a spring crop.

Nematode Response:

1. Nematode populations did not statistically vary among herbicide systems.

Soil Nitrate Nitrogen:

1. Soil nitrate nitrogen was not not impacted by herbicide system.

Plant Nitrogen (25 plant samples taken from each plot for each measurement):

1. Percent total nitrogen in the plant did not vary within a crop when comparing herbicide systems.

Soil temperature (one measurement taken from each plot):

1. Herbicide program had no impact on soil temperature at planting.

Stand counts (counts from 8 foot of row in each plot):

1. Herbicide program had no impact on stand counts.

Conclusion:

1. Applying Valor in the fall definitely reduced weed populations in the spring. However, applying Roundup plus 2,4-D (very low rate) one week before planting followed by running a strip rig eliminated much of the weed issue.

Evaluating the potential benefits from using fall Valor burndown applications

Trial ID: C1-05 Study Dir.: Culpepper

Location: Ponder (5120) Investigator: Stanley Culpepper

	acton fonact (5120)			beigacor	beamey	carpepper			ì
Wee	ed Code		Root-		Soil	Total	Total		
Cro	o Code		Knot	Ring	Nitrate	Plant	Plant	soil	crop
Rati	ng Data Type		Juvenils	Nematode	Nitrogen	Nitrogen	Nitrogen	temp	stand cts
Rati	ng Unit		#/100cc	#/100cc	lbs/A		%	F	#/8ft
	ng Date				Apr-04-05	May-02-05	May-18-05	Apr-04-05	Apr-21-05
	Eval Interval				132 DA-A			132 DA-A	
Trt	Treatment	Rate							
	Name	Rate Unit	1	2	3	4	5	6	7
			•						
1	Valor	2 oz/a	31	10	8	6	4	78	6
	Roundup WeatherMax	22 oz/a							
	Roundup WeatherMax	22 oz/a							
	2,4-D	6 oz/a							
	Roundup Ready Cotton								
2	Valor	2 oz/a				5	3	81	22
	Roundup WeatherMax	22 oz/a							
	Roundup WeatherMax	22 oz/a							
	2,4-D	6 oz/a							
	Roundup Ready Corn								
3	Valor	2 oz/a				6	3	78	54
	Roundup WeatherMax	22 oz/a				· ·	Ü	. 0	٠.
	Roundup WeatherMax	22 oz/a							
	2,4-D	6 oz/a							
	Roundup Ready Soybean								
<u> </u>			00					70	
4	Roundup WeatherMax	22 oz/a	38	4	6	5	5	76	7
	Roundup WeatherMax	22 oz/a							
	2,4-D	6 oz/a							
	Roundup Ready Cotton								
5	Roundup WeatherMax	22 oz/a				5	2	79	21
	Roundup WeatherMax	22 oz/a							
	2,4-D	6 oz/a							
	Roundup Ready Corn								
6	Roundup WeatherMax	22 oz/a				7	3	76	53
	Roundup WeatherMax	22 oz/a							
	2,4-D	6 oz/a							
	Roundup Ready Soybean								
7	Roundup WeatherMax	22 oz/a	51	5	6	6	4	77	9
1 '	2,4-D	6 oz/a	31	J	U	U	7	' '	9
Ī		0 02/a							
<u>_</u>	Roundup Ready Cotton		-						
8	Roundup WeatherMax	22 oz/a				5	2	79	22
	2,4-D	6 oz/a							
<u> </u>	Roundup Ready Corn								
9	Roundup WeatherMax	22 oz/a				7	4	76	55
	2,4-D	6 oz/a							
L	Roundup Ready Soybean								
LSD	(P=.05)		92.4	11.1	4.9	1.1	0.7	3.0	6.5
	ndard Deviation		40.8	4.9	2.2	0.6	0.7	1.7	3.7
CV	idara Dovidion		102.53				11.03		13.47
υv			102.03	11.00	J∠. 1 J	10.7	11.03	۷.۷۷	10.47

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

Weed Code Crop Code Rating Data Type Rating Unit Rating Date Trt-Eval Interval Trt Treatment No. Name Rate Unit Roundup WeatherMax Roundup WeatherMax Roundup WeatherMax Roundup Ready Cotton 2 Valor Roundup WeatherMax Roundup WeatherMax Roundup Ready Cotton 2 Valor Roundup WeatherMax Roundup WeatherMax Roundup Ready Cotton 3 Valor Roundup Ready Corn 3 Valor Roundup WeatherMax Roundup Ready Corn 3 Valor Roundup WeatherMax Roundup Ready Corn 3 Valor Roundup WeatherMax Roundup WeatherMax Roundup Ready Corn 40
Rating Data Type Rating Unit Rating Date Trt-Eval Interval Trt Treatment No. Name Rate Unit Roundup WeatherMax Roundup WeatherMax Roundup Ready Cotton 2 Valor Roundup WeatherMax Roundup WeatherMax Roundup WeatherMax Roundup Ready Cotton 2 Valor Roundup WeatherMax Roundup WeatherMax Roundup WeatherMax Roundup Ready Cotton 2 Valor Roundup Ready Cotton 3 Valor 2 oz/a Roundup Ready Corn 3 Valor 2 oz/a 40
Rating Unit Rating Date Trt-Eval Interval Trt Treatment No. Name Rate Unit Roundup WeatherMax Roundup WeatherMax Roundup WeatherMax Roundup Ready Cotton 2 Valor Roundup WeatherMax Roundup WeatherMax Roundup Ready Cotton 2 Valor Roundup WeatherMax Roundup WeatherMax Roundup WeatherMax Roundup Ready Cotton 2 Valor Roundup Ready Cotton 3 Valor 2 Oz/a Roundup Ready Corn 3 Valor 2 Oz/a 40
Rating Date Trt-Eval Interval Trt Treatment No. Name Rate Unit 1 Valor Roundup WeatherMax Roundup WeatherMax Roundup WeatherMax Roundup Ready Cotton 2 Valor Roundup WeatherMax Roundup WeatherMax Roundup WeatherMax Roundup Ready Cotton 2 Valor Roundup WeatherMax Roundup WeatherMax Roundup WeatherMax Roundup WeatherMax Roundup Ready Corn Roundup Ready Corn 3 Valor 2 oz/a 40
Trt-Eval Interval Trt Treatment No. Name Rate Unit 1 Valor Roundup WeatherMax Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a 2,4-D Roundup Ready Cotton 2 Valor Roundup WeatherMax 22 oz/a Roundup Ready Corn 3 Valor 2 oz/a 40
Trt Treatment Rate No. Name Rate Unit 1 Valor 2 oz/a Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a 2,4-D 6 oz/a Roundup Ready Cotton 2 Valor 2 oz/a Roundup WeatherMax 22 oz/a Roundup Ready Corn 3 Valor 2 oz/a 40
No. Name Rate Unit 8 1 Valor 2 oz/a 11 Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a 2,4-D 6 oz/a Roundup Ready Cotton 2 Valor 2 oz/a Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a Roundup Ready Corn 3 Valor 2 oz/a 40
1 Valor 2 oz/a Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a 2,4-D 6 oz/a Roundup Ready Cotton 2 Valor 2 oz/a 21 Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a Roundup Ready Corn 3 Valor 2 oz/a 40
Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a 2,4-D 6 oz/a Roundup Ready Cotton 2 Valor 2 oz/a Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a 2,4-D 6 oz/a Roundup Ready Corn 3 Valor 2 oz/a 40
Roundup WeatherMax 22 oz/a 2,4-D 6 oz/a Roundup Ready Cotton 2 Valor 2 oz/a 21 Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a 2,4-D 6 oz/a Roundup Ready Corn 3 Valor 2 oz/a 40
Roundup WeatherMax 22 oz/a 2,4-D 6 oz/a Roundup Ready Cotton 2 Valor 2 oz/a 21 Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a 2,4-D 6 oz/a Roundup Ready Corn 3 Valor 2 oz/a 40
Roundup Ready Cotton 2 Valor 2 oz/a 21 Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a 2,4-D 6 oz/a Roundup Ready Corn 3 Valor 2 oz/a 40
2 Valor 2 oz/a 21 Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a 2,4-D 6 oz/a Roundup Ready Corn 3 Valor 2 oz/a 40
Roundup WeatherMax 22 oz/a Roundup WeatherMax 22 oz/a 2,4-D 6 oz/a Roundup Ready Corn 3 Valor 2 oz/a 40
Roundup WeatherMax 22 oz/a 2,4-D 6 oz/a Roundup Ready Corn 2 oz/a 40
Roundup WeatherMax 22 oz/a 2,4-D 6 oz/a Roundup Ready Corn 2 oz/a 40
2,4-D 6 oz/a Roundup Ready Corn 3 Valor 2 oz/a 40
3 Valor 2 oz/a 40
3 Valor 2 oz/a 40
Roundup WeatherMax 22 oz/a
2,4-D 6 oz/a
Roundup Ready Soybean
4 Roundup WeatherMax 22 oz/a 15
Roundup WeatherMax 22 oz/a
2,4-D 6 oz/a
Roundup Ready Cotton
5 Roundup WeatherMax 22 oz/a 20
Roundup WeatherMax 22 oz/a
2,4-D 6 oz/a
Roundup Ready Corn
6 Roundup WeatherMax 22 oz/a 33
Roundup WeatherMax 22 oz/a 33
2,4-D 6 oz/a
Roundup Ready Soybean
2,4-D 6 oz/a Roundup Ready Cotton
8 Roundup WeatherMax 22 oz/a 17
2,4-D 6 oz/a
Roundup Ready Corn
9 Roundup WeatherMax 22 oz/a 40
2,4-D 6 oz/a
Roundup Ready Soybean
LSD (P=.05) 14.
Standard Deviation 8.
CV 37.0

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

Evaluating the potential benefits from using fall Valor burndown applications							
Trial ID: C1-05	Study Dir.: Culpepper						
Location: Ponder (5120)	Investigator: Stanley Culpepper						
GENERAL TR	IAL 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	L LOCATION						
City: TyTy	Trial Status: completed						
State/Prov.: GA	Trial Reliability: good						
Postal Code: 31794	Initiation Date: Nov-23-04						
Country: USA	Planned Completion Date:						
	N-Latitude of LL Corner °:						
	: Angle y-axis to North °:						
Directions:							
COOPERA	TOR/LANDOWNER						
Cooperator:							
Org:	-1						
Address 1:							
Address 2:							
City:							
State/Prov:							
Postal Code:							
Conducted Under GLP (Y/N): N	Conducted Under GEP (Y/N): N						
	escription:						
Objective:							
Conclusions:							
CROP AND WE	EED DESCRIPTION						

Weed	Code	Common Name	Scientific Name
1.	OEOLA	cutleaf eveningprimrose	
2.	RAPRA	wild radish	

Crop 1: GOSHI cotton		Variety: DP 555 B/RR
Planting Date: Apr-04-05	Planting Meth	od: strip till
Rate: 3 foot	Depth: 0.5 in	Perennial Age:
Row Spacing: 36 inch	Spacing Within Row: 4	inch Seed Bed: flat
Soil Temperature: 59	F Soil Moisture: moist	Emergence Date: Apr-16-05
		Variety: Dekalb 6760 RR
Planting Date: Apr-04-05	Planting Meth	od: strip till
Rate: 3 foot	Depth: 0.5 in	Perennial Age:
Row Spacing: 36 inch	Spacing Within Row: 4	inch Seed Bed: flat
Soil Temperature: 59	F Soil Moisture: moist	Emergence Date: Apr-16-05
Crop 3: soybe soybear	1	Variety: AG 5905 RR
Planting Date: Apr-04-05	Planting Meth	od: strip till
Rate: 8 foot	Depth: 0.5 in	Perennial Age:
Row Spacing: 36 inch	Spacing Within Row: 4	inch Seed Bed: flat
Soil Temperature: 59	F Soil Moisture: moist	Emergence Date: Apr-16-05

SITE AND DESIGN

Plot Width, Unit: 12 FT Plot Length, Unit: 25 FT Reps: 3

Site Type: research station

Tillage Type: strip till Study Design: SPLIT-PLOT

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.							

SOIL DESCRIPTION

Texture: sand

% Sand: 94 % OM: 1.3 % Silt: 2 pH: 5.9 % Clay: 4 CEC: ____ pH: 5.9 CEC: Soil Name: Tifton sandy loam

Fert. Level: ____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit	

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Туре	Interval	Unit
1.							

Overall Moisture Conditions: .

_____ Distance: ____ Unit: __ Closest Weather Station: __

APPLICATION DESCRIPTION

		731 1 11 1		LOM DEC	
		A	В		
Application Date:	Nov-	-23-04	Mar-	-25-05	
Time of Day:	9 an	n	11 a	am	
Application Method:	broa	adcast	broadcas		
Application Timing:	fall	L	1 WBP		
Applic. Placement:	over	rtop	overtop		
Air Temp., Unit:	67	F	74	F	
% Relative Humidity:	80		46		
Wind Velocity, Unit:	3	mph	3	mph	
Dew Presence (Y/N):	n		n		
Water Hardness:					
Soil Temp., Unit:	67	F	55	F	
Soil Moisture:	wet		fair	<u>-</u>	
% Cloud Cover:	100		100		

CROP STAGE AT EACH APPLICATION

	A	В	
Crop 1 Code, Stage:	GOSHI fall GOSHI 1 WBI		
Stage Scale:	not up	not up	
Height, Unit:	0	0 .	
Crop 2 Code, Stage:	corn fall	corn 1 WBP	
Stage Scale:	not up not up		
Height, Unit:	0	0 .	
Crop 3 Code, Stage:	soybe fall	soybe 1 WBP	
Stage Scale:	not up	not up	
Height, Unit:	0	0 .	

WEED STAGE AT EACH APPLICATION

	A	В	
Weed 1 Code, Stage:	OEOLA fall	OEOLA 1 WBP	
Stage Scale:	up to 8"	up to 18"	
Density, Unit:	6 ydsq	7 ydsq	
Weed 2 Code, Stage:	RAPRA fall	RAPRA 1 WBP	
Stage Scale:	up to 12"	up to 24"	
Density, Unit:	3 ydsq	3 ydsq	

APPLICATION EQUIPMENT

	A			В
Appl. Equipment:	backpack		backpack	
Operating Pressure:	23		23	
Nozzle Type:	flat fan		flat	fan
Nozzle Size:	11002		11002	
Nozzle Spacing, Unit:	18 incl	า	18	inch
Nozzles/Row:	2		2	
Band Width, Unit:				
Boom Length, Unit:	4.5 feet	t	4.5	feet
Boom Height, Unit:	15 incl	n	15	inch
Ground Speed, Unit:	3 mph		3	mph
Incorporation Equip.:				
Hours to Incorp.:				
Incorp. Depth, Unit:				
Carrier:	water		wateı	2
Spray Volume, Unit:	14.8	GPA	14.8	GPA
Spray pH:				
Propellant:	CO2		CO2	
Tank Mix (Y/N):	Y		Y	

Trt No	Treatment Application Comment