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Wild radish, primrose, and wheat response to burndown herbicides.

Trial ID: C26-08 Study Dir.: Stanley Culpepper
Location: Ponder Farm (5161) Investigator: Stanley Culpepper

Reps: 3 Plots: 12 by 20 feet
Spray vol: 14.8 gal/ac Mix size: 1 liters (min .92602)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep 1	2	3
1	Rage D-Tech	6		EC	1	PT/A	BD	A	8.445 ml/mx	101	206	308
	AMS			DF	2.5	LB/A	BD	A	20.24 g/mx			
	COC			L	1	% V/V	BD	A	9.999 ml/mx			
2	Rage D-Tech	6		EC	12	OZ/A	BD	A	6.334 ml/mx	102	201	303
	AMS			DF	2.5	LB/A	BD	A	20.24 g/mx			
	COC			L	1	% V/V	BD	A	9.999 ml/mx			
	WeatherMax	4.5		L	22	OZ/A	BD	A	11.61 ml/mx			
3	WeatherMax	4.5		L	22	OZ/A	BD	A	11.61 ml/mx	103	204	305
4	WeatherMax	4.5		L	22	OZ/A	BD	A	11.61 ml/mx	104	202	301
	2,4-D Amine	4		L	12	OZ/A	BD	A	6.334 ml/mx			
5	WeatherMax	4.5		L	22	OZ/A	BD	A	11.61 ml/mx	105	203	304
	Express	75		DF	0.33	OZ/A	BD	A	0.167 g/mx			
6	WeatherMax	4.5		L	22	OZ/A	BD	A	11.61 ml/mx	106	208	302
	Valor	51		DG	2	OZ/A	BD	A	1.012 g/mx			
7	Non-treated									107	209	307
8	WeatherMax	4.5		L	22	OZ/A	BD	A	11.61 ml/mx	108	207	306
	Aim	2		EC	1	OZ/A	BD	A	0.5279 ml/mx			
9	Gramoxone Inteon	2		L	2.5	PT/A	BD	A	21.11 ml/mx	109	205	309
	COC			L	1	% V/V	BD	A	9.999 ml/mx			
	Diuron	4		L	1.5	PT/A	BD	A	12.67 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
18.474	ml	Rage D-Tech	6	EC	
50.602	g	AMS		DF	
37.496	ml	COC		L	
87.099	ml	WeatherMax	4.5	L	
7.918	ml	2,4-D Amine	4	L	
0.209	g	Express	75	DF	
1.265	g	Valor	51	DG	
0.660	ml	Aim	2	EC	
26.391	ml	Gramoxone Inteon	2	L	
15.834	ml	Diuron	4	L	

* '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.
* 'Per volume' calculations use spray volume= 14.8 gal/ac, mix size= 1 liters.

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Trial Comments

OBJECTIVE: Determine weed and cotton response to burndown herbicides applied in mid-April.

Cotton Response:
1. One month after applying burndown treatments, a strip tillage operation was implemented followed immediately by planting. Irrigation was applied the following day. No cotton injury was noted with any treatment.

Wheat Response:
1. Rage D-Tech had little effect on wheat.
2. All WeatherMax and Gramoxone mixtures provided excellent control.

Primrose Response:
1. At 9 DAT, only the Gramoxone plus diuron mixtures provided adequate control. A rate effect was noted with Rage D-Tech.
2. By 13 DAT, control was excellent with both rates of Rage D-Tech and Gramoxone plus diuron.
3. By 18 DAT, control was excellent with Rage D-Tech, Roundup plus 2,4-D and Gramoxone plus diuron. Control was good with Roundup plus Valor.
4. It is critical that one understands these results are directly related to the maturity of primrose at the time of application.

Wild Radish Response:
1. At 9 DAT, only the Gramoxone plus diuron mixtures provided control greater than 80%. A rate effect was noted with Rage D-Tech.
2. By 13 and 18 DAT, control was excellent with WeatherMax plus Express or Valor and with Gramoxone plus diuron.
3. Control by Rage D-Tech and the 2,4-D mixtures did not exceed 85% control at 18 DAT. Often, phenoxy mixtures take as long as 30 days to control this weed. It is likely that control would have improved over the next 10 days but at this location the lack of rain caused early senescence and later ratings could not be made.

GENERAL COMMENTS:
1. April 17: Primrose and radish were in full bloom. Wheat seed heads were beginning to dry down.
2. May 20, 2008 - Irrigation within 30 hours of planting.

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Weed Code				TRZAW	TRZAW	TRZAW	OEOLA	OEOLA	OEOLA	RAPRA	RAPRA
Crop Code				GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI	GOSHI
Rating Data Type				control	control	control	control	control	control	control	control
Rating Unit				%	%	%	%	%	%	%	%
Rating Date				Apr-26-08	Apr-30-08	May-05-08	Apr-26-08	Apr-30-08	May-05-08	Apr-26-08	Apr-30-08
Trt-Eval Interval				9 DA-A	13 DA-A	18 DA-A	9 DA-A	13 DA-A	18 DA-A	9 DA-A	13 DA-A
Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4	5	6	7	8
1	Rage D-Tech	1	PT/A	0 c	8 b	0 b	75 b	94 ab	95 ab	73 ab	80 bc
	AMS	2.5	LB/A								
	COC	1	% V/V								
2	Rage D-Tech	12	OZ/A	0 c	10 b	0 b	60 bc	93 ab	95 ab	53 cd	70 c
	AMS	2.5	LB/A								
	COC	1	% V/V								
	WeatherMax	22	OZ/A								
3	WeatherMax	22	OZ/A	96 ab	100 a	99 a	0 e	15 d	35 d	48 d	53 d
4	WeatherMax	22	OZ/A	99 a	100 a	99 a	47 cd	83 bc	92 ab	58 bcd	70 c
	2,4-D Amine	12	OZ/A								
5	WeatherMax	22	OZ/A	93 b	97 a	99 a	42 d	73 c	67 c	72 ab	95 a
	Express	0.33	OZ/A								
6	WeatherMax	22	OZ/A	98 ab	100 a	99 a	62 bc	78 c	87 b	68 abc	97 a
	Valor	2	OZ/A								
7	Non-treated			0 c	0 c	0 b	0 e	0 e	0 e	0 e	0 e
8	WeatherMax	22	OZ/A	98 ab	100 a	99 a	47 cd	73 c	73 c	73 ab	88 ab
	Aim	1	OZ/A								
9	Gramoxone Inteon	2.5	PT/A	95 ab	100 a	100 a	93 a	100 a	100 a	83 a	98 a
	COC	1	% V/V								
	Diuron	1.5	PT/A								
LSD (P=.05)				5.4	3.5	0.6	15.7	11.9	10.9	14.6	11.2
Standard Deviation				3.1	2.0	0.3	9.1	6.9	6.3	8.4	6.5
CV				4.83	2.99	0.52	19.23	10.13	8.79	14.29	8.94
Bartlett's X2				4.359	0.868	0.0	8.237	4.812	21.393	7.217	5.014
P(Bartlett's X2)				0.36	0.351	0.001*	0.221	0.439	0.003*	0.407	0.542

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

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Trt No.	Treatment Name	Rate	Rate Unit	9	10	11	12
	Weed Code			RAPRA			
	Crop Code			GOSHI	GOSHI	GOSHI	GOSHI
	Rating Data Type			control	injury	injury	injury
	Rating Unit			%	%	%	%
	Rating Date			May-05-08	May-25-08	Jun-01-08	Jun-18-08
	Trt-Eval Interval			18 DA-A	38 DA-A	45 DA-A	62 DA-A
1	Rage D-Tech	1	PT/A	80 c	0 a	0 a	0 a
	AMS	2.5	LB/A				
	COC	1	% V/V				
2	Rage D-Tech	12	OZ/A	70 d	0 a	0 a	0 a
	AMS	2.5	LB/A				
	COC	1	% V/V				
	WeatherMax	22	OZ/A				
3	WeatherMax	22	OZ/A	77 cd	0 a	0 a	0 a
4	WeatherMax	22	OZ/A	72 cd	0 a	0 a	0 a
	2,4-D Amine	12	OZ/A				
5	WeatherMax	22	OZ/A	99 a	0 a	0 a	0 a
	Express	0.33	OZ/A				
6	WeatherMax	22	OZ/A	99 a	0 a	0 a	0 a
	Valor	2	OZ/A				
7	Non-treated			0 e	0 a	0 a	0 a
8	WeatherMax	22	OZ/A	90 b	0 a	0 a	0 a
	Aim	1	OZ/A				
9	Gramoxone Inteon	2.5	PT/A	100 a	0 a	0 a	0 a
	COC	1	% V/V				
	Diuron	1.5	PT/A				
	LSD (P=.05)			7.8	0.0	0.0	0.0
	Standard Deviation			4.5	0.0	0.0	0.0
	CV			5.88	0.0	0.0	0.0
	Bartlett's X2			11.033	0.0	0.0	0.0
	P(Bartlett's X2)			0.012*	.	.	.

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

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Trial ID: C26-08 Study Dir.: Stanley Culpepper
Location: Ponder Farm (5161) Investigator: Stanley Culpepper

GENERAL TRIAL 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.: Georgia **Trial Reliability:** good
Postal Code: 31795 **Initiation Date:** Apr-17-08
Country: USA **Planned Completion Date:** _____
E-Longitude of LL Corner °: _____ **N-Latitude of LL Corner °:** _____
Altitude of LL Corner: _____ **Unit:** _____ **Angle y-axis to North °:** _____
Directions:

COOPERATOR/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 Description:** _____

Objective:

Conclusions:

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	RAPRA	Wild radish	Raphanus raphanistrum
2.	TRZAW	Winter wheat	Triticum aestivum (winter)
3.	OEOLA	Eveningprimrose, cutleaf	Oenothera laciniata

Crop 1: GOSHI COTTON, SHORT STAPLE **Variety:** Phytogen 485 WSF
Planting Date: May-20-08 **Planting Method:** hill drop
Rate: 2 8 inch **Depth:** 0.5 in **Perennial Age:** ____ _____
Row Spacing: 36 in **Spacing Within Row:** 8.5 in **Seed Bed:** flat
Soil Temperature: 86 F **Soil Moisture:** fair **Emergence Date:** May-25-08

SITE AND DESIGN

Plot Width, Unit: 12 FT **Plot Length, Unit:** 20 FT **Reps:** 3
Site Type: Ponder Research Farm
Tillage Type: Conservation Tillage **Study Design:** RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

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MAINTENANCE

Field Prep./Maintenance:

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

SOIL DESCRIPTION

% Sand: 91 **% OM:** 1.3 **Texture:** sand
% Silt: 3 **pH:** 5.9 **Soil Name:** Tifton sandy loam
% Clay: 6 **CEC:** _____ **Fert. Level:** _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: _____
Closest Weather Station: _____ **Distance:** _____ **Unit:** __

APPLICATION DESCRIPTION

	A
Application Date:	Apr-17-08
Time of Day:	8:00 am
Application Method:	broadcast
Application Timing:	BD
Applic. Placement:	overtop
Air Temp., Unit:	45 F
% Relative Humidity:	84
Wind Velocity, Unit:	0 mph
Dew Presence (Y/N):	Y
Water Hardness:	
Soil Temp., Unit:	45 F
Soil Moisture:	moist
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	GOSHI A
Stage Scale:	preplant
Height, Unit:	0 inch

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WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	RAPRA A
Stage Scale:	2.5 ft
Density, Unit:	1 ydsq
Weed 2 Code, Stage:	TRZAW A
Stage Scale:	24 in
Density, Unit:	22 rowft
Weed 3 Code, Stage:	OEOLA A
Stage Scale:	2 ft
Density, Unit:	2 ydsq

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):	y

Trt No	Treatment Application Comment