

University of Georgia

Comparison of 2,4-D formulations for burndown

Trial ID: C11-05

Study Dir.: Culpepper

Location: Jones Farm

Investigator: Alan C. York

Reps: 3

Plots: 10 by 25 feet

Spray vol: 15 gal/ac

Mix size: 1.6 liters (min .97763)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Form Rate	Rate Unit	Grow Stg	Appl Code	Amt to Measure	Product	Plot No. 1	Plot No. 2	Plot No. 3
1	Untreated										102	207	304
2	Roundup Weathermax	4.5	L		16 fl oz/a		POST	A	13.33 ml/mx		106	203	308
3	Roundup Weathermax	4.5	L		16 fl oz/a		POST	A	13.33 ml/mx		107	201	305
	Weedar 64	3.8	L		4 fl oz/a		POST	A	3.333 ml/mx				
4	Roundup Weathermax	4.5	L		16 fl oz/a		POST	A	13.33 ml/mx		103	202	303
	Weedar 64	3.8	L		8 fl oz/a		POST	A	6.667 ml/mx				
5	Roundup Weathermax	4.5	L		16 fl oz/a		POST	A	13.33 ml/mx		108	205	306
	Weedone LV4	3.8	L		4 fl oz/a		POST	A	3.333 ml/mx				
6	Roundup Weathermax	4.5	L		16 fl oz/a		POST	A	13.33 ml/mx		104	208	307
	Weedone LV4	3.8	L		8 fl oz/a		POST	A	6.667 ml/mx				
7	Roundup Weathermax	4.5	L		16 fl oz/a		POST	A	13.33 ml/mx		105	204	302
	Unison	1.74	L		8.74 fl oz/a		POST	A	7.283 ml/mx				
8	Roundup Weathermax	4.5	L		16 fl oz/a		POST	A	13.33 ml/mx		101	206	301
	Unison	1.74	L		17.47 fl oz/a		POST	A	14.56 ml/mx				

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Lot Code
116.667	ml	Roundup Weathermax 4.5 L	
12.500	ml	Weedar 64 3.8 L	
12.500	ml	Weedone LV4 3.8 L	
27.302	ml	Unison 1.74 L	

* 'Per area' calculations based on spray volume= 15 gal/ac, mix size= 1.6 liters (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

Trial Comments

OBJECTIVE: Compare 2,4-D products and rates when mixed with Roundup for the control of primrose at burndown.

PRIMROSE response:

- All 2,4-D rates and products increased control at least 39% by 43 days after application.
- No differences in 2,4-D products or rates were noticed.

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Weed Code	OEOLA control	OEOLA control	OEOLA control	OEOLA control	OEOLA control			
Rating Data Type	percent	percent	percent	percent	percent			
Rating Unit								
Rating Date	Apr-19-05	Apr-28-05	May-05-05	May-10-05	May-24-05			
Trt-Eval Interval	8 DA-A	17 DA-A	24 DA-A	29 DA-A	43 DA-A			
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5
1	Untreated			0	0	0	0	0
2	Roundup Weathermax	16	fl oz/a	10	40	30	52	57
3	Roundup Weathermax Weedar 64	16 4	fl oz/a fl oz/a	40	68	68	73	98
4	Roundup Weathermax Weedar 64	16 8	fl oz/a fl oz/a	37	65	65	70	98
5	Roundup Weathermax Weedone LV4	16 4	fl oz/a fl oz/a	37	65	62	65	95
6	Roundup Weathermax Weedone LV4	16 8	fl oz/a fl oz/a	40	65	61	73	98
7	Roundup Weathermax Unison	16 8.74	fl oz/a fl oz/a	42	67	66	72	96
8	Roundup Weathermax Unison	16 17.47	fl oz/a fl oz/a	38	63	67	72	99
LSD (P=.05)				6.6	6.1	12.2	10.2	5.3
Standard Deviation				3.8	3.5	7.0	5.8	3.0
CV				12.45	6.42	13.36	9.78	3.75

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

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GENERAL TRIAL INFORMATION

Study Director: Alan C. York	Title: Ext. Weed Science
Affiliation: N. C. State University	
Postal Code: 27695	
Investigator: Stanley Culpepper	Title: Ext. Weed Science
Affiliation: Univ. of Georgia	
Postal Code: 31794	

TRIAL LOCATION

City: Tifton	Trial Status: completed
State/Prov.: GA	Trial Reliability: excellent
Postal Code: 31794	Initiation Date: Apr-11-05
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.	OEOLA	cutleaf eveningprimrose	

Crop 1: none no crop **Variety:** .
Planting Date: _____ **Planting Method:** .
Rate: 0. . **Depth:** 0. . **Perennial Age:** 0. .
Row Spacing: 0. . **Spacing Within Row:** 0. . **Seed Bed:** .
Soil Temperature: 68 F **Soil Moisture:** wet **Emergence Date:** _____

SITE AND DESIGN

Plot Width, Unit: 10 FT **Plot Length, Unit:** 25 FT **Reps:** 3
Site Type: on farm
Tillage Type: none **Study Design:** RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

MAINTENANCE

Field Prep./Maintenance:

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

SOIL DESCRIPTION

% Sand: 95 % OM: 0.67 Texture: sand
 % Silt: 2 pH: 5.8 Soil Name: Tifton sandy loam
 % Clay: 3 CEC: _____ Fert. Level: _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

No.	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: _____

Closest Weather Station: _____ Distance: _____ Unit: _____

APPLICATION DESCRIPTION

	A
Application Date:	Apr-11-05
Time of Day:	11 am
Application Method:	broadcast
Application Timing:	burndown
Applic. Placement:	overtop
Air Temp., Unit:	72 F
% Relative Humidity:	45
Wind Velocity, Unit:	0 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	68 F
Soil Moisture:	wet
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	none .
Stage Scale:	.
Height, Unit:	0. .

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	OEOLA burndown
Stage Scale:	21"
Density, Unit:	8 ydsq

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APPLICATION EQUIPMENT

	A
Appl. Equipment:	backpack
Operating Pressure:	23
Nozzle Type:	flat fan
Nozzle Size:	11002
Nozzle Spacing, Unit:	18 inch
Nozzles/Row:	
Band Width, Unit:	
Boom Length, Unit:	4.5 feet
Boom Height, Unit:	15 inch
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