

University of Georgia

Tomato and large grass response to clethodim formulations.

Trial ID: Veg21-06

Study Dir.: Stanley Culpepper

Location: TVP

Investigator: Stanley Culpepper

Reps: 4

Plots: 6 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 1 liters (min .77168)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code	Amt to Measure	Plot No. By Rep			
									1	2	3	4
1	None								101	203	308	409
2	V-10137	1	EC	9	OZ/A	POST	A	4.751 ml/mx	102	204	310	408
	NIS	L	0.25	% V/V	POST	A	2.5 ml/mx					
3	V-10181	1	EC	9	OZ/A	POST	A	4.751 ml/mx	103	205	304	406
	NIS	L	0.25	% V/V	POST	A	2.5 ml/mx					
4	V-10180	1.6	EC	6	OZ/A	POST	A	3.167 ml/mx	104	206	303	404
	NIS	L	0.25	% V/V	POST	A	2.5 ml/mx					
5	V-10139	1.6	EC	6	OZ/A	POST	A	3.167 ml/mx	105	202	307	410
	NIS	L	0.25	% V/V	POST	A	2.5 ml/mx					
6	V-10137	1	EC	9	OZ/A	POST	A	4.751 ml/mx	106	201	306	405
	NIS	L	0.25	% V/V	POST	A	2.5 ml/mx					
	Sandea	75	DF	0.75	OZ/A	POST	A	0.3795 g/mx				
7	V-10181	1	EC	9	OZ/A	POST	A	4.751 ml/mx	107	210	302	407
	NIS	L	0.25	% V/V	POST	A	2.5 ml/mx					
	Sandea	75	DF	0.75	OZ/A	POST	A	0.3795 g/mx				
8	V-10180	1.6	EC	6	OZ/A	POST	A	3.167 ml/mx	108	209	301	402
	NIS	L	0.25	% V/V	POST	A	2.5 ml/mx					
	Sandea	75	DF	0.75	OZ/A	POST	A	0.3795 g/mx				
9	V-10139	1.6	EC	6	OZ/A	POST	A	3.167 ml/mx	109	207	309	403
	NIS	L	0.25	% V/V	POST	A	2.5 ml/mx					
	Sandea	75	DF	0.75	OZ/A	POST	A	0.3795 g/mx				
10	Select	2	EC	8	OZ/A	POST	A	4.223 ml/mx	110	208	305	401
	COC	L	1	% V/V	POST	A	9.999 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
11.877	ml	V-10137	1	EC	
24.997	ml	NIS		L	
11.877	ml	V-10181	1	EC	
7.918	ml	V-10180	1.6	EC	
7.918	ml	V-10139	1.6	EC	
1.898	g	Sandea	75	DF	
5.279	ml	Select	2	EC	
12.499	ml	COC		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: Evaluate tomato and weed response to several clethodim formulations applied topically.

VISUAL CROP INJURY:

1. No treatment caused any injury.

CRABGRASS RESPONSE:

1. Crabgrass was very large at time of application.
2. At 15 d, V-10137, V-10181, and V-10180 provided control similar to Select + COC. V-10139 was less effective than Select.
3. At 32 d, regrowth occurred in plots treated with all numbered clethodim formulations and control was at least 20% less than that of Select + COC.
4. Mixing Sandea with graminicides did not impact control compared to the respective graminicide applied alone.

GENERAL COMMENTS:

1. Methyl bromide applied in bed over trial area.

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Weed Code		LYPES	LYPES	DIGSA	DIGSA
Crop Code		injury	injury	control	control
Rating Data Type		%	%	%	%
Rating Unit					
Rating Date		Apr-22-06	May-05-06	May-05-06	May-22-06
Trt-Eval Interval		2 DA-A	15 DA-A	15 DA-A	32 DA-A
Trt No.	Treatment Name	Rate	Rate	Rate	Rate
		Unit	Unit	Unit	Unit
		1	2	3	4
1	None	0 a	0 a	0 d	0 c
2	V-10137 NIS	9 OZ/A 0.25 % V/V	0 a	0 a	83 ab 72 b
3	V-10181 NIS	9 OZ/A 0.25 % V/V	0 a	0 a	86 ab 72 b
4	V-10180 NIS	6 OZ/A 0.25 % V/V	0 a	0 a	84 ab 70 b
5	V-10139 NIS	6 OZ/A 0.25 % V/V	0 a	0 a	78 bc 66 b
6	V-10137 NIS Sanda	9 OZ/A 0.25 % V/V 0.75 OZ/A	0 a	0 a	78 bc 66 b
7	V-10181 NIS Sanda	9 OZ/A 0.25 % V/V 0.75 OZ/A	0 a	0 a	86 ab 81 ab
8	V-10180 NIS Sanda	6 OZ/A 0.25 % V/V 0.75 OZ/A	0 a	0 a	79 bc 76 b
9	V-10139 NIS Sanda	6 OZ/A 0.25 % V/V 0.75 OZ/A	0 a	0 a	73 c 77 b
10	Select COC	8 OZ/A 1 % V/V	0 a	0 a	89 a 93 a
LSD (P=.05)		0.0	0.0	8.7	14.4
Standard Deviation		0.0	0.0	6.0	9.9
CV		0.0	0.0	8.13	14.78
Bartlett's X2		0.0	0.0	13.634	12.362
P(Bartlett's X2)		.	.	0.092	0.136

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

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Trial ID: Veg21-06 Study Dir.: Stanley Culpepper
 Location: TVP Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Stanley Culpepper **Title:** EXT. Weed Science
Affiliation: University of Georgia
Postal Code: 31794
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:** good
Postal Code: 31794 **Initiation Date:** Mar-15-06
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.	DIGSA	large crabgrass	

Crop 1: LYPES tomato **Variety:** Crista
Planting Date: Mar-15-06 **Planting Method:** transplant
Rate: 1 18 in **Depth:** 1 in **Perennial Age:** _____
Row Spacing: 6 feet **Spacing Within Row:** 18 inch **Seed Bed:** raised/mulch
Soil Temperature: 81 F **Soil Moisture:** drip **Emergence Date:** _____

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: TVP Research Farm
Tillage Type: Conventional **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: 90 % OM: 6.3 Texture: sand
 % Silt: 8 pH: 1.1 Soil Name: Tifton sandy loam
 % Clay: 2 CEC: _____ Fert. Level: _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

No.	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: drip irrigation

Closest Weather Station: _____ Distance: _____ Unit: __

APPLICATION DESCRIPTION

	A
Application Date:	Apr-20-06
Time of Day:	2 pm
Application Method:	broadcast
Application Timing:	POST
Applic. Placement:	overtop
Air Temp., Unit:	90 F
% Relative Humidity:	44
Wind Velocity, Unit:	2 mph
Dew Presence (Y/N):	
Water Hardness:	
Soil Temp., Unit:	99 F
Soil Moisture:	moist
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	LYPES POST
Stage Scale:	smallfrui
Height, Unit:	10 inch

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	DIGSA POST
Stage Scale:	6T, 11"
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:	4
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:	14.8 GPA
Spray pH:	
Propellant:	CO2
Tank Mix (Y/N):	Y

Trt No	Treatment Application Comment