

University of Georgia

Watermelon and large grass response to clethodim formulations.

Trial ID: Veg23-06
Location: Ponder (5157)

Study Dir.: Stanley Culpepper
Investigator: Stanley Culpepper

Trial Comments

OBJECTIVE: Determine watermelon and weed response to several clethodim formulations applied alone or mixed with Alanap.

VISUAL CROP RESPONSE:

1. Alanap mixtures caused 3 to 7% leaf curling/chlorosis. Melons recovered quickly.

PALMER RESPONSE:

1. Alanap provided good control of Palmer at 10 d and excellent control by 26 d. Mixing clethodim with alanap had no impact.

TEXAS PANICUM RESPONSE:

1. All formulations of clethodim alone provided excellent control late in the season.
2. At 10 d, V-10137 and V10139 was slower than Select + COC but control was similar by 26 DAT.
3. Mixing Alanap with clethodim did cause antagonism ranging from 7 to 20%. V-10139 was the most sensitive to this antagonism followed by V-10137 and then V-10180. V-10181 activity was impacted by Alanap the least.

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Weed Code		CITLA	CITLA	AMAPA	AMAPA	PANTE	PANTE
Crop Code		injury	injury	control	control	control	control
Rating Data Type		%	%	%	%	%	%
Rating Unit							
Rating Date		May-05-06	May-17-06	May-08-06	May-24-06	May-08-06	May-24-06
Trt-Eval Interval		7 DA-A	19 DA-A	10 DA-A	26 DA-A	10 DA-A	26 DA-A
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate
		Unit	Unit	Unit	Unit	Unit	Unit
		1	2	3	4	5	6
1	None						
		0 b	0 a	0 c	0 b	0 f	0 f
2	V-10137 NIS	9 OZ/A 0.25 % V/V	0 b	0 a	0 c	0 b	76 bc
			0 b	0 a	0 c	0 b	97 ab
3	V-10181 NIS	9 OZ/A 0.25 % V/V	0 b	0 a	0 c	0 b	81 ab
			0 b	0 a	0 c	0 b	99 a
4	V-10180 NIS	6 OZ/A 0.25 % V/V	0 b	0 a	0 c	0 b	81 ab
			0 b	0 a	0 c	0 b	98 ab
5	V-10139 NIS	6 OZ/A 0.25 % V/V	0 b	0 a	0 c	0 b	78 bc
			0 b	0 a	0 c	0 b	98 ab
6	V-10137 NIS Alanap	9 OZ/A 0.25 % V/V 5 QT/A	6 a	0 a	79 b	94 a	74 cd
			6 a	0 a	79 b	94 a	83 d
7	V-10181 NIS Alanap	9 OZ/A 0.25 % V/V 5 QT/A	7 a	0 a	82 ab	96 a	70 d
			7 a	0 a	82 ab	96 a	92 bc
8	V-10180 NIS Alanap	6 OZ/A 0.25 % V/V 5 QT/A	7 a	0 a	86 a	96 a	68 de
			7 a	0 a	86 a	96 a	87 cd
9	V-10139 NIS Alanap	6 OZ/A 0.25 % V/V 5 QT/A	3 ab	0 a	82 ab	95 a	64 e
			3 ab	0 a	82 ab	95 a	77 e
10	Select COC	8 OZ/A 1 % V/V	0 b	0 a	0 c	0 b	85 a
			0 b	0 a	0 c	0 b	99 a
LSD (P=.05)			3.7	0.0	5.4	3.4	5.9
Standard Deviation			2.5	0.0	3.7	2.4	4.0
CV			109.34	0.0	11.33	6.2	5.97
Bartlett's X2			0.253	0.0	4.951	8.483	7.696
P(Bartlett's X2)			0.969	.	0.175	0.037*	0.464

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

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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: 94	% OM: 6.4	Texture: Sand	
% Silt: 2	pH: 1.3	Soil Name: Tifton sandy loam	
% Clay: 4	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-28-06
Time of Day:	6:30 pm
Application Method:	Broadcast
Application Timing:	POST
Applic. Placement:	overtop
Air Temp., Unit:	82 F
% Relative Humidity:	34
Wind Velocity, Unit:	0 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	88 F
Soil Moisture:	moist
% Cloud Cover:	20

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	CITLA POST
Stage Scale:	.
Height, Unit:	24 inch

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	AMAPA POST
Stage Scale:	15inch
Density, Unit:	1 ydsq
Weed 2 Code, Stage:	PANTE POST
Stage Scale:	12-15inch
Density, Unit:	4 ydsq

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APPLICATION EQUIPMENT

	A
Appl. Equipment:	backpack
Operating Pressure:	24
Nozzle Type:	flat fan
Nozzle Size:	11002
Nozzle Spacing, Unit:	18 inch
Nozzles/Row:	2
Band Width, Unit:	
Boom Length, Unit:	4.5 ft
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