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Large grass and squash response to several clethodim formulations.

Trial ID: Veg15-06  
Location: Ponder (5139)

Study Dir.: Stanley Culpepper  
Investigator: Stanley Culpepper

Reps: 4                      Plots: 6 by 20 feet  
Spray vol: 14.8 gal/ac      Mix size: 1 liters (min .61734)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep			
									1	2	3	4
1	Untreated								101	204	302	403
2	V-10137 NIS	1 L	EC	9 0.25	OZ/A % V/V	POST	A	4.751 ml/mx 2.5 ml/mx	102	205	301	408
3	V-10181 NIS	1 L	EC	9 0.25	OZ/A % V/V	POST	A	4.751 ml/mx 2.5 ml/mx	103	202	304	402
4	V-10180 NIS	1 L	EC	6 0.25	OZ/A % V/V	POST	A	3.167 ml/mx 2.5 ml/mx	104	208	305	409
5	V-10139 NIS	1.6 L	EC	6 0.25	OZ/A % V/V	POST	A	3.167 ml/mx 2.5 ml/mx	105	201	309	401
6	V-10137 NIS	1 L	EC	4.5 0.25	OZ/A % V/V	POST	A	2.375 ml/mx 2.5 ml/mx	106	207	306	405
7	V-10181 NIS	1 L	EC	4.5 0.25	OZ/A % V/V	POST	A	2.375 ml/mx 2.5 ml/mx	107	209	307	406
8	V-10180 NIS	1.6 L	EC	3 0.25	OZ/A % V/V	POST	A	1.584 ml/mx 2.5 ml/mx	108	206	303	404
9	V-10139 NIS	1.6 L	EC	3 0.25	OZ/A % V/V	POST	A	1.584 ml/mx 2.5 ml/mx	109	203	308	407
10	Select COC	2 L	L	9 1	OZ/A % V/V	POST	A	4.751 ml/mx 9.999 ml/mx	110	210	310	410

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
8.908	ml	V-10137	1	EC	
24.997	ml	NIS		L	
8.908	ml	V-10181	1	EC	
3.959	ml	V-10180	1	EC	
5.939	ml	V-10139	1.6	EC	
1.980	ml	V-10180	1.6	EC	
5.939	ml	Select	2	L	
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.

## Trial Comments

OBJECTIVE: Compare crop tolerance and weed response to several clethodim formulations.

### VISUAL CROP RESPONSE:

1. Injury was less than 2% with all treatments.

### WEED RESPONSE:

Texas Panicum:

1. No differences in control were noted through 17 DAT.

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2. Regrowth began just after the 17 DAT evaluation.
3. At 29 DAT, V-10137 and V-10181 at 9 oz/A were the only products as effective as Select + COC.

Wheat:

1. No real differences were noted at 10 DAT.
2. By 17 DAT, control by V-10137 and V-10181 was generally more effective than V-10180 or V10139.
3. By 29 DAT, V-10137 and V-10181 at 9 oz/A were the only products as effective as Select + COC.

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Weed Code	CUUPE	CUUPE	PANTE	PANTE	PANTE	TRZAW	TRZAW	TRZAW		
Crop Code										
Rating Data Type	injury	injury	control	control	control	control	control	control		
Rating Unit	%	%	%	%	%	%	%	%		
Rating Date	Apr-22-06	Apr-28-06	Apr-28-06	May-05-06	May-17-06	Apr-28-06	May-05-06	May-17-06		
Assessed By	SC	SC	SC	SC	SC	SC	SC	SC		
Trt-Eval Interval	4 DA-A	10 DA-A	10 DA-A	17 DA-A	29 DA-A	10 DA-A	17 DA-A	29 DA-A		
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate	Rate		
		Unit								
			1	2	3	4	5	6		
								7		
								8		
1	Untreated		0 a	0 a	0 a	0 b	0 e	0 c	0 e	0 f
2	V-10137 NIS	9 OZ/A 0.25 % V/V	0 a	0 a	0 a	92 a	87 abc	80 ab	81 ab	83 abc
3	V-10181 NIS	9 OZ/A 0.25 % V/V	0 a	0 a	0 a	90 a	92 ab	81 a	83 ab	86 ab
4	V-10180 NIS	6 OZ/A 0.25 % V/V	2 a	0 a	0 a	92 a	80 cd	81 a	71 bc	67 de
5	V-10139 NIS	6 OZ/A 0.25 % V/V	0 a	0 a	0 a	91 a	83 bcd	79 b	75 bc	73 bcd
6	V-10137 NIS	4.5 OZ/A 0.25 % V/V	0 a	0 a	0 a	89 a	76 d	80 ab	66 c	65 de
7	V-10181 NIS	4.5 OZ/A 0.25 % V/V	2 a	0 a	0 a	90 a	80 cd	80 ab	83 ab	70 cd
8	V-10180 NIS	3 OZ/A 0.25 % V/V	1 a	0 a	0 a	89 a	74 d	80 ab	62 c	65 de
9	V-10139 NIS	3 OZ/A 0.25 % V/V	1 a	0 a	0 a	91 a	76 cd	80 ab	45 d	53 e
10	Select COC	9 OZ/A 1 % V/V	0 a	0 a	0 a	93 a	95 a	80 ab	94 a	94 a
LSD (P=.05)			1.8	0.0	0.0	5.4	10.0	2.1	12.4	13.5
Standard Deviation			1.2	0.0	0.0	3.7	6.9	1.4	8.6	9.3
CV			269.12	0.0	0.0	4.54	9.24	1.97	13.01	14.16
Bartlett's X2			2.162	0.0	0.0	6.846	8.414	0.0	15.467	10.303
P(Bartlett's X2)			0.54	.	.	0.445	0.394	0.001*	0.051	0.244

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

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Trial ID: Veg15-06 Study Dir.: Stanley Culpepper  
 Location: Ponder (5139) 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:** University of Georgia  
**Postal Code:** 31794

**TRIAL LOCATION**

**City:** TyTy **Trial Status:** completed  
**State/Prov.:** GA **Trial Reliability:** excellent  
**Postal Code:** 31795 **Initiation Date:** Mar-10-06  
**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.	PANTE	Texas panicum	
2.	TRZAW	Winter wheat	Triticum aestivum (winter)

**Crop 1:** CUUPE squash **Variety:** Enterprise  
**Planting Date:** Mar-10-06 **Planting Method:** transplanted  
**Rate:** 1 ft **Depth:** 1 in **Perennial Age:** \_\_\_\_\_  
**Row Spacing:** 6 feet **Spacing Within Row:** 12 inch **Seed Bed:** bed/no mulch  
**Soil Temperature:** 69 F **Soil Moisture:** drip **Emergence Date:** \_\_\_\_\_

**SITE AND DESIGN**

**Plot Width, Unit:** 6 FT **Plot Length, Unit:** 20 FT **Reps:** 4  
**Site Type:** Ponder Research Farm  
**Tillage Type:** Conventional **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: 94	% OM: 1.3	Texture: sand	
% Silt: 2	pH: 6.4	Soil Name: Tifton sandy loam	
% Clay: 4	CEC: _____	Fert. Level: _____	

### ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

### MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: drip irrigation

Closest Weather Station: \_\_\_\_\_ Distance: \_\_\_\_\_ Unit: \_\_\_\_

### APPLICATION DESCRIPTION

	A
Application Date:	Apr-18-06
Time of Day:	8 am
Application Method:	broadcast
Application Timing:	POST
Applic. Placement:	overtop
Air Temp., Unit:	71 F
% Relative Humidity:	81
Wind Velocity, Unit:	3 mph
Dew Presence (Y/N):	Y
Water Hardness:	
Soil Temp., Unit:	69 F
Soil Moisture:	drip
% Cloud Cover:	0

### CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	CUUPE POST
Stage Scale:	10-12lf
Height, Unit:	14 inch

### WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	PANTE POST
Stage Scale:	8T, 12"
Density, Unit:	12 ydsq
Weed 2 Code, Stage:	TRZAW POST
Stage Scale:	8T, 10"
Density, Unit:	50 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 in
Ground Speed, Unit:	3 mph
Incorporation Equip.:	
Hours to Incorp.:	
Incorp. Depth, Unit:	
Carrier:	water
Spray Volume, Unit:	
Spray pH:	
Propellant:	CO2
Tank Mix (Y/N):	Y

Trt No	Treatment Application Comment