

University of Georgia

Grass response to Direx, Linex, or Caparol mixtures.

Trial ID: C54-03
Location: Ponder farm

Study Dir.: Culpepper
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: 31794 **Initiation Date:** Aug-18-03
Country: USA

Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	PANTE	Texas panicum	
2.	CASOB	Sicklepod	
3.	DEDTO	Florida beggarweed	

Crop 1: .

Variety: .

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 20 FT **Reps:** 3
Site Type: research station
Tillage Type: none **Study Design:** RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

% Sand: 94 **% OM:** 1.3 **Texture:** sand
% Silt: 2 **pH:** 5.6 **Soil Name:** Tifton sandy loam
% Clay: 4

Overall Moisture Conditions: wet

APPLICATION DESCRIPTION

A	
Application Date:	Aug-19-03
Time of Day:	10 am
Application Method:	broadcast
Application Timing:	6"grass
Applic. Placement:	overtop
Air Temp., Unit:	86 F
% Relative Humidity:	75
Wind Velocity, Unit:	2.5 mph
Dew Presence (Y/N):	n
Soil Temp., Unit:	84 F
Soil Moisture:	moist
% Cloud Cover:	5

CROP STAGE AT EACH APPLICATION

A	
Stage Scale:	.

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WEED STAGE AT EACH APPLICATION

A	
Weed 1 Code, Stage:	PANTE POST
Stage Scale:	4-6 inch
Density, Unit:	6 ydsq
Weed 2 Code, Stage:	CASOB POST
Stage Scale:	3-4 inch
Density, Unit:	4 ydsq
Weed 3 Code, Stage:	DEDTO POST
Stage Scale:	3-12 inch
Density, Unit:	3 ydsq

APPLICATION EQUIPMENT

A	
Appl. Equipment:	backpack
Operating Pressure:	22
Nozzle Type:	flat fan
Nozzle Size:	11002
Nozzle Spacing, Unit:	18 inch
Boom Length, Unit:	4.5 feet
Boom Height, Unit:	15 inch
Ground Speed, Unit:	3 mph
Carrier:	water
Spray Volume, Unit:	14.8 GPA
Propellant:	CO2
Tank Mix (Y/N):	Y

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Weed Code	PANTE	PANTE	CASOB	CASOB	DEDTO	DEDTO		
Rating Data Type	control	control	control	control	control	control		
Rating Unit	percent	percent	percent	percent	percent	percent		
Rating Date	Sep-06-03	Aug-26-03	Sep-06-03	Aug-26-03	Sep-06-03	Aug-26-03		
Trt-Eval Interval	18 DA-A	7 DA-A	18 DA-A	7 DA-A	18 DA-A	7 DA-A		
Trt No.	Treatment	Rate	1	2	3	4	5	6
1	Touchdown	8 oz/a	92.0	78.3	50.0	26.7	73.3	29.7
2	Touchdown	12 oz/a	94.0	87.7	79.7	56.7	87.0	61.3
3	Caparol	1 qt/a	98.3	98.7	99.0	98.7	99.0	98.7
	MSMA	2 lb ai/a						
4	Direx	1 qt/a	93.7	93.7	99.0	98.7	99.0	98.7
	MSMA	2 lb ai/a						
5	Linex	1 qt/a	93.3	96.0	99.0	98.7	99.0	98.7
	MSMA	2 lb ai/a						
6	Caparol	1 qt/a	92.7	92.3	96.3	94.3	99.0	96.0
	MSMA	2 lb ai/a						
	Touchdown	8 oz/a						
7	Direx	1 qt/a	95.3	97.0	99.0	98.7	99.0	98.7
	MSMA	2 lb ai/a						
	Touchdown	8 oz/a						
8	Linex	1 qt/a	99.0	94.7	99.0	98.3	99.0	98.3
	MSMA	2 lb ai/a						
	Touchdown	8 oz/a						
9	Caparol	1 qt/a	99.0	98.7	97.3	95.7	99.0	98.7
	MSMA	2 lb ai/a						
	Touchdown	12 oz/a						
10	Direx	1 qt/a	98.7	98.0	99.0	98.7	99.0	98.7
	MSMA	2 lb ai/a						
	Touchdown	12 oz/a						
11	Linex	1 qt/a	94.0	94.7	98.3	97.7	99.0	97.7
	MSMA	2 lb ai/a						
	Touchdown	12 oz/a						
12	Non-treated		0.0	0.0	0.0	0.0	0.0	0.0
LSD (P=.05)			8.44	7.31	9.12	6.80	1.68	7.65
Standard Deviation			4.99	4.32	5.38	4.01	0.99	4.52
CV			5.7	5.03	6.36	5.0	1.13	5.56
Bartlett's X2			12.599	22.383	13.176	38.058	0.49	48.739
P(Bartlett's X2)			0.126	0.013*	0.01*	0.001*	0.484	0.001*

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

Trial Comments

OBJECTIVE: Compare layby herbicide options for the control of Texas panicum and evaluate the potential to manage large grass with conventional layby chemistry if we added low rates of glyphosate in as a tank mix partner?

WEED RESPONSE:

Texas panicum:

- 1) Excellent control was noted by all treatments at 17 d after treatment. However, several treatments did have plants beginning to sucker back out. No late emergence was noted.
- 2) By 37 d after treatment, Touchdown at 8 and 12 oz/A had plants with regrowth. All other treatments provided excellent control.

Sicklepod and beggarweed (remember 2,4-DB had previously been applied):

- 1) 8 and 12 oz/A of Touchdown provided at most unacceptable control. All other treatments provided excellent control.

CONCLUSIONS:

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1) Conventional chemistry controlled panicum more effectively than usual, thus, there is no way to know if the addition of glyphosate with the conventional treatments would be of benefit.

GENERAL COMMENTS: Land was disked in mid july. 2,4-DB at 1 pt/a was applied ovetop of trial first week of August to stunt or eliminate broadleaf weeds as focus of the trial was on grass.