

University of Georgia

Comparison of DCPA formulations.

Trial ID: Onion2-03
Location: VORF

Study Dir.:
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: Vidalia **Trial Status:** completed
State/Prov.: GA **Trial Reliability:** good
Postal Code: . **Initiation Date:** Oct-21-02
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.	OEOLA	cutleaf eveningprimrose	
2.	LAMAM	henbit	
3.	COPSS	swinecress	

Crop 1: ALLCE ONION **Variety:** Grannex 33 PRR
Planting Date: Oct-21-02 **Planting Method:** conventional
Rate: 1 3" **Depth:** 0.25 in
Row Spacing: 12 inch **Seed Bed:** bedded
Soil Temperature: 79 F **Soil Moisture:** irrigated **Emergence Date:** Oct-31-02

SITE AND DESIGN

Plot Width, Unit: 12 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: research station
Tillage Type: conventional **Study Design:** RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

% Sand: 86 **% OM:** 0.47 **Texture:** loamy sand
% Silt: 10 **pH:** 5.8
% Clay: 4

APPLICATION DESCRIPTION

	A
Application Date:	Oct-21-02
Time of Day:	2 PM
Application Method:	broadcast
Application Timing:	PRE
Applic. Placement:	surface
Air Temp., Unit:	80 F
% Relative Humidity:	47
Wind Velocity, Unit:	1 mph
Dew Presence (Y/N):	n
Soil Temp., Unit:	79 F
Soil Moisture:	moist
% Cloud Cover:	90

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	ALLCE PRE
Stage Scale:	.
Height, Unit:	0. .

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WEED STAGE AT EACH APPLICATION

A	
Weed 1 Code, Stage:	OEOLA PRE
Stage Scale:	.
Density, Unit:	12 ydsq
Weed 2 Code, Stage:	LAMAM PRE
Stage Scale:	.
Density, Unit:	2 ydsq
Weed 3 Code, Stage:	COPSS PRE
Stage Scale:	.
Density, Unit:	3 ydsq

APPLICATION EQUIPMENT

A	
Appl. Equipment:	backpack
Operating Pressure:	23
Nozzle Type:	flat fan
Nozzle Size:	11002
Nozzle Spacing, Unit:	18 inch
Nozzles/Row:	2
Boom Length, Unit:	4.5 feet
Boom Height, Unit:	15 inch
Ground Speed, Unit:	3 mph
Carrier:	water

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Weed Code		ALLCE	ALLCE	ALLCE	OEOLA	OEOLA	OEOLA	LAMAM	COPSS
Crop Code		injury	injury	injury	control	control	control	control	control
Rating Data Type		percent	percent	percent	percent	percent	percent	percent	percent
Rating Unit									
Rating Date		Nov-13-02	Jan-14-03	Feb-15-03	Nov-13-02	Jan-14-03	Feb-15-03	Nov-13-02	Nov-13-02
Trt-Eval Interval		23 DA-A	85 DA-A	117 DA-A	23 DA-A	85 DA-A	117 DA-A	23 DA-A	23 DA-A
Trt Treatment	Rate	1	2	3	4	5	6	7	8
No. Name	Unit								
1 Dacthal	3 lb ai/a	0.0	0.0	0.0	56.8	40.0	32.5	90.8	60.0
Prowl	1.8 pt/a								
2 Dacthal	3 lb ai/a	0.0	0.0	0.0	59.0	43.8	37.5	94.3	61.8
Prowl	1.8 pt/a								
3 Dacthal	4.5 lb ai/a	5.0	0.0	0.0	67.3	50.0	47.0	98.0	77.0
Prowl	1.8 pt/a								
4 Dacthal	4.5 lb ai/a	1.3	1.5	0.0	67.8	50.0	46.0	98.0	76.5
Prowl	1.8 pt/a								
5 Dacthal	6 lb ai/a	2.5	0.0	0.0	73.3	58.5	57.5	99.0	75.5
Prowl	1.8 pt/a								
6 Dacthal	6 lb ai/a	3.8	0.0	0.0	76.0	59.5	61.0	99.0	80.3
Prowl	1.8 pt/a								
7 No Dacthal		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prowl	1.8 pt/a								
LSD (P=.05)		5.48	1.68	0.00	7.44	8.77	12.81	7.15	8.39
Standard Deviation		3.69	1.13	0.00	5.01	5.90	8.62	4.81	5.64
CV		206.45	529.15	0.0	8.76	13.69	21.44	5.81	9.17
Bartlett's X2		1.845	0.0	0.0	7.459	12.509	9.953	10.422	8.272
P(Bartlett's X2)		0.605	.	.	0.189	0.028*	0.077	0.015*	0.142

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

Trial Comments

OBJECTIVE: Evaluate DCPA formulations in onions:

Onion response:

1) No differences in DCPA formulations was noted. Onion injury was non-existent.

Primrose response:

- 1) Initial control by Dacthal was brief.
- 2) Control by Dacthal was unacceptable, regardless of rate or formulation.
- 2) No differences in formulations were noted.

Henbit control:

- 1) Control 23 d after application was excellent, regardless of rate.
- 2) Later ratings could not be made due to poor control of primrose.

Swinecress control:

- 1) Control was similar among Dacthal formulations.
- 2) Dacthal at 4.5 and 6 LB ai/A was more effective than 3 lbs active.
- 3) Late-season ratings couldnot be made due to poor primrose control.

GENERAL COMMENTS:

- 1) (Nov-13-02): Prowl (1.8 pt/A) applied over the entire trial. Too much primrose had already emerged to have a chance to manage.
- 2) Fall rainfall was intense and may have reduced primrose control by Dacthal.