

University of Georgia

Seeded onion tolerance to linuron applied POST.

Trial ID: Onion6-03
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
Country: USA **Initiation Date:** Nov-21-02

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.	RUMAA	red sorrel	

Crop 1: ALLCE ONION **Variety:** Grannex 33 PRR
Planting Date: Oct-21-02 **Planting Method:** conventional
Rate: 1 3 inch **Depth:** 0.25 in
Row Spacing: 12 inch **Seed Bed:** bedded
Soil Temperature: 69 F **Soil Moisture:** moist **Emergence Date:** Nov-21-02

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 20 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:	Nov-21-02
Time of Day:	3 PM
Application Method:	broadcast
Application Timing:	POST
Applic. Placement:	overtop
Air Temp., Unit:	72 F
% Relative Humidity:	25
Wind Velocity, Unit:	2 mph
Dew Presence (Y/N):	y
Soil Temp., Unit:	69 F
Soil Moisture:	moist
% Cloud Cover:	100

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	ALLCE POST
Stage Scale:	V2
Height, Unit:	2.5 inch

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WEED STAGE AT EACH APPLICATION

A	
Weed 1 Code, Stage:	OEOLA POST
Stage Scale:	0.75 inch
Density, Unit:	6 ydsq
Weed 2 Code, Stage:	RUMAA POST
Stage Scale:	PRE
Density, Unit:	. .

APPLICATION EQUIPMENT

A	
Appl. Equipment:	backpack
Operating Pressure:	23
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		onion	onion	onion	onion	OEOLA	OEOLA	OEOLA	OEOLA		
Crop Code		injury	injury	injury	injury	control	control	control	control		
Rating Data Type		percent	percent	percent	percent	percent	percent	percent	percent		
Rating Unit											
Rating Date		Nov-28-02	Jan-14-03	Feb-15-03	Mar-27-03	Nov-28-02	Jan-14-03	Feb-15-03	Mar-27-03		
Trt-Eval Interval		7 DA-A	54 DA-A	86 DA-A	126 DA-A	7 DA-A	54 DA-A	86 DA-A	126 DA-A		
Trt	Treatment										
No.	Name	Rate	Unit	1	2	3	4	5	6	7	8
1	Non-treated			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	Linuron	0.5	lb ai/a	9.8	31.3	58.3	33.3	89.5	100.0	90.3	95.0
3	Linuron	1.0	lb ai/a	11.3	95.0	94.3	89.5	96.8	100.0	99.0	99.0
4	Linuron	2	lb ai/a	9.8	100.0	99.3	99.0	92.0	100.0	99.3	99.0
LSD (P=.05)				5.48	13.87	9.93	13.37	13.46	0.00	1.53	0.00
Standard Deviation				3.42	8.67	6.21	8.36	8.42	0.00	0.96	0.00
CV				44.55	15.33	9.87	15.08	12.1	0.0	1.33	0.0
Bartlett's X2				0.008	0.697	13.241	0.137	2.24	0.0	3.557	0.0
P(Bartlett's X2)				0.996	0.404	0.001*	0.711	0.326	.	0.059	.

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

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Weed Code	RUMAA		
Crop Code			
Rating Data Type	control		
Rating Unit	percent		
Rating Date	Mar-27-03		
Trt-Eval Interval	126 DA-A		
Trt No.	Treatment Name	Rate	Unit
			9
1	Non-treated		0.0
2	Linuron	0.5 lb ai/a	17.5
3	Linuron	1.0 lb ai/a	99.0
4	Linuron	2 lb ai/a	99.0
LSD (P=.05)			4.00
Standard Deviation			2.50
CV			4.64
Bartlett's X2			0.0
P(Bartlett's X2)			.

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

Trial Comments

OBJECTIVE: Evaluate potential for linuron applied POST in seeded onion.

Onion response:

1) Linuron at 0.5 lb ai/A is not a valid option in seeded onion due to significant onion injury.

Primrose response:

1) Primrose control was excellent with all rates of linuron.

Red sorrel:

1) Emergence was late in the crop but linuron at 1 lb ai/A and above provided excellent control.