

University of Georgia

Seeded onion response to low rates of Reflex and Cadre simulating carryover.

Trial ID: Onion3-08

Study Dir.: Jona Edwards

Location: VORF

Investigator: Stanley Culpepper

Reps: 3

Plots: 6 by 20 feet

Spray vol: 14.8 gal/ac

Mix size: 1 liters (min .46301)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Form Rate	Rate Unit	Grow Stg	Appl Code	Amt to Measure	Product	Plot No. By Rep		
											1	2	3
1	Reflex	2	L		0.05	PT/A	PRE	A	0.4223 ml/mx		101	202	311
2	Reflex	2	L		0.1	PT/A	PRE	A	0.8445 ml/mx		102	207	312
3	Reflex	2	L		0.2	PT/A	PRE	A	1.689 ml/mx		103	204	302
4	Reflex	2	L		0.4	PT/A	PRE	A	3.378 ml/mx		104	206	310
5	Non-treated										105	203	307
6	Cadre	70	DG		0.045	OZ/A	PRE	A	.02277 g/mx		106	211	301
7	Cadre	70	DG		0.09	OZ/A	PRE	A	.04554 g/mx		107	212	308
8	Cadre	70	DG		0.18	OZ/A	PRE	A	.09108 g/mx		108	209	303
9	Cadre	70	DG		0.36	OZ/A	PRE	A	0.1822 g/mx		109	210	305
10	Cadre	70	DG		0.72	OZ/A	PRE	A	0.3643 g/mx		110	205	306
11	Direx	4	L		0.5	PT/A	PRE	A	4.223 ml/mx		111	201	304
12	Non-treated										112	208	309

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
7.917	ml	Reflex	2	L	
0.882	g	Cadre	70	DG	
5.278	ml	Direx	4	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.

Trial Comments

OBJECTIVE: Determine impact of low rates of Cadre, Reflex, and Direx to seeded onions.

Onion Response:

1. Seeded onion injury to the lowest rate of Reflex (0.05 pt/A) reached 20% during Dec. Injury from 0.1 to 0.4 pt/A ranged from 33 to 87%.
2. Cadre 70 DG at 0.045 oz/A injured onions 30% in Dec.
3. Direx at 0.5 pt/A injured onion at most 27% in Dec. Onions recovered well by mid-Feb.

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Crop Code	ALLCE	ALLCE	ALLCE	ALLCE
Rating Data Type	injury	injury	injury	injury
Rating Date	Nov-05-07	Dec-07-07	Dec-20-08	Feb-05-08
Trt Treatment				
No. Name	1	2	3	4
Rate Unit				
1 Reflex 0.05 PT/A	7 b	8 de	20 d	7 c
2 Reflex 0.1 PT/A	12 ab	22 d	33 cd	15 bc
3 Reflex 0.2 PT/A	10 b	40 c	45 c	28 b
4 Reflex 0.4 PT/A	15 a	70 b	87 ab	77 a
5 Non-treated	0 c	0 e	0 e	0 c
6 Cadre 0.045 OZ/A	7 b	25 cd	30 d	15 bc
7 Cadre 0.09 OZ/A	7 b	57 b	83 b	28 b
8 Cadre 0.18 OZ/A	7 b	90 a	96 ab	80 a
9 Cadre 0.36 OZ/A	8 b	90 a	96 ab	87 a
10 Cadre 0.72 OZ/A	10 b	90 a	99 a	87 a
11 Direx 0.5 PT/A	7 b	12 de	27 d	7 c
12 Non-treated	0 c	0 e	0 e	0 c
LSD (P=.05)	4.5	16.3	13.5	13.6
Standard Deviation	2.7	9.6	8.0	8.0
CV	36.28	23.01	15.54	22.36
Bartlett's X2	1.238	16.125	10.019	3.13
P(Bartlett's X2)	0.99	0.013*	0.264	0.926

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: 86	% OM: 5.8	Texture: loamy sand
% Silt: 10	pH: 0.47	Soil Name: _____
% 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: _____

Closest Weather Station: _____ Distance: _____ Unit: _____

APPLICATION DESCRIPTION

	A
Application Date:	Oct-22-08
Time of Day:	10:30 am
Application Method:	broadcast
Application Timing:	pre-emer
Applic. Placement:	on soil
Air Temp., Unit:	75.8 f
% Relative Humidity:	86
Wind Velocity, Unit:	2.7 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	73.6 f
Soil Moisture:	moist
% Cloud Cover:	100

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	ALLCE PRE
Stage Scale:	not up
Height, Unit:	0 in

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WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	
Stage Scale:	
Density, Unit:	
Weed 2 Code, Stage:	
Stage Scale:	
Density, Unit:	
Weed 3 Code, Stage:	
Stage Scale:	
Density, Unit:	

APPLICATION EQUIPMENT

	A
Appl. Equipment:	backpack
Operating Pressure:	24
Nozzle Type:	flat fan
Nozzle Size:	11002
Nozzle Spacing, Unit:	18 in
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:	14.8 GPA
Spray pH:	
Propellant:	CO2
Tank Mix (Y/N):	Y

Trt No	Treatment Application Comment