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Transplant Onion Response to Various Rates of Valor After Transplant.

Trial ID: Onion4-05 Study Dir.: Stanley Culpepper
Location: VORF 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	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep 1	2	3	4
1	Valor	51	WDG	1	oz/a	at trans	A	0.506 g/mx	101	204	308	406
2	Valor	51	WDG	1.5	oz/a	at trans	A	0.759 g/mx	102	201	307	404
3	Valor	51	WDG	2	oz/a	at trans	A	1.012 g/mx	103	207	306	403
4	Valor	51	WDG	2.5	oz/a	at trans	A	1.265 g/mx	104	206	305	407
5	Valor	51	WDG	3	oz/a	at trans	A	1.518 g/mx	105	203	309	408
6	Valor	51	WDG	1	oz/a	at trans	A	0.506 g/mx	106	209	301	409
	Prowl H20	3.8	L	1	qt/a	at trans	A	16.89 ml/mx				
7	Valor	51	WDG	1.5	oz/a	at trans	A	0.759 g/mx	107	208	302	401
	Prowl H20	3.8	L	1	qt/a	at trans	A	16.89 ml/mx				
8	Goal	2	L	1	qt/a	at trans	A	16.89 ml/mx	108	205	303	405
	Prowl H20	3.8	L	1	qt/a	at trans	A	16.89 ml/mx				
9	Non-treated								109	202	304	402

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Lot Code
7.907	g	Valor 51 WDG	
63.338	ml	Prowl H20 3.8 L	
21.113	ml	Goal 2 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 onion and weed response to Valor herbicide programs.

Visual Onion Response:
1. As in the past, initial injury is burn however by late-season injury is a response to stunting.
2. At late-season, onions were stunted 6 to 12% by Valor at 1 to 1.5 oz/A. Greater stunting was noted with 2, 2.5, and 3 oz/A of Valor.
3. Mixing Prowl with Valor did not increase onion injury.

Weed Response:
1. Henbit and swinecress control was excellent throughout the season with all herbicide programs.
2. Early and mid-season control of primrose was excellent with all herbicide programs.
3. By late-season, Valor at 1 oz/A with or without Prowl were the only programs providing less than 92% control.

Onion Stands:
1. Valor at 2.5 and 3 oz/A reduced onion stands.

CONCLUSIONS:
1. We need to get 1.5 oz/A of Valor in the program but figure out how to eliminate the 6 to 12% stunting noted at harvest. Work on sequential applications.

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Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4	5	6	7	8
	Weed Code									LAMAM	LAMAM
	Crop Code			onion	onion	onion	onion	onion	onion		
	Rating Data Type			injury	injury	injury	injury	injury	injury	control	control
	Rating Unit			percent	percent	percent	percent	percent	percent	percent	percent
	Rating Date			Dec-21-04	Dec-27-04	Jan-08-04	Jan-23-04	Feb-25-05	Mar-31-05	Feb-25-05	Mar-31-05
	Trt-Eval Interval			14 DA-A	20 DA-A	-334 DA-	-319 DA-	80 DA-A	114 DA-A	80 DA-A	114 DA-A
1	Valor	1	oz/a	5	8	3	3	12	6	100	100
2	Valor	1.5	oz/a	5	11	4	4	12	8	100	100
3	Valor	2	oz/a	7	13	10	11	30	19	100	100
4	Valor	2.5	oz/a	6	12	11	9	28	26	100	100
5	Valor	3	oz/a	12	15	11	11	37	31	100	100
6	Valor	1	oz/a	9	13	7	7	14	10	100	100
	Prowl H20	1	qt/a								
7	Valor	1.5	oz/a	4	6	0	4	6	5	100	100
	Prowl H20	1	qt/a								
8	Goal	1	qt/a	18	17	11	6	21	12	100	100
	Prowl H20	1	qt/a								
9	Non-treated			0	0	0	0	0	0	0	0
	LSD (P=.05)			5.7	5.6	4.9	6.6	13.3	7.7	0.0	0.0
	Standard Deviation			3.9	3.8	3.3	4.5	9.1	5.3	0.0	0.0
	CV			54.03	36.52	54.26	75.8	51.53	41.48	0.0	0.0

Means followed by same letter do not significantly differ (P=.05, LSD)

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Weed Code				COPSS	COPSS	OEOLA	OEOLA	OEOLA	
Crop Code									onion
Rating Data Type				control	control	control	control	control	stand cts
Rating Unit				percent	percent	percent	percent	percent	#/8'
Rating Date				Feb-25-05	Mar-31-05	Feb-25-05	Mar-31-05	May-17-05	Mar-31-05
Trt-Eval Interval				80 DA-A	114 DA-A	80 DA-A	114 DA-A	161 DA-A	114 DA-A
Trt No.	Treatment Name	Rate	Rate Unit	9	10	11	12	13	14
1	Valor	1	oz/a	100	100	100	99	88	29
2	Valor	1.5	oz/a	100	100	100	100	100	27
3	Valor	2	oz/a	100	100	100	100	99	24
4	Valor	2.5	oz/a	100	100	100	100	100	20
5	Valor	3	oz/a	100	100	100	100	100	21
6	Valor	1	oz/a	100	100	99	98	84	26
	Prowl H20	1	qt/a						
7	Valor	1.5	oz/a	100	100	100	100	98	29
	Prowl H20	1	qt/a						
8	Goal	1	qt/a	100	100	100	100	92	24
	Prowl H20	1	qt/a						
9	Non-treated			0	0	0	0	0	27
LSD (P=.05)				0.0	0.0	1.0	2.8	10.0	4.7
Standard Deviation				0.0	0.0	0.7	1.9	6.9	3.2
CV				0.0	0.0	0.75	2.14	8.12	12.92

Means followed by same letter do not significantly differ (P=.05, LSD)

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Trial ID: Onion4-05 Study Dir.: Stanley Culpepper
Location: VORF Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Stanley Culpepper **Title:** Ex. weed science
Affiliation: University of Georgia
Postal Code: 31973

Investigator: Stanley Culpepper **Title:** Ex. weed science
Affiliation: University of Georgia
Postal Code: 31793

TRIAL LOCATION

City: Vidalia **Trial Status:** completed
State/Prov.: GA **Trial Reliability:** excellent
Postal Code: 31794 **Initiation Date:** Dec-03-04
Country: U.S.A. **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.	OEOLA	cutleaf eveningprimrose	
2.	LAMAM	henbit	
3.	COPSS	swinecress	

Crop 1: ALLCE ONION **Variety:** Grannex 33 PRR
Planting Date: Dec-03-04 **Planting Method:** transplant
Rate: 3 ft **Depth:** 1 in **Perennial Age:** ____ _____
Row Spacing: 15 inch **Spacing Within Row:** 4 inch **Seed Bed:** flat
Soil Temperature: 66 F **Soil Moisture:** irrigated **Emergence Date:** _____

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

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: 86 **% OM:** 0.47 **Texture:** loamy sand
% Silt: 10 **pH:** 5.8 **Soil Name:** _____
% Clay: 4 **CEC:** _____ **Fert. Level:** _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: .
Closest Weather Station: _____ **Distance:** _____ **Unit:** __

APPLICATION DESCRIPTION

	A
Application Date:	Dec-07-04
Time of Day:	10 am
Application Method:	Broadcast
Application Timing:	at trans
Applic. Placement:	overtop
Air Temp., Unit:	72 F
% Relative Humidity:	64
Wind Velocity, Unit:	4 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	66 F
Soil Moisture:	moist
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	ALLCE at trans
Stage Scale:	transplan
Height, Unit:	3 inch

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WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	OEOLA at trans
Stage Scale:	not up
Density, Unit:	15 ydsq
Weed 2 Code, Stage:	LAMAM at trans
Stage Scale:	not up
Density, Unit:	3 ydsq
Weed 3 Code, Stage:	COPSS at trans
Stage Scale:	not up
Density, Unit:	2 ydsq

APPLICATION EQUIPMENT

	A
Appl. Equipment:	backpack
Operating Pressure:	23
Nozzle Type:	flat fan
Nozzle Size:	11002
Nozzle Spacing, Unit:	18 inch
Nozzles/Row:	
Band Width, Unit:	
Boom Length, Unit:	4.5 feet
Boom Height, Unit:	15 inch
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