

# University of Georgia

Seeded onion response to Goal 2XL or 4F alone or mixed with Prowl 3.3EC or H20.

Trial ID: Onion6-05

Study Dir.: Stanley Culpepper

Location: VORF

Investigator: Stanley Culpepper

Reps: 4

Plots: 6 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 1 liters (min .77168)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Appl Stg	Amt Code	Product to Measure	Plot No. By Rep				
									1	2	3	4	
1	Pendimax	3.3	EC	2	PT/A	1	if	A	16.89 ml/mx	101	204	306	403
2	Prowl H20	3.8	L	1.76	PT/A	1	if	A	14.86 ml/mx	102	201	310	401
3	Goal 2 XL	2	L	3	OZ/A	1	if	A	1.584 ml/mx	103	208	305	411
4	Goal 4 F	4	F	1.5	OZ/A	1	if	A	0.7918 ml/mx	104	202	311	405
5	Goal 2 XL	2	L	6	OZ/A	1	if	A	3.167 ml/mx	105	206	302	412
6	Goal 4 F	4	F	3	OZ/A	1	if	A	1.584 ml/mx	106	205	309	408
7	Non-treated									107	209	303	409
8	Pendimax	3.3	EC	2	PT/A	1	if	A	16.89 ml/mx	108	210	301	404
	Goal 2 XL	2	L	6	OZ/A	1	if	A	3.167 ml/mx				
9	Prowl H20	3.8	L	1.76	PT/A	1	if	A	14.86 ml/mx	109	211	307	410
	Goal 2 XL	2	L	6	OZ/A	1	if	A	3.167 ml/mx				
10	Pendimax	3.3	EC	2	PT/A	1	if	A	16.89 ml/mx	110	207	304	402
	Goal 4 F	4	F	3	OZ/A	1	if	A	1.584 ml/mx				
11	Prowl H20	3.8	EC	1.76	PT/A	1	if	A	14.86 ml/mx	111	212	308	407
	Goal 4 F	4	F	3	OZ/A	1	if	A	1.584 ml/mx				
12	Non-treated									112	203	312	406

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
63.338	ml	Pendimax	3.3	EC	
37.158	ml	Prowl H20	3.8	L	
13.857	ml	Goal 2 XL	2	L	
6.928	ml	Goal 4 F	4	F	
18.579	ml	Prowl H20	3.8	EC	

\* '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: Evaluate seeded onion tolerance to various pendimethalin/oxlyflourfen applications.

#### VISUAL INJURY:

- At 8 DAT no injury was noted but injury, both visual chlorosis and stunting, was noted by 26 DAT.
- Injury from pendimethalin or Goal at recommended use rates caused little visual injury.
- No differences among oxlyflourfen products or pendimethalin products were noted.
- Combinations of pendimethalin plus oxlyflourfen were generally more injurious than either product applied alone.
- Injury from higher rates of oxlyflourfen were greater than with lower rates initially; however, injury was similar later in the season.

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Crop Code	onion injury percent	onion injury percent	onion injury percent	onion injury percent	onion stunting percent	onion stunting percent		
Rating Data Type	Nov-22-05	Dec-10-05	Dec-20-05	Jan-08-06	Jan-08-06	Mar-22-06		
Rating Unit	AM	SC	AM	SC	AM	SC		
Rating Date	8 DA-A	26 DA-A	36 DA-A	55 DA-A	55 DA-A	128 DA-A		
Assessed By								
Trt-Eval Interval								
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate		
		Unit						
			1	2	3	4	5	6
1	Pendimax	2 PT/A	0 a	2 de	5 de	7 b-e	5 de	0 a
2	Prowl H20	1.76 PT/A	0 a	3 cde	5 de	5 de	4 e	0 a
3	Goal 2 XL	3 OZ/A	0 a	7 cd	9 cd	8 a-d	5 de	0 a
4	Goal 4 F	1.5 OZ/A	0 a	8 c	11 c	5 cde	5 de	0 a
5	Goal 2 XL	6 OZ/A	0 a	17 b	14 bc	10 a-d	8 cd	0 a
6	Goal 4 F	3 OZ/A	0 a	18 ab	16 b	7 b-e	6 de	0 a
7	Non-treated		0 a	0 e	0 e	0 e	0 f	0 a
8	Pendimax	2 PT/A	0 a	24 a	28 a	14 ab	10 ab	0 a
	Goal 2 XL	6 OZ/A						
9	Prowl H20	1.76 PT/A	0 a	18 ab	28 a	15 a	11 a	0 a
	Goal 2 XL	6 OZ/A						
10	Pendimax	2 PT/A	0 a	21 ab	26 a	13 ab	9 bc	0 a
	Goal 4 F	3 OZ/A						
11	Prowl H20	1.76 PT/A	0 a	16 b	28 a	12 abc	10 ab	0 a
	Goal 4 F	3 OZ/A						
12	Non-treated		0 a	0 e	0 e	0 e	0 f	0 a
LSD (P=.05)			0.0	5.3	4.8	6.2	2.3	0.0
Standard Deviation			0.0	3.7	3.3	4.3	1.6	0.0
CV			0.0	33.45	23.4	54.7	25.97	0.0
Bartlett's X2			0.0	8.994	7.57	8.472	0.101	0.0
P(Bartlett's X2)			.	0.438	0.477	0.487	0.999	.

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

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Trial ID: Onion6-05 Study Dir.: Stanley Culpepper  
Location: VORF Investigator: Stanley Culpepper

### GENERAL TRIAL INFORMATION

**Study Director:** Stanley Culpepper **Title:** Ext. Weed Science  
**Affiliation:** Univ. of Georgia  
**Postal Code:** 31794  
**Investigator:** Stanley Culpepper **Title:** Ext. Weed Science  
**Affiliation:** Univ. of Georgia  
**Postal Code:** 31794

### TRIAL LOCATION

**City:** Vidalia **Trial Status:** completed  
**State/Prov.:** GA **Trial Reliability:** good  
**Postal Code:** \_\_\_\_\_ **Initiation Date:** Oct-17-05  
**Country:** USA **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.	.		

**Crop 1:** ALLCE ONION **Variety:** Century  
**Planting Date:** Oct-17-05 **Planting Method:** seeded  
**Rate:** 1 3 in **Depth:** 0.25 in **Perennial Age:** \_\_\_\_\_  
**Row Spacing:** 15 inch **Spacing Within Row:** 4 inch **Seed Bed:** flat  
**Soil Temperature:** 69 F **Soil Moisture:** fair/irrigat **Emergence Date:** Oct-27-05

### SITE AND DESIGN

**Plot Width, Unit:** 6 FT **Plot Length, Unit:** 25 FT **Reps:** 4  
**Site Type:** Vidalia Onion Research Farm  
**Tillage Type:** conventional **Study Design:** RANDOMIZED COMPLETE BLOCK

**Trial Initiation Comments:**

	Previous Crops	Previous Pesticides	Year
1.			

### MAINTENANCE

**Field Prep./Maintenance:**

# University of Georgia

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: 6.1      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: irrigated aggressively

Closest Weather Station: \_\_\_\_\_ Distance: \_\_\_\_\_ Unit: \_\_

**APPLICATION DESCRIPTION**

	A
Application Date:	Nov-14-05
Time of Day:	9 am
Application Method:	broadcast
Application Timing:	PRE
Applic. Placement:	overtop
Air Temp., Unit:	67 F
% Relative Humidity:	63
Wind Velocity, Unit:	0 mph
Dew Presence (Y/N):	y
Water Hardness:	
Soil Temp., Unit:	69 F
Soil Moisture:	fair/irri
% Cloud Cover:	0

**CROP STAGE AT EACH APPLICATION**

	A
Crop 1 Code, Stage:	ALLCE .
Stage Scale:	1 leaf
Height, Unit:	2 in

**WEED STAGE AT EACH APPLICATION**

	A
Weed 1 Code, Stage:	.
Stage Scale:	.
Density, Unit:	.

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## APPLICATION EQUIPMENT

	A
Appl. Equipment:	backpack
Operating Pressure:	24
Nozzle Type:	flat fan
Nozzle Size:	11002
Nozzle Spacing, Unit:	18 in
Nozzles/Row:	1
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):	N

Trt No	Treatment Application Comment