

# University of Georgia

**Seeded onion response to Dual Magnum, Outlook, and Prowl H20.**

Trial ID: Onion4-06

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 Product Code to Measure	Plot No. By Rep			
								1	2	3	4
1	Dual Magnum PRE Application	7.62 L	L	8 OZ/A		A	4.223 ml/mx	101	210	304	412
2	Dual Magnum 1 leaf application	7.62 L	L	8 OZ/A		B	4.223 ml/mx	102	215	312	418
3	Dual Magnum 6 leaf application	7.62 L	L	8 OZ/A		C	4.223 ml/mx	103	207	310	411
4	Dual Magnum PRE Application	7.62 L	L	16 OZ/A		A	8.446 ml/mx	104	209	320	405
5	Dual Magnum 1 leaf application	7.62 L	L	16 OZ/A		B	8.446 ml/mx	105	211	303	413
6	Dual Magnum 6 leaf application	7.62 L	L	16 OZ/A		C	8.446 ml/mx	106	214	318	419
7	Outlook PRE Application	6 L	L	8 OZ/A		A	4.223 ml/mx	107	213	309	420
8	Outlook 1 leaf application	6 L	L	8 OZ/A		B	4.223 ml/mx	108	206	315	407
9	Outlook 6 leaf application	6 L	L	8 OZ/A		C	4.223 ml/mx	109	203	305	410
10	Outlook PRE Application	6 L	L	16 OZ/A		A	8.446 ml/mx	110	212	314	417
11	Outlook 1 leaf application	6 L	L	16 OZ/A		B	8.446 ml/mx	111	202	316	409
12	Outlook 6 leaf application	6 L	L	16 OZ/A		C	8.446 ml/mx	112	220	319	404
13	Prowl H20 PRE Application	3.8 L	L	1 PT/A		A	8.445 ml/mx	113	201	302	403
14	Prowl H20 1 leaf application	3.8 L	L	1 PT/A		B	8.445 ml/mx	114	216	308	415
15	Prowl H20 6 leaf application	3.8 L	L	1 PT/A		C	8.445 ml/mx	115	218	313	408
16	Prowl H20 PRE Application	3.8 L	L	2 PT/A		A	16.89 ml/mx	116	204	311	402
17	Prowl H20 1 leaf application	3.8 L	L	2 PT/A		B	16.89 ml/mx	117	219	306	401
18	Prowl H20 6 leaf application	3.8 L	L	2 PT/A		C	16.89 ml/mx	118	205	307	416
19	Non-treated control							119	208	317	414
20	Non-treated control							120	217	301	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
47.509	ml	Dual Magnum	7.62	L	
47.509	ml	Outlook	6	L	
95.007	ml	Prowl H20	3.8	L	

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Reps: 4

Plots: 6 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 1 liters (min .77168)

Trt No.	Tr> N>	Form Conc	Form Type	Rate	Unit	Plot No. By Rep
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Product quantities required for listed treatments and applications in one trial:

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
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- \* '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 seeded onion response to Dual Magnum, Outlook, and Prowl H20.

**VISUAL ONION INJURY:**

1. PRE applications of all products caused severe injury, generally Outlook was the safest.
2. Injury from 1-2 leaf applications was greater than 10% with only Dual Magnum.
3. 6 leaf applications caused no onion injury, regardless of herbicide treatment.

**CONCLUSIONS:**

1. In a seeded onion system when following Dacthal PRE and at spike, Prowl H20 at 1 leaf, Outlook or Dual Magnum should be applied near the 6 leaf stage.

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**Seeded onion response to Dual Magnum, Outlook, and Prowl H20.**

Trial ID: Onion4-06

Study Dir.: Stanley Culpepper

Location: VORF

Investigator: Stanley Culpepper

Crop Code	onion injury percent	onion injury percent	onion injury percent	onion injury percent	onion injury percent			
Rating Data Type	Nov-22-05	Dec-20-05	Jan-08-06	Jan-08-06	Jan-26-06			
Rating Unit	Andrew	Andrew		Andrew	Andrew			
Rating Date	AM	AM	SC	AM	AM			
Crop Stage	36 DA-A	64 DA-A	83 DA-A	83 DA-A	101 DA-A			
Assessed By								
Trt-Eval Interval								
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5
1	Dual Magnum PRE Application	8	OZ/A	96 a	83 b	93 a	86 bc	68 c
2	Dual Magnum 1 leaf application	8	OZ/A	0 d	6 e	16 e	8 f	4 f
3	Dual Magnum 6 leaf application	8	OZ/A	0 d	0 e	0 f	0 f	0 f
4	Dual Magnum PRE Application	16	OZ/A	89 b	86 b	93 a	91 b	79 b
5	Dual Magnum 1 leaf application	16	OZ/A	0 d	8 e	38 d	15 e	16 e
6	Dual Magnum 6 leaf application	16	OZ/A	0 d	0 e	0 f	0 f	0 f
7	Outlook PRE Application	8	OZ/A	81 c	63 d	64 c	73 d	51 d
8	Outlook 1 leaf application	8	OZ/A	0 d	4 e	4 f	5 f	0 f
9	Outlook 6 leaf application	8	OZ/A	0 d	0 e	0 f	0 f	0 f
10	Outlook PRE Application	16	OZ/A	90 b	73 c	85 b	83 c	61 cd
11	Outlook 1 leaf application	16	OZ/A	0 d	8 e	7 f	8 f	11 ef
12	Outlook 6 leaf application	16	OZ/A	0 d	0 e	0 f	0 f	0 f
13	Prowl H20 PRE Application	1	PT/A	99 a	98 a	95 a	99 a	85 b
14	Prowl H20 1 leaf application	1	PT/A	0 d	4 e	1 f	4 f	0 f
15	Prowl H20 6 leaf application	1	PT/A	0 d	1 e	0 f	0 f	0 f
16	Prowl H20 PRE Application	2	PT/A	100 a	99 a	95 a	100 a	100 a
17	Prowl H20 1 leaf application	2	PT/A	0 d	4 e	5 f	6 f	3 f
18	Prowl H20 6 leaf application	2	PT/A	0 d	0 e	0 f	0 f	0 f
19	Non-treated control			0 d	0 e	0 f	0 f	0 f
20	Non-treated control			0 d	0 e	0 f	0 f	0 f
LSD (P=.05)				5.1	8.8	6.2	6.6	10.5
Standard Deviation				3.6	6.2	4.4	4.7	7.4
CV				12.97	23.13	14.8	16.25	31.19
Bartlett's X2				27.512	53.747	25.499	36.612	16.1
P(Bartlett's X2)				0.001*	0.001*	0.002*	0.001*	0.041*

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Crop Code	onion	onion	onion	onion	onion
Rating Data Type	injury	injury	injury	injury	injury
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Nov-22-05	Dec-20-05	Jan-08-06	Jan-08-06	Jan-26-06
Crop Stage	Andrew	Andrew		Andrew	Andrew
Assessed By	AM	AM	SC	AM	AM
Trt-Eval Interval	36 DA-A	64 DA-A	83 DA-A	83 DA-A	101 DA-A

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



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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: 5.9      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 often

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

**APPLICATION DESCRIPTION**

	A	B	C
Application Date:	Oct-17-05	Nov-04-05	Jan-26-06
Time of Day:	9 am	9 am	9 am
Application Method:	broadcast	broadcast	broadcast
Application Timing:	PRE	1 leaf	6 leaf
Applic. Placement:	overtop	overtop	overtop
Air Temp., Unit:	69 F	65 F	66 F
% Relative Humidity:	44	56	23
Wind Velocity, Unit:	3 mph	0 mph	3 mph
Dew Presence (Y/N):	n	y	n
Water Hardness:			
Soil Temp., Unit:	69 F	61 F	48 F
Soil Moisture:	fair/irri	moist	moist
% Cloud Cover:	0	0	0

**CROP STAGE AT EACH APPLICATION**

	A	B	C
Crop 1 Code, Stage:	ALLCE .	ALLCE .	ALLCE .
Stage Scale:	PRE	1 leaf	5-6 leaf
Height, Unit:	0 inch	2 inch	5 inch

**WEED STAGE AT EACH APPLICATION**

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

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## APPLICATION EQUIPMENT

	A	B	C
<b>Appl. Equipment:</b>	backpack	backpack	backpack
<b>Operating Pressure:</b>	24	24	24
<b>Nozzle Type:</b>	flat fan	flat fan	flat fan
<b>Nozzle Size:</b>	11002	11002	11002
<b>Nozzle Spacing, Unit:</b>	18 in	18 in	18 in
<b>Nozzles/Row:</b>	1	1	1
<b>Band Width, Unit:</b>			
<b>Boom Length, Unit:</b>	4.5 feet	4.5 feet	4.5 feet
<b>Boom Height, Unit:</b>	15 inch	15 inch	15 inch
<b>Ground Speed, Unit:</b>	3 mph	3 mph	3 mph
<b>Incorporation Equip.:</b>			
<b>Hours to Incorp.:</b>			
<b>Incorp. Depth, Unit:</b>			
<b>Carrier:</b>	water	water	water
<b>Spray Volume, Unit:</b>	14.8 GPA	14.8 GPA	14.8 GPA
<b>Spray pH:</b>			
<b>Propellant:</b>	CO2	CO2	CO2
<b>Tank Mix (Y/N):</b>	N	N	N

Trt No	Treatment Application Comment