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**Wheat response to Valor and Dual Magnum applied topically.**

Trial ID: Veg50-06  
Location: Ponder farm

Study Dir.: Stanley Culpepper  
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	Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep			
									1	2	3	4
1	None								101	204	301	404
2	Dual Magnum	7.62	L	1.3	PT/A	POST	A	10.98 ml/mx	102	201	302	407
3	Valor	51	WDG	3	OZ/A	POST	A	1.518 g/mx	103	207	308	401
4	Valor	51	WDG	3	OZ/A	POST	A	1.518 g/mx	104	202	307	405
	COC	L	1	QT/A	POST	A	16.89 ml/mx					
5	Valor	51	WDG	3	OZ/A	POST	A	1.518 g/mx	105	203	306	408
	NIS	L	0.25	% V/V	POST	A	2.5 ml/mx					
6	Valor	51	WDG	3	OZ/A	POST	A	1.518 g/mx	106	208	305	403
	Dual Magnum	7.62	L	1.3	PT/A	POST	A	10.98 ml/mx				
7	Valor	51	WDG	3	OZ/A	POST	A	1.518 g/mx	107	205	304	406
	Dual Magnum	7.62	L	1.3	PT/A	POST	A	10.98 ml/mx				
	COC	L	1	QT/A	POST	A	16.89 ml/mx					
8	Valor	51	WDG	3	OZ/A	POST	A	1.518 g/mx	108	206	303	402
	Dual Magnum	7.62	L	1.3	PT/A	POST	A	10.98 ml/mx				
	NIS	L	0.25	% V/V	POST	A	2.5 ml/mx					

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
54.893	ml	Dual Magnum	7.62	L	
11.386	g	Valor	51	WDG	
42.225	ml	COC		L	
6.249	ml	NIS		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.

\* 'Per volume' calculations use spray volume= 14.8 gal/ac, mix size= 1 liters.

### Trial Comments

**OBJECTIVE:** Determine the most effective method to apply Valor and Dual in vegetable row middles without killing emerged wheat (cover).

#### VISUAL WHEAT INJURY:

- At 7 DAT, severe injury was noted with Valor mixed with COC or with Dual Magnum. Injury from Valor + Dual Magnum (50+%) was worse than Valor + COC (34%). The addition of COC or NIS with Valor + Dual Mag did not increase injury. Injury was less than 10 percent with Valor or Dual applied alone.
- By 35 DAT, wheat stunting from Valor + NIS or COC was still moderate. However, wheat growth in plots treated with Dual Magnum was severely limited. Valor applied alone provided little wheat injury.

#### PRIMROSE CONTROL:

- Primrose was less than 0.5 inch at time of application.
- All Valor systems provided excellent control.
- Dual provided little control

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**CONCLUSIONS:**

1. In row middles seeded to wheat, a system of Valor alone followed by Dual Magnum once the crop reaches adequate size may be an effective program to manage weeds and to maintain a cover crop in the row middles. Additional work is needed in wheat, rye, and ryegrass.

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Weed Code		TRZAW	TRZAW	TRZAW	OEOLA		
Crop Code		burn	burn	stunt	control		
Rating Data Type		percent	percent	percent	percent		
Rating Unit		percent	percent	percent	percent		
Rating Date		Feb-04-06	Feb-08-06	Mar-08-06	Mar-08-06		
Assessed By		SC	SC	SC	SC		
Trt-Eval Interval		3 DA-A	7 DA-A	35 DA-A	35 DA-A		
Trt No.	Treatment Name	Rate	Unit	1	2	3	4
1	None			0 c	0 d	0 e	0 c
2	Dual Magnum	1.3	PT/A	5 bc	5 d	54 b	8 b
3	Valor	3	OZ/A	3 c	3 d	9 de	98 a
4	Valor COC	3 1	OZ/A QT/A	28 a	34 b	24 c	100 a
5	Valor NIS	3 0.25	OZ/A % V/V	11 b	20 c	14 cd	100 a
6	Valor Dual Magnum	3 1.3	OZ/A PT/A	26 a	50 a	73 a	100 a
7	Valor Dual Magnum COC	3 1.3 1	OZ/A PT/A QT/A	31 a	55 a	79 a	100 a
8	Valor Dual Magnum NIS	3 1.3 0.25	OZ/A PT/A % V/V	31 a	50 a	74 a	100 a
LSD (P=.05)				7.7	11.2	11.1	5.4
Standard Deviation				5.2	7.6	7.6	3.7
CV				30.97	28.12	18.66	4.84
Bartlett's X2				7.225	4.471	11.511	3.484
P(Bartlett's X2)				0.301	0.613	0.074	0.062

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: 94      % OM: 1.1      Texture: sand  
 % Silt: 2      pH: 6.1      Soil Name: Tifton sandy loam  
 % 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: moist

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

**APPLICATION DESCRIPTION**

	A
Application Date:	Feb-01-06
Time of Day:	10 am
Application Method:	broadcast
Application Timing:	POST
Applic. Placement:	overtop
Air Temp., Unit:	66 F
% Relative Humidity:	34
Wind Velocity, Unit:	1 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	64 F
Soil Moisture:	moist
% Cloud Cover:	25

**CROP STAGE AT EACH APPLICATION**

	A
Crop 1 Code, Stage:	TRZAW POST
Stage Scale:	2 tiller
Height, Unit:	5 inch

**WEED STAGE AT EACH APPLICATION**

	A
Weed 1 Code, Stage:	OEOLA PRE
Stage Scale:	<0.5 inch
Density, Unit:	5 ydsq

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## APPLICATION EQUIPMENT

	A
Appl. Equipment:	backpack
Operating Pressure:	24
Nozzle Type:	flat fan
Nozzle Size:	11002
Nozzle Spacing, Unit:	18 inch
Nozzles/Row:	2
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