Wheat and ryegrass response to Osprey and Time of Sidedressing.

Trial ID: Wheat1-05 Study Dir.: Culpepper/Grey
Location: Plains Investigator: Stanley Culpepper

Reps: 4 Plots: 6 by 25 feet

Spray vol: 14.8 gal/ac Mix size: 1.5 liters (min .77168)

Spra	ay vol: 14.8 gal/ac	M	ix size	: 1.5 lit	ers (m	in .77168	3)					
Trt	Treatment	Form	Form		Rate	Grow	Appl	Amt Product	Plot N	lo. By	Rep	
No.	Name	Conc	Type	Rate	Unit	Stg	Code	to Measure	1	2	3	4
1	No Osprey								101	205	302	404
	TopDressing Day 0					POST 2	В					
2	No Osprey								102	204	307	405
_	TopDressing Day 7					POST 3	С					
3	No Osprey								103	201	304	403
Ü	TopDressing Day 14					POST 4	D		100	201	001	100
1	No Osprey								104	210	311	412
7	TopDressing Day 21					POST 5	F		104	210	311	412
		1.5	DG	1 75	oz/a	POST 1		3.605 g/mx	105	212	301	410
5	Osprey NIS	4.5	L			POST 1		3.75 ml/mx	105	212	301	410
	UAN		L		qt/a	POST 1		50.67 ml/mx				
	TopDressing Day 0		_	2	qva	POST 2		30.07 1117111X				
۶	Osprey	15	DG	175	oz/a	POST 1		3.605 g/mx	106	202	308	409
U	NIS	4.5	L			POST 1		3.75 ml/mx	100	202	300	403
	UAN		Ĺ		gt/a	POST 1		50.67 ml/mx				
	TopDressing Day 7		_	_	qua	POST 3		00107 1111,1112				
7	Osprey	4.5	DG	4 75	oz/a	POST 1		3.605 g/mx	107	211	309	408
'	NIS	4.0	L	_		POST 1		3.75 ml/mx	107	211	000	400
	UAN		L		qt/a	POST 1		50.67 ml/mx				
	TopDressing Day 14		_	_	9.0	POST 4		00101 1111,1111				
8	Osprey		DG	4.75	oz/a	POST 1		3.605 g/mx	108	203	312	402
Ū	NIS		L	_		POST 1		3.75 ml/mx			0.2	
	UAN		L		qt/a	POST 1		50.67 ml/mx				
	TopDressing Day 21				•	POST 5	Е					
9	Osprey	4.5	DG	9.5	oz/a	POST 1	Α	7.211 g/mx	109	206	303	407
-	NIS		L	0.25	% v/v	POST 1	Α	3.75 ml/mx				
	UAN		L	2	qt/a	POST 1	Α	50.67 ml/mx				
	TopDressing Day 0					POST 2	В					
10	Osprey	4.5	DG	9.5	oz/a	POST 1	A	7.211 g/mx	110	208	305	401
	NIS		L	0.25	% v/v	POST 1	Α	3.75 ml/mx				
	UAN		L	2	qt/a	POST 1	Α	50.67 ml/mx				
	TopDressing Day 7					POST 3	С					
11	Osprey	4.5	DG	9.5	oz/a	POST 1	Α	7.211 g/mx	111	209	310	406
	NIS		L			POST 1		3.75 ml/mx				
	UAN		L	2	qt/a	POST 1		50.67 ml/mx				
	TopDressing Day 14					POST 4						
12	Osprey	4.5	DG	9.5	oz/a	POST 1	Α	7.211 g/mx	112	207	306	411
	NIS		L	0.25	% v/v	POST 1		3.75 ml/mx				
	UAN		L	2	qt/a	POST 1		50.67 ml/mx				
	TopDressing Day 21					POST 5	E					

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Lot Code
54.081	g	Osprey 4.5 DG	
37.496	ml	NIS L	
506.703	ml	UAN L	

Reps: 4 Plots: 6 by 25 feet

Spray vol: 14.8 gal/ac Mix size: 1.5 liters (min .77168)

Trt	Tr> Form	Form	Plot No. By Rep
No.	N> Conc	Type	

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

Amount* | Unit | Treatment Name | Lot Code |

- * 'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 1.5 liters (mix size basis).
- * Product amount calculations increased 25 % for overage adjustment.
- 'Per volume' calculations use spray volume= 14.8 gal/ac, mix size= 1.5 liters.

Trial Comments

OBJECTIVE: Evaluate wheat response to Osprey when sidedressing is applied at various timings.

Visual Wheat Response:

- 1) At 8 days after the Osprey and Nitrogen were applied on the same day, wheat injury when treated with Osprey and Nitrogen ranged from 8 to 12%. Injury was minor and quickly recovered.
- 2) The nitrogen application made on January 20 injured wheat 14% by itself. Nitrogen at this application timing in combination with Osprey at the 1X rate was no more injurious than the nitrogen applied alone. However, injury was increased by 6% when nitrogen sidedressing 7 d after applying Osprey at the 2X rate. Again, injury was short lived.
- 3) Visual wheat injury was minor overall.

Ryegrass Response:

1) Excellent control was noted with all treatments receiving an application of Osprey except when the 1X rate of Osprey was applied 21 days prior to sidedressing (does nitrogen actually impact the activity of Osprey on large ryegrass or was this just a fluke???).

Wheat Yields:

1) No treatment impacted wheat yields.

GENERAL COMMENTS:

- 1) On November 11, Axiom at 8 oz/A was applied over the trial except the last 4 foot of each plot to remove ryegrass. Prior to harvest the last 4 foot of the plot not treated with Axiom was mowed to harvest the weed free portion of each plot.
- 2) Osprey was applied on Jan. 12 at 14.8 GPA. Nitrogen was then applied 1 hour after the herbicide for the POST2 timing. All nitrogen was applied at 30 gallons per acre
- 3) Injury was a response in leaf burn. Little stunting was noted.

Wheat and ryegrass response to Osprey and Time of Sidedressing.

Trial ID: Wheat1-05 Study Dir.: Culpepper/Grey
Location: Plains Investigator: Stanley Culpepper

	Ivestigato	or stallie	ey curpept			
				LOLMU	LOLMU	Yield
wheat	wheat					wheat
						26ft/plot
						197 DA-A
TT DA-A	II DA-A	102 DA-A	190 DA-A	102 DA-A	190 DA-A	191 DA-A
1	2	3	4	5	6	7
						16
	ŭ	Ů	· ·	Ů	, and the second	. •
0	14	0	0	0	8	16
0	0	0	0	0	5	16
0	0	0	0	0	8	16
	4	0	0	69	88	16
0	1.1	0	0	76	02	17
-	14	U	U	76	93	17
0	0	0	0	70	91	17
,						
0	0	3	0	70	80	16
12	7	2	0	70	06	16
	,	3	U	79	96	16
0	20	0	0	78	96	16
,						
0	0	1	0	78	97	17
_				70	02	16
_	U	U	U	13	93	16
2.8	2.8	2.9	0.0	7.6	9.9	1.0
2.0	1.9	2.0	0.0	5.3	6.9	0.7
121.24			0.0	10.68		
	wheat injury percent Jan-21-05 71 DA-A 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	wheat injury percent Jan-21-05 71 DA-A 77 DA-A 1 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	wheat injury percent Jan-21-05 71 DA-A wheat injury percent Jan-27-05 77 DA-A wheat injury percent Feb-21-05 102 DA-A 1 2 3 1 0 0 0	wheat injury percent Jan-21-05 71 DA-A wheat injury percent Jan-21-05 77 DA-A wheat injury percent Feb-21-05 71 DA-A wheat injury percent May-26-05 71 DA-A wheat i	wheat injury percent Jan-21-05 Jan-27-05 71 DA-A wheat injury percent Jan-27-05 Feb-21-05 May-26-05 Fi02 DA-A 1 2 3 4 5 1 0 0 0 0 0 14 0 0 0 0 0 0 0 0 0 0 0 0 0 0 14 0 0 69 0 14 0 0 76 0 0 3 0 70 12 7 3 0 79 0 20 0 0 78 0 0 0 73 78 0 0 0 73 78 0 0 0 73 73	wheat injury percent Jan-21-05 71 DA-A wheat injury percent Jan-22-05 77 DA-A wheat injury percent Jan-27-05 77 DA-A wheat injury percent Jan-27-05 77 DA-A LOLMU control percent Jan-27-05 77 DA-A Eb-21-05 May-26-05 196 DA-A Feb-21-05 May-27-05 196 DA-A

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University of Georgia

	Wheat an	d ryegrass re	esponse to	Osprey and T	ime of S	idedressing	
Trial ID: Wheat:	1 – 0 5	Q.	tudy Dir :	Culpepper/Gr	^ev		
Location: Plains			_	Stanley Culp	_		
		NERAL TRIAL					
Study Director:	_		INFORMATIO	Title: We	ed Scier	nce	
Affiliation:					300 50101	100	
Postal Code:		,1 0001910					
Investigator:	Stanley Culp	pepper		Title: We	eed scier	nce	
Affiliation:	University of	of Georgia					
Postal Code:	31793						
		TRIAL LO	CATTON				
City: Pla	ains	IKIAH HO		l Status:		completed	
State/Prov.: Ga				l Reliability		good	
Postal Code:				iation Date:		_	
Country: U.S				ned Completio			
E-Longitude of 1							=
Altitude of LL (
Directions:							
		COOPERATOR/	LANDOWNER				
Cooperator:		•		Country:			
_				_			
				Fax No:			
City:			_				
State/Prov:							
Postal Code:							
Conducted Under				-	-		
Guidelines:	Gui	deline Descr	iption:				
Objective:							
objective.							
Conclusions:							
	(III)	OD AND MEED I		•			
Weed Code Co	mmon Name	OP AND WEED I	Scientific				
1. LOLMU Itali			BCICILIC	Name			
1. LOLMU Itali	tan ryegrass						
Crop 1: TRZAW	WHEAT, WINT	'ER		Variety:	Pioneer	26 R61	
Planting Date: N	Nov-02-04	Plant	ing Method	l: convention	ıal		
Rate: 1.35 bu							
Row Spacing: 7.5							
Soil Temperature							
		a					
m1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		SITE AND I		0.5	D -	4	
Plot Width, Unit			gen, Unit:	∠5 F.I.	keps:	4	
Site Type: re			lu Doci	ENGRODINI			
Tillage Type: co	onventional	stud	dy Design:	FACIORIAL			
Trial Initiation	Comments:						

Previous Pesticides

Previous

Crops

		Maintenance	Form	Form	Form		Rate
No.	Date	Treatment Name	Conc	Unit	Type	Rate	Unit
1.							

Texture: loamy sand

 SOIL DESCRIPTION

 % Sand: 80
 % OM: 1.6
 Texture: 1

 % Silt: 10
 pH: 5.9
 Soil Name: __

 % Clay: 10
 CEC: _____
 Fert. Level:

 Soil Name: Fert. Level: _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Туре	Interval	Unit
1.							

Overall Moisture Conditions: .

_____ Distance: ____ Unit: __ Closest Weather Station:

APPLICATION DESCRIPTION

	7	A	I	3	(7]	D]	E
Application Date:	Jan-1	12-05	Jan-1	L2-05	Jan-2	20-05	Jan-	27-05	Feb-	03-05
Time of Day:	4 pm		5 pm		3 pm		10 aı	m	11 aı	m
Application Method:	broad	dcast								
Application Timing:	POST	1	POST	2	POST	3	POST	4	POST	5
Applic. Placement:	overt	top	overt	cop	overt	cop	over	top	over	top
Air Temp., Unit:	76	F	76	F	72	F	56	F	60	F
% Relative Humidity:	48		48		67		37		42	
Wind Velocity, Unit:	3	mph	3	mph	3	mph	3	mph	2	mph
Dew Presence (Y/N):	n		n		n		n		n	
Water Hardness:										
Soil Temp., Unit:	67	F	67	F	67	F	64	F	65	F
Soil Moisture:	moist	t	moist	5	moist	5	mois	t	mois	t
% Cloud Cover:	70		70		0		85		75	

CROP STAGE AT EACH APPLICATION

	0-10				
	A	В	С	D	E
Crop 1 Code, Stage:	TRZAW POST 1	TRZAW POST 2	TRZAW POST 3	TRZAW POST 4	TRZAW POST 5
Stage Scale:	4-5 tille	4-5 tille	5 tiller	5-6 tille	6 tiller
Height, Unit:	5 inch	5 inch	6 inch	7 inch	7 inch

WEED STAGE AT EACH APPLICATION

	A	В	С	D	E
Weed 1 Code, Stage:	LOLMU POST 1	LOLMU POST 2	LOLMU POST 3	LOLMU POST 4	LOLMU POST 5
Stage Scale:	2-3 tille	2-3 tille	3-4 tille	3-4 tille	4 tiller
Density, Unit:					

APPLICATION EQUIPMENT

				- 2						
		A		В		С		D		E
Appl. Equipment:	backı	pack	back	pack	back	pack	back	pack	back	pack
Operating Pressure:	23									
Nozzle Type:	flat	fan	flat	fan	flat	fan	flat	fan	flat	fan
Nozzle Size:	11002	2	1100	L1004		4	1100	4	1100	4
Nozzle Spacing, Unit:	18	inch	18	inch	18	inch	18	inch	18	inch
Nozzles/Row:										
Band Width, Unit:										
Boom Length, Unit:	4.5	feet	4.5	feet	4.5	feet	4.5	feet	4.5	feet
Boom Height, Unit:	15	inch	15	inch	15	inch	15	inch	15	inch
Ground Speed, Unit:	3	mph	3	mph	3	mph	3	mph	3	mph
Incorporation Equip.:										
Hours to Incorp.:										
Incorp. Depth, Unit:										
Carrier:	wate	r	30%N	ı	30%N	•	30%N	Ī	30%N	
Spray Volume, Unit:	14.8	GPA	30	GPA	30	GPA	30	GPA	30	GPA
Spray pH:										
Propellant:	CO2		CO2		CO2		CO2		CO2	
Tank Mix (Y/N):	Y		N		N		N		N	

Trt No	Treatment Application Comment