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Oat and rye response to Express, MCPA, and Osprey.

Trial ID: Oat&Rye01-05 Study Dir.: Stanley Culpepper
Location: Plains Investigator: Stanley Culpepper

Reps: 3 Plots: 6 by 25 feet
Spray vol: 14.8 gal/ac Mix size: 2 liters (min .57876)

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
1	2-4 leaf						A		101	203	307
	Express	75	DF	0.25	oz/a		A	0.253 g/mx			
	NIS		L	0.25	% v/v		A	4.999 ml/mx			
2	2-4 leaf						A		102	206	312
	Express	75	DF	0.5	oz/a		A	0.506 g/mx			
	NIS		L	0.25	% v/v		A	4.999 ml/mx			
3	2-4 leaf						A		103	207	302
	Express	75	DF	0.25	oz/a		A	0.253 g/mx			
	NIS		L	0.25	% v/v		A	4.999 ml/mx			
	MCPA	4	L	1	pt/a		A	16.89 ml/mx			
4	2-4 leaf						A		104	202	306
	MCPA	4	L	1	pt/a		A	16.89 ml/mx			
5	2-4 leaf								105	201	305
	Non-treated										
6	2-4 leaf						A		106	211	308
	Osprey	4.5	DF	4.75	oz/a		A	4.807 g/mx			
	NIS		L	0.5	% v/v		A	9.999 ml/mx			
	UAN		L	2	qt/a		A	67.56 ml/mx			
7	full tiller						B		107	205	309
	Express	75	DF	0.25	oz/a		B	0.253 g/mx			
	NIS		L	0.25	% v/v		B	4.999 ml/mx			
8	full tiller						B		108	209	303
	Express	75	DF	0.5	oz/a		B	0.506 g/mx			
	NIS		L	0.25	% v/v		B	4.999 ml/mx			
9	full tiller						B		109	210	311
	Express	75	DF	0.25	oz/a		B	0.253 g/mx			
	NIS		L	0.25	% v/v		B	4.999 ml/mx			
	MCPA	4	L	1	pt/a		B	16.89 ml/mx			
10	full tiller						B		110	212	304
	MCPA	4	L	1	pt/a		B	16.89 ml/mx			
11	full tiller								111	204	310
	Non-treated										
12	full tiller						B		112	208	301
	Osprey	4.5	DF	4.75	oz/a		B	4.807 g/mx			
	NIS		L	0.5	% v/v		B	9.999 ml/mx			
	UAN		L	2	qt/a		B	67.56 ml/mx			

Sort Order: Treatment

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

Amount*	Unit	Treatment Name	Lot Code
2.530	g	Express 75 DF	
62.493	ml	NIS L	
84.451	ml	MCPA 4 L	
12.018	g	Osprey 4.5 DF	
168.901	ml	UAN L	

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Reps: 3 Plots: 6 by 25 feet
Spray vol: 14.8 gal/ac Mix size: 2 liters (min .57876)

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

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= 2 liters (mix size basis).
* Product amount calculations increased 25 % for overage adjustment.
* 'Per volume' calculations use spray volume= 14.8 gal/ac, mix size= 2 liters.

Trial Comments

OBJECTIVE: Evaluate oat and rye response to Express mixtures and Osprey.

Visual Injury:
1. Express alone or in mixtures did not visually injure rye or oats regardless of application timing.
2. Osprey stunged rye growth 38% at 12 d after application at the 2-leaf stage; rye recovered very quickly. Osprey applied to 2 tiller rye caused less than 15% injury and injury was short lived. Osprey caused severe injury to Oats. Oats treated at 2 leaf did try to recover but injury is clearly unacceptable.

Yield:
1) Express or Express plus MCPA did not impact yields of either oat or rye as compared to the weed free control.
2) Osprey did not impact yields of rye but did reduce oat yields.

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Location: Plains Investigator: Stanley Culpepper

Trt No.	Treatment Name	Rate	Rate Unit	1	2	3	4	5	6	7	8
	Weed Code									yield	
	Crop Code			rye	rye	rye	rye	rye	rye	rye	oat
	Rating Data Type			injury	injury	injury	injury	injury	injury	26ft/plot	injury
	Rating Unit			percent	percent	percent	percent	percent	percent	lb	percent
	Rating Date			Dec-01-04	Dec-01-04	Dec-30-04	Jan-12-05	Feb-21-05	May-26-05	May-27-05	Dec-01-04
	Trt-Eval Interval			29 DA-A	29 DA-A	58 DA-A					29 DA-A
1	2-4 leaf			0	0	0	0	0	0	11	0
	Express	0.25	oz/a								
	NIS	0.25	% v/v								
2	2-4 leaf			0	0	0	2	0	0	12	0
	Express	0.5	oz/a								
	NIS	0.25	% v/v								
3	2-4 leaf			0	0	0	0	0	0	10	0
	Express	0.25	oz/a								
	NIS	0.25	% v/v								
	MCPA	1	pt/a								
4	2-4 leaf			0	0	0	2	0	0	10	0
	MCPA	1	pt/a								
5	2-4 leaf			0	0	0	0	0	0	9	0
	Non-treated										
6	2-4 leaf			38	13	1	0	0	0	9	45
	Osprey	4.75	oz/a								
	NIS	0.5	% v/v								
	UAN	2	qt/a								
7	full tiller			0	0	0	3	0	0	10	0
	Express	0.25	oz/a								
	NIS	0.25	% v/v								
8	full tiller			0	0	0	4	0	0	11	0
	Express	0.5	oz/a								
	NIS	0.25	% v/v								
9	full tiller			0	0	0	6	0	0	9	0
	Express	0.25	oz/a								
	NIS	0.25	% v/v								
	MCPA	1	pt/a								
10	full tiller			0	0	0	0	0	0	10	0
	MCPA	1	pt/a								
11	full tiller			0	0	0	0	0	0	10	0
	Non-treated										
12	full tiller			0	0	13	11	0	0	10	0
	Osprey	4.75	oz/a								
	NIS	0.5	% v/v								
	UAN	2	qt/a								
LSD (P=.05)				2.8	1.4	2.4	6.9	0.0	0.0	2.0	0.0
Standard Deviation				1.7	0.8	1.4	4.1	0.0	0.0	1.2	0.0
CV				52.17	75.0	119.6	182.44	0.0	0.0	11.4	0.0

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

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Trt No.	Treatment Name	Rate	Rate Unit						
Weed Code									
Crop Code				oat	oat	oat	oat	oat	yield oat
Rating Data Type				injury	injury	injury	injury	injury	26ft/plot
Rating Unit				percent	percent	percent	percent	percent	lb
Rating Date				Dec-01-04	Dec-30-04	Jan-12-05	Feb-21-05	May-26-05	May-27-05
Trt-Eval Interval				29 DA-A	58 DA-A				
				9	10	11	12	13	14
1	2-4 leaf			0	0	2	0	0	7
	Express	0.25	oz/a						
	NIS	0.25	% v/v						
2	2-4 leaf			0	0	6	0	0	8
	Express	0.5	oz/a						
	NIS	0.25	% v/v						
3	2-4 leaf			0	0	0	0	0	7
	Express	0.25	oz/a						
	NIS	0.25	% v/v						
	MCPA	1	pt/a						
4	2-4 leaf			0	0	4	0	0	6
	MCPA	1	pt/a						
5	2-4 leaf			0	0	3	0	0	6
	Non-treated								
6	2-4 leaf			72	67	73	67	43	5
	Osprey	4.75	oz/a						
	NIS	0.5	% v/v						
	UAN	2	qt/a						
7	full tiller			0	0	0	0	0	7
	Express	0.25	oz/a						
	NIS	0.25	% v/v						
8	full tiller			0	0	3	0	0	8
	Express	0.5	oz/a						
	NIS	0.25	% v/v						
9	full tiller			0	0	5	0	0	7
	Express	0.25	oz/a						
	NIS	0.25	% v/v						
	MCPA	1	pt/a						
10	full tiller			0	0	3	2	2	8
	MCPA	1	pt/a						
11	full tiller			0	0	2	0	0	7
	Non-treated								
12	full tiller			0	15	47	60	97	0
	Osprey	4.75	oz/a						
	NIS	0.5	% v/v						
	UAN	2	qt/a						
LSD (P=.05)				1.4	2.8	7.5	3.3	3.4	0.9
Standard Deviation				0.8	1.7	4.4	1.9	2.0	0.5
CV				13.95	24.49	36.15	18.05	16.97	8.26

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

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Oat and rye response to Express, MCPA, and Osprey.

Trial ID: Oat&Rye01-05 Study Dir.: Stanley Culpepper
Location: Plains Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

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

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

TRIAL LOCATION

City: Plains **Trial Status:** completed
State/Prov.: GA **Trial Reliability:** good
Postal Code: _____ **Initiation Date:** Nov-02-04
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.	.		

Crop 1: Rye rye **Variety:** Wrens 96
Planting Date: Nov-02-04 **Planting Method:** drilled, conventional
Rate: 2 bu/A **Depth:** 0.5 in **Perennial Age:** ____ _____
Row Spacing: 7.5 inch **Spacing Within Row:** ____ _____ **Seed Bed:** flat
Soil Temperature: 78 F **Soil Moisture:** dry **Emergence Date:** Nov-08-04

Crop 2: Oats Oat **Variety:** Horizon 32
Planting Date: Nov-02-04 **Planting Method:** drilled, conventional
Rate: 2 bu/A **Depth:** 0.5 in **Perennial Age:** ____ _____
Row Spacing: 7.5 inch **Spacing Within Row:** ____ _____ **Seed Bed:** flat
Soil Temperature: 78 F **Soil Moisture:** dry **Emergence Date:** Nov-09-04

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 25 FT **Reps:** 3
Site Type: research station
Tillage Type: conventional **Study Design:** FACTORIAL

Trial Initiation Comments:

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	Previous Crops	Previous Pesticides	Year
1.			

MAINTENANCE

Field Prep./Maintenance:

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

SOIL DESCRIPTION

% Sand: 80 **% OM:** 1.3 **Texture:** loamy sand
% Silt: 10 **pH:** 5.9 **Soil Name:** _____
% Clay: 10 **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	B
Application Date:	Nov-19-04	Dec-17-04
Time of Day:	9:00am	9:00am
Application Method:	Broadcast	Broadcast
Application Timing:	2-4 leaf	full till
Applic. Placement:	overtop	overtop
Air Temp., Unit:	61 F	58 F
% Relative Humidity:	60	27
Wind Velocity, Unit:	1 mph	0 mph
Dew Presence (Y/N):	y	n
Water Hardness:		
Soil Temp., Unit:	56 F	49 F
Soil Moisture:	moist	moist
% Cloud Cover:	95	10

CROP STAGE AT EACH APPLICATION

	A	B
Crop 1 Code, Stage:	Rye 2-4 leaf	Rye full till
Stage Scale:	2-3 leaf	2 tiller
Height, Unit:	3 inch	7 inch
Crop 2 Code, Stage:	Oats 2-4 leaf	Oats full till
Stage Scale:	2 leaf	2 tiller
Height, Unit:	2.5 inch	7 inch

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WEED STAGE AT EACH APPLICATION

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

APPLICATION EQUIPMENT

	A	B
Appl. Equipment:	backpack	backpack
Operating Pressure:	23	23
Nozzle Type:	flat fan	flat fan
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	18 inch	18 inch
Nozzles/Row:		
Band Width, Unit:		
Boom Length, Unit:	4.5 feet	4.5 feet
Boom Height, Unit:	15 inch	15 inch
Ground Speed, Unit:	3 mph	3 mph
Incorporation Equip.:		
Hours to Incorp.:		
Incorp. Depth, Unit:		
Carrier:	water	water
Spray Volume, Unit:	14.8 GPA	14.8 GPA
Spray pH:		
Propellant:	CO2	CO2
Tank Mix (Y/N):	Y	Y

Trt No	Treatment Application Comment