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

Trial ID: Oat&RyeO2-05 Study Dir.: Culpepper/Grey
Location: Tifton Investigator: Stanley Culpepper

Reps: 4 Plots: 12 by 25 feet

Spray vol: 14.8 gal/ac Mix size: 2 liters (min 1.5434)

Tri Treatment	Spra	ay vol: 14.8 ga	al/ac		Mix si	ze: 2 li	ters (mi	n 1.54	434) <u> </u>					
1 2-4 leaf	Trt	Treatment	Form	Form		Rate	Grow	Appl	Amt Product	Plot N	lo. By	Rep		
Express 75 DF 0.25 0.26 A 4.999 ml/mx	No.	Name	Conc	Туре	Rate	Unit	Stg	Code	to Measure	1	2	3	4	
NIS	1	2-4 leaf						A		101	203	307	401	
2 2-4 leaf		Express	75	DF	0.25	oz/a		Α	0.253 g/mx					
Express 75 DF 0.5 oz/a A 0.506 g/mx A 4.999 ml/mx S C C C C C C C C C		NIS		L	0.25	% v/v		Α	4.999 ml/mx					
NiS	2	2-4 leaf						A		102	206	312	403	
3 2-4 leaf		Express	75	DF	0.5	oz/a		Α	0.506 g/mx					
Express 75 DF 0.25 oz/a A 0.253 g/mx NIS L 0.25 % v/v A 4.999 ml/mx		NIS		L	0.25	% v/v		Α	4.999 ml/mx					
NIS	3	2-4 leaf						Α		103	207	302	408	
MCPA		Express	75	DF	0.25	oz/a		Α	0.253 g/mx					
4 2-4 leaf MCPA		NIS		L	0.25	% v/v		Α						
MCPA		MCPA	4	L	1	pt/a		A	16.89 ml/mx					
5 2-4 leaf Non-treated 6 2-4 leaf Osprey 4.5 DF 4.75 oz/a A 4.807 g/mx 106 211 308 405 Osprey 4.5 DF 4.75 oz/a A 4.807 g/mx 106 211 308 405 Osprey 4.5 DF 4.75 oz/a A 4.807 g/mx 107 205 309 406 Full tiller Express 75 DF 0.25 oz/a B 0.253 g/mx 107 205 309 406 8 full tiller Express 75 DF 0.5 oz/a B 0.506 g/mx 108 209 303 411 9 full tiller B 0.253 g/mx 108 209 303 411 Express 75 DF 0.25 oz/a B 0.253 g/mx 109 210 311 402 Express 75 DF 0.25 oz/a B 0.253 g/mx 109 210 311 402 Express 75 DF 0.25 oz/a B 0.253 g/mx 100 210 311 402 In tiller B 16.89 ml/mx <td>4</td> <td>2-4 leaf</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Α</td> <td></td> <td>104</td> <td>202</td> <td>306</td> <td>409</td> <td></td>	4	2-4 leaf						Α		104	202	306	409	
Non-treated A		MCPA	4	L	1	pt/a	4	Α	16.89 ml/mx					
Cosprey	5	2-4 leaf						Α		105	201	305	404	
Osprey NIS 4.5 DF 4.75 oz/a A 4.807 g/mx and supplied to the properties of the prop		Non-treated												
NIS	6	2-4 leaf						A		106	211	308	405	
UAN L 2 qt/a A 67.56 ml/mx 7 full tiller B 107 205 309 406 Express 75 DF 0.25 oz/a B 0.253 g/mx 0.25 g/mx <		Osprey	4.5	DF	4.75	oz/a		Α	4.807 g/mx					
7 full tiller B 107 205 309 406 Express NIS 75 DF 0.25 oz/a B 0.253 g/mx 0.25 g/mx 0.25 g/mx 0.25 g/mx 0.25 g/mx 0.29 g/mx 303 411 0.25 g/mx				L	0.5	% v/v		Α	9.999 ml/mx					
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 108 209 303 411 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 109 210 311 402 Express 75 DF 0.25 oz/a B 0.253 g/mx NIS L 0.25 % v/v B 4.999 ml/mx NIS L 0.25 % v/v B 4.999 ml/mx NIS L 0.25 % v/v B 4.999 ml/mx NIS NIS L 0.25 % v/v B 4.999 ml/mx NIS NIS L 1 pt/a B 16.89 ml/mx 10 full tiller B 100 212 304 410 MCPA 4 L 1 pt/a B 16.89 ml/mx 11 full tiller B 111 204 310 412 Non-treated 12 full tiller B 30 4.807 g/mx NIS L 0.5 % v/v B 9.999 ml/mx NIS L 0.5 % v/v B 9.999 ml/mx		UAN		L	2	qt/a	1	A	67.56 ml/mx					
NIS	7	full tiller					I	В		107	205	309	406	
8 full tiller B 108 209 303 411 Express NIS L 0.25 % v/v B 4.999 ml/mx 109 210 311 402 9 full tiller Express 75 DF 0.25 oz/a NIS L 0.25 % v/v B 0.253 g/mx A.999 ml/mx 109 210 311 402 MCPA 4 L 1 pt/a B 16.89 ml/mx 110 212 304 410 10 full tiller MCPA 4 L 1 pt/a B 16.89 ml/mx 111 204 310 412 11 full tiller Non-treated B 111 204 301 412 12 full tiller Osprey NIS L 0.5 % v/v B 4.807 g/mx B 9.999 ml/mx 112 208 301 407			75	DF	0.25	oz/a		В	0.253 g/mx					
Express 75 DF 0.5 oz/a B 0.506 g/mx NIS L 0.25 % v/v B 4.999 ml/mx		NIS		L	0.25	% v/v		В	4.999 ml/mx					
NIS L 0.25 % v/v B 4.999 ml/mx L L O.25 % v/v B 4.999 ml/mx L D	8	full tiller					I	В		108	209	303	411	
9 full tiller			75	DF	0.5	oz/a		В	0.506 g/mx					
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 MCPA 4 L 1 pt/a B 16.89 ml/mx 11 full tiller B MCPA B 111 204 310 412 12 full tiller B MCPA B 4.5 DF 4.75 oz/a B 4.807 g/mx NIS L 0.5 % v/v B 9.999 ml/mx		NIS		L	0.25	% v/v		В	4.999 ml/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 110 212 304 410 MCPA 4 L 1 pt/a B 16.89 ml/mx 11 full tiller B 111 204 310 412 Non-treated B 112 208 301 407 Osprey 4.5 DF 4.75 oz/a B 4.807 g/mx NIS L 0.5 % v/v B 9.999 ml/mx	9	full tiller					I	В		109	210	311	402	
MCPA 4 L 1 pt/a B 16.89 ml/mx 10 full tiller B 110 212 304 410 MCPA 4 L 1 pt/a B 16.89 ml/mx 11 full tiller B 111 204 310 412 Non-treated B 112 208 301 407 Osprey 4.5 DF 4.75 oz/a B 4.807 g/mx NIS L 0.5 % v/v B 9.999 ml/mx			75	DF			I	В						
10 full tiller MCPA														
MCPA 4 L 1 pt/a B 16.89 ml/mx 11 full tiller Non-treated B 111 204 310 412 12 full tiller Osprey A.5 DF 4.75 oz/a NIS B 4.807 g/mx B 9.999 ml/mx 301 407		MCPA	4	L	1	pt/a		В	16.89 ml/mx					
11 full tiller B 111 204 310 412 Non-treated 111 204 310 412 12 full tiller B 112 208 301 407 Osprey 4.5 DF 4.75 oz/a B 4.807 g/mx NIS L 0.5 % v/v B 9.999 ml/mx 9.999 ml/mx	10									110	212	304	410	
Non-treated 12 full tiller B 112 208 301 407 Osprey 4.5 DF 4.75 oz/a B 4.807 g/mx NIS B 9.999 ml/mx		MCPA	4	L	1	pt/a	l	В	16.89 ml/mx					
12 full tiller B 112 208 301 407 Osprey 4.5 DF 4.75 oz/a B 4.807 g/mx NIS L 0.5 % v/v B 9.999 ml/mx	11	full tiller						В		111	204	310	412	
Osprey 4.5 DF 4.75 oz/a B 4.807 g/mx NIS L 0.5 % v/v B 9.999 ml/mx		Non-treated												
Osprey 4.5 DF 4.75 oz/a B 4.807 g/mx NIS L 0.5 % v/v B 9.999 ml/mx	12	full tiller						В		112	208	301	407	
		Osprey	4.5	DF	4.75	oz/a	1	В	4.807 g/mx					
UAN L 2 qt/a B 67.56 ml/mx		NIS		L	0.5	% v/v	1	В	9.999 ml/mx					
		UAN		L	2	qt/a		В	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	

Reps: 4 Plots: 12 by 25 feet

Spray vol: 14.8 gal/ac Mix size: 2 liters (min 1.5434)

_			
Trt	Tr> Form	Form	Plot No. By Rep
			, , i
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= 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, rye, and radish response to Express mixtures and Osprey.

Visual Crop Injury:

- 1. Express, MCPA, and Express plus MCPA mixtures did not visually injury oats or rye.
- 2. Osprey injured 2 leaf oat severely but oats did try to recover late in the year. Osprey smoked 2 tiller oats.
- 3. Osprey stunted 2 leaf rye 45% at 10 day after treatment; however, rye stand was not impacted and it recovered very quickly. Osprey caused less than 15% injury when applied to 2-tiller rye.
- 4. Trial could not be harvested.

Wild Radish Response:

- 1. Express alone at 0.25 oz/A provided poor control. Greater control was noted with 0.5 oz/A of Express as compared to only 0.25 oz/A. However, mixtures of Express plus MCPA or MCPA alone were much more effective.
- 2. Osprey provided good to excellent initial control of smaller radish. Larger radish began to regrow late in the season.

GENERAL COMMENTS:

Henbit was spotty but control was very poor in plots 207, 212, 302, 306, 307, 312, 401, 408, 409.

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

Trial ID: Oat&RyeO2-05 Study Dir.: Culpepper/Grey
Location: Tifton Investigator: Stanley Culpepper

	ac1011, 111.					beigaeor	beamiey	carpepper			
Wee	ed Code										
Cro	o Code			oat	oat	oat	oat	rye	rye	rye	rye
Rati	ng Data Type			injury	injury	injury	injury		injury		
	ng Unit			percent					percent		
	ng Date				Dec-28-04						
	Eval Interval			24 DA-A	53 DA-A	77 DA-A		24 DA-A	53 DA-A		172 DA-A
			-	24 DA-A	33 DA-A	TT DA-A	172 DA-A	24 07-7	33 DA-A	TT DA-A	172 07-7
	Treatment	_	Rate		_	_	_	_	_	_	
_	Name	Rate	Unit	1	2	3	4	5	6	7	8
1	2-4 leaf			3	0	1	4	0	0	1	0
	Express	0.25	oz/a								
	NIS	0.25	% v/v								
2	2-4 leaf			4	0	1	0	0	0	1	0
I -	Express	0.5	oz/a	•	ŭ	•	ŭ	ŭ	ŭ	•	ŭ
	NIS		% v/v								
		0.23	/0 V/V					_			
3	2-4 leaf		,	6	1	3	4	5	4	3	0
	Express	0.25									
	NIS		% v/v								
	MCPA	1	pt/a								
4	2-4 leaf			4	0	1	4	3	0	0	0
	MCPA	1	pt/a								
5	2-4 leaf			0	0	0	4	0	0	0	0
٦	Non-treated			O	O			O	O		U
_											
6	2-4 leaf			48	90	88	68	45	10	4	4
	Osprey	4.75									
	NIS		% v/v								
	UAN	2	qt/a								
7	full tiller			0	0	2	0	0	0	1	0
	Express	0.25	oz/a								
	NIS		% v/v								
0	full tiller	0.20	, , , , ,	0	1	2	4	0	1	1	0
0		0.5	/-	U	'	2	4	U	' '	'	U
	Express		oz/a								
	NIS	0.25	% v/v								
9	full tiller			0	0	1	5	0	0	3	0
	Express	0.25									
	NIS	0.25	% v/v								
	MCPA	1	pt/a								
10	full tiller			0	3	1	5	0	3	1	0
1	MCPA	1	pt/a	ŭ	, i			ŭ	Ĭ		ŭ
4.4	full tiller		۳.۵	0	0	0	0	0	0	0	0
17				U	U	U	U	U	U	U	U
	Non-treated										
12	full tiller			0	5	70	90	0	10	9	14
	Osprey	4.75									
	NIS	0.5	% v/v								
L	UAN	2	qt/a								
LSD	(P=.05)			3.0	3.7	1.9	8.6	2.9	2.9	3.2	3.3
	ndard Deviation	n		2.1	2.5	1.3	5.9	2.0	2.0	2.2	2.3
CV	idala Devialio	, i		38.19	30.45	9.21	38.38	45.59	88.45	114.42	
ΟV				30.19	30.43	ਹ.∠ l	30.30	40.09	00.40	114.42	100.00

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

					Oiliv	Croity	<u> </u>
Wee	ed Code			RAPRA	RAPRA	RAPRA	RAPRA
	o Code						
	ng Data Type			control	control	control	control
	ng Unit			percent			percent
	ng Date			Nov-29-04			
	Eval Interval			24 DA-A	53 DA-A	77 DA-A	172 DA-A
Trt	Treatment		Rate		00 27171		
	Name	Rate		9	10	11	12
		Nate	Ullit				
1	2-4 leaf	0.05	,	63	64	59	50
	Express	0.25					
	NIS	0.25	% v/v				
2	2-4 leaf			64	88	71	65
	Express		oz/a				
	NIS	0.25	% v/v				
3	2-4 leaf			76	99	98	99
	Express	0.25	oz/a				
	NIS	0.25	% v/v				
	MCPA	1	pt/a				
4	2-4 leaf		-	79	96	98	99
	MCPA	1	pt/a				
5	2-4 leaf	-	p	0	0	0	0
5	Non-treated			U	U	O	U
_				70	00	0.5	40
6	2-4 leaf	4 75	,	70	99	95	49
	Osprey	4.75					
	NIS		% v/v				
	UAN	2	qt/a				
7	full tiller			0	13	75	52
	Express	0.25					
	NIS	0.25	% v/v				
8	full tiller			0	47	88	84
	Express	0.5	oz/a				
L	NIS	0.25	% v/v				
9	full tiller			0	29	97	99
	Express	0.25	oz/a				
	NIS		% v/v				
	MCPA		pt/a				
10	full tiller		•	0	52	85	99
ľ	MCPA	1	pt/a		02		
11	full tiller		pvu	0	0	0	0
1 1	Non-treated			0	0	0	0
				_			
12	full tiller			0	26	86	54
	Osprey	4.75					
	NIS		% v/v				
	UAN	2	qt/a				
LSD	(P=.05)			10.8	17.0	7.1	11.7
	ndard Deviatio	n		7.4	11.8	4.9	8.1
CV				25.44	23.1	6.95	13.03

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

University of Georgia								
Oat and rye re	sponse to Express, MCPA, an	d Osprey.						
=	cudy Dir.: Culpepper/Grey estigator: Stanley Culpeppe:	r						
GENERAL TRIAL	INFORMATION							
Study Director: Stanley Culpepper Affiliation: University of Georgia Postal Code: 31793	Title: Ext.we	ed science						
Investigator: Stanley Culpepper Affiliation: University of Georgia Postal Code: 31793	Title: Ext.we	ed science						
TRIAL LOC	CATION							
City: Tifton State/Prov.: Ga Postal Code: 31793 Country: U.S.A. E-Longitude of LL Corner °: Altitude of LL Corner: Unit: Directions:	Trial Status: Trial Reliability: Initiation Date: Planned Completion Date N-Latitude of LL Corner Angle y-axis to North	good Nov-05-04 te:						
COOPERATOR/I	ANDOWNER							
Cooperator: Org: Address 1: Address 2: City: State/Prov: Postal Code: Conducted Under GLP (Y/N): N Guidelines: Guideline Descri	Phone No: Fax No: Conducted Under GEP (Y/N):	N						
Objective: Conclusions:								
Weed Code Common Name CROP AND WEED D	DESCRIPTION tific Name							
1. RAPRA wild radish								

Variety: Wrens 96

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Crop 1: Rye rye
Planting Date: Nov-05-04

Rate: 2 bu/A

Planting Method: conventional

Perennial Age: __
Row Spacing: 7.5 inch Spacing Within Row: 0. Seed Bed: flat
Soil Temperature: 59 F Soil Moisture: moist Emergence Date: Nov-12-04
Crop 2: Oat oat
                                                           Variety: Horizon 32
Planting Date: Nov-05-04
                                      Planting Method: conventional
Rate: 2 bu/A Depth: 0.5 in Perennial Age: __
Row Spacing: 7.5 inch Spacing Within Row: 0. Seed Bed: flat
Soil Temperature: 59 F Soil Moisture: moist Emergence Date: Nov-12-04
SITE AND DESIGN
Plot Width, Unit: 12 FT Plot Length, Unit: 25 FT Reps: 4
Site Type: research station
                                       Study Design: FACTORIAL
Tillage Type: conventional
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Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

MAINTENANCE

Field Prep./Maintenance:

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

SOIL DESCRIPTION

% Sand: 94 % OM: 1.1 Texture: sand
% Silt: 2 pH: 5.9 Soil Name: Tifted Soil Name: Tifton sandy loam

% Clay: 4 CEC: 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

	THI DICHTION DE					
	A	В				
Application Date:	Nov-19-04	Dec-20-04				
Time of Day:	9 am	2 pm				
Application Method:	broadcast	broadcast				
Application Timing:	2-4 leaf	2 tiller				
Applic. Placement:	overtop	overtop				
Air Temp., Unit:	71 F	68 F				
% Relative Humidity:	60	32				
Wind Velocity, Unit:	3 mph	2 mph				
Dew Presence (Y/N):	n	n				
Water Hardness:						
Soil Temp., Unit:	69 F	59 F				
Soil Moisture:	moist	moist				
% Cloud Cover:	100	100				

CROP STAGE AT EACH APPLICATION

		A			В	
Crop 1 Code, Stage:	Rye	2-4	leaf	Rye	full	till
Stage Scale:	2-3	leaf		2-3t	iller	
Height, Unit:	4	inch		5	inch	
Crop 2 Code, Stage:	Oat	2-4	leaf	0at	full	till
Stage Scale:	2 16	eaf		2 ti	ller	
Height, Unit:	3	inch		4	inch	

WEED STAGE AT EACH APPLICATION

	A	В		
Weed 1 Code, Stage:	RAPRA 2 leaf	RAPRA 2 tiller		
Stage Scale:	up to 7"	up to 10"		
Density, Unit:	3 ydsq	3 ydsq		

APPLICATION EQUIPMENT

		A		В
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:	wate	r	wate	r
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