

University of Georgia

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

Trial ID: Oat&Rye02-05

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)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code	Amt to Measure	Plot No. By Rep			
									1	2	3	4
1	2-4 leaf Express NIS	75	DF	0.25	oz/a	A	A	0.253 g/mx	101	203	307	401
	NIS	L		0.25	% v/v	A	A	4.999 ml/mx				
2	2-4 leaf Express NIS	75	DF	0.5	oz/a	A	A	0.506 g/mx	102	206	312	403
	NIS	L		0.25	% v/v	A	A	4.999 ml/mx				
3	2-4 leaf Express NIS MCPA	75	DF	0.25	oz/a	A	A	0.253 g/mx	103	207	302	408
	NIS	L		0.25	% v/v	A	A	4.999 ml/mx				
	MCPA	4	L	1	pt/a	A	A	16.89 ml/mx				
4	2-4 leaf MCPA	4	L	1	pt/a	A	A	16.89 ml/mx	104	202	306	409
5	2-4 leaf Non-treated					A			105	201	305	404
6	2-4 leaf Osprey NIS UAN	4.5	DF	4.75	oz/a	A	A	4.807 g/mx	106	211	308	405
	NIS	L		0.5	% v/v	A	A	9.999 ml/mx				
	UAN	L		2	qt/a	A	A	67.56 ml/mx				
7	full tiller Express NIS	75	DF	0.25	oz/a	B	B	0.253 g/mx	107	205	309	406
	NIS	L		0.25	% v/v	B	B	4.999 ml/mx				
8	full tiller Express NIS	75	DF	0.5	oz/a	B	B	0.506 g/mx	108	209	303	411
	NIS	L		0.25	% v/v	B	B	4.999 ml/mx				
9	full tiller Express NIS MCPA	75	DF	0.25	oz/a	B	B	0.253 g/mx	109	210	311	402
	NIS	L		0.25	% v/v	B	B	4.999 ml/mx				
	MCPA	4	L	1	pt/a	B	B	16.89 ml/mx				
10	full tiller MCPA	4	L	1	pt/a	B	B	16.89 ml/mx	110	212	304	410
11	full tiller Non-treated					B			111	204	310	412
12	full tiller Osprey NIS UAN	4.5	DF	4.75	oz/a	B	B	4.807 g/mx	112	208	301	407
	NIS	L		0.5	% v/v	B	B	9.999 ml/mx				
	UAN	L		2	qt/a	B	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	

University of Georgia

Reps: 4 Plots: 12 by 25 feet
 Spray vol: 14.8 gal/ac Mix size: 2 liters (min 1.5434)

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, 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.

University of Georgia

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

Trial ID: Oat&Rye02-05

Study Dir.: Culpepper/Grey

Location: Tifton

Investigator: Stanley Culpepper

Weed Code											
Crop Code		oat	oat	oat	oat	rye	rye	rye	rye		
Rating Data Type		injury	injury	injury	injury	injury	injury	injury	injury		
Rating Unit		percent	percent	percent	percent	percent	percent	percent	percent		
Rating Date		Nov-29-04	Dec-28-04	Jan-21-05	Apr-26-05	Nov-29-04	Dec-28-04	Jan-21-05	Apr-26-05		
Trt-Eval Interval		24 DA-A	53 DA-A	77 DA-A	172 DA-A	24 DA-A	53 DA-A	77 DA-A	172 DA-A		
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7	8
1	2-4 leaf Express NIS	0.25 0.25	oz/a % v/v	3	0	1	4	0	0	1	0
2	2-4 leaf Express NIS	0.5 0.25	oz/a % v/v	4	0	1	0	0	0	1	0
3	2-4 leaf Express NIS MCPA	0.25 0.25 1	oz/a % v/v pt/a	6	1	3	4	5	4	3	0
4	2-4 leaf MCPA	1	pt/a	4	0	1	4	3	0	0	0
5	2-4 leaf Non-treated			0	0	0	4	0	0	0	0
6	2-4 leaf Osprey NIS UAN	4.75 0.5 2	oz/a % v/v qt/a	48	90	88	68	45	10	4	4
7	full tiller Express NIS	0.25 0.25	oz/a % v/v	0	0	2	0	0	0	1	0
8	full tiller Express NIS	0.5 0.25	oz/a % v/v	0	1	2	4	0	1	1	0
9	full tiller Express NIS MCPA	0.25 0.25 1	oz/a % v/v pt/a	0	0	1	5	0	0	3	0
10	full tiller MCPA	1	pt/a	0	3	1	5	0	3	1	0
11	full tiller Non-treated			0	0	0	0	0	0	0	0
12	full tiller Osprey NIS UAN	4.75 0.5 2	oz/a % v/v qt/a	0	5	70	90	0	10	9	14
LSD (P=.05)				3.0	3.7	1.9	8.6	2.9	2.9	3.2	3.3
Standard Deviation				2.1	2.5	1.3	5.9	2.0	2.0	2.2	2.3
CV				38.19	30.45	9.21	38.38	45.59	88.45	114.42	155.06

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

University of Georgia

Weed Code		RAPRA	RAPRA	RAPRA	RAPRA	
Crop Code						
Rating Data Type		control	control	control	control	
Rating Unit		percent	percent	percent	percent	
Rating Date		Nov-29-04	Dec-28-04	Jan-21-05	Apr-26-05	
Trt-Eval Interval		24 DA-A	53 DA-A	77 DA-A	172 DA-A	
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	
		Unit				
			9	10	11	12
1	2-4 leaf Express NIS	0.25 oz/a 0.25 % v/v	63	64	59	50
2	2-4 leaf Express NIS	0.5 oz/a 0.25 % v/v	64	88	71	65
3	2-4 leaf Express NIS MCPA	0.25 oz/a 0.25 % v/v 1 pt/a	76	99	98	99
4	2-4 leaf MCPA	1 pt/a	79	96	98	99
5	2-4 leaf Non-treated		0	0	0	0
6	2-4 leaf Osprey NIS UAN	4.75 oz/a 0.5 % v/v 2 qt/a	70	99	95	49
7	full tiller Express NIS	0.25 oz/a 0.25 % v/v	0	13	75	52
8	full tiller Express NIS	0.5 oz/a 0.25 % v/v	0	47	88	84
9	full tiller Express NIS MCPA	0.25 oz/a 0.25 % v/v 1 pt/a	0	29	97	99
10	full tiller MCPA	1 pt/a	0	52	85	99
11	full tiller Non-treated		0	0	0	0
12	full tiller Osprey NIS UAN	4.75 oz/a 0.5 % v/v 2 qt/a	0	26	86	54
LSD (P=.05)			10.8	17.0	7.1	11.7
Standard Deviation			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 response to Express, MCPA, and Osprey.

Trial ID: Oat&Rye02-05 Study Dir.: Culpepper/Grey
 Location: Tifton Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

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

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

TRIAL LOCATION

City: Tifton **Trial Status:** completed
State/Prov.: Ga **Trial Reliability:** good
Postal Code: 31793 **Initiation Date:** Nov-05-04
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.	RAPRA	wild radish	

Crop 1: Rye rye **Variety:** Wrens 96
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

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
Tillage Type: conventional **Study Design:** FACTORIAL

Trial Initiation Comments:

University of Georgia

	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: 94	% OM: 1.1	Texture: sand	
% Silt: 2	pH: 5.9	Soil Name: Tifton sandy loam	
% Clay: 4	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-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	B
Crop 1 Code, Stage:	Rye 2-4 leaf	Rye full till
Stage Scale:	2-3 leaf	2-3tiller
Height, Unit:	4 inch	5 inch
Crop 2 Code, Stage:	Oat 2-4 leaf	Oat full till
Stage Scale:	2 leaf	2 tiller
Height, Unit:	3 inch	4 inch

University of Georgia

WEED STAGE AT EACH APPLICATION

	A	B
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	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