

University of Georgia

YELLOW NUTSEDGE CONTROL WITH CADRE + BROADLOOM COMBINATIONS NON-CROP (BAREGROUND)

Trial ID: PE-17-19 Study Dir.:
Location: ATTAPULGUS Investigator: Eric P. Prostko

Reps: 4 Plots: 6 by 25 feet
Appl. Amount: 15 GAL/AC Mix Size: 1.5 L (total for 4 plots; minimum=0.782 L)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Appl Stg	Appl Code	Amt Product to Measure	Diluent	Rep 1	2	3	4
1	BROADLOOM CADRE	4 SL		0.0 oz/a		POST	A		-	101	207	301	408
		2 AS		0.0 oz/a		POST	A		-				
2	BROADLOOM CADRE	4 SL		0.0 oz/a		POST	A	3.125 mL/mx	-	102	201	305	407
		2 AS		4.0 oz/a		POST	A		1496.9 mL				
3	BROADLOOM CADRE	4 SL		16.0 oz/a		POST	A	12.5 mL/mx	-	103	206	304	403
		2 AS		0.0 oz/a		POST	A		-				
4	BROADLOOM CADRE	4 SL		16.0 oz/a		POST	A	12.5 mL/mx	1484.4 mL	104	205	307	405
		2 AS		4.0 oz/a		POST	A	3.125 mL/mx					
5	BROADLOOM CADRE	4 SL		24.0 oz/a		POST	A	18.75 mL/mx	-	105	208	302	406
		2 AS		0.0 oz/a		POST	A		-				
6	BROADLOOM CADRE	4 SL		24.0 oz/a		POST	A	18.75 mL/mx	1478.1 mL	106	202	308	401
		2 AS		4.0 oz/a		POST	A	3.125 mL/mx					
7	BROADLOOM CADRE	4 SL		32.0 oz/a		POST	A	25.0 mL/mx	-	107	203	306	404
		2 AS		0.0 oz/a		POST	A		-				
8	BROADLOOM CADRE	4 SL		32.0 oz/a		POST	A	25.0 mL/mx	1471.9 mL	108	204	303	402
		2 AS		4.0 oz/a		POST	A	3.125 mL/mx					

Sort Order: Treatment

Trial Comments

ALL TRTS INCLUDED AGRIDEX @ 1% V/V (15 MLS/1500 MLS)

ENTIRE PLOT AREA TREATED WITH VALOR @ 3 OZ/A + SONALAN @ 32 OZ/A AFTER BED FORMATION (May 8, 2019).

LAST TILLAGE = MAY 6, 2019

SUMMARY:

1) YELLOW NUTSEDGE CONTROL RATINGS OBTAINED 56 DAT INDUCATED THE FOLLOWING:

A) SINGLE APPLICATIONS OF BROADLOOM PROVIDED NO CONTROL.

B) ADDITIONS OF BASAGRAN TO CADRE REDUCED YELLOW NUTSEDGE CONTROL BY 6% TO 16% DEPENDING UPON RATE.

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 NON-CROP (BAREGROUND)
 Trial ID: PE-17-19 Study Dir.:
 Location: ATTAPULGUS Investigator: Eric P. Prostko

GENERAL TRIAL INFORMATION

Study Director: _____ Title: _____
 Affiliation: _____ Postal Code: _____

Investigator: Eric P. Prostko Title: _____
 Affiliation: _____ Postal Code: _____

Trial Status: E Initiation Date: _____ Country: _____
 City: _____ State/Prov.: _____ Postal Code: _____
 Conducted Under GLP (Y/N): N Conducted Under GEP (Y/N): N

Objective:
 Conclusions:

CROP AND PEST DESCRIPTION

Weed 1. CYPES YELLOW NUTSEDGE 2. _____

Crop 1: _____ Variety: _____ Planting Date: _____
 Planting Method: _____ Rate: _____ Depth: _____
 Perennial Age: _____ Row Spacing: _____ Seed Bed: _____
 Soil Temperature: _____ Soil Moisture: _____ Emergence Date: _____

Plot Width, Unit: 6 FT Plot Length, Unit: 25 FT Reps: 4
 Site Type: _____
 Tillage Type: _____ Study Design: FACTOR
 Trial Initiation Comments: _____

Previous: Crops	Pesticides	Year
1. _____	_____	_____

MAINTENANCE

Field Prep./Maintenance: _____

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

SOIL DESCRIPTION

Texture: LOAMY SAND % OM: 1.06 % Sand: 84 % Silt: 8 % Clay: 8
 pH: 6.9 CEC: _____ Soil Name: ORANGEBURG Fertility Level: GOOD

MOISTURE CONDITIONS

On: Date	Time	Amount	Unit	Type	Interval	Unit
1. May-8-19	_____	0.5	IN	SPRINKLER - CENTER PIVOT	_____	_____
2. May-9-19	_____	0.44	IN	RAINFALL	_____	_____
3. May-10-19	_____	0.06	IN	RAINFALL	_____	_____
4. May-11-19	_____	0.03	IN	RAINFALL	_____	_____
5. May-12-19	_____	0.16	IN	RAINFALL	_____	_____
6. May-15-19	_____	0.5	IN	SPRINKLER - CENTER PIVOT	_____	_____
7. May-20-19	_____	0.5	IN	SPRINKLER - CENTER PIVOT	_____	_____
8. May-23-19	_____	0.5	IN	SPRINKLER - CENTER PIVOT	_____	_____
9. May-30-19	_____	0.5	IN	SPRINKLER - CENTER PIVOT	_____	_____
10. Jun-4-19	_____	0.5	IN	SPRINKLER - CENTER PIVOT	_____	_____

Overall Moisture Conditions: _____
 Closest Weather Station: _____ Distance: _____ Unit: _____

APPLICATION DESCRIPTION

	A	B	C	D	E	F
Application Date:	May-22-19	_____	_____	_____	_____	_____
Time of Day:	9:00 AM	_____	_____	_____	_____	_____
Application Method:	BROADCAST	_____	_____	_____	_____	_____
Application Timing:	POST	_____	_____	_____	_____	_____
Applic. Placement:	FOLIAGE	_____	_____	_____	_____	_____
Air Temp., Unit:	77 F	_____	_____	_____	_____	_____
% Relative Humidity:	72	_____	_____	_____	_____	_____
Wind Velocity, Unit:	0 MPH	_____	_____	_____	_____	_____
Dew Presence (Y/N):	N	_____	_____	_____	_____	_____
Water Hardness:	_____	_____	_____	_____	_____	_____
Soil Temp., Unit:	78 F	_____	_____	_____	_____	_____
Soil Moisture:	OPTIMUM	_____	_____	_____	_____	_____
% Cloud Cover:	0	_____	_____	_____	_____	_____

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NON-CROP (BAREGROUND)
 Trial ID: PE-17-19 Study Dir.:
 Location: ATTAPULGUS Investigator: Eric P. Prostko

CROP STAGE AT EACH APPLICATION							
		A	B	C	D	E	F
Crop 1	Stage:	_____	_____	_____	_____	_____	_____
	Stage Scale:	_____	_____	_____	_____	_____	_____
	Height, Unit:	_____	_____	_____	_____	_____	_____

WEED STAGE AT EACH APPLICATION							
		A	B	C	D	E	F
Weed 1	Stage: CYPES 6-12" T	_____	_____	_____	_____	_____	_____
	Stage Scale:	_____	_____	_____	_____	_____	_____
	Density, Unit:	_____	_____	_____	_____	_____	_____

APPLICATION EQUIPMENT							
		A	B	C	D	E	F
Appl. Equipment:	BACKPACK	_____	_____	_____	_____	_____	_____
Operating Pressure:	40	_____	_____	_____	_____	_____	_____
Nozzle Type:	AIXR	_____	_____	_____	_____	_____	_____
Nozzle Size:	11002	_____	_____	_____	_____	_____	_____
Nozzle Spacing, Unit:	20 IN	_____	_____	_____	_____	_____	_____
Nozzles/Row:	_____	_____	_____	_____	_____	_____	_____
Band Width, Unit:	_____	_____	_____	_____	_____	_____	_____
Boom Length, Unit:	60 IN	_____	_____	_____	_____	_____	_____
Boom Height, Unit:	20 IN	_____	_____	_____	_____	_____	_____
Ground Speed, Unit:	3.5 MPH	_____	_____	_____	_____	_____	_____
Incorporation Equip.:	_____	_____	_____	_____	_____	_____	_____
Hours to Incorp.:	_____	_____	_____	_____	_____	_____	_____
Incorp. Depth, Unit:	_____	_____	_____	_____	_____	_____	_____
Carrier:	WATER	_____	_____	_____	_____	_____	_____
Spray Volume, Unit:	15 GPA	_____	_____	_____	_____	_____	_____
Spray pH:	_____	_____	_____	_____	_____	_____	_____
Propellant:	CO2	_____	_____	_____	_____	_____	_____
Tank Mix (Y/N):	_____	_____	_____	_____	_____	_____	_____

Trt No	Treatment Application Comment
_____	_____

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YELLOW NUTSEDGE CONTROL WITH CADRE + BROADLOOM COMBINATIONS NON-CROP (BAREGROUND)												
Trial ID:		PE-17-19		Study Dir.:		Eric P. Prostko						
Location:		ATTAPULGUS		Investigator:								
Weed Code						Cypes Control Percent	Cypes Control Percent	Cypes Control Percent	Cypes Control Percent	Cypes Control Percent		
Rating Data Type						May-31-19	Jun-3-19	Jun-12-19	Jun-24-19	Jul-17-19		
Rating Unit						9 DA-A	12 DA-A	21 DA-A	33 DA-A	56 DA-A		
Rating Date												
Trt-Eval Interval												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	1	2	3		
TABLE OF R MEANS												
Replicate 1								33.1	38.8	33.1	38.1	33.8
Replicate 2								32.5	28.1	34.4	35.0	35.0
Replicate 3								30.6	34.4	34.4	35.0	31.9
Replicate 4								23.1	35.0	32.5	33.1	33.1
TABLE OF A (CADRE RATE) MEANS												
1	BROADLOOM	4	SL	0.0 oz/a	POST	A		18.8 b	25.6 b	31.9 bc	34.4 -	37.5 a
2	BROADLOOM	4	SL	16.0 oz/a	POST	A		23.1 b	29.4 b	30.0 c	33.1 -	29.4 c
3	BROADLOOM	4	SL	24.0 oz/a	POST	A		36.3 a	38.1 a	34.4 ab	35.6 -	32.5 bc
4	BROADLOOM	4	SL	32.0 oz/a	POST	A		41.3 a	43.1 a	38.1 a	38.1 -	34.4 ab
LSD P=.10								6.75	5.26	4.12	3.54	3.78
Standard Deviation								7.37	5.74	4.50	3.86	4.12
CV								24.68	16.86	13.39	10.94	12.34
TABLE OF B (BASAGRAN RATE) MEANS												
1	CADRE	2	AS	0.0 oz/a	POST	A		19.1 b	15.0 b	3.1 b	6.3 b	0.0 b
2	CADRE	2	AS	4.0 oz/a	POST	A		40.6 a	53.1 a	64.1 a	64.4 a	66.9 a
LSD P=.10								7.82	9.19	4.22	3.50	3.06
Standard Deviation								9.40	11.04	5.08	4.21	3.68
CV								31.48	32.41	15.11	11.92	11.01
TABLE OF A (CADRE RATE) B (BASAGRAN RATE) MEANS												
1	BROADLOOM	4	SL	0.0 oz/a	POST	A		0.0 e	0.0 e	0.0 -	0.0 d	0.0 d
1	CADRE	2	AS	0.0 oz/a	POST	A						
2	BROADLOOM	4	SL	16.0 oz/a	POST	A		12.5 d	10.0 d	0.0 -	5.0 cd	0.0 d
1	CADRE	2	AS	0.0 oz/a	POST	A						
3	BROADLOOM	4	SL	24.0 oz/a	POST	A		31.3 c	22.5 c	7.5 -	10.0 c	0.0 d
1	CADRE	2	AS	0.0 oz/a	POST	A						
4	BROADLOOM	4	SL	32.0 oz/a	POST	A		32.5 bc	27.5 c	5.0 -	10.0 c	0.0 d
1	CADRE	2	AS	0.0 oz/a	POST	A						
1	BROADLOOM	4	SL	0.0 oz/a	POST	A		37.5 bc	51.3 ab	63.8 -	68.8 a	75.0 a
2	CADRE	2	AS	4.0 oz/a	POST	A						
2	BROADLOOM	4	SL	16.0 oz/a	POST	A		33.8 bc	48.8 b	60.0 -	61.3 b	58.8 c
2	CADRE	2	AS	4.0 oz/a	POST	A						
3	BROADLOOM	4	SL	24.0 oz/a	POST	A		41.3 ab	53.8 ab	61.3 -	61.3 b	65.0 b
2	CADRE	2	AS	4.0 oz/a	POST	A						
4	BROADLOOM	4	SL	32.0 oz/a	POST	A		50.0 a	58.8 a	71.3 -	66.3 ab	68.8 b
2	CADRE	2	AS	4.0 oz/a	POST	A						
LSD P=.10								8.85	9.63	8.09	5.01	5.35
Standard Deviation								6.83	7.43	6.24	3.86	4.12
CV								22.88	21.81	18.58	10.94	12.34

Means followed by same letter or symbol do not significantly differ (P=.10, LSD).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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YELLOW NUTSEDGE CONTROL WITH CADRE + BROADLOOM COMBINATIONS NON-CROP (BAREGROUND)							
Trial ID:	PE-17-19	Study Dir.:					
Location:	ATTAPULGUS	Investigator:		Eric P. Prostko			
COMPLETE FACTORIAL AOV For Cypes Control Percent May-31-19 9 DA-A (Data Column 1)							
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	LSD (.10)	
Total	31	8924.218750					
R	3	508.593750	169.531250	3.637	0.0576		
A	3	2714.843750	904.947917	16.680	0.0005	6.8	
RA	9	488.281250	54.253472				
B	1	3719.531250	3719.531250	42.133	0.0074	7.8	
RB	3	264.843750	88.281250				
AB	3	808.593750	269.531250	5.782	0.0175	8.8	
RAB	9	419.531250	46.614583				
COMPLETE FACTORIAL AOV For Cypes Control Percent Jun-3-19 12 DA-A (Data Column 2)							
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	LSD (.10)	
Total	31	15321.875000					
R	3	465.625000	155.208333	2.811	0.1001		
A	3	1534.375000	511.458333	15.505	0.0007	5.3	
RA	9	296.875000	32.986111				
B	1	11628.125000	11628.125000	95.410	0.0023	9.2	
RB	3	365.625000	121.875000				
AB	3	534.375000	178.125000	3.226	0.0752	9.6	
RAB	9	496.875000	55.208333				
COMPLETE FACTORIAL AOV For Cypes Control Percent Jun-12-19 21 DA-A (Data Column 3)							
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	LSD (.10)	
Total	31	30811.718750					
R	3	21.093750	7.031250	0.180	0.9070		
A	3	296.093750	98.697917	4.880	0.0278	4.1	
RA	9	182.031250	20.225694				
B	1	29707.031250	29707.031250	1152.273	0.0001	4.2	
RB	3	77.343750	25.781250				
AB	3	177.343750	59.114583	1.517	0.2757	8.1	
RAB	9	350.781250	38.975694				
COMPLETE FACTORIAL AOV For Cypes Control Percent Jun-24-19 33 DA-A (Data Column 4)							
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	LSD (.10)	
Total	31	27896.875000					
R	3	103.125000	34.375000	2.302	0.1457		
A	3	109.375000	36.458333	2.442	0.1311	3.5	
RA	9	134.375000	14.930556				
B	1	27028.125000	27028.125000	1526.294	0.0001	3.5	
RB	3	53.125000	17.708333				
AB	3	334.375000	111.458333	7.465	0.0082	5.0	
RAB	9	134.375000	14.930556				
COMPLETE FACTORIAL AOV For Cypes Control Percent Jul-17-19 56 DA-A (Data Column 5)							
Source	DF	Sum of Squares	Mean Square	F	Prob(F)	LSD (.10)	
Total	31	36721.875000					
R	3	40.625000	13.541667	0.796	0.5264		
A	3	278.125000	92.708333	5.449	0.0206	3.8	
RA	9	153.125000	17.013889				
B	1	35778.125000	35778.125000	2642.077	0.0001	3.1	
RB	3	40.625000	13.541667				
AB	3	278.125000	92.708333	5.449	0.0206	5.3	
RAB	9	153.125000	17.013889				
Weed Code Cypes = NUTSEDGE, YELLOW / CYPERUS ESCULENTUS L.							

Means followed by same letter or symbol do not significantly differ (P=.10, LSD).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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YELLOW NUTSEDGE CONTROL WITH CADRE + BROADLOOM COMBINATIONS
NON-CROP (BAREGROUND)
 Trial ID: PE-17-19 Study Dir.:
 Location: ATTAPULGUS Investigator: Eric P. Prostko

Weed Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	Cypes Control Percent	Cypes Control Percent	Cypes Control Percent	Cypes Control Percent	Cypes Control Percent	
					May-31-19	Jun-3-19	Jun-12-19	Jun-24-19	Jul-17-19	
					9 DA-A	12 DA-A	21 DA-A	33 DA-A	56 DA-A	
Trt Treatment	Form	Form	Rate	Grow	Appl					
No. Name	Conc	Type	Rate	Unit	Stg	Code	Plot			
								1	2	
								3	4	
								5		
1 BROADLOOM	4 SL		0.0 oz/a		POST A	101		0.0	0.0	0.0
CADRE	2 AS		0.0 oz/a		POST A	207		0.0	0.0	0.0
						301		0.0	0.0	0.0
						408		0.0	0.0	0.0
						Mean =		0.0	0.0	0.0
2 BROADLOOM	4 SL		0.0 oz/a		POST A	102		50.0	65.0	70.0
CADRE	2 AS		4.0 oz/a		POST A	201		40.0	40.0	65.0
						305		30.0	50.0	60.0
						407		30.0	50.0	60.0
						Mean =		37.5	51.3	63.8
3 BROADLOOM	4 SL		16.0 oz/a		POST A	103		20.0	20.0	0.0
CADRE	2 AS		0.0 oz/a		POST A	206		10.0	0.0	0.0
						304		10.0	10.0	0.0
						403		10.0	10.0	0.0
						Mean =		12.5	10.0	0.0
4 BROADLOOM	4 SL		16.0 oz/a		POST A	104		45.0	60.0	60.0
CADRE	2 AS		4.0 oz/a		POST A	205		40.0	45.0	65.0
						307		30.0	45.0	55.0
						405		20.0	45.0	60.0
						Mean =		33.8	48.8	60.0
5 BROADLOOM	4 SL		24.0 oz/a		POST A	105		25.0	20.0	0.0
CADRE	2 AS		0.0 oz/a		POST A	208		45.0	20.0	20.0
						302		40.0	20.0	10.0
						406		15.0	30.0	0.0
						Mean =		31.3	22.5	7.5
6 BROADLOOM	4 SL		24.0 oz/a		POST A	106		40.0	55.0	60.0
CADRE	2 AS		4.0 oz/a		POST A	202		45.0	40.0	55.0
						308		40.0	60.0	65.0
						401		40.0	60.0	65.0
						Mean =		41.3	53.8	61.3
7 BROADLOOM	4 SL		32.0 oz/a		POST A	107		25.0	20.0	0.0
CADRE	2 AS		0.0 oz/a		POST A	203		35.0	25.0	0.0
						306		40.0	25.0	10.0
						404		30.0	40.0	10.0
						Mean =		32.5	27.5	5.0
8 BROADLOOM	4 SL		32.0 oz/a		POST A	108		60.0	70.0	75.0
CADRE	2 AS		4.0 oz/a		POST A	204		45.0	55.0	70.0
						303		55.0	65.0	75.0
						402		40.0	45.0	65.0
						Mean =		50.0	58.8	71.3

Weed Code
 Cypes = NUTSEDGE, YELLOW / CYPERUS ESCULENTUS L.