

University of GA Coop Ext Service

Efficacy of Flazasulfuron for "Clump" Perennial Ryegrass Control in Bermudagrass

Trial ID: Turf22-03

Study Dir.: Bill Nutt

Location: GRIFFIN, GA

Investigator: Tim R Murphy

GENERAL TRIAL INFORMATION

Study Director: Bill Nutt

Title: ARC I

Affiliation: UGA-CAES

Investigator: Tim R Murphy

Title: Weed Scientist

Affiliation: UGA-CAES

TRIAL LOCATION

City: Griffin

Trial Status: ARCHIVED

State/Prov.: GA

Initiation Date: 4-4-2003

COOPERATOR/LANDOWNER

Cooperator: Mel Grove

Org: ISK BioSciences

Objective: Determine the lowest effective rate of flazasulfuron 25DG for removal of cool-season grasses encroaching on the edge of bermudagrass fairways after greenup.

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	LOLPE	Ryegrass, Perennial	<i>Lolium perenne</i>
2.	POAAN	Bluegrass, Annual	<i>Poa annua</i>

Crop 1: CYNDA Bermudagrass/*Cynodon dactylon* **Variety:** Common **Perennial Age:** 20 yrs

SITE AND DESIGN

Plot Width, Unit: 6 FT Plot Length, Unit: 8 FT Reps: 4

Site Type: Edge of bermudagrass fairway Study Design: RANDOMIZED COMPLETE BLOCK

APPLICATION DESCRIPTION

	A
Application Date:	4-4-2003
Time of Day:	9:30 AM
Application Method:	Broadcast
Application Timing:	Post
Applic. Placement:	Foliar
Air Temp., Unit:	64 F
% Relative Humidity:	74
Wind Velocity, Unit:	3 mph
Dew Presence (Y/N):	N
Soil Temp., Unit:	60 F
Soil Moisture:	Good
% Cloud Cover:	30

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CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	CYNDA Greenup
Stage Scale:	30%
Height, Unit:	0.75 inch

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	LOLPE 2-6" Dia
Stage Scale:	2-3" Hght
Density, Unit:	50 %
Weed 2 Code, Stage:	POAAN Late Seedhead stage
	Plants beginning to yellow.
Density, Unit:	20 %

APPLICATION EQUIPMENT

	A
Appl. Equipment:	Backpack
Operating Pressure:	26 psi
Nozzle Type:	Flat fan
Nozzle Size:	8004
Nozzle Spacing, Unit:	20 inch
Boom Length, Unit:	5 feet
Boom Height, Unit:	18 inch
Ground Speed, Unit:	3 mph
Carrier:	Water
Spray Volume, Unit:	25 gpa
Propellant:	C02
Tank Mix (Y/N):	N

Trial Comments

Weed density ratings for untreated control check.

	<u>101</u>	<u>204</u>	<u>306</u>
LOLPE,4-11-03	20	60	45
POAAN	40	25	30

4-29-03

Broadcast 10-10-10 fertilizer at 10 lb/1000 sq. ft.

4-30-03

No bermudagrass, CYNDA, injury observed.

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Weed Code							LOLPE	LOLPE	LOLPE	LOLPE
Crop Code										
Rating Data Type							Control	Control	Control	Control
Rating Unit							0-100	0-100	0-100	0-100
Rating Date							4-11-2003	4-18-2003	4-30-2003	5-7-2003
Trt-Eval Interval							7 DA-A	14 DA-A	26 DA-A	33 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Product Rate	Product Rate Unit	Appl Code				
1	Untreated						0 c	0 e	0 d	0 d
2	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	0.5 oz wt/a 0.25 % v/v	A A		5 a	11 cd	41 b	70 b
3	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	1.0 oz wt/a 0.25 % v/v	A A		5 a	13 bc	46 ab	76 ab
4	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	1.5 oz wt/a 0.25 % v/v	A A		5 a	14 abc	48 ab	79 ab
5	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	2.25 oz wt/a 0.25 % v/v	A A		5 a	16 a	50 a	83 a
6	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	3.0 oz wt/a 0.25 % v/v	A A		5 a	15 ab	48 ab	85 a
7	Revolver	0.19	SC	17.4 fl oz/a	A		5 a	14 abc	44 ab	59 c
8	Manor Chem-Nut 80/20 NIS	60	DG	0.5 oz wt/a 0.25 % v/v	A A		3 b	9 d	13 c	0 d
LSD (P=.05)							1.5	2.6	6.5	10.8
Standard Deviation							1.0	1.8	4.4	7.3
CV							25.12	15.59	12.24	13.0

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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							LOLPE	LOLPE	LOLPE	POAAN	POAAN
							Control	Control	Control	Control	Control
							0-100	0-100	0-100	0-100	0-100
							5-14-2003	5-27-2003	7-3-2003	4-11-2003	5-7-2003
							40 DA-A	53 DA-A	90 DA-A	7 DA-A	33 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Product Rate	Product Unit	Appl Code					
1	Untreated						0 d	0 d	0 d	0 b	5 cd
2	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	0.5 oz wt/a 0.25 % v/v	A A		90 b	85 b	84 b	15 a	5 cd
3	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	1.0 oz wt/a 0.25 % v/v	A A		99 a	99 a	99 a	16 a	10 cd
4	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	1.5 oz wt/a 0.25 % v/v	A A		99 a	96 ab	100 a	16 a	15 cd
5	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	2.25 oz wt/a 0.25 % v/v	A A		100 a	100 a	100 a	15 a	25 c
6	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	3.0 oz wt/a 0.25 % v/v	A A		100 a	100 a	100 a	16 a	65 b
7	Revolver	0.19	SC	17.4 fl oz/a	A		65 c	53 c	46 c	15 a	100 a
8	Manor Chem-Nut 80/20 NIS	60	DG	0.5 oz wt/a 0.25 % v/v	A A		3 d	5 d	0 d	13 a	0 d
LSD (P=.05)							7.6	11.7	13.9	3.6	19.3
Standard Deviation							5.2	8.0	9.4	2.4	13.1
CV							7.5	11.86	14.26	18.2	46.67

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Weed Code							CYNDA	CYNDA	CYNDA	CYNDA
Crop Code							Injury	Injury	Injury	Injury
Rating Data Type							0-100	0-100	0-100	0-100
Rating Unit							4-11-2003	4-18-2003	5-7-2003	5-14-2003
Rating Date							7 DA-A	14 DA-A	33 DA-A	40 DA-A
Trt-Eval Interval										
Trt No.	Treatment Name	Form Conc	Form Type	Product Rate	Product Unit	Appl Code				
1	Untreated						0 a	0 a	0 a	0 a
2	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	0.5 oz wt/a 0.25 % v/v	A	A	0 a	0 a	0 a	0 a
3	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	1.0 oz wt/a 0.25 % v/v	A	A	0 a	0 a	0 a	0 a
4	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	1.5 oz wt/a 0.25 % v/v	A	A	0 a	0 a	0 a	0 a
5	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	2.25 oz wt/a 0.25 % v/v	A	A	0 a	0 a	0 a	0 a
6	FLAZASULFURON Chem-Nut 80/20 NIS	25	DG	3.0 oz wt/a 0.25 % v/v	A	A	0 a	0 a	0 a	0 a
7	Revolver	0.19	SC	17.4 fl oz/a	A	A	0 a	0 a	0 a	0 a
8	Manor Chem-Nut 80/20 NIS	60	DG	0.5 oz wt/a 0.25 % v/v	A	A	0 a	0 a	0 a	0 a
LSD (P=.05)							0.0	0.0	0.0	0.0
Standard Deviation							0.0	0.0	0.0	0.0
CV							0.0	0.0	0.0	0.0

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)