

North Carolina State University

COMPARISON OF LESCO/MICROFLO PRODIAMINE VS. SYNGENTA PRODIAMINE FOR PRE GOOSEGRASS CONTROL IN COMMON BERMUDAGRASS

Trial ID: 03-T12
Location: THORNDALE C.C.

Study Dir.: L.S. WARREN
Investigator: Fred Yelverton

GENERAL TRIAL INFORMATION

Study Director: L.S. WARREN	Title: RESEARCH ASSOCIATE
Affiliation: NORTH CAROLINA STATE UNIVERSITY	
Postal Code: 27695	
Investigator: Fred Yelverton	Title: PROFESSOR
Affiliation: NORTH CAROLINA STATE UNIVERSITY	
Postal Code: 27695	

TRIAL LOCATION

City: OXFORD	Trial Status: COMPLETED	
State/Prov.: NC		
	Initiation Date: 3-12-03	
Country: USA		

COOPERATOR/LANDOWNER

Cooperator: BRUCE STONE	Country: USA
Org: THORNDALE COUNTRY CLUB	Phone No: 919/693-7404
City: OXFORD	
State/Prov: NC	

Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N

Objective: EVALUATE LESCO/MICROFLO PRODIAMINE VS. SYNGENTA PRODIAMINE FOR PRE GOOSEGRASS CONTROL IN COMMON BERMUDAGRASS

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	ELEIN	GOOSEGRASS	ELEUSINE INDICA

Crop 1: CYNDA BERMUDAGRASS **Variety:** COMMON

SITE AND DESIGN

Plot Width, Unit: 5 FT **Plot Length, Unit:** 10 FT **Reps:** 4
Site Type: TURF - GOLF COURSE FAIRWAY
Tillage Type: NA **Study Design:** RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

% OM: 0.76
pH: 4.7
CEC: 4.2 **Fert. Level:** POOR

MOISTURE CONDITIONS

#	Date	Time	Amount	Unit	Type	Interval	Unit
1.	3-6-03		0.58	IN	RAINFALL	6	DBT
2.	3-14-03		0.26	IN	RAINFALL	2	DAT
3.	3-17-03		0.47	IN	RAINFALL	5	DAT
4.	3-20-03		1.37	IN	RAINFALL	8	DAT
5.	4-9-03		1.80	IN	RAINFALL	28	DAT
6.	4-27-03		0.90	IN	RAINFALL	46	DAT
7.	5-6-03		0.24	IN	RAINFALL	55	DAT
8.	5-11-03		0.64	IN	RAINFALL	60	DAT
9.	5-16-03		0.78	IN	RAINFALL	65	DAT
10.	5-22-03		1.05	IN	RAINFALL	71	DAT

Overall Moisture Conditions: MAR 6.08"; APR 6.25"; MAY 6.95"; JUN 5.61"
Closest Weather Station: OXFORD AG, NC **Distance:** 0.5 **Unit:** MI

APPLICATION DESCRIPTION

	A
Application Date:	3-12-03
Time of Day:	2:00 PM
Application Method:	SPRAY/DRY
Application Timing:	PRE
Applic. Placement:	BROSIOI
Air Temp., Unit:	71 F
% Relative Humidity:	50
Wind Velocity, Unit:	2.0 MPH
Dew Presence (Y/N):	N
Soil Temp., Unit:	57 F
Soil Moisture:	WET
% Cloud Cover:	0

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CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	CYNDA DORMANT
Stage Scale:	NA
Height, Unit:	0.5 IN

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	ELEIN PRE
Stage Scale:	NA
Density, Unit:	0 FT2

APPLICATION EQUIPMENT

	A
Appl. Equipment:	BACSPR
Operating Pressure:	35 PSI
Nozzle Type:	FLAT FAN
Nozzle Size:	XR 8002VS
Nozzle Spacing, Unit:	10 IN
Band Width, Unit:	40 IN
Boom Length, Unit:	40 IN
Boom Height, Unit:	10 IN
Ground Speed, Unit:	3 MPH
Carrier:	WATER
Spray Volume, Unit:	32.5 GPA
Propellant:	COMCO2
Tank Mix (Y/N):	N

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Weed Code										ELEIN	ELEIN	
Rating Data Type										CONTROL	CONTROL	
Rating Unit										PERCENT	PERCENT	
Rating Date										6-9-03	7-1-03	
Assessed By										L.S. WARREN	L.S. WARREN	
Trt-Eval Interval										89 DA-A	111 DA-A	
ARM Action Codes										P	P	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Product Unit	Product Rate	Product Unit	Grow Stg	Appl Code	Spray Volume		
1	HAMMERLOCK PLUS 19-3-7	0.43	G	0.65	lb ai/a			MAR 12	A		100.0 a	93.5 ab
2	BARRICADE PLUS 19-3-7	0.43	G	0.65	lb ai/a			MAR 12	A		100.0 a	88.5 b
3	LESCO/MICROFLO PRODIAMINE	65	WP	0.65	lb ai/a			MAR 12	A		100.0 a	99.0 a
4	SYNGENTA PRODIAMINE	65	WP	0.65	lb ai/a			MAR 12	A		100.0 a	99.0 a
5	SYNGENTA PRODIAMINE	4.0	F	0.65	lb ai/a			MAR 12	A		100.0 a	94.5 ab
6	CHECK										0.0 b	0.0 c
LSD (P=.05)											0.00	8.81
Standard Deviation											0.00	5.85
CV											0.0	7.4
Grand Mean											83.33	79.08
Bartlett's X2											0.0	4.057
P(Bartlett's X2)											.	0.132
Replicate F											0.000	1.187
Replicate Prob(F)											1.0000	0.3480
Treatment F											0.000	177.292
Treatment Prob(F)											1.0000	0.0001

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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										ELEIN CONTROL PERCENT	ELEIN CONTROL PERCENT	
Weed Code										8-5-03	9-2-03	
Rating Data Type										L.S. WARREN	L.S. WARREN	
Rating Unit										146 DA-A	174 DA-A	
Rating Date										P	P	
Assessed By												
Trt-Eval Interval												
ARM Action Codes												
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	Spray Volume		
1	HAMMERLOCK PLUS 19-3-7	0.43	G	0.65	lb ai/a			MAR 12	A		76.3 b	51.3 c
2	BARRICADE PLUS 19-3-7	0.43	G	0.65	lb ai/a			MAR 12	A		80.0 ab	67.5 bc
3	LESCO/MICROFLO PRODIAMINE	65	WP	0.65	lb ai/a			MAR 12	A		83.3 ab	76.3 ab
4	SYNGENTA PRODIAMINE	65	WP	0.65	lb ai/a			MAR 12	A		98.3 a	88.5 a
5	SYNGENTA PRODIAMINE	4.0	F	0.65	lb ai/a			MAR 12	A		78.3 b	68.8 bc
6	CHECK										0.0 c	0.0 d
LSD (P=.05)										19.31	19.16	
Standard Deviation										12.81	12.71	
CV										18.48	21.66	
Grand Mean										69.33	58.71	
Bartlett's X2										12.121	4.665	
P(Bartlett's X2)										0.016*	0.323	
Replicate F										2.876	4.337	
Replicate Prob(F)										0.0710	0.0217	
Treatment F										29.617	24.129	
Treatment Prob(F)										0.0001	0.0001	

Means followed by same letter do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Trial Comments

03-12-03: GRANULAR HERBICIDES APPLIED WITH SHAKER JARS

04-11-03: ELEIN IN OPEN AREAS BEGINNING TO GERMINATE AND IN THE VERY EARLY 1 LEAF STAGE AT 0.25 INCHES

05-06-03: ELEIN IN NONTREATED OPEN BARE AREAS AT 2 LEAF STAGE AND 0.25 INCHES TALL
ELEIN WAS NOT OBSERVED IN ANY OF THE TREATED PLOTS
POAAN INFESTATION SEVERE WHERE DIGIS COULD NOT BE ACCURATELY EVALUATED AT THIS TIME

06-09-03: ELEIN STILL BASICALLY IN THE 2 TO 3 LEAF STAGE WITH VERY FEW PLANTS LARGER THAN 0.25 INCH OR TILLERING AND DIFFICULT TO EVALUATE DUE TO HEAVY POAAN INFESTATION THAT LASTED THROUGH THE FIRST OF JUNE (FAIRWAYS WERE SHAGGY ALL SPRING DUE TO FREQUENT RAINS THROUGHOUT THE ENTIRE WINTER AND SPRING)