North Carolina State University

TOLERANCE OF 'TIFSPORT' BERMUDAGRASS TO POST EMERGENT HERBICIDE APPLICATIONS

Trial ID: 04-D40 Study Director: TRAVIS GANNON
Location: NCSU TURF FIELD LAB Investigator: Fred Yelverton

General Trial Information

Study Director: TRAVIS GANNON **Title:** RESEARCH ASSOCIATE
Affiliation: NORTH CAROLINA STATE UNIVERSITY
Postal Code: 27695 **E-mail:** TRAVIS_GANNON@NCSU.EDU
Investigator: FRED YELVERTON **Title:** PROFESSOR
Affiliation: NORTH CAROLINA STATE UNIVERSITY
Postal Code: 27695 **E-mail:** FRED_YELVERTON@NCSU.EDU

Trial Location

City: RALEIGH **Trial Status:** COMPLETED
State/Prov.: NC
Postal Code: 27603 **Initiation Date:** 7-19-04
Country: USA
Directions:

Objectives:
Determine the safety profile of LABS 146-F01 for various turf species.
Determine the effective rate of LABS 146-F01 for good weed control.

Conclusions:

Cooperator/Landowner

Cooperator: BILL WHALEY **Country:** USA
Organization: NORTH CAROLINA STATE UNIVERSITY **Phone No:** 919.515.3509
Address 1: 3720 LAKE WHEELER RD
City: RALEIGH
State/Prov: NC
Postal Code: 27603

Crop Description

Crop 1: CYNDA Cynodon dactylon Bermuda grass
Variety: TIFSPORT
BBCH Scale: BGRM

Site and Design

Plot Width, Unit: 5 FT **Site Type:** GOLF COURSE FAIRWAY
Plot Length, Unit: 5 FT
Replications: 4 **Study Design:** Randomized Complete Block

Trial Initiation Comments:

Field Prep./Maintenance:

Soil Description

Texture: MINERAL
Fert. Level: GOOD

Moisture Conditions

Overall Moisture Conditions: IRRIGATED AS NEEDED

Application Description

	A
Application Date:	7-19-04
Time of Day:	9-10 AM
Application Method:	SPRAY
Application Timing:	JULY 19
Application Placement:	FOLIAR
Applied By:	T GANNON
Air Temperature, Unit:	84.9 F
% Relative Humidity:	75
Wind Velocity, Unit:	1.1 MPH
Dew Presence (Y/N):	N
Soil Temperature, Unit:	85 F
Soil Moisture:	GOOD
% Cloud Cover:	25

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Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	CYNDA BGRM
Stage Scale Used:	MOWED
Height, Unit:	0.75 IN
Height Minimum, Maximum:	0.75 0.75

Application Equipment

	A
Appl. Equipment:	CO2 SPRAY
Operating Pressure:	30
Pressure Unit:	PSI
Nozzle Type:	FLAT FAN
Nozzle Size:	VS8006XR
Nozzle Spacing, Unit:	10 INCH
Nozzles/Row:	4
Boom Length, Unit:	40 INCH
Boom Height, Unit:	10 INCH
Ground Speed, Unit:	2.5 MPH
Carrier:	WATER
Spray Volume:	107
Volume Unit:	GPA
Propellant:	COMP CO2

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
Crop Code										CYNDA	CYNDA	CYNDA	CYNDA
BBCH Scale										BGRM	BGRM	BGRM	BGRM
Crop Name										Bermuda grass	Bermuda grass	Bermuda grass	Bermuda grass
Rating Date										7-21-04	7-29-04	8-2-04	8-11-04
Rating Data Type										PHYTO	PHYTO	PHYTO	PHYTO
Rating Unit										%	%	%	%
Days After Last Applic.										2	10	14	23
Trt-Eval Interval										2 DA-A	10 DA-A	14 DA-A	23 DA-A
1	LABS 146-F01	1.16	L	2	fl oz/1000 ft2	2	fl oz/1000 ft2	JULY 19	A	1.3 c	3.8 ef	0.0 d	0.0 b
2	LABS 146-F01	1.16	L	4	fl oz/1000 ft2	4	fl oz/1000 ft2	JULY 19	A	5.0 bc	8.8 de	2.5 cd	0.0 b
3	LABS 146-F01	1.16	L	6	fl oz/1000 ft2	6	fl oz/1000 ft2	JULY 19	A	5.0 bc	15.0 c	7.5 bc	1.3 b
4	LABS 146-F01	1.16	L	8	fl oz/1000 ft2	8	fl oz/1000 ft2	JULY 19	A	7.5 b	25.0 b	8.8 b	5.0 b
5	LABS 146-F01	1.16	L	16	fl oz/1000 ft2	16	fl oz/1000 ft2	JULY 19	A	8.8 b	40.0 a	16.3 a	16.3 a
6	WEED-B-GON	0.69	L	5	fl oz/1000 ft2	5	fl oz/1000 ft2	JULY 19	A	1.3 c	12.5 cd	8.8 b	0.0 b
7	WEED-B-GON	0.69	L	20	fl oz/1000 ft2	20	fl oz/1000 ft2	JULY 19	A	15.0 a	35.0 a	16.3 a	13.8 a
8	NONTREATED									0.0 c	0.0 f	0.0 d	0.0 b
LSD (P=.05)										5.54	6.16	5.95	6.04
Standard Deviation										3.76	4.19	4.05	4.11
CV										68.84	23.95	53.94	90.6
Grand Mean										5.47	17.5	7.5	4.53
Bartlett's X2										6.044	5.217	5.709	5.641
P(Bartlett's X2)										0.418	0.39	0.336	0.13
Friedman's X2										17.542	25.979	22.313	18.813
P(Friedman's X2)										0.014	0.001	0.002	0.009
Replicate F										3.142	0.831	1.655	3.013
Replicate Prob(F)										0.0468	0.4920	0.2072	0.0529
Treatment F										6.921	47.898	10.255	10.695
Treatment Prob(F)										0.0002	0.0001	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.

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Crop Code	CYNDA
BBCH Scale	BGRM
Crop Name	Bermuda grass
Rating Date	8-16-04
Rating Data Type	PHYTO
Rating Unit	%
Days After Last Applic.	28
Trt-Eval Interval	28 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	LABS 146-F01	1.16	L	2	fl oz/1000 ft2	2	fl oz/1000 ft2	JULY 19	A	0.0 a
2	LABS 146-F01	1.16	L	4	fl oz/1000 ft2	4	fl oz/1000 ft2	JULY 19	A	0.0 a
3	LABS 146-F01	1.16	L	6	fl oz/1000 ft2	6	fl oz/1000 ft2	JULY 19	A	0.0 a
4	LABS 146-F01	1.16	L	8	fl oz/1000 ft2	8	fl oz/1000 ft2	JULY 19	A	0.0 a
5	LABS 146-F01	1.16	L	16	fl oz/1000 ft2	16	fl oz/1000 ft2	JULY 19	A	0.0 a
6	WEED-B-GON	0.69	L	5	fl oz/1000 ft2	5	fl oz/1000 ft2	JULY 19	A	0.0 a
7	WEED-B-GON	0.69	L	20	fl oz/1000 ft2	20	fl oz/1000 ft2	JULY 19	A	0.0 a
8	NONTREATED									0.0 a

LSD (P=.05)	0.00
Standard Deviation	0.00
CV	0.0
Grand Mean	0.0
Bartlett's X2	0.0
P(Bartlett's X2)	.
Friedman's X2	0.0
P(Friedman's X2)	1.00
Replicate F	0.000
Replicate Prob(F)	1.0000
Treatment F	0.000
Treatment Prob(F)	1.0000

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