

# North Carolina State University

## Doveweed Control in Bermudagrass Rough

Trial ID: 05-D08  
Protocol ID: Study Director: Travis Gannon  
Location: Porters Neck Golf Club 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:** Wilmington **Trial Status:** Completed  
**State/Prov.:** NC  
**Postal Code:** 28411 **Initiation Date:** 8-31-04  
**Country:** USA  
**Directions:**

**Objectives:**

**Conclusions:**

### Cooperator/Landowner

**Cooperator:** Doug Lewis **Country:** USA  
**Organization:** Porters Neck Plantation **Phone No:** 910.686.7471  
**Address 1:** 8403 Vintage Club Drive  
**City:** Wilmington  
**State/Prov:** NC  
**Postal Code:** 28411

### Crop Description

**Crop 1:** CYNDA Cynodon dactylon Bermuda grass  
**BBCH Scale:** BGRM

### Pest Description

**Pest 1 Type:** W **Code:** MUDNU **Murdannia nudiflora**  
**Common Name:** Doveweed

### Site and Design

**Plot Width, Unit:** 5 FT **Site Type:** Golf Course Rough  
**Plot Length, Unit:** 6 FT  
**Replications:** 3 **Study Design:** Randomized Complete Block

**Trial Initiation Comments:**

**Field Prep./Maintenance:**

### Soil Description

**% OM:** 0.36 **Texture:** Mineral  
**pH:** 6.7  
**CEC:** 5.7 **Fert. Level:** Good

### Moisture Conditions

**Overall Moisture Conditions:** Irrigated as Needed

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### Application Description

	A
Application Date:	8-31-04
Time of Day:	9-12NOON
Application Method:	SPRAY
Application Timing:	AUG 31
Application Placement:	FOLIAR
Applied By:	T GANNON
Air Temperature, Unit:	85.4 F
% Relative Humidity:	98
Wind Velocity, Unit:	0.8 MPH
Dew Presence (Y/N):	N
Soil Temperature, Unit:	84 F
Soil Moisture:	ADEQUATE
% Cloud Cover:	50

### Crop Stage At Each Application

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

### Pest Stage At Each Application

	A
Pest 1 Code, Disc., Scale:	MUDNU W
Stage Majority, Percent:	3 TILL 75
Stage Minimum, Percent:	4 LEAF 10
Stage Maximum, Percent:	4 TILL 10
Height, Unit:	1 IN
Height Minimum, Maximum:	1 1
Density, Unit:	5 FT2
Coverage, Unit:	40 %

### Application Equipment

	A
Appl. Equipment:	CO2 SPRAY
Operating Pressure:	25
Pressure Unit:	PSI
Nozzle Type:	FLAT FAN
Nozzle Size:	VS8002XR
Nozzle Spacing, Unit:	10 INCH
Nozzles/Row:	4
Boom Length, Unit:	40 INCH
Boom Height, Unit:	10 INCH
Ground Speed, Unit:	3 MPH
Carrier:	WATER
Spray Volume:	32.5
Volume Unit:	GPA
Propellant:	COMP CO2
Tank Mix (Y/N):	Y

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								MUDNU	MUDNU	MUDNU	CYNDABGRM Bermuda grass 9-15-04 PHYTO
								9-15-04 CONTROL % 15 15 DA-A	9-22-04 CONTROL % 22 22 DA-A	10-13-04 CONTROL % 43 43 DA-A	15 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Other Rate Unit	Growth Stage	Appl Code	1	2	3	4
1	Revolver	0.19	SC	0.4 FL OZ/1000 FT2		AUG 31 A	A	20.0 efg	61.7 abc	55.0 cd	0.0 a
2	TranXit X-77	25 L	DF	1 OZ/A 0.25 % V/V		AUG 31 A AUG 31 A	A	16.7 fg	21.7 def	30.0 ef	0.0 a
3	Monument X-77	75 L	DG	0.3 OZ/A 0.25 % V/V		AUG 31 A AUG 31 A	A	20.0 efg	13.3 ef	8.3 fg	0.0 a
4	Monument X-77	75 L	DG	0.56 OZ/A 0.25 % V/V		AUG 31 A AUG 31 A	A	21.7 d-g	6.7 f	15.0 fg	0.0 a
5	Flazasulfuron X-77	25 L	DG	3 OZ/A 0.25 % V/V		AUG 31 A AUG 31 A	A	10.0 fg	1.7 f	11.7 fg	0.0 a
6	Manor X-77	60 L	WG	0.5 OZ/A 0.25 % V/V		AUG 31 A AUG 31 A	A	18.3 fg	11.7 ef	25.0 ef	0.0 a
7	Certainty X-77	75 L	WG	2 OZ/A 0.25 % V/V		AUG 31 A AUG 31 A	A	10.0 fg	5.0 f	15.0 fg	0.0 a
8	Image X-77	70 L	DG	0.5 LB A/A 0.25 % V/V		AUG 31 A AUG 31 A	A	11.7 fg	0.0 f	20.0 efg	0.0 a
9	Trimec Classic	L	L	3.5 PT/A		AUG 31 A	A	28.3 b-g	75.0 ab	83.3 ab	0.0 a
10	Millenium Ultra	L	L	2.25 PT/A		AUG 31 A	A	33.3 a-f	36.7 cde	70.0 abc	0.0 a
11	Speedzone	L	L	3 PT/A		AUG 31 A	A	56.7 ab	86.7 a	91.7 a	0.0 a
12	Speedzone Southern	L	L	3 PT/A		AUG 31 A	A	23.3 d-g	16.7 ef	63.3 bcd	0.0 a
13	Weedar 64 X-77	L	L	1 PT/A 0.25 % V/V		AUG 31 A AUG 31 A	A	58.3 a	46.7 cd	61.7 bcd	0.0 a
14	Weedar 64 X-77	L	L	2 PT/A 0.25 % V/V		AUG 31 A AUG 31 A	A	48.3 a-e	55.0 bc	66.7 bc	0.0 a
15	AAtrex	4 L	L	1 LB A/A		AUG 31 A	A	18.3 fg	0.0 f	0.0 g	0.0 a
16	AAtrex	4 L	L	2 LB A/A		AUG 31 A	A	8.3 fg	0.0 f	0.0 g	0.0 a
17	AAtrex Agri Dex COC	4 L	L	1 LB A/A 1 QT/A		AUG 31 A AUG 31 A	A	16.7 fg	0.0 f	0.0 g	0.0 a
18	Bueno 6	6 L	L	2 LB A/A		AUG 31 A	A	26.7 c-g	10.0 f	13.3 fg	0.0 a
19	AAtrex Speedzone Southern	4 L	L	1 LB A/A 3 PT/A		AUG 31 A AUG 31 A	A	50.0 a-d	60.0 bc	40.0 de	0.0 a
20	AAtrex Trimec Classic	4 L	L	1 LB A/A 3.5 PT/A		AUG 31 A AUG 31 A	A	55.0 abc	13.3 ef	0.0 g	0.0 a
21	Nontreated							0.0 g	0.0 f	0.0 g	0.0 a
LSD (P=.05)								29.32	25.97	24.62	0.00
Standard Deviation								17.77	15.74	14.92	0.00
CV								67.64	63.34	46.76	0.0
Grand Mean								26.27	24.84	31.9	0.0
Bartlett's X2								23.673	23.017	20.54	0.0
P(Bartlett's X2)								0.166	0.084	0.152	.
Replicate F								0.563	0.059	1.867	0.000
Replicate Prob(F)								0.5739	0.9425	0.1678	1.0000
Treatment F								2.877	9.413	12.477	0.000
Treatment Prob(F)								0.0022	0.0001	0.0001	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.

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								CYNDA BGRM	CYNDA BGRM
								Bermuda grass 9-22-04	Bermuda grass 10-13-04
								PHYTO	PHYTO
								%	%
								22	43
								22 DA-A	43 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Other Rate Unit	Growth Stage	Appl Code	5	6
1	Revolver	0.19	SC	0.4 FL OZ/1000 FT2		AUG 31	A	0.0 a	0.0 a
2	TranXit X-77	25	DF	1 OZ/A		AUG 31	A	0.0 a	0.0 a
			L	0.25 % V/V		AUG 31	A		
3	Monument X-77	75	DG	0.3 OZ/A		AUG 31	A	0.0 a	0.0 a
			L	0.25 % V/V		AUG 31	A		
4	Monument X-77	75	DG	0.56 OZ/A		AUG 31	A	0.0 a	0.0 a
			L	0.25 % V/V		AUG 31	A		
5	Flazasulfuron X-77	25	DG	3 OZ/A		AUG 31	A	0.0 a	0.0 a
			L	0.25 % V/V		AUG 31	A		
6	Manor X-77	60	WG	0.5 OZ/A		AUG 31	A	0.0 a	0.0 a
			L	0.25 % V/V		AUG 31	A		
7	Certainty X-77	75	WG	2 OZ/A		AUG 31	A	0.0 a	0.0 a
			L	0.25 % V/V		AUG 31	A		
8	Image X-77	70	DG	0.5 LB A/A		AUG 31	A	0.0 a	0.0 a
			L	0.25 % V/V		AUG 31	A		
9	Trimec Classic		L	3.5 PT/A		AUG 31	A	0.0 a	0.0 a
10	Millenium Ultra		L	2.25 PT/A		AUG 31	A	0.0 a	0.0 a
11	Speedzone		L	3 PT/A		AUG 31	A	0.0 a	0.0 a
12	Speedzone Southern		L	3 PT/A		AUG 31	A	0.0 a	0.0 a
13	Weedar 64 X-77		L	1 PT/A		AUG 31	A	0.0 a	0.0 a
			L	0.25 % V/V		AUG 31	A		
14	Weedar 64 X-77		L	2 PT/A		AUG 31	A	0.0 a	0.0 a
			L	0.25 % V/V		AUG 31	A		
15	AAtrex	4	L	1 LB A/A		AUG 31	A	0.0 a	0.0 a
16	AAtrex	4	L	2 LB A/A		AUG 31	A	0.0 a	0.0 a
17	AAtrex Agri Dex COC	4	L	1 LB A/A		AUG 31	A	0.0 a	0.0 a
			L	1 QT/A		AUG 31	A		
18	Bueno 6	6	L	2 LB A/A		AUG 31	A	0.0 a	0.0 a
19	AAtrex Speedzone Southern	4	L	1 LB A/A		AUG 31	A	0.0 a	0.0 a
			L	3 PT/A		AUG 31	A		
20	AAtrex Trimec Classic	4	L	1 LB A/A		AUG 31	A	0.0 a	0.0 a
			L	3.5 PT/A		AUG 31	A		
21	Nontreated							0.0 a	0.0 a
LSD (P=.05)								0.00	0.00
Standard Deviation								0.00	0.00
CV								0.0	0.0
Grand Mean								0.0	0.0
Bartlett's X2								0.0	0.0
P(Bartlett's X2)								.	.
Replicate F								0.000	0.000
Replicate Prob(F)								1.0000	1.0000
Treatment F								0.000	0.000
Treatment Prob(F)								1.0000	1.0000

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### Trial Comments

7-1-05 - Trial area visited. Unable to evaluate for doveweed control as trial area has been oversprayed and no doveweed is present.