

North Carolina State University

Certainty Applied Prior to Overseeding for Poa Annua Control

Trial ID: 05-D04
Protocol ID: Study Director: Travis Gannon
Location: Tobacco Road GC 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: Sanford **Trial Status:** Completed
State/Prov.: NC
Postal Code: 27332 **Initiation Date:** 9-20-04
Country: USA
Directions:

Objectives:

Conclusions:

Cooperator/Landowner

Cooperator: Morgan Stevenson **Country:** USA
Organization: Tobacco Road Golf Course **Phone No:** 919.776.4943
Address 1: 442 Tobacco Road
City: Sanford
State/Prov: NC
Postal Code: 27332

Crop Description

Crop 1: CYNDA Cynodon dactylon **BERMUDAGRASS**
Variety: Tifway 419
BBCH Scale: BGRM
Crop 2: LOLPE Lolium perenne **RYEGRASS, PERENNIAL**
Variety: Magnum mixture **Description:** Allaire II, Penguin, Hawkeye
BBCH Scale: BGRM **Planting Date:** 9-29-04
Planting Method: Broadcast **Rate, Unit:** 300 LB/1000FT2
Seed Bed: Scalped

Pest Description

Code: POAAN Poa annua
Common Name: Annual bluegrass

Site and Design

Plot Width, Unit: 5 FT **Site Type:** Golf Course Fairway
Plot Length, Unit: 7 FT
Replications: 4 **Study Design:** Randomized Complete Block

Trial Initiation Comments:

Field Prep./Maintenance:

Soil Description

% OM: 0.56 **Texture:** Mineral
pH: 5.9
CEC: 6.8 **Fert. Level:** Good

Moisture Conditions

Overall Moisture Conditions: Irrigated as Needed

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Application Description

	A	B
Application Date:	9-20-04	9-24-04
Time of Day:	9-10 AM	7-8 AM
Application Method:	SPRAY	SPRAY
Application Timing:	SEPT 20	SEPT 24
Application Placement:	FOL/SOIL	FOL/SOIL
Applied By:	T GANNON	T GANNON
Air Temperature, Unit:	64.2 F	64.1 F
% Relative Humidity:	100	88
Wind Velocity, Unit:	0.8 MPH	0.4 MPH
Dew Presence (Y/N):	Y	Y
Soil Temperature, Unit:	62 F	61 F
Soil Moisture:	ADEQUATE	ADEQUATE
% Cloud Cover:	30	15

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	CYNDA BGRM	CYNDA BGRM
Stage Scale Used:	BBCH	BBCH
Stage Majority, Percent:	MOWED 100	MOWED 100
Height, Unit:	0.5 IN	0.5 IN
Crop 2 Code, BBCH Scale:	LOLPE BGRM	LOLPE BGRM
Stage Scale Used:	BBCH	BBCH
Stage Majority, Percent:	N/A 0	N/A 0

Pest Stage At Each Application

	A	B
Pest 1 Code, Disc., Scale:	POAAN PRE	POAAN PRE

Application Equipment

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

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									LOLPE BGRM	LOLPE BGRM	LOLPE BGRM
									Ryegrass, perennial 10-11-04 COVER %	Ryegrass, perennial 10-25-04 COVER %	Ryegrass, perennial 11-8-04 COVER %
									17	31	45
									21 DA-A	35 DA-A	49 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate Unit	Growth Stage	Appl Code	1	2	3
1	Certainty X-77	75	WG SL	2	OZ/A % V/V		SEPT 20 A	A	23.8 a	30.0 ab	51.3 a
2	Certainty Roundup Pro X-77	75	WG L SL	2	OZ/A QT/A % V/V		SEPT 20 A	A	23.8 a	31.3 ab	52.5 a
3	Roundup Pro X-77	4	L	0.1875	QT/A % V/V		SEPT 20 A	A	23.8 a	30.0 ab	50.0 a
4	TranXit X-77	25	DF SL	2	OZ/A % V/V		SEPT 20 A	A	28.8 a	31.3 ab	51.3 a
5	Revolver X-77	0.19	SC SL	0.013	LB A/A % V/V		SEPT 20 A	A	30.0 a	30.0 ab	51.3 a
6	TranXit X-77	25	WG L	1	OZ/A % V/V		SEPT 20 A	A	27.5 a	27.5 bc	50.0 a
7	Certainty X-77	75	WG SL	2	OZ/A % V/V		SEPT 24 B	B	22.5 a	30.0 ab	50.0 a
8	Certainty Roundup Pro X-77	75	WG L SL	2	OZ/A QT/A % V/V		SEPT 24 B	B	25.0 a	30.0 ab	52.5 a
9	Roundup Pro X-77	4	L	0.1875	QT/A % V/V		SEPT 24 B	B	27.5 a	33.8 a	51.3 a
10	TranXit X-77	25	DF SL	2	OZ/A % V/V		SEPT 24 B	B	21.3 a	30.0 ab	50.0 a
11	Revolver X-77	0.19	SC SL	0.013	LB A/A % V/V		SEPT 24 B	B	25.0 a	31.3 ab	51.3 a
12	TranXit X-77	25	WG L	1	OZ/A % V/V		SEPT 24 B	B	28.8 a	30.0 ab	52.5 a
13	Nontreated								30.0 a	28.8 bc	51.3 a
14	Nontreated								27.5 a	25.0 cd	51.3 a
15	Nontreated								26.3 a	27.5 bc	50.0 a
16	Nontreated								26.3 a	21.3 d	50.0 a
LSD (P=.05)									7.44	4.87	3.30
Standard Deviation									5.21	3.41	2.31
CV									19.96	11.67	4.52
Grand Mean									26.09	29.22	51.02
Bartlett's X2									11.682	9.52	3.361
P(Bartlett's X2)									0.632	0.733	0.972
Replicate F									4.052	6.851	4.184
Replicate Prob(F)									0.0124	0.0007	0.0107
Treatment F									1.041	2.857	0.661
Treatment Prob(F)									0.4343	0.0033	0.8074

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

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									LOLPE BGRM	LOLPE BGRM	LOLPE BGRM
									Ryegrass, perennial 11-22-04 COVER %	Ryegrass, perennial 12-13-04 COVER %	Ryegrass, perennial 1-4-05 COVER %
									59	80	102
									63 DA-A	84 DA-A	106 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate Unit	Growth Stage	Appl Code	4	5	6
1	Certainty X-77	75	WG SL	2	OZ/A % V/V		SEPT 20 A SEPT 20 A	A	50.0 a	71.3 a	68.8 a
2	Certainty Roundup Pro X-77	75	WG L SL	2	OZ/A QT/A % V/V		SEPT 20 A SEPT 20 A SEPT 20 A	A	50.0 a	70.0 ab	71.3 a
3	Roundup Pro X-77	4	L	0.1875	QT/A % V/V		SEPT 20 A SEPT 20 A	A	50.0 a	70.0 ab	71.3 a
4	TranXit X-77	25	DF SL	2	OZ/A % V/V		SEPT 20 A SEPT 20 A	A	50.0 a	70.0 ab	71.3 a
5	Revolver X-77	0.19	SC SL	0.013	LB A/A % V/V		SEPT 20 A SEPT 20 A	A	50.0 a	70.0 ab	73.8 a
6	TranXit X-77	25	WG L	1	OZ/A % V/V		SEPT 20 A SEPT 20 A	A	50.0 a	68.8 ab	72.5 a
7	Certainty X-77	75	WG SL	2	OZ/A % V/V		SEPT 24 B SEPT 24 B	B	48.8 a	68.8 ab	70.0 a
8	Certainty Roundup Pro X-77	75	WG L SL	2	OZ/A QT/A % V/V		SEPT 24 B SEPT 24 B SEPT 24 B	B	48.8 a	65.0 bc	71.3 a
9	Roundup Pro X-77	4	L	0.1875	QT/A % V/V		SEPT 24 B SEPT 24 B	B	48.8 a	70.0 ab	73.8 a
10	TranXit X-77	25	DF SL	2	OZ/A % V/V		SEPT 24 B SEPT 24 B	B	50.0 a	66.3 abc	68.8 a
11	Revolver X-77	0.19	SC SL	0.013	LB A/A % V/V		SEPT 24 B SEPT 24 B	B	50.0 a	68.8 ab	72.5 a
12	TranXit X-77	25	WG L	1	OZ/A % V/V		SEPT 24 B SEPT 24 B	B	50.0 a	66.3 abc	72.5 a
13	Nontreated								50.0 a	71.3 a	76.3 a
14	Nontreated								46.3 a	62.5 c	68.8 a
15	Nontreated								48.8 a	65.0 bc	71.3 a
16	Nontreated								48.8 a	62.5 c	68.8 a
LSD (P=.05)									2.53	5.48	5.10
Standard Deviation									1.77	3.83	3.57
CV									3.58	5.65	5.0
Grand Mean									49.38	67.89	71.41
Bartlett's X2									2.615	13.733	7.856
P(Bartlett's X2)									0.759	0.546	0.929
Replicate F									2.333	18.597	5.926
Replicate Prob(F)									0.0867	0.0001	0.0017
Treatment F									1.333	2.309	1.431
Treatment Prob(F)									0.2230	0.0155	0.1747

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									LOLPE BGRM	LOLPE BGRM	LOLPE BGRM
Pest Code									Ryegrass, perennial	Ryegrass, perennial	Ryegrass, perennial
Crop Code									2-1-05	3-1-05	3-21-05
BBCH Scale									COVER	COVER	COVER
Crop Name									%	%	%
Rating Date									130	158	178
Rating Data Type									134 DA-A	162 DA-A	182 DA-A
Rating Unit											
Days After First/Last Applic.											
Trt-Eval Interval											
ARM Action Codes											
Number of Decimals											
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate Unit	Growth Stage	Appl Code	7	8	9
1	Certainty X-77	75	WG SL	2	OZ/A % V/V		SEPT 20 A	A	71.3 a	77.5 a	90.0 ab
2	Certainty Roundup Pro X-77	75	WG L SL	2	OZ/A QT/A % V/V		SEPT 20 A	A	71.3 a	78.8 a	91.3 a
3	Roundup Pro X-77	4	L	0.1875	QT/A % V/V		SEPT 20 A	A	71.3 a	77.5 a	88.8 ab
4	TranXit X-77	25	DF SL	2	OZ/A % V/V		SEPT 20 A	A	71.3 a	76.3 a	90.0 ab
5	Revolver X-77	0.19	SC SL	0.013	LB A/A % V/V		SEPT 20 A	A	71.3 a	76.3 a	88.8 ab
6	TranXit X-77	25	WG L	1	OZ/A % V/V		SEPT 20 A	A	70.0 a	75.0 a	88.8 ab
7	Certainty X-77	75	WG SL	2	OZ/A % V/V		SEPT 24 B	B	70.0 a	75.0 a	90.0 ab
8	Certainty Roundup Pro X-77	75	WG L SL	2	OZ/A QT/A % V/V		SEPT 24 B	B	71.3 a	72.5 a	88.8 ab
9	Roundup Pro X-77	4	L	0.1875	QT/A % V/V		SEPT 24 B	B	71.3 a	78.8 a	87.5 bc
10	TranXit X-77	25	DF SL	2	OZ/A % V/V		SEPT 24 B	B	70.0 a	76.3 a	90.0 ab
11	Revolver X-77	0.19	SC SL	0.013	LB A/A % V/V		SEPT 24 B	B	72.5 a	76.3 a	91.3 a
12	TranXit X-77	25	WG L	1	OZ/A % V/V		SEPT 24 B	B	72.5 a	77.5 a	91.3 a
13	Nontreated								71.3 a	76.3 a	91.3 a
14	Nontreated								68.8 a	72.5 a	90.0 ab
15	Nontreated								70.0 a	75.0 a	87.5 bc
16	Nontreated								67.5 a	72.5 a	85.0 c
LSD (P=.05)									5.00	4.61	2.97
Standard Deviation									3.50	3.22	2.07
CV									4.95	4.25	2.32
Grand Mean									70.7	75.86	89.38
Bartlett's X2									10.471	7.157	4.617
P(Bartlett's X2)									0.727	0.928	0.948
Replicate F									6.571	10.063	12.097
Replicate Prob(F)									0.0009	0.0001	0.0001
Treatment F									0.541	1.581	2.710
Treatment Prob(F)									0.9022	0.1178	0.0050

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Pest Code									LOLPE	LOLPE	TURF	TURF
Crop Code									BGRM	BGRM		
BBCH Scale									Ryegrass, perennial	Ryegrass, perennial		
Crop Name									4-4-05	4-25-05	10-11-04	10-25-04
Rating Date									COVER	COVER	QUALITY	QUALITY
Rating Data Type									%	%	1-9	1-9
Rating Unit									192	213	17	31
Days After First/Last Applic.									196 DA-A	217 DA-A	21 DA-A	35 DA-A
Trt-Eval Interval												
ARM Action Codes												
Number of Decimals												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate Unit	Growth Stage	Appl Code	10	11	12	13
1	Certainty X-77	75	WG SL	2	OZ/A % V/V		SEPT 20 A	A	70.0 abc	77.5 abc	7.0 a	7.0 a
2	Certainty Roundup Pro X-77	75	WG L SL	2	OZ/A QT/A % V/V		SEPT 20 A	A	72.5 a	80.0 a	7.0 a	7.0 a
3	Roundup Pro X-77	4	L	0.1875	QT/A % V/V		SEPT 20 A	A	62.5 abc	71.3 c-f	7.0 a	7.0 a
4	TranXit X-77	25	DF SL	2	OZ/A % V/V		SEPT 20 A	A	68.8 abc	76.3 a-d	7.0 a	7.0 a
5	Revolver X-77	0.19	SC SL	0.013	LB A/A % V/V		SEPT 20 A	A	62.5 abc	71.3 c-f	7.0 a	7.0 a
6	TranXit X-77	25	WG L	1	OZ/A % V/V		SEPT 20 A	A	65.0 abc	72.5 b-e	7.0 a	7.0 a
7	Certainty X-77	75	WG SL	2	OZ/A % V/V		SEPT 24 B	B	68.8 abc	80.0 a	7.0 a	7.0 a
8	Certainty Roundup Pro X-77	75	WG L SL	2	OZ/A QT/A % V/V		SEPT 24 B	B	68.8 abc	77.5 abc	7.0 a	7.0 a
9	Roundup Pro X-77	4	L	0.1875	QT/A % V/V		SEPT 24 B	B	62.5 abc	70.0 def	7.0 a	7.0 a
10	TranXit X-77	25	DF SL	2	OZ/A % V/V		SEPT 24 B	B	67.5 abc	76.3 a-d	7.0 a	7.0 a
11	Revolver X-77	0.19	SC SL	0.013	LB A/A % V/V		SEPT 24 B	B	71.3 ab	78.8 ab	7.0 a	7.0 a
12	TranXit X-77	25	WG L	1	OZ/A % V/V		SEPT 24 B	B	63.8 abc	75.0 a-e	7.0 a	7.0 a
13	Nontreated								61.3 abc	76.3 a-d	7.0 a	7.0 a
14	Nontreated								60.0 bc	73.8 a-e	7.0 a	7.0 a
15	Nontreated								58.8 cd	68.8 ef	7.0 a	7.0 a
16	Nontreated								47.5 d	65.0 f	7.0 a	7.0 a
LSD (P=.05)									12.15	7.25	0.00	0.00
Standard Deviation									8.50	5.08	0.00	0.00
CV									13.19	6.82	0.0	0.0
Grand Mean									64.45	74.38	7.0	7.0
Bartlett's X2									14.747	8.214	0.0	0.0
P(Bartlett's X2)									0.47	0.915	.	.
Replicate F									12.359	8.612	0.000	0.000
Replicate Prob(F)									0.0001	0.0001	1.0000	1.0000
Treatment F									2.098	2.846	0.000	0.000
Treatment Prob(F)									0.0282	0.0034	1.0000	1.0000

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									TURF	TURF	TURF	TURF	TURF	TURF
									11-8-04	11-22-04	12-13-04	1-4-05	2-1-05	3-1-05
									QUALITY	QUALITY	QUALITY	QUALITY	QUALITY	QUALITY
									1-9	1-9	1-9	1-9	1-9	1-9
									45	59	80	102	130	158
									49 DA-A	63 DA-A	84 DA-A	106 DA-A	134 DA-A	162 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate Unit	Growth Stage	Appl Code	14	15	16	17	18	19
1	Certainty X-77	75	WG SL	2	OZ/A % V/V		SEPT 20 A SEPT 20 A	A	7.0 a	7.0 a	7.0 a	6.8 a	6.0 a	7.0 a
2	Certainty Roundup Pro X-77	75	WG L SL	2	OZ/A QT/A % V/V		SEPT 20 A SEPT 20 A SEPT 20 A	A	7.0 a	7.0 a	7.0 a	6.9 a	6.0 a	7.0 a
3	Roundup Pro X-77	4	L	0.1875	QT/A % V/V		SEPT 20 A SEPT 20 A	A	7.0 a	7.0 a	7.0 a	6.9 a	6.0 a	7.0 a
4	TranXit X-77	25	DF SL	2	OZ/A % V/V		SEPT 20 A SEPT 20 A	A	7.0 a	7.0 a	7.0 a	6.9 a	6.0 a	7.0 a
5	Revolver X-77	0.19	SC SL	0.013	LB A/A % V/V		SEPT 20 A SEPT 20 A	A	7.0 a	7.0 a	7.0 a	7.0 a	6.0 a	7.0 a
6	TranXit X-77	25	WG L	1	OZ/A % V/V		SEPT 20 A SEPT 20 A	A	7.0 a	7.0 a	7.0 a	6.9 a	5.9 a	7.0 a
7	Certainty X-77	75	WG SL	2	OZ/A % V/V		SEPT 24 B SEPT 24 B	B	7.0 a	7.0 a	7.0 a	6.8 a	6.0 a	7.0 a
8	Certainty Roundup Pro X-77	75	WG L SL	2	OZ/A QT/A % V/V		SEPT 24 B SEPT 24 B SEPT 24 B	B	7.0 a	7.0 a	7.0 a	6.9 a	6.0 a	7.0 a
9	Roundup Pro X-77	4	L	0.1875	QT/A % V/V		SEPT 24 B SEPT 24 B	B	7.0 a	7.0 a	7.0 a	6.8 a	6.0 a	7.0 a
10	TranXit X-77	25	DF SL	2	OZ/A % V/V		SEPT 24 B SEPT 24 B	B	7.0 a	7.0 a	7.0 a	6.6 a	6.0 a	7.0 a
11	Revolver X-77	0.19	SC SL	0.013	LB A/A % V/V		SEPT 24 B SEPT 24 B	B	7.0 a	7.0 a	7.0 a	7.0 a	6.0 a	7.0 a
12	TranXit X-77	25	WG L	1	OZ/A % V/V		SEPT 24 B SEPT 24 B	B	7.0 a	7.0 a	7.0 a	7.0 a	6.0 a	7.0 a
13	Nontreated								7.0 a	7.0 a	7.0 a	7.0 a	6.0 a	7.0 a
14	Nontreated								7.0 a	7.0 a	7.0 a	6.8 a	5.9 a	6.9 a
15	Nontreated								7.0 a	7.0 a	7.0 a	6.9 a	6.0 a	7.0 a
16	Nontreated								7.0 a	7.0 a	7.0 a	6.8 a	5.9 a	7.0 a
LSD (P=.05)									0.00	0.00	0.00	0.35	0.15	0.09
Standard Deviation									0.00	0.00	0.00	0.25	0.11	0.06
CV									0.0	0.0	0.0	3.58	1.8	0.89
Grand Mean									7.0	7.0	7.0	6.85	5.98	6.99
Bartlett's X2									0.0	0.0	0.0	3.221	0.0	0.0
P(Bartlett's X2)									.	.	.	0.987	0.001*	.
Replicate F									0.000	0.000	0.000	1.970	1.241	1.000
Replicate Prob(F)									1.0000	1.0000	1.0000	0.1321	0.3062	0.4016
Treatment F									0.000	0.000	0.000	0.861	0.880	1.000
Treatment Prob(F)									1.0000	1.0000	1.0000	0.6084	0.5899	0.4718

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									TURF	TURF	TURF	POAAN	POAAN	POAAN
									3-21-05	4-4-05	4-25-05	4-4-05	4-25-05	4-4-05
									QUALITY	QUALITY	QUALITY	COVER	COVER	CONTROL
									1-9	1-9	1-9	%	%	%
									178	192	213	192	213	192
									182 DA-A	196 DA-A	217 DA-A	196 DA-A	217 DA-A	196 DA-A
														T2
														1
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate Unit	Growth Stage	Appl Code	20	21	22	23	24	25
1	Certainty X-77	75 WG	SL	2	OZ/A		SEPT 20 A		7.0 a	6.5 a	6.0 a	30.0 bcd	22.5 def	30.6 ab
				0.25	% V/V		SEPT 20 A							
2	Certainty Roundup Pro X-77	75 WG	SL	2	OZ/A		SEPT 20 A		7.0 a	6.5 a	6.3 a	27.5 d	20.0 f	36.3 a
		4 L		0.1875	QT/A		SEPT 20 A							
				0.25	% V/V		SEPT 20 A							
3	Roundup Pro X-77	4 L	L	0.1875	QT/A		SEPT 20 A		6.9 ab	6.5 a	5.9 a	37.5 bcd	28.8 a-d	13.2 bc
				0.25	% V/V		SEPT 20 A							
4	TranXit X-77	25 DF	SL	2	OZ/A		SEPT 20 A		7.0 a	6.5 a	6.0 a	31.3 bcd	23.8 c-f	28.7 ab
				0.25	% V/V		SEPT 20 A							
5	Revolver X-77	0.19 SC	SL	0.013	LB A/A		SEPT 20 A		7.0 a	6.5 a	6.0 a	37.5 bcd	28.8 a-d	14.2 bc
				0.25	% V/V		SEPT 20 A							
6	TranXit X-77	25 WG	L	1	OZ/A		SEPT 20 A		7.0 a	6.3 a	6.0 a	35.0 bcd	27.5 b-e	22.9 ab
				0.25	% V/V		SEPT 20 A							
7	Certainty X-77	75 WG	SL	2	OZ/A		SEPT 24 B		7.0 a	6.5 a	6.3 a	31.3 bcd	20.0 f	28.7 ab
				0.25	% V/V		SEPT 24 B							
8	Certainty Roundup Pro X-77	75 WG	SL	2	OZ/A		SEPT 24 B		7.0 a	6.5 a	6.3 a	31.3 bcd	22.5 def	28.7 ab
		4 L		0.1875	QT/A		SEPT 24 B							
				0.25	% V/V		SEPT 24 B							
9	Roundup Pro X-77	4 L	L	0.1875	QT/A		SEPT 24 B		6.9 ab	6.3 a	5.9 a	37.5 bcd	30.0 abc	14.2 bc
				0.25	% V/V		SEPT 24 B							
10	TranXit X-77	25 DF	SL	2	OZ/A		SEPT 24 B		6.9 ab	6.5 a	6.0 a	32.5 bcd	23.8 c-f	24.8 ab
				0.25	% V/V		SEPT 24 B							
11	Revolver X-77	0.19 SC	SL	0.013	LB A/A		SEPT 24 B		7.0 a	6.4 a	6.3 a	28.8 cd	21.3 ef	34.5 ab
				0.25	% V/V		SEPT 24 B							
12	TranXit X-77	25 WG	L	1	OZ/A		SEPT 24 B		7.0 a	6.3 a	6.3 a	36.3 bcd	25.0 b-f	22.9 ab
				0.25	% V/V		SEPT 24 B							
13	Nontreated								7.0 a	6.1 a	6.3 a	38.8 bcd	23.8 c-f	0.0 c
14	Nontreated								7.0 a	6.1 a	6.3 a	40.0 bc	26.3 b-f	0.0 c
15	Nontreated								6.8 bc	6.3 a	5.8 a	41.3 ab	31.3 ab	0.0 c
16	Nontreated								6.6 c	5.8 a	5.6 a	52.5 a	35.0 a	0.0 c
LSD (P=.05)									0.23	0.48	0.48	12.15	7.25	22.10
Standard Deviation									0.16	0.34	0.34	8.50	5.08	15.46
CV									2.31	5.29	5.6	23.91	19.81	82.53
Grand Mean									6.94	6.34	6.05	35.55	25.63	18.74
Bartlett's X2									2.798	6.757	4.018	14.747	8.214	14.098
P(Bartlett's X2)									0.592	0.455	0.947	0.47	0.915	0.228
Replicate F									4.459	5.232	4.019	12.359	8.612	9.765
Replicate Prob(F)									0.0080	0.0035	0.0129	0.0001	0.0001	0.0001
Treatment F									1.946	1.613	1.447	2.098	2.846	2.836
Treatment Prob(F)									0.0433	0.1084	0.1676	0.0282	0.0034	0.0035

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.

Column 25: T2 = (100-((23/43.2)*100))

North Carolina State University

Certainty Applied Prior to Overseeding for Poa Annuua Control

Trial ID: 05-D04
 Protocol ID: Study Director: Travis Gannon
 Location: Tobacco Road GC Investigator: Fred Yelverton

Pest Code									POAAN
Crop Code									
BBCH Scale									
Crop Name									
Rating Date									4-25-05
Rating Data Type									CONTROL
Rating Unit									%
Days After First/Last Applic.									213
Trt-Eval Interval									217 DA-A
ARM Action Codes									T3
Number of Decimals									1
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate Unit	Growth Stage	Appl Code	26
1	Certainty X-77	75	WG SL	2	OZ/A % V/V		SEPT 20 A		22.7 abc
2	Certainty Roundup Pro X-77	75	WG L SL	2	OZ/A QT/A % V/V		SEPT 20 A		31.3 a
3	Roundup Pro X-77	4	L	0.1875	QT/A % V/V		SEPT 20 A		7.0 cde
4	TranXit X-77	25	DF SL	2	OZ/A % V/V		SEPT 20 A		19.2 a-d
5	Revolver X-77	0.19	SC SL	0.013	LB A/A % V/V		SEPT 20 A		7.0 cde
6	TranXit X-77	25	WG L	1	OZ/A % V/V		SEPT 20 A		11.3 b-e
7	Certainty X-77	75	WG SL	2	OZ/A % V/V		SEPT 24 B		31.3 a
8	Certainty Roundup Pro X-77	75	WG L SL	2	OZ/A QT/A % V/V		SEPT 24 B		23.5 abc
9	Roundup Pro X-77	4	L	0.1875	QT/A % V/V		SEPT 24 B		3.5 de
10	TranXit X-77	25	DF SL	2	OZ/A % V/V		SEPT 24 B		19.2 a-d
11	Revolver X-77	0.19	SC SL	0.013	LB A/A % V/V		SEPT 24 B		27.7 ab
12	TranXit X-77	25	WG L	1	OZ/A % V/V		SEPT 24 B		19.9 a-d
13	Nontreated								0.0 e
14	Nontreated								0.0 e
15	Nontreated								0.0 e
16	Nontreated								0.0 e
LSD (P=.05)									17.81
Standard Deviation									12.46
CV									89.18
Grand Mean									13.98
Bartlett's X2									8.806
P(Bartlett's X2)									0.64
Replicate F									2.895
Replicate Prob(F)									0.0454
Treatment F									3.495
Treatment Prob(F)									0.0006

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.
 Column 26: T3 = (100-((24/29.1)*100))

Trial Comments

9-17-04 - Treatments were postponed due to heavy rains, remnants of Hurricane Ivan. Treatments are scheduled for 9-20-04.