

# North Carolina State University

## Postemergence Control of Poa annua in Dormant Bermudagrass

Trial ID: 01-T64                      Study Dir.: Jason Hinton  
 Location: Thorndale C.C.              Investigator: Fred Yelverton

### GENERAL TRIAL INFORMATION

**Study Director:** Jason Hinton                      **Title:** Research Technician  
**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:** Complete  
**State/Prov.:** NC  
**Postal Code:** 27656                      **Initiation Date:** 12-19-01  
**Country:** USA

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

### CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	POAAN	Annual Bluegrass	Poa annua

**Crop 1:** CYNDA Bermudagrass

**Variety:** Common

### SITE AND DESIGN

**Plot Width, Unit:** 5 FT                      **Plot Length, Unit:** 10 FT                      **Reps:** 4  
**Study Design:** RANDOMIZED COMPLETE BLOCK

### APPLICATION DESCRIPTION

	A	B	C
<b>Application Date:</b>	12-19-01	03-26-02	04-16-02
<b>Time of Day:</b>	3:30 PM	3:15 PM	4:30 PM
<b>Application Method:</b>	Spray	Spray	Spray
<b>Application Timing:</b>	November	March	3 Weeks
<b>Applic. Placement:</b>	Foliar	Foliar	Foliar
<b>Air Temp., Unit:</b>	58.6 F	78.8 F	89.9 F
<b>% Relative Humidity:</b>	46	43	37
<b>Wind Velocity, Unit:</b>	4.1 MPH	4.1 MPH	1.8 MPH
<b>Dew Presence (Y/N):</b>	N	N	N
<b>Water Hardness:</b>	N/A	N/A	N/A
<b>Soil Temp., Unit:</b>	51 F	64 F	76 F
<b>Soil Moisture:</b>	Good	Good	Fair
<b>% Cloud Cover:</b>	10	90	20

### CROP STAGE AT EACH APPLICATION

	A	B	C
<b>Crop 1 Code, Stage:</b>	CYNDA Semi-Dorm	CYNDA Greenup	CYNDA Greenup
<b>Stage Scale:</b>	85% Dorm.	10%	90%
<b>Height, Unit:</b>	0.75 Inch	0.75 Inch	0.75 Inch

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### WEED STAGE AT EACH APPLICATION

	A	B	C
<b>Weed 1 Code, Stage:</b>	POAAN 0-2 Till.	POAAN Seedheads	POAAN Seedheads
<b>Stage Scale:</b>	2-10 Leaf	4-8 Till.	4-8 Till.
<b>Density, Unit:</b>	50 Ft <sup>2</sup>	50 Ft <sup>2</sup>	50 Ft <sup>2</sup>

### APPLICATION EQUIPMENT

	A	B	C
<b>Appl. Equipment:</b>	CO2 Spray	CO2 Spray	CO2 Spray
<b>Operating Pressure:</b>	36 PSI	36 PSI	36 PSI
<b>Nozzle Type:</b>	Flat Fan	Flat Fan	Flat Fan
<b>Nozzle Size:</b>	8002 XR	8002 XR	8002 XR
<b>Nozzle Spacing, Unit:</b>	10 Inch	10 Inch	10 Inch
<b>Boom Height, Unit:</b>	10 Inch	10 Inch	10 Inch
<b>Ground Speed, Unit:</b>	3 MPH	3 MPH	3 MPH
<b>Carrier:</b>	Water	Water	Water
<b>Spray Volume, Unit:</b>	32.5 GPA	32.5 GPA	32.5 GPA
<b>Propellant:</b>	Compr.CO2	Compr.CO2	Compr.CO2

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Weed Code									POAAN	POAAN	POAAN		
Rating Data Type									CONTROL	CONTROL	CONTROL		
Rating Unit									%	%	%		
Rating Date									01-11-02	02-05-02	03-06-02		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Form Unit	Rate Rate	Product Unit	Product Rate	Grow Stg	Appl Code			
1	Nontreated										0.0 a	0.0 c	0.0 c
2	V-10029	80S	80 WP	20.0	G/A				November	A	0.0 a	51.3 b	42.5 b
3	V-10029	80S	80 WP	40.0	G/A				November	A	0.0 a	70.0 a	78.8 a
4	V-10029	80S	80 WP	80.0	G/A				November	A	0.0 a	76.3 a	88.8 a
5	V-10029	80S	80 WP	20.0	G/A				March	B	0.0 a	0.0 c	0.0 c
6	V-10029	80S	80 WP	40.0	G/A				March	B	0.0 a	0.0 c	0.0 c
7	V-10029	80S	80 WP	80.0	G/A				March	B	0.0 a	0.0 c	0.0 c
8	V-10029	80S	80 WP	20.0	G/A				November	A	0.0 a	50.0 b	41.3 b
	V-10029	80S	80 WP	20.0	G/A				March	B			
9	V-10029	80S	80 WP	40.0	G/A				March	B	0.0 a	0.0 c	0.0 c
	V-10029	80S	80 WP	40.0	G/A				3 Weeks	C			
LSD (P=.05)											0.00	17.40	14.98
Standard Deviation											0.00	11.92	10.27
CV											0.0	43.36	36.77
Bartlett's X2											0.0	6.866	14.905
P(Bartlett's X2)											0.00*	0.076	0.002*
Replicate F											0.000	1.114	0.639
Replicate Prob(F)											1.0000	0.3631	0.5972
Treatment F											0.000	31.769	50.160
Treatment Prob(F)											1.0000	0.0001	0.0001

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

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Weed Code								POAAN	POAAN	POAAN		
Rating Data Type								CONTROL	CONTROL	CONTROL		
Rating Unit								%	%	%		
Rating Date								04-02-02	04-16-02	04-30-02		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Form Unit	Product Rate	Product Unit	Grow Stg	Appl Code			
1	Nontreated									0.0 d	0.0 d	0.0 d
2	V-10029	80S	80 WP	20.0	G/A			November	A	0.0 d	2.5 d	0.0 d
3	V-10029	80S	80 WP	40.0	G/A			November	A	27.5 b	47.5 b	37.5 b
4	V-10029	80S	80 WP	80.0	G/A			November	A	76.3 a	80.0 a	77.5 a
5	V-10029	80S	80 WP	20.0	G/A			March	B	0.0 d	0.0 d	0.0 d
6	V-10029	80S	80 WP	40.0	G/A			March	B	1.3 cd	3.8 d	0.0 d
7	V-10029	80S	80 WP	80.0	G/A			March	B	2.5 cd	7.5 d	0.0 d
8	V-10029	80S	80 WP	20.0	G/A			November	A	7.5 c	21.3 c	13.8 c
	V-10029	80S	80 WP	20.0	G/A			March	B			
9	V-10029	80S	80 WP	40.0	G/A			March	B	0.0 d	2.5 d	5.0 cd
	V-10029	80S	80 WP	40.0	G/A			3 Weeks	C			
LSD (P=.05)								6.29	11.62	11.21		
Standard Deviation								4.31	7.96	7.68		
CV								33.73	43.42	51.7		
Bartlett's X2								4.916	9.534	8.555		
P(Bartlett's X2)								0.296	0.146	0.036*		
Replicate F								1.196	2.981	1.141		
Replicate Prob(F)								0.3323	0.0514	0.3525		
Treatment F								139.019	48.649	47.765		
Treatment Prob(F)								0.0001	0.0001	0.0001		

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Trial Comments