

# North Carolina State University

## Post Emergent Dogfennel Control

Trial ID: 02-D28                      Study Dir.: Jason Hinton  
Location: Plymouth 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:** Plymouth                      **Trial Status:** Complete  
**State/Prov.:** NC  
**Postal Code:** 27962                      **Initiation Date:** 06-20-02  
**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.	EUPCP	Dogfennel	Eupatorium capillifolium

**Crop 1:** CYNDA Bermudagrass                      **Variety:** Common

### SITE AND DESIGN

**Plot Width, Unit:** 4                      FT                      **Plot Length, Unit:** 8                      FT                      **Reps:** 4  
**Study Design:** RANDOMIZED COMPLETE BLOCK

### APPLICATION DESCRIPTION

	A
<b>Application Date:</b>	06-20-02
<b>Time of Day:</b>	4:30-5 PM
<b>Application Method:</b>	Spray
<b>Application Timing:</b>	June 1
<b>Applic. Placement:</b>	Foliar
<b>Air Temp., Unit:</b>	81.8 F
<b>% Relative Humidity:</b>	48
<b>Wind Velocity, Unit:</b>	2.6 MPH
<b>Dew Presence (Y/N):</b>	N
<b>Water Hardness:</b>	N/A
<b>Soil Temp., Unit:</b>	85 F
<b>Soil Moisture:</b>	Poor
<b>% Cloud Cover:</b>	20

### CROP STAGE AT EACH APPLICATION

	A
<b>Crop 1 Code, Stage:</b>	CYNDA Mowed
<b>Height, Unit:</b>	1 Inch

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### WEED STAGE AT EACH APPLICATION

	<b>A</b>
<b>Weed 1 Code, Stage:</b>	EUPCP Mowed
<b>Stage Scale:</b>	5-15 Till
<b>Density, Unit:</b>	5 32ft <sup>2</sup>

### APPLICATION EQUIPMENT

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

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Weed Code Rating Data Type Rating Unit Rating Date								EUPCP CONTROL %	EUPCP CONTROL %	EUPCP CONTROL %	
								06-26-02	07-02-02	07-11-02	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code			
1	Vista X-77	1.5	EC L	0.25 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A		36.3 b	100.0 a	100.0 a
2	Garlon 3A X-77	3	SL L	0.75 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A		13.8 e	87.5 b	100.0 a
3	Garlon 3A X-77	3	SL L	1.5 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A		16.3 de	92.5 ab	100.0 a
4	Vista Garlon 3A X-77	1.5	EC L	0.1 LB AE/A 0.3 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		23.8 b-e	96.3 a	100.0 a
5	Vista Garlon 3A X-77	1.5	EC L	0.1 LB AE/A 0.4 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		27.5 bcd	96.3 a	100.0 a
6	Vista Garlon 3A X-77	1.5	EC L	0.1 LB AE/A 0.5 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		30.0 bc	97.5 a	100.0 a
7	Vista Garlon 3A X-77	1.5	EC L	0.15 LB AE/A 0.3 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		17.5 cde	98.5 a	100.0 a
8	Vista Garlon 3A X-77	1.5	EC L	0.15 LB AE/A 0.4 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		30.0 bc	98.8 a	100.0 a
9	Vista Garlon 3A X-77	1.5	EC L	0.25 LB AE/A 0.75 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		23.8 b-e	98.8 a	100.0 a
10	Triamine X-77		L L	3 PT/A 0.25 % V/V			JUNE 1 A JUNE 1 A		16.3 de	78.8 c	90.0 b
11	Trimec Classic		L	3.5 PT/A			JUNE 1 A		17.5 cde	97.5 a	100.0 a
12	Oust X-77		WG L	0.5 OZ/A 0.25 % V/V			JUNE 1 A JUNE 1 A		0.0 f	12.5 e	38.8 c
13	Atrazine X-77	4	L L	2 LB A/A 0.25 % V/V			JUNE 1 A JUNE 1 A		63.8 a	100.0 a	100.0 a
14	Simazine X-77	4	L L	2 LB A/A 0.25 % V/V			JUNE 1 A JUNE 1 A		21.3 cde	68.8 d	81.3 b

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								EUPCP CONTROL %	EUPCP CONTROL %	EUPCP CONTROL %	
								06-26-02	07-02-02	07-11-02	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code			
15	Flazasulfuron X-77	25	DG L	1.5 OZ/A 0.25 % V/V			JUNE 1 A JUNE 1 A		0.0 f	20.0 e	37.5 c
16	Flazasulfuron X-77	25	DG L	2.25 OZ/A 0.25 % V/V			JUNE 1 A JUNE 1 A		0.0 f	18.8 e	41.3 c
17	Flazasulfuron X-77	25	DG L	3.0 OZ/A 0.25 % V/V			JUNE 1 A JUNE 1 A		0.0 f	18.8 e	43.8 c
18	Nontreated								0.0 f	0.0 f	0.0 d
LSD (P=.05)								13.63	7.97	8.91	
Standard Deviation								9.64	5.64	6.30	
CV								51.39	7.92	7.92	
Bartlett's X2								10.665	32.639	1.672	
P(Bartlett's X2)								0.558	0.003*	0.892	
Replicate F								7.864	2.334	3.973	
Replicate Prob(F)								0.0002	0.0849	0.0128	
Treatment F								11.445	177.677	101.986	
Treatment Prob(F)								0.0001	0.0001	0.0001	

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

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Weed Code Rating Data Type Rating Unit Rating Date								EUPCP CONTROL %	EUPCP CONTROL %	EUPCP CONTROL %	
								07-25-02	08-01-02	08-16-02	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code			
1	Vista X-77	1.5	EC L	0.25 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A		100.0 a	100.0 a	100.0 a
2	Garlon 3A X-77	3	SL L	0.75 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A		100.0 a	100.0 a	100.0 a
3	Garlon 3A X-77	3	SL L	1.5 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A		100.0 a	100.0 a	100.0 a
4	Vista Garlon 3A X-77	1.5	EC L	0.1 LB AE/A 0.3 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		100.0 a	100.0 a	100.0 a
5	Vista Garlon 3A X-77	1.5	EC L	0.1 LB AE/A 0.4 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		100.0 a	100.0 a	100.0 a
6	Vista Garlon 3A X-77	1.5	EC L	0.1 LB AE/A 0.5 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		100.0 a	100.0 a	100.0 a
7	Vista Garlon 3A X-77	1.5	EC L	0.15 LB AE/A 0.3 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		100.0 a	100.0 a	100.0 a
8	Vista Garlon 3A X-77	1.5	EC L	0.15 LB AE/A 0.4 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		100.0 a	100.0 a	100.0 a
9	Vista Garlon 3A X-77	1.5	EC L	0.25 LB AE/A 0.75 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		100.0 a	100.0 a	100.0 a
10	Triamine X-77		L L	3 PT/A 0.25 % V/V			JUNE 1 A JUNE 1 A		95.0 ab	98.8 ab	100.0 a
11	Trimec Classic		L	3.5 PT/A			JUNE 1 A		100.0 a	100.0 a	100.0 a
12	Oust X-77		WG L	0.5 OZ/A 0.25 % V/V			JUNE 1 A JUNE 1 A		82.5 cd	87.5 de	91.3 bc
13	Atrazine X-77	4	L L	2 LB A/A 0.25 % V/V			JUNE 1 A JUNE 1 A		100.0 a	100.0 a	100.0 a
14	Simazine X-77	4	L L	2 LB A/A 0.25 % V/V			JUNE 1 A JUNE 1 A		91.3 b	88.8 cde	95.0 ab

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								07-25-02	08-01-02	08-16-02	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code			
15	Flazasulfuron X-77	25	DG L	1.5 OZ/A 0.25 % V/V			JUNE 1 A JUNE 1 A		77.5 d	82.5 e	86.3 c
16	Flazasulfuron X-77	25	DG L	2.25 OZ/A 0.25 % V/V			JUNE 1 A JUNE 1 A		88.8 bc	95.0 abc	96.3 ab
17	Flazasulfuron X-77	25	DG L	3.0 OZ/A 0.25 % V/V			JUNE 1 A JUNE 1 A		87.5 bc	92.5 bcd	91.3 bc
18	Nontreated								0.0 e	0.0 f	0.0 d
LSD (P=.05)								8.64	7.39	5.42	
Standard Deviation								6.11	5.23	3.83	
CV								6.78	5.72	4.16	
Bartlett's X2								1.971	8.396	4.477	
P(Bartlett's X2)								0.853	0.136	0.345	
Replicate F								2.738	2.678	1.700	
Replicate Prob(F)								0.0529	0.0567	0.1787	
Treatment F								59.488	80.432	148.678	
Treatment Prob(F)								0.0001	0.0001	0.0001	

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

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Weed Code Rating Data Type Rating Unit Rating Date								EUPCP CONTROL % 09-12-02	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Product Rate	Product Rate Unit	Grow Stg	Appl Code	
1	Vista X-77	1.5	EC L	0.25 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A		100.0 a
2	Garlon 3A X-77	3	SL L	0.75 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A		100.0 a
3	Garlon 3A X-77	3	SL L	1.5 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A		100.0 a
4	Vista Garlon 3A X-77	1.5 3	EC SL L	0.1 LB AE/A 0.3 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		100.0 a
5	Vista Garlon 3A X-77	1.5 3	EC SL L	0.1 LB AE/A 0.4 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		100.0 a
6	Vista Garlon 3A X-77	1.5 3	EC SL L	0.1 LB AE/A 0.5 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		100.0 a
7	Vista Garlon 3A X-77	1.5 3	EC SL L	0.15 LB AE/A 0.3 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		100.0 a
8	Vista Garlon 3A X-77	1.5 3	EC SL L	0.15 LB AE/A 0.4 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		100.0 a
9	Vista Garlon 3A X-77	1.5 3	EC SL L	0.25 LB AE/A 0.75 LB AE/A 0.25 % V/V			JUNE 1 A JUNE 1 A JUNE 1 A		100.0 a
10	Triamine X-77		L L	3 PT/A 0.25 % V/V			JUNE 1 A JUNE 1 A		100.0 a
11	Trimec Classic		L	3.5 PT/A			JUNE 1 A		100.0 a
12	Oust X-77		WG L	0.5 OZ/A 0.25 % V/V			JUNE 1 A JUNE 1 A		83.8 b
13	Atrazine X-77	4	L L	2 LB A/A 0.25 % V/V			JUNE 1 A JUNE 1 A		100.0 a
14	Simazine X-77	4	L L	2 LB A/A 0.25 % V/V			JUNE 1 A JUNE 1 A		97.5 a

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Weed Code								EUPCP		
Rating Data Type								CONTROL		
Rating Unit								%		
Rating Date								09-12-02		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Product Rate	Product Unit	Grow Stg	Appl Code	
15	Flazasulfuron X-77	25	DG L	1.5	OZ/A % V/V			JUNE 1 A JUNE 1 A	A	78.8 b
16	Flazasulfuron X-77	25	DG L	2.25	OZ/A % V/V			JUNE 1 A JUNE 1 A	A	97.5 a
17	Flazasulfuron X-77	25	DG L	3.0	OZ/A % V/V			JUNE 1 A JUNE 1 A	A	87.5 b
18	Nontreated									0.0 c
LSD (P=.05)								9.45		
Standard Deviation								6.68		
CV								7.31		
Bartlett's X2								11.384		
P(Bartlett's X2)								0.023*		
Replicate F								0.643		
Replicate Prob(F)								0.5909		
Treatment F								50.341		
Treatment Prob(F)								0.0001		

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Trial Comments