

North Carolina State University

Postemergence Control of Star of Bethlehem

Trial ID: 01-D20 Study Dir.: Travis Gannon and Jason Hinton
Location: Alamance County Investigator: Fred Yelverton

GENERAL TRIAL INFORMATION

Study Director: Travis Gannon and 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: Alamance **Trial Status:** Completed
State/Prov.: NC **Initiation Date:** 03-28-01
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.	OTGUM	Star of Bethlehem	Ornithogalum umbellatum L.

Crop 1: N/A

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 10 FT **Reps:** 4
Study Design: RANDOMIZED COMPLETE BLOCK

APPLICATION DESCRIPTION

	A
Application Date:	03-28-01
Time of Day:	2-4:30PM
Application Method:	SPRAY
Application Timing:	POST
Applic. Placement:	FOLIAR
Air Temp., Unit:	60.9 F
% Relative Humidity:	15
Wind Velocity, Unit:	1.3 MPH
Dew Presence (Y/N):	N
Water Hardness:	N/A
Soil Temp., Unit:	60 F
Soil Moisture:	GOOD
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	N/A
Stage Scale:	FALLOW

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WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	OTGUM VEG
Stage Scale:	4-8" HT
Density, Unit:	5-40 FT ²

APPLICATION EQUIPMENT

	A
Appl. Equipment:	CO2 SPRAY
Operating Pressure:	38 PSI
Nozzle Type:	FLAT FAN
Nozzle Size:	8003 XR
Nozzle Spacing, Unit:	15 INCH
Nozzles/Row:	4
Boom Length, Unit:	60 INCH
Boom Height, Unit:	17 INCH
Ground Speed, Unit:	3 MPH
Carrier:	WATER
Spray Volume, Unit:	32.5 GPA
Propellant:	COMP. CO2

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					OTGUM CONTROL %	OTGUM CONTROL %	OTGUM CONTROL %	OTGUM CONTROL %		
					04-05-01 1 WAT	04-11-01 2 WAT	04-17-01 3 WAT	04-25-01 4 WAT		
Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval							
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Grow Stg	Appl Code				
1	Trimec Classic	3.32	SL	3.5 PT/A	POST	A	0.0 a	0.0 a	5.0 bc	6.3 cde
2	Lontrel	3	EC	0.5 PT/A	POST	A	0.0 a	0.0 a	1.3 bc	2.5 de
3	Lontrel	3	EC	1.0 PT/A	POST	A	0.0 a	0.0 a	3.8 bc	6.3 cde
4	Drive Dyneamic Crop Oil Conc	75 SL	WG	0.75 LB A/A 1.0 QT/A	POST POST	A A	0.0 a	0.0 a	2.5 bc	5.0 de
5	Confront	3	SL	1.0 PT/A	POST	A	0.0 a	0.0 a	2.5 bc	8.8 cde
6	Confront	3	SL	2.0 PT/A	POST	A	0.0 a	0.0 a	6.3 b	15.0 bc
7	Coolpower	3.6	EC	3.0 PT/A	POST	A	0.0 a	0.0 a	11.3 a	15.0 bc
8	Horsepower	4.5	EC	2.5 PT/A	POST	A	0.0 a	0.0 a	3.8 bc	11.3 bcd
9	Millenium Ultra	3.75	SL	2.5 PT/A	POST	A	0.0 a	0.0 a	2.5 bc	2.5 de
10	Turflon Ester	4	EC	1.0 LB A/A	POST	A	0.0 a	0.0 a	15.0 a	25.0 a
11	Banvel	4	SL	2.0 PT/A	POST	A	0.0 a	0.0 a	11.3 a	18.8 ab
12	Weedmaster		SL	2.0 PT/A	POST	A	0.0 a	0.0 a	5.0 bc	8.8 cde
13	Manor X-77	60 L	WG	0.5 OZ A/A 0.25 % V/V	POST POST	A A	0.0 a	0.0 a	3.8 bc	2.5 de
14	Manor X-77	60 L	WG	1.0 OZ A/A 0.25 % V/V	POST POST	A A	0.0 a	0.0 a	5.0 bc	5.0 de
15	Corsair X-77	75 L	DG	1 OZ/A 0.25 % V/V	POST POST	A A	0.0 a	0.0 a	1.3 bc	0.0 e
16	Corsair X-77	75 L	DG	3 OZ/A 0.25 % V/V	POST POST	A A	0.0 a	0.0 a	2.5 bc	0.0 e
17	Weedmaster		SL	3 PT/A	POST	A	0.0 a	0.0 a	3.8 bc	5.0 de
18	Oust X-77		DG L	0.5 OZ/A 0.25 % V/V	POST POST	A A	0.0 a	0.0 a	0.0 c	0.0 e
19	Oust X-77		DG L	1 OZ/A 0.25 % V/V	POST POST	A A	0.0 a	0.0 a	5.0 bc	3.8 de

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					%	%	%	%
					04-05-01	04-11-01	04-17-01	04-25-01
					1 WAT	2 WAT	3 WAT	4 WAT
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Grow Stg	Appl Code		
20	Plateau Dyneamic	L		2 OZ/A	POST	A	0.0 a	0.0 a
		L		1.5 PT/A	POST	A	1.3 bc	0.0 e
21	Plateau Dyneamic	L		4 OZ/A	POST	A	0.0 a	0.0 a
		L		1.5 PT/A	POST	A	2.5 bc	2.5 de
22	Roundup Pro	L		1 PT/A	POST	A	0.0 a	0.0 a
23	Roundup Pro	L		2 PT/A	POST	A	0.0 a	0.0 a
24	Roundup Pro	L		4 PT/A	POST	A	0.0 a	0.0 a
							3.8 bc	6.3 cde
25	Touchdown Pro	L		1 PT/A	POST	A	0.0 a	0.0 a
26	Touchdown Pro	L		2 PT/A	POST	A	0.0 a	0.0 a
							0.0 c	5.0 de
27	Touchdown Pro	L		4 PT/A	POST	A	0.0 a	0.0 a
							1.3 bc	0.0 e
28	PCC 1027 (UHS 302)	L		3 PT/A	POST	A	0.0 a	0.0 a
							5.0 bc	3.8 de
29	PCC 1027 (UHS 302)	L		3.5 PT/A	POST	A	0.0 a	0.0 a
							3.8 bc	11.3 bcd
30	PCC 1027 (UHS 302)	L		4 PT/A	POST	A	0.0 a	0.0 a
							0.0 c	8.8 cde
31	Weedone LV4	L		1 PT/A	POST	A	0.0 a	0.0 a
							2.5 bc	5.0 de
32	Weedone LV4	L		2 PT/A	POST	A	0.0 a	0.0 a
							2.5 bc	3.8 de
33	Weedar 64	L		1 PT/A	POST	A	0.0 a	0.0 a
							1.3 bc	2.5 de
34	Weedar 64	L		2 PT/A	POST	A	0.0 a	0.0 a
							0.0 c	0.0 e
35	Nontreated						0.0 a	0.0 a
							0.0 c	0.0 e
LSD (P=.05)					0.00	0.00	4.46	7.44
Standard Deviation					0.00	0.00	3.18	5.32
CV					0.0	0.0	92.84	95.42
Bartlett's X2					0.0	0.0	17.229	15.582
P(Bartlett's X2)					0.00*	0.00*	0.925	0.927
Replicate F					0.000	0.000	4.652	7.278
Replicate Prob(F)					1.0000	1.0000	0.0043	0.0002
Treatment F					0.000	0.000	4.439	4.843
Treatment Prob(F)					1.0000	1.0000	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Weed Code Rating Data Type Rating Unit Rating Date Trt-Eval Interval					OTGUM CONTROL % 05-02-01 5 WAT		
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Grow Stg	Appl Code	
1	Trimec Classic	3.32	SL	3.5 PT/A	POST	A	13.8 bc
2	Lontrel	3	EC	0.5 PT/A	POST	A	17.5 abc
3	Lontrel	3	EC	1.0 PT/A	POST	A	17.5 abc
4	Drive Dyneamic Crop Oil Conc	75	WG SL	0.75 LB A/A 1.0 QT/A	POST POST	A A	12.5 bc
5	Confront	3	SL	1.0 PT/A	POST	A	18.8 ab
6	Confront	3	SL	2.0 PT/A	POST	A	23.8 ab
7	Coolpower	3.6	EC	3.0 PT/A	POST	A	31.3 a
8	Horsepower	4.5	EC	2.5 PT/A	POST	A	12.5 bc
9	Millenium Ultra	3.75	SL	2.5 PT/A	POST	A	6.3 bc
10	Turflon Ester	4	EC	1.0 LB A/A	POST	A	23.8 ab
11	Banvel	4	SL	2.0 PT/A	POST	A	12.5 bc
12	Weedmaster		SL	2.0 PT/A	POST	A	15.0 abc
13	Manor X-77	60	WG L	0.5 OZ A/A 0.25 % V/V	POST POST	A A	11.3 bc
14	Manor X-77	60	WG L	1.0 OZ A/A 0.25 % V/V	POST POST	A A	13.8 bc
15	Corsair X-77	75	DG L	1 OZ/A 0.25 % V/V	POST POST	A A	10.0 bc
16	Corsair X-77	75	DG L	3 OZ/A 0.25 % V/V	POST POST	A A	10.0 bc
17	Weedmaster		SL	3 PT/A	POST	A	16.3 abc
18	Oust X-77		DG L	0.5 OZ/A 0.25 % V/V	POST POST	A A	6.3 bc
19	Oust X-77		DG L	1 OZ/A 0.25 % V/V	POST POST	A A	8.8 bc

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Weed Code						
Rating Data Type						
Rating Unit						
Rating Date					05-02-01	
Trt-Eval Interval					5 WAT	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Grow Stg Appl Code	
20	Plateau Dyneamic	L	L	2 OZ/A 1.5 PT/A	POST A POST A	11.3 bc
21	Plateau Dyneamic	L	L	4 OZ/A 1.5 PT/A	POST A POST A	10.0 bc
22	Roundup Pro	L		1 PT/A	POST A	13.8 bc
23	Roundup Pro	L		2 PT/A	POST A	11.3 bc
24	Roundup Pro	L		4 PT/A	POST A	13.8 bc
25	Touchdown Pro	L		1 PT/A	POST A	11.3 bc
26	Touchdown Pro	L		2 PT/A	POST A	15.0 abc
27	Touchdown Pro	L		4 PT/A	POST A	10.0 bc
28	PCC 1027 (UHS 302)	L		3 PT/A	POST A	10.0 bc
29	PCC 1027 (UHS 302)	L		3.5 PT/A	POST A	16.3 abc
30	PCC 1027 (UHS 302)	L		4 PT/A	POST A	17.5 abc
31	Weedone LV4	L		1 PT/A	POST A	15.0 abc
32	Weedone LV4	L		2 PT/A	POST A	11.3 bc
33	Weedar 64	L		1 PT/A	POST A	8.8 bc
34	Weedar 64	L		2 PT/A	POST A	0.0 c
35	Nontreated					0.0 c
LSD (P=.05)					14.03	
Standard Deviation					10.02	
CV					76.85	
Bartlett's X2					26.921	
P(Bartlett's X2)					0.722	
Replicate F					5.045	
Replicate Prob(F)					0.0027	
Treatment F					1.430	
Treatment Prob(F)					0.0879	

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Trial Comments

5-2-01 - trial area under severe drought stress

5-9-01 - ratings discontinued due to drought stress; stand dying naturally