

LSU Northeast Research Station

Effect of glyphosate and 2,4-D application rates on henbit control.

Trial ID: SJ07B004 Protocol ID: SJ07B004
 Location: Study Director:
 Investigator: Bill Williams

General Trial Information

Investigator: Bill Williams

Pest Description

Pest 1 Type: W **Code:** OEOLA *Oenothera laciniata*
Common Name: Cutleaf eveningprimrose

Pest 2 Type: W **Code:** RUMCR *Rumex crispus*
Common Name: Curly dock

Pest 3 Type: W **Code:** LAMAM *Lamium amplexicaule*
Common Name: Henbit

Pest 4 Type: W **Code:** POAAN *Poa annua*
Common Name: Annual bluegrass

Site and Design

Plot Width, Unit: 6.67 FT **Site Type:** FIELD
Plot Length, Unit: 15 FT **Tillage Type:** CONVENTIONAL-TILL
Replications: 3 **Study Design:** Factorial

Soil Description

Description Name: OAC
% Sand: 14 **% OM:** 2.3 **Texture:** Silty Clay
% Silt: 46 **pH:** 6.1 **Soil Name:** Tunica
% Clay: 40 **CEC:** 15.4 **Fert. Level:** EXCELLENT

Moisture and Weather Conditions

Overall Moisture Conditions: Dry
Closest Weather Station: Northeast Research Station

	Date	Amount	Unit
1.	21/Feb/07	0.01	IN
2.	24/Feb/07	0.65	IN
3.	25/Feb/07	0.01	IN
4.	1/Mar/07	1.17	IN
5.	27/Mar/07	0.01	IN
6.	31/Mar/07	0.63	IN
7.	1/Apr/07	0.01	IN
8.	2/Apr/07	0.01	IN
9.	3/Apr/07	0.09	IN
10.	4/Apr/07	0.19	IN
11.	7/Apr/07	0.14	IN
12.	8/Apr/07	0.1	IN
13.	10/Apr/07	1.01	IN
14.	14/Apr/07	0.39	IN
15.	18/Apr/07	0.11	IN

16.25/Apr/071.37 IN
 17.26/Apr/070.41 IN
 18.2/May/07 0.04 IN
 19.3/May/07 1.24 IN
 20.15/May/070.02 IN
 21.16/May/070.01 IN
 22.17/May/070.01 IN
 23.3/Jun/07 0.02 IN
 24.16/Jun/070.01 IN
 25.18/Jun/070.02 IN
 26.19/Jun/070.4 IN
 27.2/Jul/07 0.3 IN
 28.3/Jul/07 0.06 IN
 29.4/Jul/07 1.14 IN
 30.5/Jul/07 0.31 IN
 31.6/Jul/07 0.27 IN
 32.7/Jul/07 1.39 IN
 33.9/Jul/07 0.36 IN
 34.10/Jul/070.01 IN
 35.11/Jul/070.27 IN
 36.13/Jul/070.3 IN
 37.14/Jul/071.96 IN
 38.15/Jul/072.8 IN
 39.17/Jul/071.56 IN
 40.20/Jul/070.93 IN
 41.21/Jul/070.1 IN
 42.22/Jul/070.01 IN
 43.30/Jul/072.35 IN

Application Description

A

Application Date: 21/Feb/07
Time of Day: 3:00
Application Method: Spray
Application Timing: PP
Application Placement: BROFOL
Applied By: AB/BW
Air Temperature, Unit: 81 F
% Relative Humidity: 34
Wind Velocity, Unit: 5 MPH
Wind Direction: N
Soil Temperature, Unit: 70 F
Soil Moisture: DAMP
% Cloud Cover: 10

Pest Stage At Each Application

A

Pest 1 Code, Disc., Scale: OEOLA W
Stage Majority, Percent: ROSE
Stage Minimum, Percent: 4"
Stage Maximum, Percent: 6"
Pest 2 Code, Disc., Scale: RUMCR W
Stage Minimum, Percent: 8"
Stage Maximum, Percent: 12"
Pest 3 Code, Disc., Scale: LAMAM W
Stage Majority, Percent: flower
Stage Minimum, Percent: 8"
Stage Maximum, Percent: 12"
Pest 4 Code, Disc., Scale: POAAN W
Stage Minimum, Percent: 2"
Stage Maximum, Percent: 3"

Application Equipment

A
Appl. Equipment: Backpack
Operating Pressure, Unit: 31 psi
Nozzle Type: Greenleaf
Nozzle Size: 11002
Nozzle Spacing, Unit: 20 in
Nozzles/Row: 2
Ground Speed, Unit: 2.8 mph
Carrier: water
Spray Volume, Unit: 15 GAL/AC
Propellant: CO2

Trt No	Treatment Application Comment
302	3/21 ran out 2' from the end

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Trial ID: SJ07B004 Protocol ID: SJ07B004
 Location: Study Director:
 Investigator: Bill Williams

Pest Type										
Pest Code		LAMAM LAMAMLAMAM OEOLA OEOLA OEOLA								
Rating Date		28/Feb/07 9/Mar/07 22/Mar/07 28/Feb/07 9/Mar/07 22/Mar/07								
Trt-Eval Interval		7 DA-A 16 DA-A 29 DA-A 7 DA-A 16 DA-A 29 DA-A								
Trt No.	Treatment Name	Rate	Growth Stage	1	2	3	6	7	8	
1	Roundup Weathermax 2,4-D Amine	16.5 OZ/APP	30	a87	ab93	a 30	a83	a95	a	
2	Roundup Weathermax 2,4-D Amine	16.5 OZ/APP	30	a78	b 85	bc30	a75	a90	a	
3	Roundup Weathermax 2,4-D Amine	16.5 OZ/APP	30	a78	b 80	c 30	a82	a90	a	
4	Roundup Weathermax 2,4-D Amine	22 OZ/APP	30	a92	ab96	a 30	a87	a85	a	
5	Roundup Weathermax 2,4-D Amine	22 OZ/APP	33	a83	ab90	ab30	a80	a95	a	
6	Roundup Weathermax 2,4-D Amine	22 OZ/APP	33	a83	ab93	a 30	a85	a90	a	
7	Roundup Weathermax 2,4-D Amine	27.5 OZ/APP	33	a93	a 95	a 30	a87	a88	a	
8	Roundup Weathermax 2,4-D Amine	27.5 OZ/APP	33	a88	ab95	a 30	a87	a92	a	
9	Roundup Weathermax 2,4-D Amine	27.5 OZ/APP	33	a90	ab95	a 30	a83	a88	a	
LSD (P=.10)				4.3	8.1	5.8	0.0	7.9	12.5	
Standard Deviation				3.0	5.7	4.0	0.0	5.5	8.7	
CV				9.55	6.64	4.42	0.0	6.67	9.68	
Grand Mean				31.85	85.93	91.44	30.0	83.15	90.33	
Bartlett's X2				0.0	3.894	4.553	0.0	2.465	10.829	
P(Bartlett's X2)				.	0.867	0.473	.	0.963	0.055	
Replicate F				10.000	0.199	1.000	0.000	0.120	0.316	
Replicate Prob(F)				0.0015	0.8213	0.3897	1.0000	0.8874	0.7338	
Treatment F				1.000	2.762	5.592	0.000	1.451	0.421	
Treatment Prob(F)				0.4726	0.0399	0.0017	1.0000	0.2500	0.8917	

Means followed by same letter do not significantly differ (P=.10, Student-Newman-Keuls)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pest Type				
Pest Code		RUMCR	RUMCR	RUMCR
Rating Date		28/Feb/07	9/Mar/07	22/Mar/07
Trt-Eval Interval		7 DA-A	16 DA-A	29 DA-A

Trt No.	Treatment Name	Rate	Unit	Growth Stage	11	12	13	
1	Roundup Weathermax 2,4-D Amine	16.5	OZ/APP		50	a88	ab95	a
		32	OZ/APP					
2	Roundup Weathermax 2,4-D Amine	16.5	OZ/APP		50	a77	b 92	a
		24	OZ/APP					
3	Roundup Weathermax 2,4-D Amine	16.5	OZ/APP		50	a85	ab88	a
		16	OZ/APP					
4	Roundup Weathermax 2,4-D Amine	22	OZ/APP		50	a87	ab91	a
		32	OZ/APP					
5	Roundup Weathermax 2,4-D Amine	22	OZ/APP		50	a85	ab90	a
		24	OZ/APP					
6	Roundup Weathermax 2,4-D Amine	22	OZ/APP		50	a93	a 93	a
		16	OZ/APP					
7	Roundup Weathermax 2,4-D Amine	27.5	OZ/APP		50	a93	a 88	a
		32	OZ/APP					
8	Roundup Weathermax 2,4-D Amine	27.5	OZ/APP		50	a92	a 93	a
		24	OZ/APP					
9	Roundup Weathermax 2,4-D Amine	27.5	OZ/APP		50	a87	ab90	a
		16	OZ/APP					
LSD (P=.10)					0.0	7.5	8.1	
Standard Deviation					0.0	5.2	5.7	
CV					0.0	5.98	6.21	
Grand Mean					50.0	87.41	91.26	
Bartlett's X2					0.0	3.897	5.86	
P(Bartlett's X2)					.	0.866	0.556	
Replicate F					0.000	1.458	1.869	
Replicate Prob(F)					1.0000	0.2621	0.1864	
Treatment F					0.000	2.983	0.503	
Treatment Prob(F)					1.0000	0.0299	0.8369	

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