

# LSU Northeast Research Station

## A comparison of Helena phenoxy herbicides to standard treatments.

Trial ID: SJ07B001                      Protocol ID: SJ07B001  
 Location:                                  Study Director:  
    Investigator: Bill Williams

### General Trial Information

Investigator: Bill Williams

### Pest Description

**Pest 1 Type:** W    **Code:** CAPBP    *Capsella bursa-pastoris*  
**Common Name:** Shepherd's purse

**Pest 2 Type:** W    **Code:** OEOLA    *Oenothera laciniata*  
**Common Name:** Cutleaf eveningprimrose

**Pest 3 Type:** W    **Code:** POAAN    *Poa annua*  
**Common Name:** Annual bluegrass

**Pest 4 Type:** W    **Code:** LAMAM    *Lamium amplexicaule*  
**Common Name:** Henbit

**Pest 5 Type:** W    **Code:** COPDI    *Coronopus didymus*  
**Common Name:** Twincreass

**Pest 6 Type:** W    **Code:** LOLSS    *Lolium sp.*  
**Common Name:** Ryegrass

**Pest 7 Type:** W    **Code:** STEME    *Stellaria media*  
**Common Name:** Common chickweed

**Pest 8 Type:** W    **Code:** VENSP    *Vernonia stipulacea*  
**Common Name:** Speedwell

**Pest 9 Type:** W    **Code:** TRFSE    *Trifolium semipilosum*  
**Common Name:** Kenya white clover

### 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:** Randomized Complete Block

### Soil Description

**Description Name:** OAC  
**% Sand:** 20            **% OM:** 1.6            **Texture:** Silty Clay Loam  
**% Silt:** 54            **pH:** 5.9              **Soil Name:** Mhoon  
**% Clay:** 26            **CEC:** 12.4          **Fert. Level:** EXCELLENT

### Moisture and Weather Conditions

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

**Date            Amount Unit**

1. 21/Feb/070.01 IN  
 2. 24/Feb/070.65 IN  
 3. 25/Feb/070.01 IN  
 4. 1/Mar/07 1.17 IN  
 5. 27/Mar/070.01 IN  
 6. 31/Mar/070.63 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/071.01 IN  
 14. 14/Apr/070.39 IN  
 15. 18/Apr/070.11 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**

	<b>A</b>	<b>B</b>
<b>Application Date:</b>	21/Feb/07	7/Mar/07
<b>Time of Day:</b>	9:30	10:00
<b>Application Method:</b>	SPRAY	SPRAY
<b>Application Timing:</b>	E.FEB	E. March
<b>Application Placement:</b>	BROFOL	BROFOL
<b>Applied By:</b>	AB/BW	BW
<b>Air Temperature, Unit:</b>	73 F	57 F
<b>% Relative Humidity:</b>	46	61
<b>Wind Velocity, Unit:</b>	6 MPH	6 MPH
<b>Wind Direction:</b>	S	S
<b>Soil Temperature, Unit:</b>	60 F	52 F
<b>Soil Moisture:</b>	Damp	DRY
<b>% Cloud Cover:</b>	20	20

**Pest Stage At Each Application**

	<b>A</b>	<b>B</b>
<b>Pest 1 Code, Disc., Scale:</b>	CAPBP W	CAPBP W

Stage Majority, Percent: 8" 80  
 Stage Minimum, Percent: 15 20  
 Pest 2 Code, Disc., Scale: OEOLA W OEOLA W  
 Stage Majority, Percent: 2" 6-10"  
 Pest 3 Code, Disc., Scale: POAAN W POAAN W  
 Stage Majority, Percent: 4" 4"  
 Pest 4 Code, Disc., Scale: LAMAM W LAMAM W  
 Stage Majority, Percent: 8" 10"  
 Pest 5 Code, Disc., Scale: COPDI W COPDI W  
 Stage Majority, Percent: 6" 6"  
 Pest 6 Code, Disc., Scale: LOLSS W LOLSS W  
 Stage Majority, Percent: 15" 19"  
 Pest 7 Code, Disc., Scale: STEME W STEME W  
 Stage Minimum, Percent: 4"  
 Stage Maximum, Percent: 5"  
 Pest 8 Code, Disc., Scale: VENSP W VENSP W  
 Stage Minimum, Percent: 6"  
 Stage Maximum, Percent: 7"  
 Pest 9 Code, Disc., Scale: TRFSE W TRFSE W  
 Stage Minimum, Percent: 12"  
 Stage Maximum, Percent: 16"

**Application Equipment**

	<b>A</b>	<b>B</b>
Appl. Equipment:	Backpack	Backpack
Operating Pressure, Unit:	32 PSI	32 PSI
Nozzle Type:	Greenleaf	Greenleaf
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	20 "	20 "
Nozzles/Row:	2	2
Carrier:	Water	Water
Spray Volume, Unit:	15 GPA	15 GPA
Mix Size, Unit:	0.5 Liters	0.5 Liters
Propellant:	CO2	CO2

<b>Trt No</b>	<b>Treatment Application Comment</b>
301	2/21 rann out half way through the plot

# LSU Northeast Research Station

## A comparison of Helena phenoxy herbicides to standard treatments.

Trial ID: SJ07B001 Protocol ID: SJ07B001

Location: Study Director:  
Investigator: Bill Williams

Pest Type									
Pest Code	OEOLA OEOLA OEOLA COPDI COPDI								
Rating Date	9/Mar/07 22/Mar/07 29/Mar/07 9/Mar/07 22/Mar/07								
Trt-Eval Interval	16 DA-A 15 DA-B 27 DA-B 16 DA-A 15 DA-B								
Trt Treatment	Rate	Growth							
No. Name	Rate Unit	Stage	2	4	5	9	11		
1 Vision	8	OZ/AEFEB	67	b 83	bc 93	a 82	b 93	a	
Roundup Originalmax	22	OZ/AEFEB							
2 Unison	1.5	PT/A EFEB	77	a 88	ab 90	a 92	a 95	a	
Roundup Originalmax	22	OZ/AEFEB							
3 HM0335	1	PT/A EFEB	77	a 93	a 93	a 92	a 95	a	
Roundup Originalmax	22	OZ/AEFEB							
4 Clarity	8	OZ/AEFEB	67	b 80	c 93	a 82	b 95	a	
Roundup Originalmax	22	OZ/AEFEB							
5 Barrage	1	PT/A EFEB	77	a 93	a 93	a 88	a 95	a	
Roundup Originalmax	22	OZ/AEFEB							
6 Clarity	8	OZ/AEFEB	77	a 95	a 93	a 92	a 95	a	
Barrage	1	PT/A EFEB							
Roundup Originalmax	22	OZ/AEFEB							
7 Vision	8	OZ/AEMARCH		67	d 85	a	95	a	
Roundup Originalmax	22	OZ/AEMARCH							
8 Unison	1.5	PT/A EMARCH		75	c 92	a	95	a	
Roundup Originalmax	22	OZ/AEMARCH							
9 HM0335	1	PT/A EMARCH		75	c 92	a	95	a	
Roundup Originalmax	22	OZ/AEMARCH							
10 Clarity	8	OZ/AEMARCH		63	d 87	a	95	a	
Roundup Originalmax	22	OZ/AEMARCH							
11 Barrage	1	PT/A EMARCH		78	c 93	a	95	a	
Roundup Originalmax	22	OZ/AEMARCH							
12 Clarity	8	OZ/AEMARCH		78	c 93	a	95	a	
Barrage	1	PT/A EMARCH							
Roundup Originalmax	22	OZ/AEMARCH							
13 Nontreated			0	c 0	e 0	b 0	c 0	b	
LSD (P=.10)			3.2	5.2	6.0	3.8	1.1		
Standard Deviation			2.2	3.7	4.3	2.6	0.8		
CV			3.47	5.02	5.13	3.5	0.91		
Grand Mean			62.86	74.62	84.49	75.24	87.56		
Bartlett's X2			0.0	3.502	14.006	0.0	0.0		
P(Bartlett's X2)			.	0.941	0.173	1.00	.		

Replicate F	36.000	1.643	3.111	1.200	1.000
Replicate Prob(F)	0.0001	0.2145	0.0629	0.3349	0.3827
Treatment F	498.000	128.038	104.325	484.171	3240.500
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	0.0001

# LSU Northeast Research Station

Pest Type						
Pest Code		OEOLA	OEOLA	OEOLA	COPDI	COPDI
Rating Date		9/Mar/07	22/Mar/07	29/Mar/07	9/Mar/07	22/Mar/07
Trt-Eval Interval		16 DA-A	15 DA-B	27 DA-B	16 DA-A	15 DA-B
Trt Treatment						
No.	Name	Rate	Unit	Growth		
				Stage		
					2	4
					5	9
						11

Means followed by same letter do not significantly differ ( $P=0.10$ , Student-Newman-Keuls)

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

# LSU Northeast Research Station

Pest Type			COPDI	CAPBP	CAPBP	CAPBP	STEME			
Pest Code			29/Mar/07	9/Mar/07	22/Mar/07	29/Mar/07	9/Mar/07			
Rating Date			27 DA-B	16 DA-A	15 DA-B	27 DA-B	16 DA-A			
Trt-Eval Interval										
Trt No.	Treatment Name	Rate	Growth Unit	Stage	12	16	18	19	23	
1	Vision	8	OZ/AE	EFEB	93	a 83	a 93	a 93	a 90	ab
	Roundup Original	max 22	OZ/AE	EFEB						
2	Unison	1.5	PT/AE	EFEB	93	a 90	a 95	a 93	a 95	a
	Roundup Original	max 22	OZ/AE	EFEB						
3	HM0335	1	PT/AE	EFEB	93	a 88	a 95	a 93	a 93	ab
	Roundup Original	max 22	OZ/AE	EFEB						
4	Clarity	8	OZ/AE	EFEB	93	a 90	a 95	a 93	a 88	ab
	Roundup Original	max 22	OZ/AE	EFEB						
5	Barrage	1	PT/AE	EFEB	93	a 88	a 95	a 93	a 90	ab
	Roundup Original	max 22	OZ/AE	EFEB						
6	Clarity	8	OZ/AE	EFEB	93	a 88	a 95	a 93	a 87	b
	Barrage	1	PT/AE	EFEB						
	Roundup Original	max 22	OZ/AE	EFEB						
7	Vision	8	OZ/AE	EMARCH	93	a	95	a 93	a	
	Roundup Original	max 22	OZ/AE	EMARCH						
8	Unison	1.5	PT/AE	EMARCH	93	a	95	a 93	a	
	Roundup Original	max 22	OZ/AE	EMARCH						
9	HM0335	1	PT/AE	EMARCH	93	a	95	a 93	a	
	Roundup Original	max 22	OZ/AE	EMARCH						
10	Clarity	8	OZ/AE	EMARCH	93	a	95	a 93	a	
	Roundup Original	max 22	OZ/AE	EMARCH						
11	Barrage	1	PT/AE	EMARCH	93	a	95	a 93	a	
	Roundup Original	max 22	OZ/AE	EMARCH						
12	Clarity	8	OZ/AE	EMARCH	93	a	95	a 93	a	
	Barrage	1	PT/AE	EMARCH						
	Roundup Original	max 22	OZ/AE	EMARCH						
13	Nontreated				0	b0	b0	b0	b0	c
LSD (P=.10)					1.1	5.9	1.1	1.1	4.8	
Standard Deviation					0.8	4.1	0.8	0.8	3.3	
CV					0.93	5.41	0.91	0.93	4.29	
Grand Mean					86.15	75.48	87.56	86.15	77.62	
Bartlett's X2					0.0	0.369	0.0	0.0	1.634	
P(Bartlett's X2)					1.00	0.996	.	1.00	0.652	
Replicate F					144.000	15.500	1.000	144.000	5.250	
Replicate Prob(F)					0.0001	0.0005	0.3827	0.0001	0.0230	
Treatment F					3136.000	200.286	3240.500	3136.000	318.464	
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0001	0.0001	

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# LSU Northeast Research Station

Pest Type

Pest Code

Rating Date

Trt-Eval Interval

STEME    STEME    VERPE    VERPE    VERPE  
 22/Mar/07 29/Mar/07 9/Mar/07 22/Mar/07 29/Mar/07  
 15 DA-B   27 DA-B   16 DA-A 15 DA-B   27 DA-B

Trt	Treatment	Rate	Growth	25	26	30	32	33	
No.	Name	Unit	Stage						
1	Vision	8	OZ/AEFEB	93	a 93	a 83	ab 93	a 93	a
	Roundup Originalmax	22	OZ/AEFEB						
2	Unison	1.5	PT/A EFEB	95	a 93	a 92	a 95	a 93	a
	Roundup Originalmax	22	OZ/AEFEB						
3	HM0335	1	PT/A EFEB	95	a 93	a 90	ab 95	a 93	a
	Roundup Originalmax	22	OZ/AEFEB						
4	Clarity	8	OZ/AEFEB	95	a 93	a 78	b 95	a 93	a
	Roundup Originalmax	22	OZ/AEFEB						
5	Barrage	1	PT/A EFEB	95	a 93	a 90	ab 95	a 93	a
	Roundup Originalmax	22	OZ/AEFEB						
6	Clarity	8	OZ/AEFEB	95	a 93	a 88	ab 95	a 93	a
	Barrage	1	PT/A EFEB						
	Roundup Originalmax	22	OZ/AEFEB						
7	Vision	8	OZ/AEMARCH	95	a 93	a	95	a 93	a
	Roundup Originalmax	22	OZ/AEMARCH						
8	Unison	1.5	PT/A EMARCH	95	a 93	a	95	a 93	a
	Roundup Originalmax	22	OZ/AEMARCH						
9	HM0335	1	PT/A EMARCH	95	a 93	a	95	a 93	a
	Roundup Originalmax	22	OZ/AEMARCH						
10	Clarity	8	OZ/AEMARCH	95	a 93	a	95	a 93	a
	Roundup Originalmax	22	OZ/AEMARCH						
11	Barrage	1	PT/A EMARCH	95	a 93	a	95	a 93	a
	Roundup Originalmax	22	OZ/AEMARCH						
12	Clarity	8	OZ/AEMARCH	95	a 93	a	95	a 93	a
	Barrage	1	PT/A EMARCH						
	Roundup Originalmax	22	OZ/AEMARCH						
13	Nontreated			0	b 0	b 0	c 0	b 0	b
LSD (P=.10)				1.1	1.1	7.6	1.1	1.1	
Standard Deviation				0.8	0.8	5.2	0.8	0.8	
CV				0.91	0.93	7.02	0.91	0.93	
Grand Mean				87.56	86.15	74.52	87.56	86.15	
Bartlett's X2				0.0	0.0	3.6	0.0	0.0	
P(Bartlett's X2)				.	1.00	0.608	.	1.00	
Replicate F				1.000	144.000	1.609	1.000	144.000	
Replicate Prob(F)				0.3827	0.0001	0.2405	0.3827	0.0001	
Treatment F				3240.500	3136.000	120.696	3240.500	3136.000	
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0001	

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.

# LSU Northeast Research Station

Pest Type  
 Pest Code  
 Rating Date  
 Trt-Eval Interval

POAAN POAAN POAAN  
 9/Mar/07 22/Mar/07 29/Mar/07  
 16 DA-A 15 DA-B 27 DA-B

Trt	Treatment	Rate	Growth				
No.	Name	Rate	Unit Stage	37	39	40	
1	Vision	8	OZ/AEFEB	95	a93	a93	a
	Roundup Originalmax	22	OZ/AEFEB				
2	Unison	1.5	PT/A EFEB	92	a95	a93	a
	Roundup Originalmax	22	OZ/AEFEB				
3	HM0335	1	PT/A EFEB	95	a95	a93	a
	Roundup Originalmax	22	OZ/AEFEB				
4	Clarity	8	OZ/AEFEB	95	a95	a93	a
	Roundup Originalmax	22	OZ/AEFEB				
5	Barrage	1	PT/A EFEB	95	a95	a93	a
	Roundup Originalmax	22	OZ/AEFEB				
6	Clarity	8	OZ/AEFEB	95	a95	a93	a
	Barrage	1	PT/A EFEB				
	Roundup Originalmax	22	OZ/AEFEB				
7	Vision	8	OZ/AEMARCH		95	a93	a
	Roundup Originalmax	22	OZ/AEMARCH				
8	Unison	1.5	PT/A EMARCH		95	a93	a
	Roundup Originalmax	22	OZ/AEMARCH				
9	HM0335	1	PT/A EMARCH		95	a93	a
	Roundup Originalmax	22	OZ/AEMARCH				
10	Clarity	8	OZ/AEMARCH		95	a93	a
	Roundup Originalmax	22	OZ/AEMARCH				
11	Barrage	1	PT/A EMARCH		95	a93	a
	Roundup Originalmax	22	OZ/AEMARCH				
12	Clarity	8	OZ/AEMARCH		95	a93	a
	Barrage	1	PT/A EMARCH				
	Roundup Originalmax	22	OZ/AEMARCH				
13	Nontreated			0	b0	b0	b
	LSD (P=.10)			3.2	1.1	1.1	
	Standard Deviation			2.2	0.8	0.8	
	CV			2.7	0.91	0.93	
	Grand Mean			80.95	87.56	86.15	
	Bartlett's X2			0.0	0.0	0.0	
	P(Bartlett's X2)			.	.	1.00	
	Replicate F			1.000	1.000	144.000	
	Replicate Prob(F)			0.3966	0.3827	0.0001	
	Treatment F			803.750	3240.500	3136.000	
	Treatment Prob(F)			0.0001	0.0001	0.0001	

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

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