

# LSU Northeast Research Station

## Evaluation of herbicide combinations for preplant henbit control.

Trial ID: SJ07B005                      Protocol ID: SJ07B005  
 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:** 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/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/07 1.37 IN  
 17.26/Apr/07 0.41 IN  
 18.2/May/07 0.04 IN  
 19.3/May/07 1.24 IN  
 20.15/May/07 0.02 IN  
 21.16/May/07 0.01 IN  
 22.17/May/07 0.01 IN  
 23.3/Jun/07 0.02 IN  
 24.16/Jun/07 0.01 IN  
 25.18/Jun/07 0.02 IN  
 26.19/Jun/07 0.4 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/07 0.01 IN  
 35.11/Jul/07 0.27 IN  
 36.13/Jul/07 0.3 IN  
 37.14/Jul/07 1.96 IN  
 38.15/Jul/07 2.8 IN  
 39.17/Jul/07 1.56 IN  
 40.20/Jul/07 0.93 IN  
 41.21/Jul/07 0.1 IN  
 42.22/Jul/07 0.01 IN  
 43.30/Jul/07 2.35 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**

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

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## Evaluation of herbicide combinations for preplant henbit control.

Trial ID: SJ07B005

Protocol ID: SJ07B005

Location:

Study Director:

Investigator: Bill Williams

Pest Type

Pest Code

Rating Date

Trt-Eval Interval

LAMAM LAMAMLAMAM OEOLA OEOLA OEOLA RUMCR  
 28/Feb/07 9/Mar/07 22/Mar/07 28/Feb/07 9/Mar/07 22/Mar/07 28/Feb/07  
 7 DA-A 16 DA-A 29 DA-A 7 DA-A 16 DA-A 29 DA-A 7 DA-A

Trt No.	Treatment Name	Rate	Unit	Growth Stage	1	2	3	5	6	7	9	
1	Glyphosate	32	OZ/A	PP	30	a73	b88	ab30	a77	abc95	a50	a
	2,4-D Amine	32	OZ/A	PP								
2	Glyphosate	32	OZ/A	PP	30	a67	b77	c30	a67	c95	a50	a
	2,4-D Amine	24	OZ/A	PP								
3	Glyphosate	32	OZ/A	PP	30	a70	b82	bc30	a72	bc95	a50	a
	2,4-D Amine	24	OZ/A	PP								
	Goal	4	OZ/A	PP								
4	Glyphosate	32	OZ/A	PP	30	a70	b93	a30	a78	abc93	a50	a
	2,4-D Amine	24	OZ/A	PP								
	Goal	8	OZ/A	PP								
5	Glyphosate	32	OZ/A	PP	30	a72	b92	a30	a73	bc92	a50	a
	2,4-D Amine	24	OZ/A	PP								
	Goal	16	OZ/A	PP								
6	Glyphosate	32	OZ/A	PP	30	a85	a93	a30	a83	ab95	a50	a
	2,4-D Amine	24	OZ/A	PP								
	Valor	1	OZ/A	PP								
7	Glyphosate	32	OZ/A	PP	30	a93	a93	a30	a85	a95	a50	a
	2,4-D Amine	24	OZ/A	PP								
	Valor	2	OZ/A	PP								
8	Glyphosate	32	OZ/A	PP	30	a73	b93	a30	a72	bc95	a50	a
	2,4-D Amine	24	OZ/A	PP								
	Resolve	1	OZ/A	PP								
9	Glyphosate	32	OZ/A	PP	30	a63	b85	ab30	a75	abc95	a50	a
	2,4-D Amine	24	OZ/A	PP								
	Atrazine	1	PT/A	PP								
10	Glyphosate	32	OZ/A	PP	30	a87	a92	a30	a75	abc80	c50	a
	Goal	16	OZ/A	PP								
11	Glyphosate	32	OZ/A	PP	30	a87	a90	a30	a83	ab83	bc50	a
	Valor	2	OZ/A	PP								
12	Glyphosate	32	OZ/A	PP	30	a72	b92	a30	a72	bc87	ab50	a
	Resolve	1	OZ/A	PP								
	Atrazine	1	PT/A	PP								
LSD (P=.10)					0.0	6.6	5.7	0.0	6.5	5.1	0.0	
Standard Deviation					0.0	4.7	4.1	0.0	4.6	3.6	0.0	

CV	0.0	6.16	4.55	0.0	6.11	3.94	0.0
Grand Mean	30.0	75.97	89.17	30.0	75.97	91.67	50.0
Bartlett's X2	0.0	2.76	5.582	0.0	4.112	4.337	0.0
P(Bartlett's X2)	.	0.973	0.849	.	0.967	0.227	.
Replicate F	0.000	0.412	1.644	0.000	2.935	1.116	0.000
Replicate Prob(F)	1.0000	0.6673	0.2161	1.0000	0.0741	0.3455	1.0000
Treatment F	0.000	12.205	5.287	0.000	4.396	6.493	0.000
Treatment Prob(F)	1.0000	0.0001	0.0005	1.0000	0.0015	0.0001	1.0000

# LSU Northeast Research Station

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

Trt Treatment	Rate	Growth							
No. Name	Unit	Stage	1	2	3	5	6	7	9

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 RUMCR RUMCR  
 Rating Date 9/Mar/07 22/Mar/07  
 Trt-Eval Interval 16 DA-A 29 DA-A

Trt No.	Treatment Name	Rate	Unit	Growth Stage	10	11	
1	Glyphosate	32	OZ/APP		87	ab	95 a
	2,4-D Amine	32	OZ/APP				
2	Glyphosate	32	OZ/APP		73	bc	93 a
	2,4-D Amine	24	OZ/APP				
3	Glyphosate	32	OZ/APP		82	abc	95 a
	2,4-D Amine	24	OZ/APP				
	Goal	4	OZ/APP				
4	Glyphosate	32	OZ/APP		83	abc	95 a
	2,4-D Amine	24	OZ/APP				
	Goal	8	OZ/APP				
5	Glyphosate	32	OZ/APP		83	abc	95 a
	2,4-D Amine	24	OZ/APP				
	Goal	16	OZ/APP				
6	Glyphosate	32	OZ/APP		90	a	95 a
	2,4-D Amine	24	OZ/APP				
	Valor	1	OZ/APP				
7	Glyphosate	32	OZ/APP		92	a	95 a
	2,4-D Amine	24	OZ/APP				
	Valor	2	OZ/APP				
8	Glyphosate	32	OZ/APP		83	abc	93 a
	2,4-D Amine	24	OZ/APP				
	Resolve	1	OZ/APP				
9	Glyphosate	32	OZ/APP		90	a	95 a
	2,4-D Amine	24	OZ/APP				
	Atrazine	1	PT/APP				
10	Glyphosate	32	OZ/APP		80	abc	85 a
	Goal	16	OZ/APP				
11	Glyphosate	32	OZ/APP		83	abc	85 a
	Valor	2	OZ/APP				
12	Glyphosate	32	OZ/APP		70	c	73 b
	Resolve	1	OZ/APP				
	Atrazine	1	PT/APP				
LSD (P=.10)					8.1		6.6
Standard Deviation					5.8		4.7
CV					6.92		5.14
Grand Mean					83.06		91.25
Bartlett's X2					5.441		5.419
P(Bartlett's X2)					0.794		0.247
Replicate F					1.595		0.379
Replicate Prob(F)					0.2254		0.6887

Treatment F	3.794	6.284
Treatment Prob(F)	0.0038	0.0001

# LSU Northeast Research Station

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

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Trt Treatment	Rate	Growth
No.Name	RateUnit	Stage
	10	11

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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