

# LSU Northeast Research Station

## A comparison of 2,4-D products.

Trial ID: SJ07B003                      Protocol ID: SJ07B003  
 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:** POAAN    *Poa annua*  
**Common Name:** Annual bluegrass

**Pest 3 Type:** W    **Code:** COPDI    *Coronopus didymus*  
**Common Name:** Twincross

**Pest 4 Type:** W    **Code:** STEME    *Stellaria media*  
**Common Name:** Common chickweed

**Pest 5 Type:** W    **Code:** VENSP    *Vernonia stipulacea*  
**Common Name:** Speedwell

**Pest 6 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/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:** 7/Mar/07  
**Time of Day:** 10:00  
**Application Method:** SPRAY  
**Application Timing:** E. March  
**Application Placement:** BROFOL  
**Applied By:** BW  
**Air Temperature, Unit:** 57 F  
**% Relative Humidity:** 61  
**Wind Velocity, Unit:** 6 MPH  
**Wind Direction:** S  
**Soil Temperature, Unit:** 52 F  
**Soil Moisture:** DRY  
**% Cloud Cover:** 20

**Pest Stage At Each Application**

**A**

**Pest 1 Code, Disc., Scale:** OEOLA W  
**Stage Majority, Percent:** Flower  
**Stage Minimum, Percent:** 7"  
**Pest 2 Code, Disc., Scale:** POAAN W  
**Stage Majority, Percent:** Flower  
**Stage Minimum, Percent:** 4"  
**Pest 3 Code, Disc., Scale:** COPDI W  
**Stage Minimum, Percent:** 6"  
**Stage Maximum, Percent:** 8"  
**Pest 4 Code, Disc., Scale:** STEME W

Stage Majority, Percent: Flower  
Stage Minimum, Percent: 4"  
Stage Maximum, Percent: 5"  
Pest 5 Code, Disc., Scale: VENSF W  
Stage Majority, Percent: Flower  
Stage Minimum, Percent: 6"  
Stage Maximum, Percent: 7"  
Pest 6 Code, Disc., Scale: TRFSE W  
Stage Minimum, Percent: 12"  
Stage Maximum, Percent: 16"

#### Application Equipment

##### A

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

# LSU Northeast Research Station

## A comparison of 2,4-D products.

Trial ID: SJ07B003

Protocol ID: SJ07B003

Location:

Study Director:

Investigator: Bill Williams

Pest Type

Pest Code

Rating Date

Trt-Eval Interval

OEOLA	OEOLA	OEOLA	COPDI	COPDI
15/Mar/07	22/Mar/07	3/Apr/07	15/Mar/07	22/Mar/07
8 DA-A	15 DA-A	27 DA-A	8 DA-A	15 DA-A

Trt No.	Treatment Name	Rate	Growth	1	2	3	6	7	
1	Roundup Original	max 22	OZ/AEMARCH 30	a85	a	92	ab60	a95	a
	Unison	55	OZ/AEMARCH						
2	Roundup Original	max 22	OZ/AEMARCH 30	a80	abc	93	a 60	a95	a
	Barrage	20	OZ/AEMARCH						
3	Roundup Original	max 22	OZ/AEMARCH 30	a90	a	93	a 60	a95	a
	Opti-Amime	25	OZ/AEMARCH						
4	Roundup Original	max 22	OZ/AEMARCH 30	a70	cd	57	c 60	a93	a
	2,4-D Amine	32	OZ/AEMARCH						
5	Roundup Original	max 22	OZ/AEMARCH 30	a73	bcd	92	ab60	a95	a
	Unison	41	OZ/AEMARCH						
6	Roundup Original	max 22	OZ/AEMARCH 30	a72	cd	92	ab60	a95	a
	Barrage	15	OZ/AEMARCH						
7	Roundup Original	max 22	OZ/AEMARCH 30	a83	ab	83	ab60	a95	a
	Opti-Amime	19	OZ/AEMARCH						
8	Roundup Original	max 22	OZ/AEMARCH 30	a47	e	73	b 60	a93	a
	2,4-D Amine	24	OZ/AEMARCH						
9	Roundup Original	max 22	OZ/AEMARCH 30	a68	cd	92	ab60	a95	a
	Unison	28	OZ/AEMARCH						
10	Roundup Original	max 22	OZ/AEMARCH 30	a67	cd	83	ab60	a95	a
	Barrage	10	OZ/AEMARCH						
11	Roundup Original	max 22	OZ/AEMARCH 30	a67	cd	92	ab60	a95	a
	Opti-Amime	12	OZ/AEMARCH						
12	Roundup Original	max 22	OZ/AEMARCH 30	a30	f	53	c 60	a95	a
	2,4-D Amine	16	OZ/AEMARCH						
13	Roundup Original	max 22	OZ/AEMARCH 30	a67	cd	78	ab60	a95	a
	Unison	16	OZ/AEMARCH						
14	Roundup Original	max 22	OZ/AEMARCH 30	a67	cd	82	ab60	a95	a
	Barrage	6	OZ/AEMARCH						
15	Roundup Original	max 22	OZ/AEMARCH 30	a63	d	93	a 60	a93	a
	Opti-Amime	7	OZ/AEMARCH						
16	Roundup Original	max 22	OZ/AEMARCH 30	a23	f	47	c 60	a93	a
	2,4-D Amine	9	OZ/AEMARCH						

LSD (P=.10)

0.0 8.1 10.1 0.0 1.8

Standard Deviation

0.0 5.8 7.3 0.0 1.3

CV	0.0	8.84	9.03	0.0	1.36
Grand Mean	30.0	65.73	80.94	60.0	94.58
Bartlett's X2	0.0	3.101	29.202	0.0	0.0
P(Bartlett's X2)	.	0.999	0.015*	.	.
Replicate F	0.000	1.033	1.083	0.000	5.000
Replicate Prob(F)	1.0000	0.3683	0.3514	1.0000	0.0134
Treatment F	0.000	29.828	13.636	0.000	1.000
Treatment Prob(F)	1.0000	0.0001	0.0001	1.0000	0.4801

# LSU Northeast Research Station

Pest Type						
Pest Code		OEOLA	OEOLA	OEOLA	COPDI	COPDI
Rating Date		15/Mar/07	22/Mar/07	3/Apr/07	15/Mar/07	22/Mar/07
Trt-Eval Interval		8 DA-A	15 DA-A	27 DA-A	8 DA-A	15 DA-A
Trt Treatment						
No.	Name	Rate	Unit	Growth		
				Stage	1	2
					3	6
					7	

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

Pest Code

Rating Date

Trt-Eval Interval

COPDI CAPBP CAPBP CAPBP VERPE  
 3/Apr/07 15/Mar/07 22/Mar/07 3/Apr/07 15/Mar/07  
 27 DA-A 8 DA-A 15 DA-A 27 DA-A 8 DA-A

Trt No.	Treatment Name	Rate	Growth Unit	Stage	8	11	12	13	16
1	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 95	a 93	a 70	a
	Unison	55	OZ/AEMARCH						
2	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 95	a 93	a 70	a
	Barrage	20	OZ/AEMARCH						
3	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 95	a 93	a 70	a
	Opti-Amime	25	OZ/AEMARCH						
4	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 93	a 93	a 70	a
	2,4-D Amine	32	OZ/AEMARCH						
5	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 95	a 93	a 70	a
	Unison	41	OZ/AEMARCH						
6	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 95	a 93	a 70	a
	Barrage	15	OZ/AEMARCH						
7	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 95	a 93	a 70	a
	Opti-Amime	19	OZ/AEMARCH						
8	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 93	a 93	a 70	a
	2,4-D Amine	24	OZ/AEMARCH						
9	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 95	a 93	a 70	a
	Unison	28	OZ/AEMARCH						
10	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 95	a 93	a 70	a
	Barrage	10	OZ/AEMARCH						
11	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 95	a 93	a 70	a
	Opti-Amime	12	OZ/AEMARCH						
12	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 95	a 93	a 70	a
	2,4-D Amine	16	OZ/AEMARCH						
13	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 95	a 93	a 70	a
	Unison	16	OZ/AEMARCH						
14	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 95	a 93	a 70	a
	Barrage	6	OZ/AEMARCH						
15	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 93	a 93	a 70	a
	Opti-Amime	7	OZ/AEMARCH						
16	Roundup Original	max 22	OZ/AEMARCH	93	a 60	a 93	a 93	a 70	a
	2,4-D Amine	9	OZ/AEMARCH						
LSD (P=.10)					0.0	0.0	1.8	0.0	0.0
Standard Deviation					0.0	0.0	1.3	0.0	0.0
CV					0.0	0.0	1.36	0.0	0.0
Grand Mean					93.33	60.0	94.58	93.33	70.0
Bartlett's X2					0.0	0.0	0.0	0.0	0.0
P(Bartlett's X2)					1.00	.	.	1.00	.
Replicate F					0.000	0.000	5.000	0.000	0.000
Replicate Prob(F)					1.0000	1.0000	0.0134	1.0000	1.0000

Treatment F	0.000	0.000	1.000	0.000	0.000
Treatment Prob(F)	1.0000	1.0000	0.4801	1.0000	1.0000

# LSU Northeast Research Station

Pest Type					
Pest Code		COPDI	CAPBP	CAPBP	VERPE
Rating Date		3/Apr/07	15/Mar/07	22/Mar/07	3/Apr/07 15/Mar/07
Trt-Eval Interval		27 DA-A	8 DA-A	15 DA-A	27 DA-A 8 DA-A
Trt Treatment	Rate	Growth			
No.Name	RateUnit	Stage	8	11	12 13 16

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

VERPE VERPE

Rating Date

22/Mar/07 3/Apr/07

Trt-Eval Interval

15 DA-A 27 DA-A

Trt	Treatment	Rate	Growth	17	18
No.	Name	Rate	Unit Stage		
1	Roundup Originalmax	22	OZ/AEMARCH95	a93	a
	Unison	55	OZ/AEMARCH		
2	Roundup Originalmax	22	OZ/AEMARCH95	a93	a
	Barrage	20	OZ/AEMARCH		
3	Roundup Originalmax	22	OZ/AEMARCH95	a93	a
	Opti-Amime	25	OZ/AEMARCH		
4	Roundup Originalmax	22	OZ/AEMARCH93	a93	a
	2,4-D Amine	32	OZ/AEMARCH		
5	Roundup Originalmax	22	OZ/AEMARCH95	a93	a
	Unison	41	OZ/AEMARCH		
6	Roundup Originalmax	22	OZ/AEMARCH95	a93	a
	Barrage	15	OZ/AEMARCH		
7	Roundup Originalmax	22	OZ/AEMARCH95	a93	a
	Opti-Amime	19	OZ/AEMARCH		
8	Roundup Originalmax	22	OZ/AEMARCH93	a88	a
	2,4-D Amine	24	OZ/AEMARCH		
9	Roundup Originalmax	22	OZ/AEMARCH95	a93	a
	Unison	28	OZ/AEMARCH		
10	Roundup Originalmax	22	OZ/AEMARCH95	a93	a
	Barrage	10	OZ/AEMARCH		
11	Roundup Originalmax	22	OZ/AEMARCH95	a93	a
	Opti-Amime	12	OZ/AEMARCH		
12	Roundup Originalmax	22	OZ/AEMARCH95	a93	a
	2,4-D Amine	16	OZ/AEMARCH		
13	Roundup Originalmax	22	OZ/AEMARCH95	a93	a
	Unison	16	OZ/AEMARCH		
14	Roundup Originalmax	22	OZ/AEMARCH95	a93	a
	Barrage	6	OZ/AEMARCH		
15	Roundup Originalmax	22	OZ/AEMARCH93	a93	a
	Opti-Amime	7	OZ/AEMARCH		
16	Roundup Originalmax	22	OZ/AEMARCH93	a93	a
	2,4-D Amine	9	OZ/AEMARCH		
LSD (P=.10)				1.8	3.0
Standard Deviation				1.3	2.2
CV				1.36	2.33
Grand Mean				94.58	93.02
Bartlett's X2				0.0	5.402
P(Bartlett's X2)				.	0.988
Replicate F				5.000	24.111
Replicate Prob(F)				0.0134	0.0001

Treatment F	1.000	1.000
Treatment Prob(F)	0.4801	0.4801

