

Aminopyralid for Pasture Weed Control.

Trial ID: 08-Pasture-Dow Location: SIU Beef Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Carbondale IL 62901 USA
 Trial Status: FINAL Initiation Date: 05-21-08

Objectives: Evaluation of broadleaf weed control in pasture with aminopyralid and competitive products.

Crop 1: FESSS Fescue
 Planting Method: ESTABLISHED

Pest 1 Type: W Code: TRFRE Trifolium repens L. clover, white
 Pest 2 Type: W Code: CIRVU Cirsium vulgare (Savi) Ten. thistle, bull
 Pest 3 Type: W Code: SOLCA Solanum carolinense L. horsenettle
 Pest 4 Type: W Code: AMBEL Ambrosia artemisiifolia L. ragweed, common

Plot Width, Unit: 10 FT Site Type: PASTURE
 Plot Length, Unit: 30 FT Tillage Type: NO-TILL
 Replications: 4 Study Design: Randomized Complete Block

Application Description

	A	B
Application Date:	05-21-08	06-10-08
Time of Day:	9:00	11:00
Application Method:	Spray	Spray
Application Timing:	SPRING	2-3WA"A"
Application Placement:	BROFOL	BROFOL
Applied By:	NRJ	NRJ
Air Temperature, Unit:	71 F	81 F
% Relative Humidity:	46	55
Wind Velocity, Unit:	2 MPH	3 MPH
Dew Presence (Y/N):	Y	N
Soil Temperature, Unit:	60 F	81 F
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	0	30

	A	B
Crop stage at application:	05-21-08 HEADING	06-10-08 HEADING
Height Min, Max (inch):	15 25	20 30

Pest Stage At Each Application

	A	B
Application Date:	05-21-08	06-10-08
Weed Code:	TRFRE	TRFRE
Stage Majority (leaves):	25	25
Stage Min, Max:	15 30	15 30
Height Majority:	3 IN	5 IN
Height Min, Max:	2 4	4 6
Density, Unit:	1 FT2	1 FT2
Weed Code:	CIRVU	CIRVU
Stage Majority (leaves):	4	8
Stage Min, Max:	2 6	3 18
Height Majority:	4 IN	6 IN
Height Min, Max:	3 6	4 8
Density, Unit:	0.5 FT2	0.5 FT2
Weed Code:	SOLCA	SOLCA
Stage Majority (leaves):	2	6
Stage Min, Max:	2 4	4 8
Height Majority:	4 IN	8 IN
Height Min, Max:	2 6	4 12
Density, Unit:	0.1 FT2	0.2 FT2
Weed Code:	AMBEL	AMBEL
Stage Majority (leaves):	NA	NA

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Operating Pressure:	30 PSI	30 PSI
Nozzle Type:	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	20 GPA	20 GPA

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Pest Code										TRFRE	TRFRE	TRFRE	TRFRE
Crop Code										FESSS	FESSS	FESSS	
Rating Date													09-30-08
Rating Data Type										Injury	Injury	Injury	Control
Rating Unit										Percent	Percent	Percent	Percent
Rating Timing										4 WAT	6 WAT	8 WAT	4 WAT
Trt-Eval Interval										Percent	Percent	Percent	Percent
													Control
													Percent
													EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
1	FOREFRONT R&P	3	SL	0.56	lb ae/a	1.5	pt/a	SPRING	A	8	c	0	a	99	a	
1	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A							
2	FOREFRONT R&P	3	SL	0.75	lb ae/a	2	pt/a	SPRING	A	5	cd	0	a	99	a	
2	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A							
3	GF-2050	62	WG	0.058	lb ae/a	1.5	oz/a	SPRING	A	38	ab	29	ab	0	a	
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A							
4	GF-2050	62	WG	0.0775	lb ae/a	2	oz/a	SPRING	A	41	a	31	a	0	a	
4	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A							
5	GF-2050	62	WG	0.097	lb ae/a	2.5	oz/a	SPRING	A	39	ab	29	ab	0	a	
5	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A							
6	WEEDMASTER	3.87	SL	0.97	lb ae/a	2	pt/a	SPRING	A	4	cd	0	c	0	a	
6	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A							
7	CIMARRON MAX (MULTI-PACK)							SPRING	A	34	b	26	b	0	a	
7	CIMARRON MAX PART A	60	WG	0.0094	lb ai/a	0.25	oz/a	SPRING	A							
7	CIMARRON MAX PART B	3.87	SL	0.484	lb ae/a	1	pt/a	SPRING	A							
7	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A							
8	FOREFRONT R&P	3	SL	0.56	lb ae/a	1.5	pt/a	2-3WA"A"	B	0	d	0	c	0	a	
8	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B							
9	FOREFRONT R&P	3	SL	0.75	lb ae/a	2	pt/a	2-3WA"A"	B	0	d	0	c	0	a	
9	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B							
10	GF-2050	62	WG	0.058	lb ae/a	1.5	oz/a	2-3WA"A"	B	3	cd	0	c	0	a	
10	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B							
11	GF-2050	62	WG	0.0775	lb ae/a	2	oz/a	2-3WA"A"	B	6	cd	0	c	0	a	
11	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B							
12	GF-2050	62	WG	0.097	lb ae/a	2.5	oz/a	2-3WA"A"	B	4	cd	0	c	0	a	
12	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B							
13	WEEDMASTER	3.87	SL	0.97	lb ae/a	2	pt/a	2-3WA"A"	B	0	d	0	c	0	a	
13	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B							
14	CIMARRON MAX (MULTI-PACK)							2-3WA"A"	B	3	cd	0	c	0	a	
14	CIMARRON MAX PART A	60	WG	0.0094	lb ai/a	0.25	oz/a	2-3WA"A"	B							
14	CIMARRON MAX PART B	3.87	SL	0.484	lb ae/a	1	pt/a	2-3WA"A"	B							
14	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B							
LSD (P=.05)										7.0	3.4	0.0	1.8	0.0	0.0	0.0
Replicate F										0.221	0.210	0.000	1.309	0.000	0.000	0.000
Replicate Prob(F)										0.8814	0.8891	1.0000	0.2853	1.0000	1.0000	1.0000
Treatment F										44.762	128.661	0.000	3.631	0.000	0.000	0.000
Treatment Prob(F)										0.0001	0.0001	1.0000	0.0009	1.0000	1.0000	1.0000

Means followed by same letter do not significantly differ (P=.05, LSD)

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Pest Code		CIRVU	CIRVU	CIRVU	CIRVU
Crop Code					
Rating Date					09-30-08
Rating Data Type		Control	Control	Control	Control
Rating Unit		Percent	Percent	Percent	Percent
Rating Timing		4 WAT	6 WAT	8 WAT	EOS
Trt-Eval Interval					

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	FOREFRONT R&P	3	SL	0.56	lb ae/a	1.5	pt/a	SPRING	A	99	a	99	a
1	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A				
2	FOREFRONT R&P	3	SL	0.75	lb ae/a	2	pt/a	SPRING	A	99	a	99	a
2	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A				
3	GF-2050	62	WG	0.058	lb ae/a	1.5	oz/a	SPRING	A	96	abc	98	b
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A				
4	GF-2050	62	WG	0.0775	lb ae/a	2	oz/a	SPRING	A	99	a	99	a
4	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A				
5	GF-2050	62	WG	0.097	lb ae/a	2.5	oz/a	SPRING	A	99	a	99	a
5	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A				
6	WEEDMASTER	3.87	SL	0.97	lb ae/a	2	pt/a	SPRING	A	98	ab	99	a
6	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A				
7	CIMARRON MAX (MULTI-PACK)							SPRING	A	93	c	99	ab
7	CIMARRON MAX PART A	60	WG	0.0094	lb ai/a	0.25	oz/a	SPRING	A				
7	CIMARRON MAX PART B	3.87	SL	0.484	lb ae/a	1	pt/a	SPRING	A				
7	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A				
8	FOREFRONT R&P	3	SL	0.56	lb ae/a	1.5	pt/a	2-3WA"A"	B	99	a	99	ab
8	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B				
9	FOREFRONT R&P	3	SL	0.75	lb ae/a	2	pt/a	2-3WA"A"	B	99	a	99	a
9	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B				
10	GF-2050	62	WG	0.058	lb ae/a	1.5	oz/a	2-3WA"A"	B	99	a	99	a
10	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B				
11	GF-2050	62	WG	0.0775	lb ae/a	2	oz/a	2-3WA"A"	B	99	a	99	a
11	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B				
12	GF-2050	62	WG	0.097	lb ae/a	2.5	oz/a	2-3WA"A"	B	99	a	99	a
12	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B				
13	WEEDMASTER	3.87	SL	0.97	lb ae/a	2	pt/a	2-3WA"A"	B	99	a	99	ab
13	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B				
14	CIMARRON MAX (MULTI-PACK)							2-3WA"A"	B	95	bc	98	ab
14	CIMARRON MAX PART A	60	WG	0.0094	lb ai/a	0.25	oz/a	2-3WA"A"	B				
14	CIMARRON MAX PART B	3.87	SL	0.484	lb ae/a	1	pt/a	2-3WA"A"	B				
14	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B				

LSD (P=.05)		4.1	1.2	1.3	1.9
Replicate F		0.680	0.356	1.000	0.706
Replicate Prob(F)		0.5698	0.7853	0.4031	0.5543
Treatment F		1.817	0.940	1.000	1.322
Treatment Prob(F)		0.0750	0.5230	0.4697	0.2424

Means followed by same letter do not significantly differ (P=.05, LSD)

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Trial ID: 08-Pasture-Dow Location: SIU Beef Center

Pest Code									SOLCA	SOLCA	SOLCA	SOLCA	AMBEL	AMBEL	AMBEL	
Crop Code												09-30-08	07-22-08	08-05-08	09-30-08	
Rating Date												Control	Control	Control	Control	
Rating Data Type									Control	Control	Control	Percent	Percent	Percent	Percent	
Rating Unit									4 WAT	6 WAT	8 WAT	EOS	42 DA-B	56 DA-B	EOS	
Rating Timing																
Trt-Eval Interval																
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
1	FOREFRONT R&P	3	SL	0.56	lb ae/a	1.5	pt/a	SPRING	A	98 a	99 a	99 a	99 a	99 a	99 a	
1	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A							
2	FOREFRONT R&P	3	SL	0.75	lb ae/a	2	pt/a	SPRING	A	95 ab	97 abc	98 ab	99 a	99 a	99 a	
2	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A							
3	GF-2050	62	WG	0.058	lb ae/a	1.5	oz/a	SPRING	A	97 a	98 ab	96 abc	96 ab	99 a	99 a	
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A							
4	GF-2050	62	WG	0.0775	lb ae/a	2	oz/a	SPRING	A	99 a	97 abc	95 abc	96 ab	99 a	99 a	
4	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A							
5	GF-2050	62	WG	0.097	lb ae/a	2.5	oz/a	SPRING	A	99 a	99 a	98 ab	97 ab	99 a	99 a	
5	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A							
6	WEEDMASTER	3.87	SL	0.97	lb ae/a	2	pt/a	SPRING	A	89 bc	94 abc	97 abc	97 ab	99 a	99 a	
6	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A							
7	CIMARRON MAX (MULTI-PACK)								SPRING	A	93 ab	95 abc	95 abc	97 ab	99 a	99 a
7	CIMARRON MAX PART A	60	WG	0.0094	lb ai/a	0.25	oz/a	SPRING	A							
7	CIMARRON MAX PART B	3.87	SL	0.484	lb ae/a	1	pt/a	SPRING	A							
7	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	SPRING	A							
8	FOREFRONT R&P	3	SL	0.56	lb ae/a	1.5	pt/a	2-3WA"A"	B	97 a	95 abc	97 abc	97 ab	99 a	99 a	
8	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B							
9	FOREFRONT R&P	3	SL	0.75	lb ae/a	2	pt/a	2-3WA"A"	B	83 c	83 bc	97 abc	98 ab	99 a	99 a	
9	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B							
10	GF-2050	62	WG	0.058	lb ae/a	1.5	oz/a	2-3WA"A"	B	94 ab	98 ab	99 ab	99 a	99 b	98 b	
10	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B							
11	GF-2050	62	WG	0.0775	lb ae/a	2	oz/a	2-3WA"A"	B	95 ab	82 c	96 abc	97 ab	99 a	99 a	
11	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B							
12	GF-2050	62	WG	0.097	lb ae/a	2.5	oz/a	2-3WA"A"	B	98 a	99 a	99 ab	99 a	99 a	99 a	
12	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B							
13	WEEDMASTER	3.87	SL	0.97	lb ae/a	2	pt/a	2-3WA"A"	B	92 ab	92 abc	95 bc	97 ab	99 a	99 a	
13	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B							
14	CIMARRON MAX (MULTI-PACK)								2-3WA"A"	B	96 ab	91 abc	93 c	95 b	99 a	98 b
14	CIMARRON MAX PART A	60	WG	0.0094	lb ai/a	0.25	oz/a	2-3WA"A"	B							
14	CIMARRON MAX PART B	3.87	SL	0.484	lb ae/a	1	pt/a	2-3WA"A"	B							
14	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2-3WA"A"	B							
LSD (P=.05)										7.5	15.0	4.5	3.4	0.2	0.5	0.6
Replicate F										5.855	3.350	0.269	2.468	1.000	1.721	0.688
Replicate Prob(F)										0.0021	0.0286	0.8471	0.0763	0.4031	0.1786	0.5648
Treatment F										2.915	1.043	1.337	1.137	1.000	2.382	1.780
Treatment Prob(F)										0.0049	0.4334	0.2341	0.3596	0.4697	0.0183	0.0822

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: Dow AgroSciences (NA08L1B002).
2. WC at 4, 6 + 8 WAT; WC at end of season and 1 YAT.
3. Provide residual control estimates for summer annual weeds if possible.
4. WAT = Weeks after the SPRING or 2-3WA"A" application. DA-B = Days after the 2-3WA"A" application. EOS = End of season.
 Ratings at 4 WAT were on 06-18-08 and 07-08-08 for the SPRING and 2-3WA"A" applications, respectively.
 Ratings at 6 WAT were on 07-02-08 and 07-22-08 for the SPRING and 2-3WA"A" applications, respectively.
 Ratings at 8 WAT were on 07-16-08 and 08-05-08 for the SPRING and 2-3WA"A" applications, respectively.
5. AMBEL emerged in nontreated strips after the 07-16-08 rating.
 For AMBEL, both the "A" and "B" applications (all treatments) were rated on the same dates.
6. Study incomplete, additional rating to be made.