

## Broadleaf Weed Control in Pastures.

Project Code: 05-Pasture      Location: Murphysboro, IL  
 Investigator: Bryan Young

**Investigator:** Bryan Young, Associate Professor, Southern Illinois University

**City State Zip Country:**              Murphysboro      IL 62966 USA  
**Trial Status:** Final                      **Updated:**              11-14-05

**Objective:**

Evaluate crop response and efficacy of metsulfuron plus chlorsulfuron 1:4 ratio for annual and perennial broadleaf control and grass response in improved pastures, rangeland, and CRP.

Weed Code	Common Name	Scientific Name
1.	VENAL ironweed, tall	Vernonia altissima Nutt.
2.	CIRVU thistle, bull	Cirsium vulgare (Savi) Tenore

**Crop 1:**                      FESSP Fescue species  
**Planting Method:** Established

**Plot Width, Unit:** 10              FT                      **Plot Length, Unit:** 30              FT              **Reps:** 4  
**Tillage Type:**              No-Till                      **Study Design:** Randomized complete block  
**Previous Crop, Year:** NA              , 2004

**APPLICATION DESCRIPTION**

**A**  
**Application Date:**              05-28-05  
**Time of Day:**                      19:00  
**Application Method:**              Spray  
**Application Timing:**              POST  
**Applic. Placement:**              BROFOL  
**Air Temp., Unit:**                      81              F  
**% Relative Humidity:**              58  
**Wind Velocity, Unit:**              1              MPH  
**Dew Presence (Y/N):**              N  
**Soil Temp., Unit:**                      72              F  
**Soil Moisture:**                      NORMAL  
**% Cloud Cover:**                      Partly cloud

**CROP STAGE AT EACH APPLICATION**

**A**  
**Crop 1 Code, Stage:**              FESSP FK10  
**Height, Unit:**                      See              note

**WEED STAGE AT EACH APPLICATION**

**A**  
**Weed 1 Code:**                      VENAL  
**Stage (leaves):**                      6-16  
**Height (inches):**                      6-30  
**Density:**                              Medium  
**Weed 2 Code:**                      CIRVU  
**Stage (leaves):**                      12-20  
**Height (inches):**                      5-10  
**Density:**                              Low

**APPLICATION EQUIPMENT**

**A**  
**Appl. Equipment:**              CO2 sprayer  
**Operating Pressure:**              40 PSI  
**Nozzle Type:**                      Flat fan  
**Nozzle Size:**                      8002  
**Boom Length, Unit:**              7.5              FT  
**Spray Volume, Unit:**              20              GPA

**NOTES:**

Crop height at application: grass blades 6-12", grass seed heads 18-36".

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Weed Code  
 Crop Code  
 Rating Data Type  
 Rating Unit  
 Rating Date  
 Trt-Eval Interval

FESSP FESSP FESSP VENAL VENAL VENAL  
 Injury Injury Injury Control Control Control  
 Percent Percent Percent Percent Percent Percent  
 06-04-05 06-11-05 06-25-05 06-11-05 06-25-05 07-23-05  
 7 DA-A 14 DA-A 28 DA-A 14 DA-A 28 DA-A 56 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	FESSP Injury Percent	FESSP Injury Percent	FESSP Injury Percent	VENAL Control Percent	VENAL Control Percent	VENAL Control Percent
1	CIMARRON	60	WG	0.00234	lb ai/a	0.0625	oz/a	POST	A	5	3	0	51	56	51
1	GLEAN	75	WG	0.0117	lb ai/a	0.25	oz/a	POST	A						
1	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	POST	A						
2	CIMARRON	60	WG	0.00469	lb ai/a	0.125	oz/a	POST	A	4	9	3	54	56	41
2	GLEAN	75	WG	0.0234	lb ai/a	0.5	oz/a	POST	A						
2	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	POST	A						
3	CIMARRON	60	WG	0.00938	lb ai/a	0.25	oz/a	POST	A	4	6	2	58	59	55
3	GLEAN	75	WG	0.0469	lb ai/a	1	oz/a	POST	A						
3	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	POST	A						
4	CIMARRON	60	WG	0.00938	lb ai/a	0.25	oz/a	POST	A	4	8	5	53	56	54
4	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	POST	A						
5	CIMARRON	60	WG	0.0188	lb ai/a	0.5	oz/a	POST	A	6	9	6	59	61	61
5	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	POST	A						
6	CIMARRON	60	WG	0.0375	lb ai/a	1	oz/a	POST	A	5	13	8	59	64	70
6	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	POST	A						
7	CROSSBOW	3	EC	1.5	lb ae/a	2.0	qt/a	POST	A	5	6	3	60	66	96
8	CIMARRON MAX (MULTI-PACK)									9	9	4	40	46	68
8	=>CIMARRON MAX PART A	60	WG	0.0187	lb ai/a	0.5	oz/a	POST	A						
8	=>CIMARRON MAX PART B	3.87	EC	0.97	lb ai/a	2	pt/a	POST	A						
8	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	POST	A						
9	NONTREATED									0	0	0	0	0	0
LSD (P=.05)										3.1	3.5	3.0	13.6	13.0	13.8
Replicate F										2.265	2.516	0.842	6.496	6.947	0.995
Replicate Prob(F)										0.1067	0.0823	0.4843	0.0023	0.0016	0.4119
Treatment F										4.420	9.389	5.676	16.688	20.605	29.797
Treatment Prob(F)										0.0022	0.0001	0.0004	0.0001	0.0001	0.0001

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	CIRVU 06-11-05 14 DA-A	CIRVU 06-25-05 28 DA-A	CIRVU 07-23-05 56 DA-A
1	CIMARRON	60	WG	0.00234	lb ai/a	0.0625	oz/a	POST	A			
1	GLEAN	75	WG	0.0117	lb ai/a	0.25	oz/a	POST	A			
1	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	POST	A			
2	CIMARRON	60	WG	0.00469	lb ai/a	0.125	oz/a	POST	A	30	35	70
2	GLEAN	75	WG	0.0234	lb ai/a	0.5	oz/a	POST	A			
2	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	POST	A			
3	CIMARRON	60	WG	0.00938	lb ai/a	0.25	oz/a	POST	A			
3	GLEAN	75	WG	0.0469	lb ai/a	1	oz/a	POST	A			
3	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	POST	A			
4	CIMARRON	60	WG	0.00938	lb ai/a	0.25	oz/a	POST	A	40	45	80
4	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	POST	A			
5	CIMARRON	60	WG	0.0188	lb ai/a	0.5	oz/a	POST	A			
5	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	POST	A			
6	CIMARRON	60	WG	0.0375	lb ai/a	1	oz/a	POST	A			
6	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	POST	A			
7	CROSSBOW	3	EC	1.5	lb ae/a	2.0	qt/a	POST	A			
8	CIMARRON MAX (MULTI-PACK)									60	65	97
8	=>CIMARRON MAX PART A	60	WG	0.0187	lb ai/a	0.5	oz/a	POST	A			
8	=>CIMARRON MAX PART B	3.87	EC	0.97	lb ai/a	2	pt/a	POST	A			
8	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	POST	A			
9	NONTREATED									0	0	0
LSD (P=.05)										0.0	0.0	31.1
Replicate F										0.000	0.000	0.333
Replicate Prob(F)										1.0000	1.0000	0.6667
Treatment F										0.000	0.000	606.306
Treatment Prob(F)										1.0000	1.0000	0.0298

Trial Comments

1. Protocol: DuPont.
2. Ratings: CI 7, 14 and 28 DAT; WC 14, 28 and 56 DAT.
3. If target is perennial, record % defoliation at 14, 28 and 56 DAT and as % of control the following season.
4. Mixing:  
 For =>CIMARRON MAX PART A use ALLY 60 WG.  
 For =>CIMARRON MAX PART B use RANGE STAR 3.87 EC.  
 For CIMARRON use ALLY 60 WG.
5. Weed populations: VENAL = 3 plants / 0.25 square meter. CIRVU = less than 1 per 0.25 square meter, and not present in all plots.