

Buckbrush Control in Rangeland with GF 2050 North of Rushville, Nebraska.

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A field study was conducted north of Rushville, NE to compare the performance of the experimental herbicide GF-2050 (aminopyralid + metsulfuron) applied in late spring or early summer for buckbrush control. The experimental design was a randomized complete block with four replications, plot size was 11 feet wide by 25 feet long. Herbicides were applied in late spring (May 20, 2008) and in early summer (June 18, 2008) when buckbrush was fully leafed out and actively growing. Herbicides were applied with a backpack sprayer calibrated to deliver 20 gallons of spray solution per acre at 36-psi pressure using Spraying Systems 11002 VS nozzles. Environmental conditions at the time of herbicide application are given in Table 1.

Buckbrush stand was uniform across all plots. Evaluations taken on July 10 indicated that GF-2050 at 0.077 or 0.096 lb/acre were more effective in controlling buckbrush when applied on June 18 compared to May 10 (Table 2). Higher rates of GF-2050 performed similarly when applied either in late spring or early summer. Treatments that included GF-2050 at lower rates combined with 2, 4 -D ester, Cimarron combined with Weedmaster, and 2, 4 -D ester alone, performed better when applied on May 10 compared to June 18. In general all treatments were effective in releasing the competition of buckbrush with native grasses. All herbicide treatments provided excellent buckbrush control on September 3. Plots will be evaluated in 2009 to assess the persistence in buckbrush control.

Table 1 Environmental Conditions at the Time of Herbicide Application.

Date	Air temperature	Humidity	Wind speed & direction	Time of day	Buckbrush Height
	(F)	(%)	(mph)		(inches)
May 20	65	28	3	1:00 PM	20
June 18	75	82	2	10:00 AM	20

Table 2. Buckbrush Control with GF-2050.

Treatment ¹	Rate (lb/acre)	Time of application ²	Visual evaluations of buckbrush control ³		
			6/18	7/10	9/3
			----- (%) -----		
Control	—	—	0	0	25
GF-2050 + Activator 90	0.077	Mid May	48	44	99
GF-2050 + Activator 90	0.096	Mid May	59	66	99
GF-2050 + Activator 90	0.116	Mid May	82	90	99
GF-2050 + 2, 4-D Ester + Activator 90	0.058 1	Mid May Mid May	99	99	99
GF-2050 + 2, 4-D Ester + Activator 90	0.077 1	Mid May Mid May	99	99	99
2, 4-D Ester + Activator 90	2	Mid May	96	99	99
Cimarron Weedmaster + Activator 90	0.009 0.487	Mid May Mid May	99	99	99
GF-2050 + Activator 90	0.077	Mid June	0	98	99
GF-2050 + Activator 90	0.096	Mid June	0	99	99
GF-2050 + Activator 90	0.116	Mid June	0	99	99
GF-2050 + 2, 4-D Ester + Activator 90	0.058 1	Mid June Mid June	0	74	99
GF-2050 + 2, 4-D Ester + Activator 90	0.077 1	Mid June Mid June	0	99	99
2, 4-D Ester + Activator 90	2	Mid June	0	58	99
Cimarron Weedmaster + Activator 90	0.009 0.487	Mid June Mid June	0	74	99
LSD (P=.05)	—	—	10.4	25.5	18.3

¹ Spray additives were combined with the spray solution at the following rates: surfactant activator 90 at 0.25%.

² Time of application: mid May on May 10 or mid June on June 18.

³ Visual injury evaluated on a scale from 0 to 100 with 0 equal to no injury and 100 equal to death of the plant.