



Result Demonstration Report

2007 Herbicide Comparison Study

Phil Sadler Ranch
Cooperator

Clint Perkins, Stephen Gowin, Brian Triplett, and Brian Cummins
Texas Cooperative Extension County Agents for Wood, Rains, Smith, and Van Zandt
Counties

Summary:

Herbicides have been proven to be an effective method for broadleaf weed control in forage systems for many years. Producers face many choices when selecting various products to be used in forage system for adequate control of weeds.

Objective:

The objective of this result demonstration was to compare the herbicide effectiveness on blackberry vines in warm season forage grasses.

Materials and Methods:

Material used for this experiment were as follows; Pasture Guard, Surmount, Grazon P+D plus 0.1 oz. Metsulfuron Methyl, 2, 4-D plus 8 ounces of Remedy Ultra, and Kamba Master plus 0.2 oz. Metsulfuron Methyl. And a control was used in each replication. The trial was a completely randomized block design replicated three times. Rate for the herbicides are listed in Table I. The plots were 25 feet wide by 50 feet long. Plots were treated with a tractor mounted spray rig calibrated for applying 18.9 gallons of spray solution per acre at 3.5 mph ground speed.

Table I. Herbicide, Rates, and Surfactant Used In Study

	Herbicide	Rate	Surfactant
Plot 1	Grazon P+D plus Metsulfuron Methyl	1 Quart/Acre Grazon P+D and 0.1 ounce/acre Metsulfuron Methyl	1.5 pints/acre
Plot 2	Pasture Guard	3 pints/acre	1.5 pints/acre
Plot 3	Surmount	3 pints/acre	1.5 pints/acre
Plot 4	2,4-D Plus Remedy Ultra	1 quart/acre plus 8 ounces/acre Remedy Ultra	1.5 pints/acre
Plot 5	Control		
Plot 6	Kamba Master Plus Metsulfuron Methyl	1 quart/acre Kamba Master and 0.2 ounces/acre Metsulfuron Methyl	1.5 pints/acre
Plot 7	Surmount	3 pints/acre	1.5 pints/acre
Plot 8	Kamba Master Plus Metsulfuron Methyl	1 quart/acre Kamba Master and 0.2 ounces/acre Metsulfuron Methyl	1.5 pints/acre
Plot 9	Pasture Guard	3 pints/acre	1.5 pints/acre
Plot 10	Grazon P+D plus Metsulfuron Methyl	1 Quart/Acre Grazon P+D and 0.1 ounce/acre Metsulfuron Methyl	1.5 pints/acre
Plot 11	Control		
Plot 12	2,4-D Plus Remedy Ultra	1 quart/acre plus 8 ounces/acre Remedy Ultra	1.5 pints/acre
Plot 13	2,4-D Plus Remedy Ultra	1 quart/acre plus 8 ounces/acre Remedy Ultra	1.5 pints/acre
Plot 14	Control		
Plot 15	Surmount	3 pints/acre	1.5 pints/acre
Plot 16	Pasture Guard	3 pints/acre	
Plot 17	Grazon P+D plus Metsulfuron Methyl	1 Quart/Acre Grazon P+D and 0.1 ounce/acre Metsulfuron Methyl	1.5 pints/acre
Plot 18	Kamba Master Plus Metsulfuron Methyl	1 quart/acre Kamba Master and 0.2 ounces/acre Metsulfuron Methyl	1.5 pints/acre

Results and Discussion:

On May 9, 2007 the herbicide trials were sprayed on the replicated plots. Weekly observations were taken for a total of six (6) weeks after treatment. The results are in Table II. The replicated plots were then averaged to get a final percent control for each herbicide treatment (Table III.). Results are as follows, Grazon P+D plus Metsulfuron Methyl (plots 1, 10, 17) had an average of 22 percent control, Pasture Guard (plots 2, 9, 16) had an average of 98 percent control, Surmount (plots 3, 7, 15) had a average of 100 percent control, 2,4-D plus 8 ounces of Remedy Ultra had a average of 85 percent control, and Kamba Master plus Metsulfuron Methyl had a average of 17 percent control of blackberries and dewberries. The results of this research trial does conclude that Grazon P+D plus Metsulfuron Methyl and Kamba Master plus Metsulfuron Methyl had the least amount of control with Surmount, Pasture Guard, and 2,4-D plus Remedy Ultra had the greatest amount of control in that order. It is also noted that rain did occur two and a half hours after treatment. This could have interfered with some of the treatments.

Table II. Percent Control for 1-6 Weeks After Treatment

Plot #	Before Treatment	1 WAT	2WAT	3 WAT	4 WAT	5WAT	6WAT
1	85	Significant discoloration	significant burn	significant burn	significant burn	20	20
2	55	Discoloration & Wilting	90	100	100	100	100
3	80	Discoloration & Wilting	85	90	95	100	100
4	95	Wilting	significant burn	20	25	40	60
5	50						
6	60	Wilting	Severe Wilting	10	15	20	25
7	85	Discoloration & Wilting	85	90	100	100	100
8	85	Wilting	Severe Wilting	Severe Wilting	Tip Burn	Tip Burn	10
9	85	Discoloration & Wilting	85	90	95	95	100
10	85	Wilting	significant Wilt	Tip Burn	5	30	30
11	70						
12	55	Discoloration & Wilting	35	75	85	100	100
13	95	Wilting	40	80	85	95	95
14	95						
15	85	Discoloration & Wilting	80	90	90	95	100
16	90	Discoloration & Wilting	75	85	85	90	95
17	85	Discoloration & Wilting	Wilting	Tip Burn	Tip Burn	10	15
18	70	Wilting	Wilting	Tip Burn	Tip Burn	10	15

Table III. Average Percent Control of Three Replications of Chemicals

Plots	Chemical	Average Percent Control
1, 10, 17	Grazon P+D plus Metsulfuron Methyl	22
2, 9, 16	Pasture Guard	98
3, 7, 15	Surmount	100
4, 12, 13	2,4-D Plus Remedy Ultra	85
6, 8, 18	Kamba Master Plus Metsulfuron Methyl	17

Table IV. 2007 Blackberry Control Demonstration Cost Per Acre

<u>Chemical (s) and Rates*</u>	<u>Cost (\$) Per Acre</u>
Pasture Guard (3 pints/acre)	\$20.53
Surmount ^ (3pints/acre)	\$21.19
Grazon P+D ^ (1 quart/acre) plus Metsulfuron Methyl (0.1 ounce/acre)	\$9.50
Kamba Master (1quart/acre) plus Metsulfuron Methyl (0.2) ounces/acre)	\$9.48
2,4-D^ (1 quart/acre) plus Remedy Ultra (8ounces/acre)	\$8.58

***All rates plus 1.5 pints/acre Sun Pasture surfactant (additional cost of \$4.09/acre) -
Chemicals donated by Red River Specialties, Tyler**

^ Restricted Use Product

Conclusion:

This is the second year of a three year multi-county research trail. Very positive results are occurring. This research will be conducted in 2008-2009 to determine if the same results can be accomplished.

Acknowledgments:

A special thanks to Mr. Phil Sadler for allowing the result demonstration to be conducted on his land and to Mr. Darren Rozzell, with Red River Specialties, for donating the herbicide that were used in the result demonstration.

Disclaimer Clause:

The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Texas Cooperative Extension is implied.

Individuals with disabilities who require an auxiliary aid, service, or accommodation in order to participate in this activity are encouraged to contact the Wood County Extension Office at 903-763-2924 for assistance.