



Result Demonstration Report

2015 Restricted Use VS Non-Restricted Use Herbicide Efficacy Study

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Summary

Herbicides have been proven to be an effective method for controlling weeds in forage systems for many years. There are several newer products on the market that are not restricted or State limited use products. Producers face many choices when selecting various products to be used in either forage systems to control weeds.

Objective

The objective of this result demonstration was to compare the herbicide effectiveness on weeds control and cost per acre with non-restricted herbicides verses restricted use herbicides on weed control in forage systems.

Materials and Methods

Material and rates of herbicides used for this experiment is shown in Table 1. The trial was a strip trial that was not replicated. Plots were treated on July 8, 2015 using a 300 gallon spray rig calibrated to apply 16 gallons of solution per acre. The test plots were 30 x 50 feet with a 10 foot buffer (control) between each plot. Spray swath was 24 x 50 feet.

Time: 9:35-11:45

Air Temperature: 82°

Soil Temperature: 83°

Relative Humidity: 63%

Wind: South to Southeast at 9 MPH

Cloud Cover: 10%



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

Plot	Herbicide	Rate per Acre	Surfactant per Acre
1	PastureGard HL	1.2 pints/acre	1 pint
2	Remedy Ultra + Metsulfuron Methyl	8 ounces/acre + 0.2 ounces/acre	1 pint
3	Chaparral	2 ounces/acre	1 pint
4	Surmount	1.5 pints/acre	1 pint
5	Grazon Next HL	1.5 pints/acre	1 pint
6	Grazon Next HL + Remedy + Metsulfuron Methyl	1.2 pints/acre + 8 ounces/acre + 0.1 ounce per/acre	1 pint
7	Grazon P+D	1 quart/acre	1 pint
8	2, 4-D	1 quart/acre	1 pint

Results and Discussion

Plots were treated on July 8, 2015 using a 300 gallon spray rig with a boominator spray nozzle calibrated to apply 16 gallons of spray solution per acre. *The result demonstration consisted of species such as woolly croton (goat weed), ironweed, greenbrier, and ragweed.* Ratings were taken after treatment at approximately 30 Days. The results are in Table II. Table III shows the cost of each individual treatment on a per acre basis. Also noted, PastureGard has no activity on Woolly Croton (goat weeds).

Table II. Percent Control for 30 Days after Treatment

Plot	Herbicides	Weed Species Controlled	30 Days After Treatment
1	PastureGard HL	Mixed Species (Except Woolly Croton)	85% 0%
2	Remedy Ultra + Metsulfuron Methyl	Mixed Species	85%
3	Chaparral	Mixed Species	95%
4	Surmount	Mixed Species	99%
5	Grazon Next HL	Mixed Species	95%
6	Grazon Next HL + Remedy + Metsulfuron Methyl	Mixed Species	99%
7	Grazon P+D	Mixed Species	99%
8	2, 4-D	Mixed Species	90%

Table III. Result Demonstration Cost/Acre

<u>Chemical (s) and Application Rates</u>	<u>Cost (\$) Per Container*</u>	<u>Cost Per Acre</u>
PastureGard HL (1.2 pts./acre)	\$120/gal	\$18.80
Remedy Ultra + Metsulfuron Methyl (8 oz./acre + 0.2 oz./acre)	\$72.50/gal + \$0.69/ 0.1 oz.	\$5.94
Chaparral (2 oz./acre)	\$115/1.25 lbs.	\$11.50
Surmount (1.5 pts/acre)	\$134/2.5gal	\$10.08
Grazon Next HL (1.5 pts/acre)	\$92/2gal	\$8.62
Grazon Next HL + Remedy + Metsulfuron Methyl (1.2 pts./acre + 8 oz./acre + 0.1 oz./acre)	\$92/gal + \$4.56 \$0.69/0.1 oz.	\$12.45
Grazon P+D (1 qt./acre)	\$84.50/2.5 gallon	\$8.45
2, 4-D (1 qt./acre)	\$43/2.5 gallon	\$4.48

*** Costs from Rozell Sprayers (August 10, 2015) for Herbicide Only no Surfactant**

PastureGard = \$120/gal = \$120/128 oz. = \$0.94/oz. x 20 oz. (1.2 pints) = \$18.80

Chaparral = \$115/1.25 pounds = \$115/20oz = \$5.75/oz. x 2 oz. /acre = \$11.50

Surmount = \$134/ 2.5 gal = \$134/320 oz. = \$0.42/oz x 24 oz. = \$10.08

Grazon Next HL = \$92.00/ 2 gal. = \$92.00 / 256oz = \$0.36/oz. x 24 ounces (1.5 pints) = \$8.62

Grazon Next HL = \$92.00/2 gal. = \$92.00 / 256oz = \$0.36/oz. x 20 ounces (1.2 pints) = \$7.20

Grazon P+D = \$84.50/ 2.5 gal. = \$84.50/ 320 oz. = \$0.26/oz. x 32 oz./acre (1 qt.) = \$8.45

Remedy Ultra = \$72.50 per gallon = \$72.50/128oz = \$0.57/ounce z 8 oz./acre= \$4.56

Metsulfuron Methyl = \$0.69/0.1 oz.

2,4-D = \$43/2.5 gal= \$43/320 oz.= \$0.14/oz. x 32 oz (1 qt/acre) = \$4.48

Trade names of commercial products used in this report is included only for better understanding and clarity. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by Texas AgriLife Extension Service and the Texas A&M University System is implied. Readers should realize that results from one experiment do not represent conclusive evidence that the same response would occur where conditions vary.

Conclusions

This is the first year of a three year multi-county research trail. Very positive results have occurred. Herbicides have proven to be an effective way of controlling weeds in forage systems.

Acknowledgements

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