



Result Demonstration Report

2021 Herbicide Comparison Study for Controlling Greenbrier in Fence Rows

Mr. Jimmy Arp
Cooperator

Clint Perkins, Dr. Jamie Sugg, Shaniqua Davis & Kaitlyn Slover
Texas A&M AgriLife Extension Service County Agents for Smith, Rusk, Gregg & Upshur
Counties

Summary

Herbicides have been proven to be an effective method for controlling Greenbrier in fence rows for many years. Producers face many choices when selecting various products to be used in forage systems or fencerows for adequate control of weeds.

Objective

The objective of this result demonstration was to compare the herbicide effectiveness on Greenbrier along with any other brush and woody species in fence rows.

Materials and Methods

Material and rates of herbicides used for this experiment is shown in Table 1. This was a completely randomized research trial replicated 3 times. Plots were treated on June 15, 2021 using backpack sprayers. The fencerow plots were 25 feet long and they were sprayed with a 1 gallon tank mix solution.

Start Time 10:20 AM

Air Temp 88 degrees

Soil Temp 80 degrees

58% Humidity

Wind Speed ENE 5 mph

Cloud Cover: 20%

End Time 12:30 PM

Table I. Herbicide & Rates Used in Study

Plot	Herbicide	Rate per Gallon	Surfactant per Gallon
1	Grazon Next & Remedy 2% V/V each	2.56 oz.	.321 oz./gallon
2	DuraCor 16 oz/Acre Rate	1 oz.	.321 oz./gallon
3	Remedy 25% + Diesel 75%	1 qt.+3 qtrs.	0
4	Surmount 2% V/V	2.56 oz.	.321 oz./gallon
5	PastureGard 2% V/V	2.56 oz.	.321 oz./gallon
6	Remedy 2% V/V + 6.6 oz per 100 gallon Chaparral	2.56 oz. + 0.066 oz./gal	.321 oz./gallon
7	Velpar 1% V/V	1.28 oz.	.321 oz./gallon
8	Grazon Next & Remedy 2% V/V each	2.56 oz.	.321 oz./gallon
9	DuraCor 16 oz/Acre Rate	1 oz.	.321 oz./gallon
10	Remedy 25% + Diesel 75%	1 qt.+3 qtrs.	0
11	Surmount 2% V/V	2.56 oz.	.321 oz./gallon
12	PastureGard 2% V/V	2.56 oz.	.321 oz./gallon
13	Remedy 2% V/V + 6.6 oz per 100 gallon Chaparral	2.56 oz. + 0.066 oz./gal	.321 oz./gallon
14	Velpar 1% V/V	1.28 oz.	.321 oz./gallon
15	Grazon Next & Remedy 2% V/V each	2.56 oz.	.321 oz./gallon
16	DuraCor 16 oz/Acre Rate	1 oz.	.321 oz./gallon
17	Remedy 25% + Diesel 75%	1 qt.+3 qtrs.	0
18	Surmount 2% V/V	2.56 oz.	.321 oz./gallon
19	PastureGard 2% V/V	2.56 oz.	.321 oz./gallon
20	Remedy 2% V/V + 6.6 oz per 100 gallon Chaparral	2.56 oz. + 0.066 oz./gal	.321 oz./gallon
21	Velpar 1% V/V	1.28 oz.	.321 oz./gallon

Results and Discussion

Plots were treated on June 15, 2021 using backpack sprayers with 1 gallon of spray solution. Ratings were taken after treatment at approximately 30, 60 & 90 Days after treatment (DAT). The results are in Table II. Table III shows the average percent control for the replicated plots. Table IV shows the cost of each individual treatment for 1 gallon of tank mix.

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.

Table II. Percent Control 30, 60 & 90 Days after Treatment (DAT)

Plot	Herbicide	Application Rate/Gallon	30 DAT	60 DAT	90 DAT
1	Grazon Next & Remedy 2% V/V each	2.56 oz.	30	50	99
2	DuraCor 16 oz/Acre Rate	1oz.	10	10	20
3	Remedy 25% + Diesel 75%	1 qt.+3 qtrs.	85	95	100
4	Surmount 2% V/V	2.56 oz.	20	85	90
5	PastureGard 2% V/V	2.56 oz.	50	90	95
6	Remedy 2% V/V + 6.6 oz per 100 gallon Chaparral	2.56 oz. + 0.066 oz./ gal	50	85	98
7	Velpar 1% V/V	1.28 oz.	99	99	99
8	Grazon Next & Remedy 2% V/V each	2.56 oz.	80	90	99
9	DuraCor 16 oz/Acre Rate	1oz.	30	50	70
10	Remedy 25% + Diesel 75%	1 qt.+3 qtrs.	90	95	100
11	Surmount 2% V/V	2.56 oz.	30	70	80
12	PastureGard 2% V/V	2.56 oz.	60	90	99
13	Remedy 2% V/V + 6.6 oz per 100 gallon Chaparral	2.56 oz. + 0.066 oz./ gal	60	90	99
14	Velpar 1% V/V	1.28 oz.	95	95	95
15	Grazon Next & Remedy 2% V/V each	2.56 oz.	95	99	99
16	DuraCor 16 oz/Acre Rate	1oz.	30	40	70
17	Remedy 25% + Diesel 75%	1 qt.+3 qtrs.	90	95	100
18	Surmount 2% V/V	2.56 oz.	75	99	99
19	PastureGard 2% V/V	2.56 oz.	85	95	99
20	Remedy 2% V/V + 6.6 oz per 100 gallon Chaparral	2.56 oz. + 0.066 oz./ gal	85	95	95
21	Velpar 1% V/V	1.28 oz.	85	85	85

Table III. Average Percent Control for 30, 60, & 90 Days After Treatment

Plot	Herbicide	Application Rate/Gallon	30 DAT	60 95DAT	90 DAT
1, 8, 15	Grazon Next & Remedy 2% V/V each	2.56 oz.	75	83	99
2, 9, 16	DuraCor 16 oz/Acre Rate	1oz.	23.3	33.3	60
3, 10, 20	Remedy 25% + Diesel 75%	1 qt.+3 qtrs.	90	95	98.3
4, 11, 18	Surmount 2% V/V	2.56 oz.	41.6	74.6	89.6
5, 12, 19	PastureGard 2% V/V	2.56 oz.	65	91.6	97.6
6, 13, 20	Remedy 2% V/V + 6.6 oz per 100 gallon Chaparral	2.56 oz. + 0.066 oz./ gal	65	90	97.3
7, 14, 21	Velpar 1% V/V	1.28 oz.	93	93	93

Table IV. 2021 Herbicide Comparison Study for Controlling Broadleaf Weeds in Warm-Season Forage Systems Cost/Acre

<u>Herbicide (s)</u>	<u>Application Rates/Gallon</u>	<u>Cost (\$)/gallon</u>
Grazon Next & Remedy 2% V/V each	2.56 oz. each	\$2.50
DuraCor 16 oz/Acre Rate	1oz.	\$0.79
Remedy 25% + Diesel 75%	1 qt.+3 qtrs.	\$20.80
Surmount 2% V/V	2.56 oz.	\$1.28
PastureGard 2% V/V	2.56 oz.	\$2.41
Remedy 2% V/V + 6.6 oz per 100 gallon Chaparral	2.56 oz. + 0.066 oz./ gal	\$1.89
Velpar 1% V/V	1.28 oz.	\$1.16

* Costs are the average retail prices from Rozell Sprayers & Manufacturing and Red River Specialties (Sept. 23, 2021) for Herbicide Only no, Surfactant

GrazonNext HL = \$102.50 per 2 gal=\$102.50/256 oz oz = \$0.400/oz x 2.56 oz= \$1.02 per gallon

Remedy Ultra = \$74.50/gal = \$74.50/128 oz = \$0.582/oz x 2.56 oz = \$1.48 per gallon

Diesel= \$2.90 per gallon

DuraCor = \$101 per gallon = \$101/128 oz = \$0.789/oz x 1 oz= \$0.79 per gallon

Surmount= \$160 per 2.5 gallons= \$160/320= \$0.50 per ounce x 2.56 oz + \$1.28 per gallon

PastureGard HL = \$120.00 per gallon = \$120/128 oz = \$0.94/oz x 2.56 oz per acre = \$2.41 per gallon

Velpar= \$289.20 per 2.5 gallons= \$289.20/320 = \$0.90 per ounce=\$ 1.16 per gallon

Chaparral= = \$124 per 20 oz = \$6.20 per ounce x 6.6 ounce per 100 gallon rate = \$40.92 per 100 gallons water, 6.6 oz /100 gallons water= 0.066 oz per gallon x \$6.20= \$0.41 per gallon

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 applied research trail. Very positive results have occurred. Herbicides have proven to be an effective way of controlling Greenbrier in fencerows.

Acknowledgements

A special thanks to Mr. Jimmy Arp for allowing the result demonstration to be conducted on his property and to Mr. Darren Rozell (Rozell Sprayer and Manufacturing), Mr. Cary Parrott (Red River Specialties), and to Mr. Patrick Sutton (Corteva Agriscience), for donating the herbicides that were used in the result demonstration project.