

Remedy RTU vs. Remedy + Diesel as Mesquite Stem Spray

2003

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SUMMARY

Remedy RTU is a "ready to use" formulation of the popular herbicide Remedy. The term "ready to use" means the herbicide requires no mixing and can be poured directly from the container into a backpack sprayer and applied as a stem spray to mesquite and other woody plants. Herbicide trials comparing Remedy RTU to Remedy + diesel (15% + 85%) as a stem spray for control of mesquite were established in Brown, Burnet, Coleman, Irion, Lampasas, McCulloch, Mason, Mills, Runnels, San Saba, Schleicher, Shackelford, Taylor and Tom Green Counties during the summer of 2002.

One year following application there was no significant difference between mesquite apparent mortality using either Remedy RTU or Remedy + diesel. Averaged across the 14 sites, Remedy RTU produced an apparent mortality of 88% compared to 83% for Remedy + diesel. These trials will be re-evaluated in 2004 before final root kill can be assumed.

PROBLEM/INTRODUCTION

Remedy is one the most effective herbicides available for brush control on Texas rangelands. It's most popular use is as a stem spray. To use this technique the herbicide Remedy is first mixed with diesel or vegetable oil at a specific concentration. Then the spray mix is poured into a backpack sprayer, equipped with a special nozzle (5500-X1 adjustable conejet), and the basal stems of individual woody plants are lightly wetted with the herbicide spray mix from ground line to a height of 12 to 16 inches, all the way around. This technique provides a high level of control when applied to mesquite and many other woody plants. For the stem spray method to provide consistent and acceptable results, the Remedy and diesel or vegetable oil must be mixed at the correct concentrations.

Remedy RTU is a "ready to use" formulation of Remedy that does not require mixing before use. It is premixed at a concentration of approximately 15% Remedy plus 85% vegetable oil. This is the same concentration that is recommended for smooth barked mesquite. Remedy RTU provides users with the advantage of not having to handle or mix with messy diesel or vegetable oil and the guarantee the spray mix contains the correct concentration of herbicide.

OBJECTIVES

The objective of these demonstrations are to:

Document efficacy of Remedy RTU as compared to Remedy plus diesel (15% plus 85%) when used as an individual plant stem spray for control of mesquite on rangeland.

MATERIALS/METHODS

Table 1 shows location and date of treatment for the 14 herbicide trials. Mesquite at each site were treated using the Brush Busters stem spray with the spray mix being either Remedy RTU or 15% Remedy plus 85% diesel. Application was made with a "Solo" backpack sprayer and a 5500-X1 conejet nozzle. The basal stems of each mesquite treated was sprayed to wet, but not to the point of runoff, from ground line to a height of 12 inches, on all sides of the trunk.

Table 1. County, ranch and application dates for the 14 demonstration sites.

Ranch	Application Date	County
Perkins Ranch	August 2, 2002	Brown
Belmerz Ranch	July 23, 2002	Burnet
Linda Huston Ranch	June 15, 2002	Coleman
Rocker B Ranch	July 10, 2002	Irion
Wittenburg Ranch	July 24, 2002	Lampasas
Guy Phillips Ranch	June 17, 2002	McCulloch
Jennings Ranch	August 1, 2002	Mason
Duren Ranch	June 13, 2002	Mills
Teplecik Ranch	June 20, 2002	Runnels
Miller Ranch	July 8, 2002	San Saba
Higgins Ranch	July 5, 2002	Schleicher
Leech Ranch	June 4, 2002	Shackelford
Bens Richey Boys Ranch	June 21, 2002	Taylor
Schkade Ranch	July 18, 2002	Tom Green

RESULTS/DISCUSSION/ECONOMIC IMPACT

Based on prices quoted by Palmer Feed in San Angelo (Fall, 2002), Remedy RTU retails for \$38.89/gallon, compared to Remedy at \$82.00/gallon. One gallon of Remedy will make 6.6 gallons of spray mix (15% Remedy plus 85% diesel). Thus the cost per gallon of using Remedy concentrate and mixing yourself(15% Remedy plus 85% diesel) is approximately \$13.30/gallon as compared to the \$38.89/gallon cost of using Remedy RTU, but not having to mix.

All trials were evaluated one year following treatment. At this time there was no significant difference between control using either of the two herbicide mixes (Table 2). Averaged across the 14 trials, Remedy RTU averaged 88% apparent mortality, compared to 83% for Remedy + diesel. All trials will be re-evaluated in 2004 to document final root kill.

Table 2. Apparent mortality of mesquite one year following stem spray with Remedy + diesel or Remedy RTU.

County	Percent Apparent Mortality	
	Remedy + diesel	Remedy RTU
Brown	85	65
Burnet	58	94
Coleman	97	100
Irion	86	86
Lampasas	92	91
McCulloch	81	87
Mason	92	100
Mills	46	69
Runnels	97	81
San Saba	86	95
Schleicher	89	95
Shackelford	75	86
Taylor	83	89
Tom Green	98	100
Average	83	88

ACKNOWLEDGMENTS

The author wishes to express appreciation to the various ranches that served as cooperators, and to the County Extension Agents and Jeff White who helped establish and evaluate these herbicide trials. A special thanks is extended to Dow AgroSciences for furnishing the herbicide used and for financial support of this project.

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