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Individual Plant Treatment of Mesquite Sprouts - Native Pastures 1997-2002

Guy Phillip's Ranch Northern McCulloch County Precinct 4

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SUMMARY

The mesquite tree is one of the toughest, most invasive species of brush in the world. It thrives across the western two-thirds of Texas, both in rural pastures and on urban lots. This demonstration will evaluate the efficacy of individual plant stem and leaf sprays for control of mesquite resprouts This is a long term demonstration.

PROBLEM/INTRODUCTION

Mesquite has always been a difficult plant to control with herbicides. Recently a program, Brush Busters, was designed to assist land owners and livestock producers control mesquites in a cost effective program that's easy, inexpensive, environmentally responsible, and effective. Using these Brush Busters methods, which involve spraying a small by potent concentration of herbicide directly on each plant, you'll be able to keep the mesquites and other shrubs and tress you want and get rid of those you don't.

OBJECTIVES

The objective of this demonstration is to document the effectiveness of stem (15% Remedy) and leaf (1/2% Remedy + 1/2% Reclaim) sprays for control of mesquite resprouts.

MATERIALS/METHODS

On the Phillips Ranch, the treated area consisted of mesquites ranging from sprouts to trees 7-8 feet tall on native pasture

Two plots were treated 9-9-96. One plot was treated by leaf spray, with the other plot treated by the stem spray. The leaf spray consisted of 1/2% Remedy + 1/2% Reclaim + 5% diesel + 94% water. The spray mix was applied with a 4-wheel ATV sprayer, equipped with spray gun and an X8 cone nozzle. The leaves of each mesquite tree were sprayed until they slightly glistened.

The stem spray consisted of a mix of 15% Remedy + 85% diesel. The spray mix was applied to the basal stems of mesquite plants with a "Solo" back pack sprayer, equipped with an X1 cone nozzle. The basal stems of each mesquite plant was wetted with the spray mix from groundline to a height of 12 to 16 inches. Care was taken to insure each basal stem was wetted on all sides, almost to the point of runoff.

RESULTS/DISCUSSION/ECONOMIC IMPACT

In October, 1997, the leaf spray plots showed a 90% killed, with the stem spray showing an 80% killed. In December 1999, the leaf spray plots showed a 95% killed, with the stem spray showing an 80% killed. In April 2000, the leaf spray plots showed a 92% killed, with the stem spray showing an 75% killed. In December 2001, leaf spray plots showed a 50% killed, with stem spray showing an 60% killed. In December 2002, the leaf spray plots showed a 50% kill with an 60% kill with the stem spray.

ACKNOWLEDGMENTS

The authors wish to express appreciation to Dow-Elanco for furnishing the herbicide used.

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