

Surmount as Ground Broadcast Treatment for Pricklypear Control

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SUMMARY

Picloram (Tordon 22K) is the recommended herbicide for control of pricklypear on Texas rangelands. Several recent research trials have suggested that a mixture of picloram and the herbicide fluroxypyr provides equivalent and possibly quicker control. This picloram/fluroxypyr mixture is manufactured by Dow AgroSciences and called Surmount. Surmount is not currently labeled for pricklypear control in Texas, but may be available as early as the spring of 2004.

To compare Surmount to Tordon 22K for ground broadcast pricklypear control, replicated trials were established during the summer of 2003 in Mason county. These trials included two rates of Surmount (3 and 4 pt/ac), Tordon 22K (2 pt/ac), Surmount + Reclaim (3 pt/ac + 1.33 pt/ac), and Tordon 22K + Reclaim (2 pt/ac + 1.33 pt/ac). Preliminary results from these trials will not be available until 2004.

PROBLEM/INTRODUCTION

Pricklypear is a major noxious plant on many Texas rangelands. For many years the only herbicide recommended for control of this plant has been Tordon 22K, which contains the active ingredient picloram. While this herbicide provides excellent control most of the time, control occurs slowly over a period of 1 to 3 years. The extended time to obtain control of pricklypear with Tordon 22K is considered a disadvantage by some users.

Fluroxypyr is a herbicide that is not currently labeled for use on Texas rangeland. Earlier research trials have examined this herbicide both as a broadcast spray and individual plant treatment for pricklypear. In general, these trials have shown fluroxypyr gives very similar results to Tordon 22K, showing earlier herbicide activity as compared to Tordon 22K. There has been very little work with combinations of fluroxypyr and Tordon 22K for pricklypear control. Surmount is a mixture of fluroxypyr and picloram (0.67 lbs a.e./gal, each). This herbicide is a product of Dow AgroSciences, and plans to market this mixture for pricklypear control in the near future, possibly as early as the spring of 2004. Price for Surmount is not known at this time, although it is expected to be less expensive as compared to Tordon 22K.

OBJECTIVES

The objective of these trials is to compare Tordon 22K to Surmount when applied at various rates and in various mixtures with other herbicides as a broadcast spray for control of pricklypear.

MATERIALS/METHODS

Application was made on 7/22/02 to relatively dense pricklypear on the White Ranch in Mason County. Treatments applied included Surmount at rates of 3 and 4 pts/ac, Tordon 22K at 2 pt/ac, Surmount + Reclaim at 3pt + 1.33 pt/ac and Tordon 22K at 2 pt + 1.33 pt/ac. Each treatment was replicated twice.

All treatments were applied by ground broadcast using a 4-wheel ATV, equipped with a 20 gal tank, 1.4 gpm Shurflo pump and a single KLC-9 Fieldjet nozzle. This is a boomless nozzle that produces a 15 ft swath. All herbicides were mixed with water. A non-ionic surfactant (Induce) was added at a concentration of 1/4%. A total volume of 11.8 gpa was used for all applications. Plot size for each treatment was approximately 1/2 acre.

RESULTS/DISCUSSION/ECONOMIC IMPACT

Preliminary results from these trials will not be available until 2004.

ACKNOWLEDGMENTS

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