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Individual Plant Foliar Sprays on Juniper

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SUMMARY

Two sites were in established in 2009 to test the effectiveness of DuPont's new MAT28 chemistry (aminocyclopyrachlor) for juniper foliar individual plant treatment. Initial mortality evaluations will be available at one year after treatment.

OBJECTIVES

Juniper is an aggressive invader of rangelands. When left unchecked, juniper can form a complete canopy coverage reducing desired forage production. Once juniper gets to this stage control options are limited. However, smaller junipers can be controlled easier and cheaper. It is for this reason that the Brush Busters approach to individual plant treatments has become increasingly viewed as a favorable alternative. The premise of the program is to control the smaller juniper plants before they become a large problem. There are two Brush Buster individual plant treatment methods for chemical control of redberry juniper. The first is a soil spot spray method using Velpar L. The second is a foliar applied leaf spray method using Tordon 22K. Excellent results with both Brush Buster treatments have been obtained.

A new chemistry, aminocyclopyrachlor (MAT28), developed by DuPont has been in the testing phase for a number of years, and part of that process is determining which brush species the compound will be effective in controlling. As the Brush Busters method of individual plant treatments grows in popularity, the objective of this study is to determine if DuPont's MAT28 herbicide formula will be effective as a juniper foliar individual plant treatment.

MATERIALS AND METHODS

Juniper individual plant treatments were applied on May 26, 2009 on the McKay property in Hood County and on September 9, 2009 on the Tindol property in Howard County. Treatments were applied using backpack sprayers equipped with X8 nozzles. One gallon total spray volume was utilized for each treatment and plot size was variable. An emulsifiable concentrate form of MAT28 was compared with Tordon 22K at the McKay site, whereas varying rates of MAT28 in its soluble granule form were compared at the Tindol property. Herbicides and rates for both sites are presented in Table 1.

Table 1. Herbicides and rates for juniper control plots established in 2009.

Treatment No.	Herbicide	Rate (pr/acre)	Material/plot
McKay Site – NIS at 0.25% was added to all treatments			
1	Tordon 22K	1.00% v/v	37.85 ml
2	MAT28	1.00% v/v	37.85 ml
Tindol Site – MSO at 1% was added to all treatments			
1	MAT28	15.0 g/gal.	15.0 g
2	MAT28	10.0 g/gal.	10.0 g
3	MAT28	5.0 g/gal.	5.0 g
4	MAT28	1.0 g/gal.	1.0 g

RESULTS AND DISCUSSION

Initial mortality estimates will be available in 2010.

ACKNOWLEDGMENTS

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