

# **Herbicide IPT Leaf Spray Trials for Woody Plant Control**

2012

## **Summary**

This project is designed to screen rates and combination of herbicides using the experimental herbicide aminocyclopyrachlor (MAT28), as a leaf spray option for “hard to kill” rangeland woody plants. Specifically, these herbicide trials target agarito and prickly ash.

One year after treatment various formulations and rates of aminocyclopyrachlor produced 50% to 100% control of agarito in Menard County. The herbicide Surmount and the mixture of the herbicides Remedy + Reclaim were not effective (0% control) controlling agarito. Prickly ash was more resistant to aminocyclopyrachlor with control ranging from 0% to 50%. Surmount was ineffective when applied as a leaf spray to prickly ash (0%).

All plots will be re-evaluated in 2013. Aminocyclopyrachlor is not currently labeled for rangeland or pasture use. Registration is expected in 2013.

## **Problem/Introduction**

There are several species of woody plants on rangeland that are particularly difficult to control with herbicides, especially with leaf sprays. Examples include greenbriar, whitebrush, lotebush, prickly ash, agarito and persimmon. Although these species can be desirable under certain circumstances, they represent a management problem when they become too dense or grow within fence lines.

Aminocyclopyrachlor (MAT28) is a new DuPont Crop Protection herbicide that may provide a control option when applied as a leaf spray to these rangeland woody plants. This herbicide is not currently labeled for use on rangeland and pasture, although registration is expected in 2013.

## **Objectives**

The objective of these herbicide trials is to evaluate various rates and herbicide combinations of the herbicide MAT28 when applied as an individual plant leaf spray to agarito and prickly ash.

## **Materials/Methods**

The herbicide trials were established at 2 locations during the summer of 2011. One location was on the Runge Ranch in Menard County and the target species was agarito. Treatments were applied July 18, 2011. The second location was on the Guy Phillips Ranch in McCulloch County. Prickly ash at this site were treated on June 27, 2011.

All treatments were applied as an individual plant leaf spray using a Gator UTV mounted sprayer and spray wand tipped with an X-12 adjustable conejet nozzle. All herbicide treatments were mixed with water and included 5 different formulations and mixtures of aminocyclopyrachlor. Both Surmount and a mixture of Remedy + Reclaim were applied as standards to the agarito in Menard County. Only Surmount was used as a standard when treating prickly ash in McCulloch County.

Surfactant was added to all treatments at a concentration of ¼%. Hi-Light Blue Dye was added at a rate of 1/3 oz/gal of spray mix. Leaves of the target plants were sprayed to wet but not to the point of dripping.

## **Results/Discussion/Economic Impact**

One year after treatment various formulations and rates of aminocyclopyrachlor produced 50% to 100% control of agarito in Menard County (Table 1). Surmount and Remedy + Reclaim were not effective (0% control).

Prickly ash was more resistant to aminocyclopyrachlor with control ranging from 0% to 50%. Surmount was ineffective when applied as a leaf spray (0%).

All plots will be re-evaluated in 2013. Aminocyclopyrachlor is not currently labeled for rangeland or pasture use. Registration is expected in 2013.

**Table 1. Percent apparent mortality 1 year after treatment.**

Treatment	Menard County Agarito	McCulloch County Prickly-ash
MAT Concept 1 1X rate	67	0
MAT Concept 2 1X rate	50	20
MAT Concept 3 1X rate	95	0
MAT Concept 2 2X rate	100	50
MAT Concept 2 + picloram 1X rate + 1.0%	82	not applied
Surmount 2%	0	0
Remedy + Reclaim 1/2% + 1/2%	0	not applied

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