

Individual Plant Treatment Demonstrations on Pricklypear

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SUMMARY

Three sites were established in 2009 to demonstrate the Brush Busters method of chemically treating individual pricklypear plants. These sites will be used by County Extension Agents as an educational example of recommended brush control strategies. Mortality evaluations will be conducted for two years after treatment.

OBJECTIVES

Pricklypear may interfere with movement and handling of livestock and with forage utilization, cause serious livestock health problems, and compete with desirable forage plants. These plants are extremely tolerant of drought and harsh conditions and are protected from grazing animals to some extent by their spines. Pricklypear thrive in Central and the western half of Texas both in rural pastures and urban lots. They have the ability to grow and to increase in abundance very rapidly. Once pricklypear populations become very dense control options are much more expensive and logistically difficult. However, less dense populations can be managed easily and effectively using the proper control strategy. 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 plants and populations before they become a large problem. The Brush Busters individual plant treatment method for chemical control of pricklypear involves treating the pads or stems of each plant.

The Brush Busters program originally recommended Tordon 22K, active ingredient picloram, for pricklypear control and it is still used by many producers. The recommended herbicide has recently been updated to Surmount, active ingredients picloram and fluroxypyr, which is less expensive and has been shown to work faster than Tordon 22K for pricklypear control. Vista is another effective pricklypear control herbicide and is an option for landowners who do not possess a pesticide applicator license.



The objective of this project was to install sites in Central Texas demonstrating the Brush Busters method of using individual plant treatments to control pricklypear. These sites will be used by County Extension Agents to educate agricultural producers on effective brush control strategies.

MATERIALS AND METHODS

Pricklypear individual plant treatments were applied on June 18, 2009 on the Rockin' H property in Hood County, on October 20, 2009 on the Arnold Gray property in Limestone County, and on November 17, 2009 on the Gordon Sumner property in Navarro County. Treatments were applied using backpack sprayers equipped with X8 nozzles. Plant sizes were variable and total spray volumes per plot ranged from 2-4 gallons. All pricklypear pads were sprayed on both sides to almost wet, but not to the point of runoff. Herbicides, rates, and application data for all sites are presented in Table 1.

Table 1. Herbicides, rates, and application data for pricklypear IPT demonstration sites established in 2009.

Treatment No.	Herbicide	Total Spray Volume	Rate (pr/acre)	Material/plot
Rockin' H Site				
1	Surmount MSO	3 gal.	1.00% v/v 1.00% v/v	115.2 ml 115.2 ml
2	Tordon 22K MSO	3 gal.	1.00% v/v 1.00% v/v	115.2 ml 115.2 ml
3	Vista MSO	3 gal.	1.00% v/v 1.00% v/v	115.2 ml 115.2 ml
Arnold Gray Site				
1	Surmount MSO	4 gal.	1.00% v/v 1.00% v/v	151.4 ml 151.4 ml
2	Vista MSO	4 gal.	1.00% v/v 1.00% v/v	151.4 ml 151.4 ml
Gordon Sumner Site				
1	Surmount MSO	2 gal.	1.00% v/v 1.00% v/v	75.7 ml 75.7 ml
2	Tordon 22K MSO	2 gal.	1.00% v/v 1.00% v/v	75.7 ml 75.7 ml
3	Vista MSO	2 gal.	1.00% v/v 1.00% v/v	75.7 ml 75.7 ml

RESULTS AND DISCUSSION

Initial mortality estimates will be available in 2010.

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