

# Ground Broadcast Juvenile Huisache Control Progress Report

Atascosa County  
Guadalupe County

## Cooperators:

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## Summary

Four treatments with Invora herbicide were applied at sites in Atascosa and Guadalupe Counties in October and November 2021. At one-year, apparent plant-mortality for all treatments was above 80%. However, the lowest rate of Invora appears to be less consistent than other treatments.

## Objective

This project explores followup treatment options for controlling juvenile huisache plants.

## Materials and Methods

Treatments were established in November 2021. Treatments were applied with an ATV equipped with a boom-sprayer with 6, Teejet Turbo Twin TTJ11003 nozzles and a 5 gallon/minute electric pump operating at 30 psi. The spray-boom was mounted on a frame that allowed the boom-height to be adjusted 20 inches above tree canopies. Boom-height was set at 6 feet at both sites. All treatments included Dyne-Amic surfactant at 4 oz/acre and were applied at 19.3 gallons/acre.

Soil moisture was measured with a Lincoln soil moisture meter. Cumulative rainfall was estimated using the FarmLogs app.

About two weeks after applications, plants that appeared to be completely defoliated were tagged. At the Guadalupe site, some plants that were 99% defoliated had to be flagged because of lack of completely defoliated plants. Total plants in each treatment were counted for reference.

## Results and Discussion

Application conditions are shown in Tables 1 and 2. Treatments and tag numbers are in Table 3.

**Table 1.** Atascosa County application conditions.

Application Date	Air temp, F	Relative Humidity, %	Wind speed, mph/direction	Soil temp, F	Soil moisture, 0-10 scale	Cumulative rainfall, inches	
						2-week	4-week

10-29-21	62	54	3.3 NW	70	10	0.05	3.6
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**Table 2.** Guadalupe County application conditions.

Application Date	Air temp, F	Relative Humidity, %	Wind speed, mph/direction	Soil temp, F	Soil moisture, 0-10 scale	Cumulative rainfall, inches	
						2-week	4-week
11-12-21	60	65	1.1 E	64	8	0.74	6.33

**Table 3.** Plant tag numbers and herbicide treatments and rates.

Treatment	Tag Numbers		Herbicide Rate, oz/ac
	Atascosa	Guadalupe	
1	781-793	901-910	Invora, 12 oz
2	801-815	911-920	Invora, 18 oz
3	821-830	921-930	Invora, 24 oz
4	881-890	931-940	Invora, 12 oz + Cimarron Plus 0.75 oz

**Table 4.** Apparent plant-mortality by treatment and county.

Treatment	Herbicide Rate, oz/ac	Apparent Plant-Mortality, %		
		One-year		
		Atascosa	Guadalupe	Average
1	Invora, 12 oz	100	66	83
2	Invora, 18 oz	100	83	92
3	Invora, 24 oz	100	90	95
4	Invora, 12 oz + Cimarron Plus 0.75 oz	100	80	90

### **Conclusions**

At one-year, apparent plant-mortality was above 80%. Treatments 2-4 appear to be more consistent than the lowest rate of Invora. Final evaluations will be conducted in 2023.

### **Acknowledgements**

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