

Brush Busters Stem Spray Method

This method works best for control of relatively small, young mesquite trees that have smooth bark and few basal stems emerging from the ground. This method is known as the low volume basal stem technique and uses very little herbicide per plant. Research has shown excellent results using much less herbicide which makes it more economical.

A benefit of the low volume basal method is it can be used any time of year, although best results occur during the growing season.

1. Prepare equipment

Any type of sprayer can be used from a spray bottle to a pump-up hand sprayer to a backpack sprayer. A backpack sprayer is the most efficient for spraying many trees. Make sure the sprayer has a small orifice nozzle; one such nozzle is the Conejet 5500-X1 adjustable tip nozzle. This nozzle can reduce the amount of herbicide used by 80 percent over standard nozzles. This saves money by using less herbicide.

2. Mix the herbicide with diesel

A mixture of Triclopyr ester (trade names: Remedy Ultra, Clear Pasture, Triclopyr R&P and Triclopyr 4EC) and diesel fuel oil is very effective for this method. Diesel acts as a coating agent to ensure good coverage and absorption. The concentration of Triclopyr ester needed depends on the size and age of the mesquite trees.

Recommended concentration of Triclopyr to mix with diesel fuel oil.

Mesquite type	% Triclopyr	Amount/gallon
Smooth bark		
1.5 in. diameter or less	15	19 oz
1.5-4 in. diameter	25	1 quart
Rough bark	25	1 quart

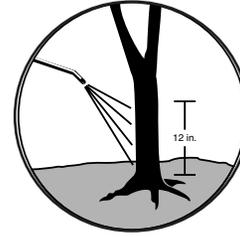
Pour the required amount of Triclopyr into the mixing container, and then bring to the total volume desired by adding diesel fuel. Shake well to ensure thorough mixing.

Rough-bark mesquites (usually older trees) are much harder to kill than smooth-bark mesquites.

3. Spray the Mesquite

Stem applications are effective throughout the year, but the best time to spray is during the growing season when temperatures are high.

Be sure to adjust the sprayer nozzle to deliver a narrow, cone-shaped mist. Hold the nozzle within 1 to 2 inches off the mesquite stem, and spray the plant's trunk from the ground line to 12 inches up the stem. Apply the mixture to all sides of the trunk, wetting the plant almost to the point of runoff.



Keep in mind when spraying:

- Follow all label directions.
- Cost of treatment increases as plant density and number of stems per plant increases.
- Multiple-stemmed plants or rough-barked plants are more difficult to control with this method.
- Do not spray when basal stems are wet.
- After mixing herbicide with diesel, agitate the solution vigorously.
- Dense grass around basal stems reduces the efficiency of this method.
- Use an herbicide that contains the active ingredient Triclopyr ester at a concentration of 4lbs/gal.

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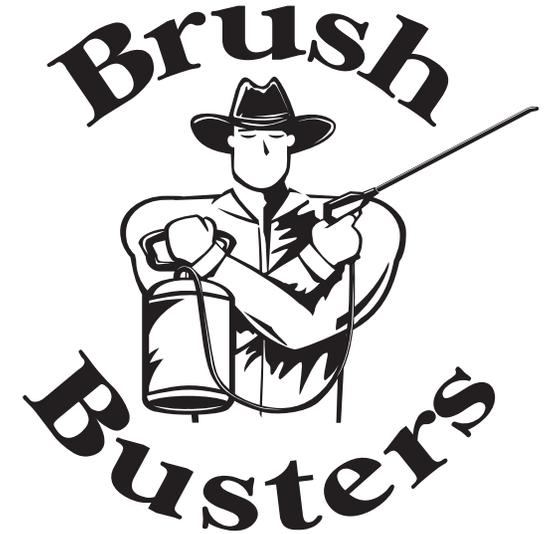
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Revision

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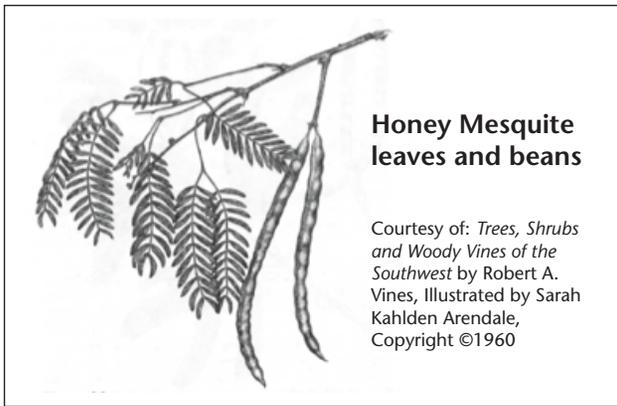
How to Beat Mesquite

A safe, simple and effective three-step method to control mesquite on small or large acreages

Individual Plant Treatment Series

James Jackson, Extension Program Specialist
Robert Lyons, Professor and Extension Range Specialist

The Texas A&M University System



The mesquite tree is one of the toughest, most invasive brush species on Texas rangelands. It thrives in rural pastures and on urban lots across the western two-thirds of the state.

The following methods control mesquite effectively. Each consists of three steps that are easy, inexpensive, and environmentally responsible. These Brush Busters methods involve spraying a small but potent concentration of herbicide directly on each plant. This procedure allows you to keep the mesquites, shrubs and trees you want, and get rid of those you don't.

Controlling mesquite is not a one-time job. Livestock and wildlife do an excellent job of spreading mesquite seeds making it necessary to continue treating young seedlings.

Professionals with the Texas A&M AgriLife Extension Service and Texas A&M AgriLife Research have developed and approved these Brush Buster methods for mesquite control. Though individual results will vary, you should be able to kill 7 of 10 mesquite trees using either method.

Brush Busters recommends two ways to control mesquite, depending upon the tree's shape and size. If most of your mesquites have a few well-defined stems or trunks coming out of the ground, the stem spray method will work best. If your mesquites are bushy, less than 6 to 8 feet tall, and have many stems at ground level, try the leaf spray method. Whichever option you choose you will find success with the simple three-step Brush Buster method.

This method works best on mesquite that is bushy, less than 6 to 8 feet tall, and has many stems at ground level. This method is also known as high-volume foliar spraying.

Brush Busters Leaf Spray Method

Begin spraying in the spring, when mesquite leaves change from light pea green to a uniform dark green. Continue spraying through September in the northern part of the state. If your mesquite has been top-killed by fire, hand cutting, herbicide methods or any mechanical methods, wait two full growing seasons before using the Brush Busters leaf-spray method.

1. Prepare equipment

Many types of sprayers work well for this method. Backpack sprayers are the most efficient for small acreage places with a high density of mesquite trees. On larger acreages with lower densities, ATV or UTV sprayers are more efficient. Before spraying, make sure that you have an adjustable cone nozzle, such as the Conejet 5500-X6 or X8, that is capable of delivering a coarse spray with larger droplets to the top of an 8-foot tree.

2. Mix herbicides

Typically you can achieve 70-100 percent mortality by spraying with Sendero (active ingredients: Aminopyralid and Clopyralid) or a combination of Triclopyr ester (trade names: Remedy Ultra, Clear Pasture, Triclopyr R&P and Triclopyr 4EC) mixed with Clopyralid (trade names: Pyramid and Clopyralid 3).

To prepare the spray solution add Sendero at a concentration of 1 percent to the water. If you are using the Triclopyr ester and Clopyralid method add ½ percent of each product to the mix in water. You will also need to add a high quality non-ionic surfactant to the spray mix (see table on right for rate information). It may also be helpful to add a dye such as Hi-Light blue dye to mark the plants that have been sprayed.

3. Spray the mesquite

Begin spraying in the spring after the soil temperature has reached 75 degrees at 12 inches deep and after the mesquite foliage has changed from a light pea green to a uniform dark green color.

The suggested cutoff date for spraying mesquite in east and south Texas is July 31, while in other parts of the state you can spray through September. Spray all leaves until the leaves glisten and are wet, almost to the point of dripping.

	Ingredient	Concentration in spray solution	1 gal	3 gal	14 gal	25 gal
Option A	Sendero	1%	1.28 oz	4 oz	18 oz	32 oz
Option B	Remedy Ultra, Clear Pasture, Triclopyr R&P and Triclopyr 4 EC	0.5%	0.64 oz	2 oz	9 oz	16 oz
	Pyramid R&P and Clopyralid 3	0.5%	0.64 oz	2 oz	9 oz	16 oz
Add to Option A or B	Surfactant	¼%	0.32 oz	1 oz	5 oz	8 oz
	Hi-Lite Blue Dye	¼- ½%	0.32 - 0.64 oz	1-2 oz	5-9 oz	8-16 oz

All spray solutions are mixed in water.

Keep in mind when spraying:

- Follow herbicide label directions.
- For best results, don't spray when:
 - recent rains have initiated new light green growth in tree tops.
 - mesquite leaves are wet.
 - mesquite foliage shows damage from hail, insects, or disease.
 - the target trees are upwind from desirable trees, shrubs, or crops.
- Your cost increases as size and density increases.
- Controlling mesquite is not a one-time job; you will need to go over your land periodically to remove unwanted mesquites.

