Works Best: If you have only a few or scattered Texas bullnettle plants to control or do not have a ground broadcast sprayer.

When to Apply: Texas bullnettle should be sprayed in the spring when the plants begin to flower.



Prepare the Equipment

To properly apply the herbicide using this method, you only need a pump-up garden sprayer, backpack sprayer, cattle sprayer or a sprayer mounted on an ATV. If there are many plants to spray, backpack and ATV sprayers are more efficient. Your sprayer needs an adjustable cone nozzle (X6 to X8 orifice size) or a flat fan nozzle that can deliver a coarse spray (large droplets).



Prepare the Herbicide Mixture

You can expect 76 to 100 percent control of Texas bullnettle by spraying with a mixture of 1 percent Grazon $P + D^{TM}$, GunSlinger™, Weedmaster™ or Range Star™ in water.

To prepare the spray mixture, fill the spray tank half full of water, and add the desired amount of herbicide and surfactant. Then continue to fill the tank with water to the desired level.

Adding a color dye to the mixture marks the plants that have been sprayed.

The following table of recommended spray mixtures shows the amounts of ingredients for typical tank sizes.

Mixing table for leaf spray applications.

	Concentration in	Amount of ingredient for varying spray tank sizes (gallons)		
Ingredient	Spray Solution	3	5	25
Grazon P+D, Gunslinger, Weedmaster or Range Star	1%	4 ounces	7 ounces	32 ounces
Surfactant	1/4%	1 ounce	2 ounces	8 ounces
Dye	1/4%	1 ounce	2 ounces	8 ounces

All spray solutions are mixed in water.



(3) Spray the Texas Bullnettle

Spray Texas bullnettle plants when they begin to flower in the spring. Wet all foliage of the plant thoroughly until the leaves glisten - but not to the point of dripping. Do not mow or disturb the plants for at least 90 days after treatment.

Do not spray directly on desirable forbs or brush. In addition, do not spray when winds exceed 10 mph, when temperatures exceed 90 degrees F or when the humidity is below 10 percent.

Keep these points in mind:

- Follow the herbicide label directions.
- The treatment cost escalates rapidly as the number of Texas bullnettle per acre increases.
- Do not spray when the plants are wet.
- Avoid spray contact on desirable forbs and shrubs.
- Controlling Texas bullnettle is not a one-time job. You may need to re-treat periodically.



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How to take the Sting out of **Texas Bullnettle**

Safe and effective three-step ways to control Texas bullnettle

Weed Treatment Series

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exas bullnettle is a deep tap-rooted perennial in the spurge family. It is common throughout Texas except for deep East Texas and extreme West Texas. It is a serious problem on native rangeland, disturbed areas and introduced perennial pastureland.

A herbaceous perennial, Texas bullnettle is also known as "Maja Mujer." It typically grows 1 to 3 feet tall and may have one to several spiny stems emerging from a single root system. A whitish milk (sap) will exude from the stems when broken. Dark green leaves are arranged alternately along the stems, crinkled in appearance and covered with stiff, stinging hairs. Flowers are showy white and consist of 5-7 petals united below, resulting in a 3-compartment seed pod with a tough outer shell. The plant has no forage value to livestock or wildlife.

The plant, which is widespread on native and introduced ranges in Texas, grows in all soil types across the state. It is most common on sandy soils and disturbed areas, and seems to thrive in hot weather. Known as an extremely aggressive invader, it may be hard to kill with a single herbicide application.

Professionals with Texas Cooperative Extension and the Texas Agricultural Experiment Station have developed, tested and approved two three-step ways to control Texas bullnettle. The methods are easy to use, environmentally responsible and effective.

The *ground broadcast* method was developed to treat large areas with heavy infestations. The individual plant method is used for scattered or smaller infestations.

Remember that controlling Texas bullnettle is not a one-time job. Because the plant reproduces from seed, you will need to go over your land until you get it under control. Then periodically treat it to eliminate new seedlings.

Although your results may vary, you should be able to kill about seven of every 10 plants treated.

Ground Broadcast Spray Method

Works Best: On larger or heavily infested areas.

When to Apply: Texas bullnettle should be sprayed in the spring when the plants begin to flower.



Prepare the Equipment

The herbicide can be applied with a boom or boomless broadcast sprayer able to deliver a total spray volume of 10 to 30 gallons per acre. Many types of broadcast sprayers are available, including those mounted on trailers or on fourwheel all-terrain vehicles (ATVs). Check your sprayer for consistency of application and calibrate it properly for the application. For detailed instructions on calibrating ground broadcast sprayers, see Extension publication L-5465, Weed Busters Sprayer Calibration Guide.



Prepare the Herbicide Mix

Use Grazon P + D™, GunSlinger™, Weedmaster™, Range Star™ or Cimarron Max™ to control Texas bullnettle. Grazon P + D[™] and GunSlinger[™] contain picloram and 2,4-D. Weedmaster[™] and Range Star[™] contain dicamba and 2,4-D. Cimarron Max[™] contains metsulfuron, dicamba and 2,4-D. For broadcast treatments, you should use a 90 percent active ingredient, non-ionic surfactant in the mixture. To mix, first fill the spray tank half full of water. Then measure and add appropriate amounts of herbicide and surfactant. Continue filling the spray tank with water to the proper level with agitation.

Ground broadcast applications rate table.

Herbicide option	Rate/acre	Surfactant	Spray volume
Grazon P+D	1-1.5 quarts		
Gunslinger	1-1.5 quarts	1-2 quarts per 100 gallons of water	10-30 gallons/acre
Weedmaster	1 quart	100 gailons of water	ganons/acre
Range Star	1 quart		
Cimarron Max	Rate II		



(3) Spray the Texas Bullnettle

Spray Texas bullnettle plants when they begin to flower in the spring. We recommend that the sprayer be equipped with flat fan spray nozzles delivering at least 20 gallons per acre of total spray volume and the the boom be elevated about 18 inches above the plant being treated. Care should be taken to make the application in a manner that reduces extreme overlap in spray swaths and minimizes spray drift. Do not use this method if you are close to susceptible crops. Do not mow or disturb the plants for at least 90 days after treatment. Do not spray when winds exceed 10 mph, when temperatures exceed 90 degrees F or when the humidity is below 10 per-

Keep these points in mind:

- Follow the herbicide label directions.
- The treatment cost with this method remains constant regardless of number of Texas bullnettle per acre.
- Do not spray when the plants are wet.
- Avoid spray contact on desirable forbs and shrubs.
- Controlling Texas bullnettle is not a one-time job. You may need to re-treat periodically.

