



How to Avoid Lumps When Treating Cut Stumps

Two safe, effective, three-step ways to control many woody plants

Individual Plant Treatment Series

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However, if an area is too dense with woody plants, the plants compete with the more desirable vegetation for water, sunlight and nutrients. They also can reduce forage production for livestock and wildlife and can interfere with the handling and movement of livestock and wildlife harvests.

Most species of woody plants resprout profusely from belowground crowns or roots if the aboveground growth is damaged or removed. Because these sprouts grow very rapidly, removing the aboveground growth of these plants with pruning shears, chain saws, axes, hydraulic shears, shredding, fire, etc., often intensifies woody plant problems.

A high percentage of these plants can be killed, however, if you spray the stump with a specific herbicide treatment immediately after cutting it.

Here are two three-step ways to control many species of woody plants using cut stump spray treatments that are easy, effective and environmentally responsible. These Brush Busters methods involve spraying a small but potent concentration of herbicide directly onto the cut stumps.

Using these methods, you will be able to selectively kill the unwanted woody plants with little or no damage to the desirable vegetation. After the treatment, you may leave the cut stems and branches on the soil as mulch, stack and burn them, or haul them away.

Keep in mind that controlling woody plants is not a one-time job. Because livestock, wildlife, wind and water can spread the seeds far, you will need to go over your land periodically to eliminate unwanted seedlings.

Professionals with Texas Cooperative Extension and the Texas Agricultural Experiment Station have developed, tested and approved the cut stump method for general woody plant control. Although your results may vary, you should be able to kill about nine of every ten plants you treat.

Brush Busters recommends two different herbicide sprays for cut stump applications, depending on the species treated. One spray is for many species of hardwoods, the other is for redberry cedar.

Brush Busters Cut Stump Spray for Hardwood Species

Works Best: On algerita (agarito), baccharis, blackbrush, bois d'arc, bumelia, catclaw acacia, catclaw mimosa, Chinese tallowtree, elm, hackberry, huisache, lotebush (bluethorn), mesquite, all oaks, pricklyash (Hercules'-club), saltcedar, Texas persimmon, winged elm and yaupon.

(Note: Although specific cut stump data is not available on all the species above, the plants all can be controlled with basal stem applications of Remedy $^{\text{TM}}$, which indicates that the stumps are also susceptible to this same herbicide.)

When to Apply: Any time of the year, although the best results occur during the spring-summer growing season.



Prepare Equipment

Remove the top growth using pruning shears, a sharp ax, chain saw, hydraulic shears, etc.

Apply the herbicide spray with a pump-up garden sprayer, backpack sprayer or sprayer mounted on a four-wheel all-terrain vehicle (ATV) or hydraulic shears.

To make sure that you cover the stump adequately when using a sprayer attached to hydraulic shears (skid/steer loader), use an adjustable cone nozzle with a relatively large orifice (such as a ConeJetTM 5500-X12 nozzle). For hand-held spray guns, an adjustable cone nozzle with a small orifice nozzle (such as a ConeJetTM 5500-X1 or X3) is recommended.



Mix the Herbicide with Diesel or Vegetable Oil

A mixture of RemedyTM herbicide and diesel fuel oil or vegetable oil is recommended. Diesel fuel oil or vegetable oil act as coating agents and penetrants to ensure good coverage and absorption of the herbicide. The recommended mixture is 15 percent RemedyTM and 85 percent diesel fuel oil or vegetable oil (see mixing table below). Using vegetable oil instead of diesel fuel oil increases the cost but may be desirable in some situations. One vegetable oil known to mix well with RemedyTM is JLB Oil PlusTM.

Mixing Table

		Amount of Remedy TM /Gallon(s) Mixed*		
Herbicide	% Herbicide	1 gal	5 gal	10 gal
Remedy TM	15%	19 oz	3 qt	1.5 gal

^{*} The herbicide is mixed with diesel fuel oil or vegetable oil.

For those who wish to avoid the work or mess of mixing RemedyTM with diesel fuel oil or vegetable oil, a "pre-mix" of RemedyTM and vegetable oil is available. This "pre-mix" is called Remedy RTUTM. To use this product, simply pour Remedy RTUTM from the container into the sprayer and apply to cut stumps following the Brush Busters directions.

When mixing RemedyTM with diesel fuel oil or vegetable oil, pour the required quantity of RemedyTM into a mixing container or spray tank, then bring to the total volume desired with diesel fuel oil or vegetable oil. Vigorously shake or agitate to ensure thorough mixing. One ounce of Hi-LightTM blue spray-marking dye can be added for each gallon of spray mix or to each gallon of Remedy RTUTM to help identify treated plants.



$(oldsymbol{3})$ Cut and Spray the Stump

Cut every stem of the plant as close as possible to the soil surface, but not below the soil surface. Avoid leaving soil on the cut surface.

Spray the stump immediately after cutting it. Adjust the spray nozzle so that it delivers a coarse mist in a coneshaped pattern. Hold the spray wand so that the nozzle is within 1 or 2 inches of the stump and spray the entire cut surface until it is wet, especially the outer edges. Spray the sides of the stump and root collar also, almost to the point of runoff.

If you use a spray system attached to hydraulic shears, position the spray nozzle directly over the cut stump high enough to ensure that all of the stump is within the spray pattern. Using the dye as an indicator, spray the entire cut surface of the stump almost to the point of runoff.

Keep These Points in Mind:

- Follow the directions on the herbicide label.
- The cost of treatment escalates rapidly as the number of woody plants and stems per acre increases.
- This method is best for plants with a single stem or a few basal (growing from the base) stems.
- Before spraying, brush any soil off the cut stump surfaces.
- Do not spray when the basal stems are wet.
- To reduce resprouting, thoroughly spray the cut surface as well as the bark from the cut to ground level.

Brush Busters Cut Stump Spray for Redberry Cedar

Works Best: On redberry cedar (juniper). You do not need to spray the stumps with herbicide to kill blueberry cedar (Ashe juniper) or eastern red cedar.

When to Apply: Any time of the year, although best results occur during the spring-summer growing season.



Prepare Equipment

You can remove the top growth with pruning shears, a sharp ax, chain saw, hydraulic shears, etc.

Apply the herbicide spray with a pump-up garden sprayer, backpack sprayer or sprayer mounted on four-wheel all-terrain vehicles (ATV) or hydraulic shears.

To ensure that you cover the stump adequately when using a spray system attached directly to hydraulic shears (skid/steer loader), use an adjustable cone nozzle with a relatively large orifice (such as the ConeJetTM 5500-X12). For hand-held spray guns, an adjustable cone nozzle with a small orifice nozzle (such as the ConeJetTM 5500-X1 or X3) is recommended.



Mix the Herbicide with Water

A mixture of Tordon 22KTM herbicide and water is recommended for redberry cedar. To ensure that you coat the cut stump thoroughly and that the herbicide is absorbed adequately, add either liquid dishwashing detergent or a nonionic surfactant to the spray mix (see mixing table). It may be helpful to add a spray-marking dye such as Hi-LightTM Blue Dye to mark the stumps that have been sprayed.

When mixing, add half the desired quantity of water to the spray tank. Then add the Tordon 22KTM, the surfactant and the dye to the tank. Finally, using water under pressure to agitate and mix the spray mix, fill the tank to the final volume.

Mixing Table

	Concentration	Gallons Mixed	
Ingredient	in spray solution	1 gal.	4 gal.
Tordon 22K TM	4%	5 oz.	21 oz.
Surfactant	1/4%	½ oz.	2 oz.
Hi-Light TM Blue Dye	1/4%	½ oz.	2 oz.

^{*}Spray ingredients are mixed with water.



Cut and Spray the Stump

Cut the redberry cedar stems as close to the soil surface as possible, but not below the soil surface. Avoid leaving soil on the cut surface.

Spray the stumps immediately after cutting them. Adjust the spray nozzle so that it delivers a coarse mist in a cone-shaped pattern. Hold the spray wand so that the nozzle is within 1 or 2 inches of the stump and spray the entire cut surface to wet, especially the outer edges. Spray the sides of the stump and root collar also, almost to the point of runoff.

When using a spray nozzle attached to hydraulic shears, position the nozzle directly over the cut stumps at a height at which all of the stump is within the spray pattern. Using the dye as an indicator, spray the entire cut surface of the stump almost to the point of runoff.

Keep These Points in Mind:

- Follow the herbicide label directions.
- The cost of treatment escalates rapidly as the number of redberry cedar plants or stems per acre increases.
- This method is best for plants with a few basal stems.
 (Note: Redberry juniper never has single basal stems.)
- Do not spray when the basal stems are wet.
- Before spraying, brush any soil off the cut stump surfaces.
- After mixing the herbicide with water, shake or agitate the solution vigorously.
- To reduce resprouting, thoroughly spray the cut surface as well as the bark from the cut to ground level.

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