

Individual Plant Leaf Spray Method

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

When to Apply: This treatment works best in the fall after the plants have flowered.

① Prepare Equipment

To use this method, all you will need is a pump-up garden sprayer, backpack sprayer, cattle sprayer, or sprayer mounted on a 4-wheel ATV. Backpack sprayers and ATV sprayers will be more efficient if there are many plants to spray. Make sure your sprayer has an adjustable cone nozzle (X6 to X8 orifice size) that can deliver a coarse spray (large droplets).

② Prepare the Herbicide Mixture

You can expect 76 to 100 percent control of threadleaf groundsel by spraying with a mixture of either 2% Weedmaster®, 2% Grazon P + D® or 1% Surmount® mixed in water.

To prepare the spray mixture, fill the spray tank half full with water, add the desired amount of herbicide and surfactant, then continue to fill the tank to the desired level with water. Adding a color dye to the mixture is a good idea because it helps to mark the plants that have been sprayed. The following table shows the amounts of ingredients for typical tank sizes.

Mixing table for typical tank sizes when using individual plant leaf spray applications.

Total spray volume desired	Concentration of ingredient desired			
	0.25%	0.5%	1%	2%
3 gallons	1 ounce	2 ounces	4 ounces	8 ounces
5 gallons	1 ½ ounces	3 ½ ounces	6 ½ ounces	13 ounces
15 gallons	5 ounces	10 ounces	20 ounces	40 ounces
25 gallons	8 ounces	1 pint	1 quart	2 quarts

All spray solutions are mixed in water.

Add 0.25% to 0.50% surfactant to all treatments.

③ Spray the Threadleaf Groundsel

Spray individual threadleaf groundsel plants in the fall after the plants have flowered. Wet all foliage thoroughly until the leaves glisten, but not to the point of dripping. Do not mow or disturb the plants for one growing season after treatment. Do not spray when wind is stronger than 15 mph, when the temperature is higher than 90 degrees F, or when the humidity is less than 10 percent.

Keep these points in mind:

- The cost of treatment escalates rapidly as the number of threadleaf groundsel plants per acre increases.
- Do not spray when plants are wet.
- Do not let spray contact desirable forbs and shrubs.
- Controlling threadleaf groundsel is not a one-time job. Retreatments may be necessary from time to time.
- Herbicide applications may increase the palatability of threadleaf groundsel. Do not graze treated areas until threadleaf groundsel has dried up and lost its palatability to livestock.



How to Pound Threadleaf Groundsel (Senecio)

*Safe and effective
three-step ways
to control threadleaf groundsel*

Weed Treatment Series

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The Texas A&M University System

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Ground Broadcast Spray Method

Threadleaf groundsel, also known as Senecio, is a shrubby perennial weed commonly found on rangelands from west central to west Texas. This plant is best identified by the gray-green color of the thread-like leaves, which have three to seven segments. Leaves may be smooth or hairy. Threadleaf groundsel is multi-stemmed from the base and supports showy yellow flowers from March through November.

Threadleaf groundsel contains toxic alkaloids. Acute poisoning can occur if cattle or horses consume 1 to 5 percent of their weight in threadleaf groundsel over a few days. Sheep and goats are more resistant and may be able to consume 10 to 50 percent of their weight before showing the same effects. Most livestock losses are from chronic poisoning, which occurs when cattle or horses consume as little as 0.25 percent of their body weight in threadleaf groundsel.

Symptoms of poisoning include continuous walking, sudden nervousness when disturbed, frequent voiding of small amounts of urine, yellow-stained feces, and skin swollen with excessive fluid. It is not uncommon in advanced stages of poisoning for animals to remain unusually quiet or to become agitated and dangerously aggressive. Many of these symptoms may not be evident until 6 months or so after the animals eat the threadleaf groundsel.

Here are two methods of controlling threadleaf groundsel that are easy to use, environmentally responsible and effective. One method uses a ground broadcast spray to treat large areas and the other method treats individual plants in scattered or smaller infestations. With the individual plant treatment method you will be able to selectively kill threadleaf groundsel plants without damaging desirable vegetation.

Professionals with Texas Cooperative Extension and the Texas Agricultural Experiment Station have developed, tested and approved these threadleaf groundsel control methods. Your results may vary, but you should be able to kill about seven out of every ten plants treated.

Works Best: When you wish to control threadleaf groundsel on large or heavily infested areas.

When to Apply: This method works best if used during the fall when soil moisture is good.

① Prepare Equipment

Apply the herbicide with a boom-type or boomless sprayer that can deliver 10 to 25 gallons of spray per acre. There are many types of broadcast sprayers available, including trailer-mounted and ATV-mounted (all terrain vehicle). Sprayers should be checked for consistency of application and should be calibrated properly for the application. See Texas Cooperative Extension publication L-5465, "Weed Busters Calibration Guide," for step-by-step instructions on calibrating ground broadcast sprayers.

② Prepare the Herbicide Mix

Several herbicides are available to effectively control threadleaf groundsel with the ground broadcast method. They include Grazon P + D®, Weedmaster® (also sold under the trade name RangeStar®), Surmount® and Cimarron Max®. Any of these herbicides should be effective if applied correctly. It is important to add a non-ionic surfactant to the spray mixture for broadcast treatments. To mix, fill the spray tank half full with water, measure and add the appropriate amount of herbicide and surfactant, then continue filling the spray tank with water to the desired level while agitating the mixture.

Herbicide rates for ground broadcast applications.

Herbicide	Rate	Surfactant per 100 gallons spray mix
Grazon P+D®	3 pints/acre	1 to 2 quarts
Weedmaster®	2 pints/acre	1 to 2 quarts
Surmount®	2 pints/acre	1 to 2 quarts
Cimarron Max®	Rate 2	1 to 2 quarts

Important: Add .25% to 0.50% surfactant to the spray tank when using any of the above treatments.

③ Spray the Threadleaf Groundsel

Broadcast treatment is most effective in the fall—usually during September and October for most of Texas. The sprayer should be equipped with flat fan spray nozzles and the boom elevated at least 18 inches higher than the threadleaf groundsel to be treated. When making multiple passes to cover an area, use wire flags or wooden stakes placed a boom-width apart on each end of the spray area to help ensure uniform coverage. It may help to block off large areas into several smaller ones so that swath runs are not too long.

Keep these points in mind:

- Follow herbicide label directions.
- With this method the cost of treatment remains constant, regardless of the number of threadleaf groundsel plants per acre.
- Spray a minimum total volume of 10 gallons per acre.
- Do not spray when threadleaf groundsel plants are wet.
- Spray only during the fall of the year.
- Take care not to let the herbicide drift to sensitive or nontarget areas.
- Do not spray when wind speed is greater than 10 mph.
- Controlling threadleaf groundsel is not a one-time job. Retreatments may be necessary from time to time.
- Herbicide applications may increase the palatability of threadleaf groundsel. Do not graze treated areas until threadleaf groundsel has dried up and lost its palatability to livestock.

