

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

When to Apply: Silverleaf nightshade should be sprayed in the spring when the plants begin to flower.

① Prepare the Equipment

To properly apply the herbicide using this method, all you will need is 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. Make sure that your sprayer has an adjustable cone nozzle (X6 to X8 orifice size) or a flat fan nozzle that can deliver a coarse spray (large droplets).

② Prepare the Herbicide Mixture

You can expect 76 to 100 percent control of silverleaf nightshade by spraying with a mixture of 1 percent Grazon P+ D™, 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.

It is also advisable to add a color dye to the mixture to mark 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 foliar leaf spray applications

Ingredient	Concentration in Spray Solution	Amount of ingredient for varying spray tank sizes (gallons)		
		3	15	25
Grazon P + D™ or Weedmaster™ or Range Star™	1%	4 ounces	19 ounces	32 ounces
Surfactant	¼%	1 ounce	5 ounces	8 ounces
Dye	¼%	1 ounce	5 ounces	8 ounces

All spray solutions are mixed in water.

③ Spray the Silverleaf Nightshade

Spray individual silverleaf nightshade 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 one growing season after treatment. 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 cost of treatment escalates rapidly as number of silverleaf nightshade per acre increases.
- Do not spray when the plants are wet.
- Avoid contacting desirable forbs and shrubs with spray.
- Controlling silverleaf nightshade is not a one-time job. You may need to re-treat from time to time.



How to Neutralize Silverleaf Nightshade

*Safe and effective
three-step ways
to control silverleaf nightshade*

Weed Treatment Series

Robert K. Lyons, Extension Range Specialist, Uvalde
Charles R. Hart, Extension Range Specialist, Fort Stockton
J. F. Cadenhead, Extension Range Specialist, Vernon
Allan McGinty, Extension Range Specialist, San Angelo
C. Wayne Hanselka, Extension Range Specialist, Corpus Christi
The Texas A&M University System

Produced by AgriLife Communications and Marketing, Texas A&M System
Extension publications can be found on the Web at: <http://AgriLifebookstore.org>

Visit the Texas AgriLife Extension Service at <http://AgriLifeextension.tamu.edu>

Educational programs of the Texas AgriLife Extension Service are open to all people without regard to race, color, sex, disability, religion, age, or national origin.

Issued in furtherance of Cooperative Extension Work in Agriculture and Home Economics, Acts of Congress of May 8, 1914, as amended, and June 30, 1914, in cooperation with the United States Department of Agriculture. Edward G. Smith, Director, Texas AgriLife Extension Service, Texas A&M System.

Ground Broadcast Spray Method

Silverleaf nightshade can be a serious weed problem in prairies, open woods and disturbed soils throughout Texas. It has been reported to poison cattle, sheep, goats and horses.

Silverleaf nightshade is a perennial in the potato family. It grows upright to 1 to 3 feet tall, and it is usually prickly. The plant reproduces by seed and by creeping rootstock. It gets its silver color from the tiny, densely matted, starlike hairs covering the whole plant.

The leaves are lance shaped to narrowly oblong and wavy on the margins. The flowers are showy and normally violet or bluish, but sometimes white. The round, yellow fruit can be up to half an inch in diameter and appears from May to October.

The leaves and fruit are toxic at all stages of growth, with the ripe fruit being the most toxic. The plant can be poisonous if an animal consumes as little as 0.1 to 0.3 percent of its body weight in silverleaf nightshade.

Professionals with Texas Cooperative Extension and the Texas Agricultural Experiment Station have developed, tested and approved two three-step ways to control silverleaf nightshade. 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 foliar treatment method is used for scattered or smaller infestations.

Keep in mind that controlling silverleaf nightshade 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 and then periodically treat to eliminate new seedlings.

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

Works Best: On larger or heavily infested areas.

When to Apply: Silverleaf nightshade should be sprayed in the spring when the plants begin to flower.

① 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 four-wheel all-terrain vehicles (ATVs).

Check your sprayer for consistency of application, and calibrate it properly for the application. For step-by-step instructions on calibrating ground broadcast sprayers, see Extension publication L-5465, *Weed Busters Sprayer Calibration Guide*.

② Prepare the Herbicide Mix

A mixture of either Grazon P+ D™, Weedmaster™, or Range Star™ is recommended to control silverleaf nightshade. Weedmaster™ and Range Star™ both contain dicamba and 2,4-D. Weedmaster™, however, contains 2,4-D in the amine formulation; Range Star™ contains 2,4-D in the ester formulation, which generally is considered slightly more effective.

For broadcast treatments, it is recommended that you 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.

Broadcast herbicide rate table.

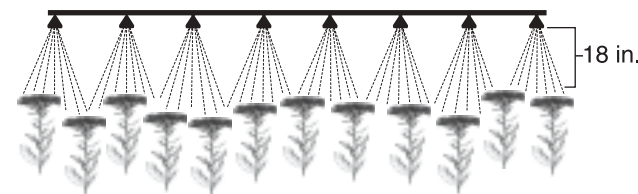
Herbicide options	Rate/Acre	Surfactant	Spray volume
Grazon P+D™	1-1.5 quarts	1-2 quarts per 100 gallons of water	10-30 gallons/acre
Weedmaster™	1 quart		
Range Star™	1 quart		

③ Spray the Silverleaf Nightshade

Spray silverleaf nightshade in the spring when the plants begin to flower. Apply the spray mix with a sprayer calibrated to deliver 10 to 30 gallons of spray mix per acre. Apply as a coarse spray.

We recommend that the sprayer be equipped with flat fan spray nozzles, with the boom elevated a minimum of 18 inches higher than the silverleaf nightshade being treated. When making multiple passes to cover an area, you may be able to cover it more uniformly if you use wire flags or wooden stakes placed a boom-width apart on each end of the spray area.

To keep swath runs from becoming too long when making a ground broadcast application, it is often beneficial to block off large areas into several smaller ones. Foam markers also can help mark previously sprayed areas.



Keep these points in mind:

- Follow the herbicide label directions.
- The treatment cost with this method is constant, regardless of the number of silverleaf nightshade plants per acre.
- Spray with a minimum total spray volume of 10 gallons per acre.
- Do not spray when the silverleaf nightshade plants are wet.
- Spray when the plants begin to flower in the spring.
- Do not let the application “drift” onto sensitive or nontarget areas.
- Do not spray when winds exceed 10 mph.
- Controlling silverleaf nightshade is not a one-time job. You may need to re-treat periodically.