

Saltcedar Invasive Species Management

(Tamarix spp)

Saltcedar is a rapid growing non-native deciduous tree reaching a height of 20 feet at maturity. It has been recorded in 19 states in the United States. It is one of the most invasive, hard-to-control woody plants in the world. Introduced from Eurasia into the western United States in the early 1800s, this plant rapidly spreads along rivers, lakes and streams. Once established, it quickly out-competes desirable vegetation. Most important, saltcedar can utilize water from underground aquifers — up to 200 gallons per plant per day.

Control

The difficulty in control of this plant is its rapid resprouting after cutting and the buildup of salt in the soil under heavy plant densities. Systemic herbicides are one of the most effective methods to control infestations. Controlling saltcedar is not a one-time job; treated sites will still need to be checked for resprouts and seedlings after application, and follow-up treatments may be necessary in subsequent years for complete control. Once saltcedar is controlled, plants used in revegetation should include salt tolerant species to improve success of site restoration.

A tank mix of Milestone® herbicide with Garlon® 4 Ultra or Garlon 3A specialty herbicides will control saltcedar without damage to monocot species (grasses). Additionally, the tank mix provides weed control to allow grasses to flourish. The desirable plants, left to grow and reproduce, become competitors with resprouts and seedlings of saltcedar decreasing the potential for re-invasion.

Foliar Treatments to Resprouting Plants after Mowing or Cutting:

After cutting, mowing or shredding operations, saltcedar will resprout. Allow time for the plants to regrow and develop adequate leaf area for a foliar application. This may mean the application will need to be done the year after cutting or, at least, in the late summer after mowing the previous winter or early spring. Apply Milestone at 7 fluid ounces per acre plus Garlon 4 Ultra at 3 quarts per acre with non-ionic surfactant at 0.25% v/v or methylated seed oil (MSO) at 1 quart/acre. This treatment will also control broadleaf weeds such as Canada thistle, musk thistle, Russian knapweed, and many others that may invade the area after cutting (see label for complete list of weeds).

Foliar Treatments to Individual Trees (less than 6 feet in height):

Treatments can be made to small plants or to plants less than 6 feet in height. It is important to calibrate your equipment to determine the amount applied per acre, even with a backpack sprayer or a hose and gun from a main tank. Typically about 100 gallons per acre (GPA) are sprayed when “spraying to wet” without any runoff from the leaves. Mix 7 fluid ounces (0.055% v/v) of Milestone and 3 quarts (0.75% v/v) of Garlon 4 Ultra in 100 gallons of water with 1 quart (0.25% v/v) of a non-ionic surfactant.



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Selective treatment with no grass injury



Non-selective treatment with grass injury



Saltcedar regrowth after mowing

Cut Stump Application:

Cut stump treatments can be used any time of the year as long as the herbicide does not freeze when applied, and the tree is not frozen.

When using Garlon 3A, cut stumps should be treated immediately (less than 1 hour) after cutting.

When using Garlon 4 Ultra, applications can be made up to two weeks after cutting but before resprouting begins.

Thoroughly spray the outer 2 inches of the top of the stump.

Apply mixture in a continuous ring between the bark and the wood of the stump. If the bark is torn away from the stump, be sure to treat down the side to form a continuous ring around the bark since the coverage and uptake is essential for root kill.



Recommended herbicide rates and mixing guide for cut stump applications

Product	Rate	Amount of Product for 1 Gal Mix	Amount of Product for 3 Gal Mix
Garlon® 3A	50% v/v in water	2 qts	6 qts
Garlon 4 Ultra	50% v/v in oil	2 qts	6 qts
All spray solutions are mixed in water or basal oil as indicated.			

Spray the sides of the stump including the root collar area, and the outer portion of the cut surface (the cambium) until thoroughly wet but not to the point of runoff or so that puddling occurs at the crown or root collar.

Basal bark applications:

These treatments can be applied any time of the year, including winter months, except when the bark is wet, frozen, or frost is present on stems. Applications are easier from late fall to early spring when there is little foliage to intercept the spray. Another advantage to treatment at this time of year is that many desirable plants are dormant, and selectivity can be improved. For best results,



herbicide applications should be avoided during rapid saltcedar growth in the spring.

A mixture of Garlon 4 Ultra in an oil carrier is very effective for both basal bark and cut stump applications. An oil carrier ensures good coverage and herbicide absorption through the bark. The recommended concentration of Garlon 4 Ultra is 25-30% (see chart below for specific recommendations).

Recommended herbicide rates and mixing guide for basal or cut stump applications

Product	Rate	Amount of Product for 1 Gal Mix	Amount of Product for 3 Gal Mix
Garlon 4 Ultra	25% v/v	1 qt	3 qts
Garlon 4 Ultra	30% v/v	1.3 qts	4 qts
All spray solutions are mixed with oil. Use oil carriers such as basal oils, diesel, kerosene, methylated seed oils or other oils with use directions for basal and cut stump applications. Materials used need to be registered for use on the type of site where the saltcedar occurs.			

Be sure to adjust the sprayer nozzle to deliver a narrow, cone-shaped spray. Spray the herbicide mixture lightly but evenly (similar to using spray paint) on the plant's stem or trunk from ground level up to 12-15 inches. Apply the mixture to all sides of every stem, but not to the extent that runoff and puddling occurs at the crown or root collar. Saltcedar with old, rough bark may require each stem to be treated higher up the stem (15-18 inches) than plants with smooth bark (12-15 inches). Use on stems up to but not greater than 6 inches in diameter. Larger stem diameter trees may require retreatment. If the tree has been cut, use this treatment mix and spray the sides of the stump including the root collar area, and the outer portion of the cut surface (the cambium) until thoroughly wet but not to the point of runoff or so that puddling occurs at the crown or root collar. This treatment is effective up to two weeks after cutting but before resprouting.



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Label precautions apply to forage treated with Milestone and to manure from animals that have consumed treated forage within the last three days. Consult the label for full details.

Some states require an individual be licensed if involved in the recommendation, handling or application of any pesticide. Contact your local Extension office for information regarding licensing requirements.

Always read and follow label directions.
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Dedicated Service.