

Treatments for Russian Olive and Saltcedar

Herbicide Treatments

Russian olive and saltcedar can be controlled effectively by the proper application of herbicides. There are two types of applications – basal bark and cut stump treatments.

Basal Bark Treatment – Most appropriate for younger, smaller plants. Generally, less than 3 inches in diameter.

- An application of herbicide should be applied to the bark from the root collar up the stem 18 inches covering all sides of the stem.
- Control may take several weeks and the larger dead trees should be removed; stems can remain in place.

Cut Stump Treatment – Most appropriate for plants with larger diameter stems/trunks or for thick, dense groves of vegetation.

- Trees should be cut and removed and stumps painted/sprayed with herbicide within one hour of mechanical treatment.

Mechanical or Grazing Treatments

Mowing, timber axe, mulching, and grazing can be used to control young plants, but may lead to excessive suckering, number of stems and increased canopy cover.

Note: These treatments should only be used as a component of an integrated pest management plan.

Vegetative Treatments

Reestablish native woody and herbaceous vegetation such as willows, cottonwood, silver buffalo-berry, silverberry, Wood's rose, and various native grasses and/or tame grasses for pasture situations following herbicide treatments.



Lone Russian olive in an upland draw. Further down the draw is a large infestation of Russian olives. This would be considered an upland site with a moist draw.



Immature and mature saltcedar flowers along the Yellowstone River near Billings, Montana.

Photos this page: Jeff Combs, USDA-NRCS

We Can Help

Financial Assistance may be available to assist with Russian Olive and Saltcedar control through the Environmental Quality Incentives Program (EQIP) or the Wildlife Habitat Incentives Program (WHIP). Contact your local Natural Resources Conservation Service (NRCS) field office to apply.

For More Information

NRCS Local Field Office:

<http://offices.sc.egov.usda.gov/locator/app?state=MT>

County Weed Supervisor and Extension Agent:

<http://www.mtweed.org/index.php>

mt.nrcs.usda.gov

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United States Department of Agriculture
Natural Resources Conservation Service

Russian Olive and Saltcedar Control

Recommendations for Montana Landowners



Blue-green color indicates Russian olive plants.

Helping People Help the Land

Russian Olive

History

- Native to southern Europe and western and central Asia.
- Introduced to United States in the late 1800s/early 1900s and introduced to Montana as early as the 1940s.
- Used for ornamentals, windbreaks, shelterbelts, and wildlife plantings.
- Has spread to all watersheds in eastern Montana.

Description

- A large, spiny, perennial, deciduous multi-stemmed shrub or small tree (up to 40 feet).
- Leaves are alternate, simple, elliptical in shape, 1-3 inches in length and ½ inch wide and dark green to gray in color.
- Bark is smooth and reddish in younger trees and becomes rigid, wrinkled, and grayish as it matures.
- Fruits are a greenish gray, ½ inch long, dry, mealy and sweet, but edible.

Impacts

- Russian olive has spread across Montana riparian corridors, sub-irrigated lands, wetlands and saline areas.
- Expands into grazing/hay pastures reducing forage potential.
- Displaces native riparian vegetation such as willows and cottonwoods.
- Reduces habitat opportunities for cavity-nesting wildlife and insect-eating wildlife, such as birds and bats.

Photo: Jeff Combs, USDA-NRCS

Russian olive grove located along the Yellowstone River in Park County, Montana.



Flowering saltcedar in October near Fort Peck Reservoir.

Photo: Jim Jacobs, USDA-NRCS

Saltcedar

History

- Native to eastern Turkey and Korea.
- Introduced to United States in the early 1900s.
- Used for ornamentals, windbreaks, shelterbelts, and erosion control.
- Spread and naturalized throughout eastern Montana watersheds (including the Milk, Missouri, Musselshell, Bighorn, Powder, Yellowstone).

Description

- Plants can grow up to 20 feet.
- Young stems are smooth and reddish-brown, while mature stems become brownish-purple, rigid and furrowed.
- Leaves are scale-like, small and overlapping, green in the spring and summer, turning brown in the fall.
- Flowers are pink to white and small, blooming from May through September and sometimes into October.
- Fruits mature into small capsules that contain thousands of seeds that are dispersed by wind and water.

Impacts

- Changes soil chemistry properties by secreting concentrated salts from the leaves which is annually deposited on the soil.
- Displaces or outcompetes native plant communities (for example, willows in the southwestern states and cottonwoods in Montana).
- Possibly alters hydrologic regimes in some areas of the United States.
- Reduces aquatic macro invertebrate diversity.
- Provides poor habitat for most wildlife.



Saltcedar in bloom.



Leaf structure of saltcedar.



Russian olive shrub growth form with reddish bark.



Russian olive. Note leaf shape and reddish stems.

Photos this page: Jeff Combs, USDA-NRCS