

Russian olive

Colorado Dept. of
Agriculture
Conservation Services
Division
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Key ID Points

1. Leaves are silvery white with dense scales.
2. Flowers have 4 small sepals and are light yellow clusters.
3. Red-yellow fruits on mature plants.

Russian olive Identification and Management



fields and open areas. Russian-olive can out compete native vegetation, interfere with natural plant succession and nutrient cycling, and tax water reserves. Because Russian-olive is capable of fixing nitrogen in its roots, it can grow on bare, mineral substrates and dominate riparian vegetation. Although Russian-olive provides a plentiful source of edible fruits for birds, ecologists have found that bird species richness is actually higher in riparian areas dominated by native vegetation.

Identification and Impacts

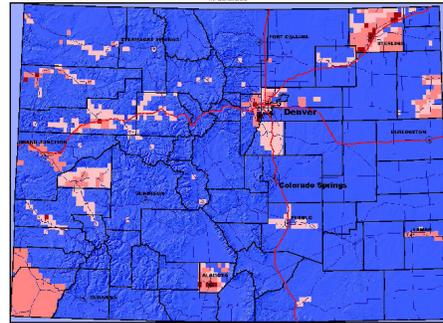
Russian olive (*Elaeagnus angustifolia*) is a perennial tree or shrub that is native in Europe and Asia. The plant has olive-shaped fruits, silver color at first then becoming yellow-red when mature. Russian olive can reproduce by seed or root suckers. Seeds can remain viable for up to 3 years and are capable of germinating in a broad range of soil types. Spring moisture and slightly alkaline soil tend to favor seedling growth. The plants extensive root system, sprouts root suckers frequently. The stems can reach up to 30 feet in height with branches and trunks that have 1 to 2 inch thorns. Leaves are 2 to 3 inches long, alternate, narrow, have simple blades, and are untoothed. The lower surface is silvery white with dense scales, while the upper surface of the leaf is light green in color. Flowers are 4 small sepals in light yellow clusters, fragrant, and appear May through June. Russian olive twigs are flexible, reddish, and have surfaces coated with gray and scaly pubescence, becoming smooth.

Once thought to be a beneficial windbreak tree, it since has been deemed detrimental to the environment. Russian olive can grow in a variety of soil and moisture conditions, but prefers open, moist riparian zones. It is shade tolerant and can be found along streams,

The key to effective control of Russian olive is preventing establishment of the trees or shrubs. If plants are already present, control options include cut-stump treatments and mechanical mowing. These treatments are dependant on size and location of the plant. Details on the back of this sheet can help to create a management plan compatible with your site ecology.

Russian olive is designated as a "List B" species in the Colorado Noxious Weed Act. It is required to be either eradicated, contained, or suppressed depending on the local infestations. For more information visit www.colorado.gov/ag/csd and click on the Noxious Weed Management Program. Or call the State Weed Coordinator at the Colorado Department of Agriculture, Conservation Services Division, 303-239-4100.

Russian-olive
2003 Quotaquard Survey
Distribution and Abundance
in Colorado
10,026+ infested acres



Distribution Legend: 1-5 acres, 6-10 acres, 11-25 acres, 26-100 acres, 101-1000 acres
Average estimates supplied by County Weed Superintendents and compiled by Colorado Department of Agriculture and Colorado State University

Photos © Clockwise from lower left: (1) Richard Old, XID Services, Inc., Bugwood.org; (2) Patrick Breen, Oregon State University, Bugwood.org; (3) Kelly Uhing, Colorado Department of Agriculture and map by Crystal Andrews, Colorado Department of Agriculture.

Elaeagnus angustifolia

**CULTURAL**

Cultural controls are not an option when dealing with Russian olive. Replacing with native trees is important once Russian olive has been removed. Contact your local Natural Resources Conservation Service for recommendations of other possible trees or shrubs.

**BIOLOGICAL**

Tubercularia canker overwinters on infected stems and spreads via rain-splash, animals, or pruning implements to open wounds in the bark. Infected tissue becomes discolored or sunken. Entire stems may be girdled and killed, and the disease can deform or kill stressed plants over time. For more information, contact the Colorado Department of Agriculture's Insectary in Palisade, Colorado at 970-464-7916.

**MECHANICAL**

Mowing hedges with a brush type mower, followed by removal of cut material may be the most effective method for eradication. Stump sprouting commonly occurs after cutting down the tree, and excavation of the entire stump can trigger root sprouting. Burning is practical when conditions support a long hot fire and most effective in summer or early fall. Saplings are most sensitive.

Integrated Weed Management:

The most effective combination of control efforts has been cutting trees, followed by either spraying or burning the stumps. "Cut-stump" treatments that are applied during the winter months, using an approved herbicide seems effective. Trees are "cut" with a hatchet or chainsaw, then immediately treated with herbicide on the open wound.

HERBICIDES

NOTE: The following are recommendations for herbicides that can be applied to range and pasturelands. *Rates are approximate and based on equipment with an output of 30 gallons per acre. Always read, understand, and follow the label directions. The herbicide label is the LAW!*

HERBICIDE	RATE	APPLICATION TIMING
Triclopyr (Garlon 4, Remedy)	Undiluted (100% solution)	Apply to the cambial layer of the tree immediately after the cut-stump treatment.
Imazapyr + Water (Habitat + Water or Arsenal + Water)	Diluted by mixing 8 to 12 fl. oz / 1 gallon of water	Apply to the cambial layer of the tree immediately after the cut-stump treatment.
Imazapyr (Habitat or Arsenal)	4 to 6 pt./Acre	Broadcast spray/spraying individual trees; low or high volume spray.

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