

## Rangeland-Pasture Recommendations

# Russian Olive/*Elaeagnus angustifolia*

## Identification and Management

Russian olive is a non-native deciduous shrub or small tree that can reach 10-25 feet tall. The foliage has an overall silvery appearance. The leaves are arranged alternately, 2-3 inches long and narrow with smooth margins. The upper surface is gray-green while the lower surface and leaf stalks are silvery-gray. The bark is dark reddish-brown in color and usually has 1-2 inch thorns. The twigs also have a silver-gray appearance. The flowers appear between May and June, they are yellow, bell shaped and arranged in clusters. The tree starts to produce fruit at 3 year of age. The fruit is shaped like a small olive and contain a single seed. The seeds are viable for up to 3 years. The Russian olive spreads mostly through seeds but can re-grow from injury. The Russian olive is very adaptable. The seedlings are tolerant of shade and drought conditions. It can thrive in a variety of soil types, including bare mineral substrates. They can grow between sea level and 8,000 feet.

The Russian olive originated in southern Europe, central Asia and eastern Asia. They were introduced to the United States in the late nineteenth century as an ornamental shrub or small tree. It has been used extensively in wind breaks and stream bank stabilization. Russian olive will out-compete native vegetation, changes soil characteristics and taxes water reserves. It rapidly takes over lowland fields and often dries up irrigation ditches. Although the fruit is often eaten by birds, studies show there is a greater number of birds in an area dominated by native Cottonwoods. The long thorns the plant produces can make a stand of Russian olive impassable to cows and wildlife. This results in fewer native plants and less animal diversity.



The most effective method of control for Russian olive is to prevent its establishment through proper land management. Monitor susceptible areas for new infestations.

On the backside of this sheet are Russian olive management recommendations. If you have any questions or would like more information, please contact the Weld County Public Works Dept., Weed Division at (970) 304-6496 ext. 3770. Please visit our website [www.weldweeds.org](http://www.weldweeds.org).

### Recommended management methods:

**Cultural** – After managing Russian olive infestations, other vegetation must be established to prevent re-invasion. Competitive grasses and planted cottonwood cuttings have proven to be effective at reducing the chances of re-invasion. Contact your local CSU Extension office or Natural Resources Conservation Service office for proper seed mix recommendations.

**Mechanical** – In areas where woody native plants are present and their continued existence is desired, or for large stands of Russian olive it may be necessary to cut and treat the stumps with a herbicide. This is referred to as the cut-stump treatment. Cuts should be made within 2 inches of the ground surface, immediately followed by a herbicide application to the cut stems. The girdling method involves making shallow, overlapping cuts into the bark around the trunk base. Use a hatchet or chainsaw to make these cuts. Then lightly spray the entire cut surface with herbicide.

**Herbicides** – For large stands of Russian olive that would essentially be monotypic, foliar applications of herbicides are effective. Late summer/early fall are optimum treatment times using this method. This is recommended for areas that have little to no desirable shrubs and trees.

Always read, understand, and follow herbicide label directions. The herbicide label is the LAW!

Herbicide	Rate	Application Timing/Comments
Roundup Pro or Max or Ultra	50-100% concentrate	<b>Cut-Stump treatment.</b> Ensure coverage of the entire cambium. Cut trees and re-sprouts close to the soil surface. Apply immediately to the freshly cut surface. Applications should be made during periods of active growth and full leaf expansion. <b>Non-Selective.</b>
Remedy Ultra	<u>Actively growing rate:</u> 1.5-2% solution in oil <b>Or</b> <u>Dormant rate:</u> 3-6 qts in oil to make 100 gallons total.	<b>Cut-Stump treatment.</b> Do not apply directly to water, or to areas where surface water is present. No grazing restrictions for livestock other than lactating dairy animals. Best time to treat is when actively growing. Established grasses are tolerant. 14 day haying restriction. For root suckering trees, also spray the ground under the plant to control root suckers not yet visible. <b>Selective.</b>
Pathfinder	Ready- to-use	<b>Cut-Stump treatment.</b> Do not apply directly to water, or to areas where surface water is present. Seasonally dry wetland areas ok. No grazing restrictions for livestock other than lactating dairy animals. 14 day haying restriction. No more than 2.7 gallons/acre/year may be applied. <b>Selective.</b>
Arsenal	8-12 oz/gal water (plus 0.25% surfactant)	<b>Cut-Stump treatment.</b> Addition of a surfactant will improve control. Either non-ionic or methylated seed oil may be used. Re-entry interval of 48 hours. <b>Non-Selective.</b>
Habitat	2-4 pints/acre <b>Or</b> 1% solution plus 0.25% non-ionic surfactant	<b>Cut-Stump treatment.</b> After treating, wait at least 2 years to disturb the site. Do not apply more than 6 pints of Habitat/acre/year. Used in treating aquatic vegetation in and around standing water and flowing water. There are no restrictions on livestock consumption of water from the treatment area. <b>Non-Selective.</b>