



# Russian Olive

*Elaeagnus angustifolia*

## FAMILY

Elaeagnaceae – oleasters

## ORIGIN

Eurasia

## LIFE CYCLE

Perennial

## OTHER NAMES

Oleaster, Silver berry, Wild olive, Persian olive.

## QUICK FACTS

- Brought to North America for windbreaks, erosion control, and ornamentals, Russian olive has escaped cultivation and now displaces native shrubs and trees across western and interior regions.
- It tolerates poor, saline, and disturbed soils, fixes nitrogen, produces abundant seeds that wildlife and water disperse, and forms dense thickets that alter riparian structure and reduce biodiversity.
- Russian olive may be available for purchase in your area, so avoid planting it and remove young plants early. Established stands require repeated control and restoration with native vegetation for sites to recover.

Russian olive is a fast-growing tree introduced to North America for windbreaks, erosion control, and ornamental planting. Over time, it has spread far beyond its intended use, establishing dense stands along rivers, wetlands, and open rangeland. Its ability to thrive in poor soils, fix nitrogen, produce abundant seeds, and outcompete native vegetation enables it to dominate quickly. As these thickets expand, they alter wildlife habitat, reduce biodiversity, and change the structure and function of riparian ecosystems. Today, Russian olive is recognized as an invasive species in many western states, prompting coordinated efforts to manage its spread and restore native plant communities.

## What does it look like?

Russian olive is a fast-growing tree that can usually be distinguished in a group by its silvery-gray/green foliage. In ideal conditions, Russian olive can reach 45 feet, but in most cases it appears as a relatively short, bushy tree less than 20 feet tall. In New Mexico, be careful not to misidentify Russian olive, as it closely resembles both silverberry and buffaloberry.



Robert Vidéki, Dordonium Kft., Bugwood.org



Joseph Berger, Bugwood.org



T. Davis Sydnor, The Ohio State University, Bugwood.org



Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

**Plant:** This is a woody species with a framework of thick, aging stems and younger, slender shoots. Stems have very sharp, stout spines that can be 1-2 inches long. The bark surface has a rough, fibrous texture, while newer growth appears smoother and lighter. Branches spread outward in multiple directions, creating a dense, layered structure that often forms a thicket-like mass. The overall form tends to be irregular, with many small twigs extending from the main limbs.

**Roots:** A sprawling root system spreads close to the soil surface, but also sends down deeper anchoring roots.

**Leaves:** Leaves are arranged in an alternating pattern along the stems and have a narrow, lance-like to softly elliptical form. Their edges are smooth, and the upper surface shows a muted gray-green tone with a light covering of silvery, star-shaped hairs and scales. The petioles and the underside of each leaf display a silvery gray color and a dense layer of silvery, shield-like scales.

**Flowers:** Clusters of blossoms form at the points where leaves meet the stems, with each cluster containing one or more flowers. The flowers are small, yellow to yellow-green, and intensely fragrant. They have no true petals, instead showing four sepal-like structures along with four stamens. Blooming occurs from May through June.

**Seeds:** Fruits are oval and contain a single seed, resembling a small drupe. Their surface is coated in silvery scales, giving them a gray appearance that shifts to brown as they dry.

# Impact and Management

## Ecosystem Health

Once established, Russian olive displaces native plants, resulting in a notable loss of floral and faunal biodiversity. This can significantly reduce forage availability for game, particularly during the winter months, and may even alter migratory patterns. Russian olive is classified as a noxious weed because it displaces native shrubs and trees and forms much denser stands than the vegetation it replaces, which suppresses herbaceous communities. If Russian olive is removed while native species remain, the site typically rebounds without intensive restoration; left unchecked, however, it reduces plant diversity and, consequently, the diversity of wildlife that depends on those native plants.

## Health and Safety

The plant can physically injure children, workers, livestock, and wildlife, causing puncture wounds, skin irritation, or infections. The obstruction of firebreaks and pathways by large weed infestations can exacerbate fire risks in dry regions, threatening property and personal safety.



andrey maltsev, inaturalist.org

## Livestock

Goats may graze on younger trees, helping prevent their growth. Most cattle, however, will avoid these plants due to their stiff and sharp thorns. When trees grow excessively large, they can block access to specific areas of a pasture, reducing pasture space and forage availability.



Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

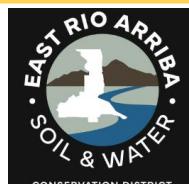
Preventing initial establishment is the most effective and least costly approach: avoid planting Russian olive and remove new seedlings before they set seed. For existing infestations, mechanical methods work but require persistence. Saplings respond to repeated mowing or trimming; large trees can be cut down but will resprout from stumps, roots, or retained branches, so all cut material must be removed or destroyed, and new sprouts pruned regularly. After removing mature plants, reestablishing competitive native vegetation reduces light, water, and nutrient availability, helping prevent reinvasion.

### DO's

- Remove seedlings and young plants before they fruit to prevent seed input and reduce long-term control costs.
- Replant native trees, shrubs, and perennial understory species (willow, cottonwood, native shrubs) to compete with seedlings and stabilize banks.
- Inspect treated sites for several years and treat new seedlings promptly. Use multiple control tactics over time for lasting results.

### DON'Ts

- Don't let plants mature, as this increases seed production and the size of the root system, making control far more difficult.
- Avoid leaving debris. Stumps, branches, or roots left in place can resprout or spread seed; always remove or destroy cut material.
- Don't ignore site recovery. Failing to reestablish native competitors leaves openings for Russian olive and other weeds to re-invade.



For more information on managing Russian olive, please visit [www.nmweeds.org](http://www.nmweeds.org)

