



# Russian Olive

*Elaeagnus angustifolia* L. (Aka: Bohemian olive, oleaster, Russian silverberry)

**Alberta Regulation:**  
Unregulated



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## Overview:

Russian olive is a deciduous, thorny shrub or tree native to southern Europe and western Asia.<sup>2</sup> Introduction to North America was for reasons of ornamental value, wildlife habitat, erosion control, and shelterbelts. Russian olive can establish on poor soils and bare substrate due to its ability to fix atmospheric nitrogen, and was “interplanted with other tree crops to increase growth and yield.”<sup>2</sup> It associates with the *Frankia* spp. of fungi, which can survive for long periods in the absence of host plants.<sup>1</sup>

It reproduces primarily by seed although vegetation propagation occurs via suckers from the root crown and re-sprouting from roots after stem removal.<sup>2</sup> Flowering begins when trees are 3-5 years of age and are insect pollinated.<sup>1</sup> The silvery, olive-looking fruits are consumed by birds and rodents, which are dispersed still viable in their droppings.

As an ornamental, Russian olive is valued for its pleasing shape, silvery leaves, fragrant flowers, and abundant silvery fruits. Today it is an invader of riparian systems in semi-arid

environments, often in concert with invasive *Tamarix* species, replacing native willow and *Populus* species. It develops a deep taproot and lateral root system to access water during drought.<sup>1</sup>

## Identification:

**Stems:** Russian olive can be a small shrub or a tree growing to 9m to 15m<sup>1, 2</sup> with a dense, rounded crown.<sup>1</sup> Branches are flexible and the stems, buds and leaves are densely covered with silvery to rusty scales.<sup>2</sup> Branch tips have a short thorn.<sup>1</sup> Bark is thin and brown, developing “shallow fissures, then peeling in long strips.”<sup>1</sup>

**Leaves:** Are egg or lance-shaped with smooth margins and alternate along the stem.<sup>2</sup> The silver-grey, petiolate leaves are 2-10 cm long and 1-4 cm wide occur in small lateral clusters on current year twigs.<sup>1</sup>

**Flowers:** Are 3-12 mm long, creamy yellow, and occur in small axillary clusters on current year twigs.<sup>1</sup> Flowers appear late spring and have a distinctive spicy aroma.<sup>1</sup> Fruits

are a silvery, oval-shaped drupe, 1-2 cm long, enclosing a single 6-13 mm long achene. Fruiting increases with age.<sup>1</sup> Seeds can remain viable for up to 3 years.<sup>1</sup>

## Prevention:

Mature populations of Russian olive are difficult to control and nearly impossible to eradicate.<sup>1</sup> Early detection and rapid response are the most effective tools, after prevention. Learn to recognize Russian olive, don't grow it, and remove any existing plantings, particularly in riparian areas. Fruits are dispersed by animals and streams.

## Control:

**Grazing:** Intensive grazing/trampling has only temporary effects.<sup>1</sup> Invasive plants should never be considered as forage.

**Cultural:** Maintaining natural disturbance processes such as seasonal flooding regimes favour native species. In these situations removal of exotics will have greater success.<sup>1</sup>

**Mechanical:** Top removal by pulling or

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cutting have limited success due to re-sprouting. Repeated cutting, mowing, girdling, or bulldozing can suppress Russian olive, but need repeating and cause unacceptable disturbance.

**Chemical:** Glyphosate is registered for use on Russian olive. Always check product labels to ensure the herbicide is registered for use on the target plant in Canada by the Pest Management Regulatory Agency. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

**Biological:** None researched to date.<sup>1</sup> A few native tree cankers species have been observed to deform or kill stressed plants over time.<sup>2</sup>



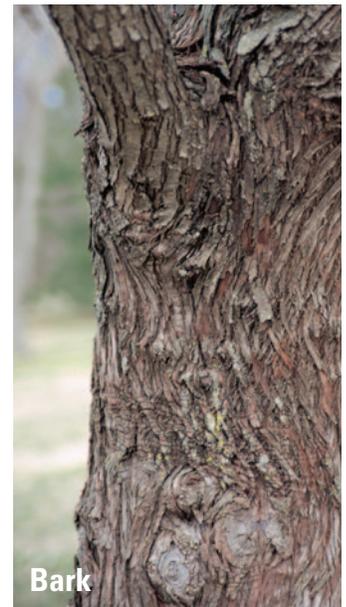
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## REFERENCES

- 1 Invasive Species Compendium. Datasheet report for *Elaeagnus angustifolia* (Russian olive). [www.cabi.org/isc](http://www.cabi.org/isc). Accessed August 7, 2015.
- 2 *Elaeagnus angustifolia* L. Invasive Species Database. Global Invasive Species Programme. [www.gisp.org/](http://www.gisp.org/) Accessed August 7, 2015.