

STEVE'S Weed of the Month

Russian Olive

Also Known As: Oleaster, silver berry

Russian Olive (*Elaeagnus angustifolia* L.), a native of southern Europe and western Asia, was introduced into the United States in the early 1900's as an ornamental and specimen for windrow plantings. It is a perennial deciduous tree (or shrub) that grows to heights of 10 to 25 feet. The crown is usually dense and rounded in shape. The tree has thin bark and flexible, often spiny, branches coated with a gray, scaly pubescence that becomes glabrous over time. Leaves are simple, alternate, narrowly ovate to lanceolate, entire, and 1 1/2 to 4 inches long. The upper surfaces of the leaves are light green and covered with silvery hairs, while underneath, the leaves are silvery white and covered with scales.

Richard Old Photo



Paul Wray Photo



Patrick Breen Photo

Not until reaching three years of age do Russian olive trees begin to flower and bear fruit. They produce small clusters of fragrant, creamy yellow flowers that generally appear during May through July, and which are later replaced by abundant, hard, olive-shaped fruit. The seeds are ingested by birds or gathered by small mammals, who then deposit them elsewhere. The seeds can remain viable for up to three years and can germinate over a broad range of soil types. The tree itself tolerates a wide range of soil and moisture conditions, from sand to heavy clay, and can withstand flooding, silting and drought.



Dave Powell Photo



John M Randall Photo

Russian olives are deep-rooted and have well-developed lateral root systems. Although the tree reproduces primarily by seed production, it can establish vegetatively by sprouting from buds on the root crown and sending up root suckers. It has a medium to rapid growth rate and can grow up to six feet per year.

Not long ago, conservation groups and governmental agencies were allowing the planting of Russian olives to stabilize soil, improve wildlife habitat and to serve as windbreaks. However, the tree is now known to be an aggressive species that can form dense, monotypic stands that outcompete and displace native species, such as cottonwood and willows. It is capable of fixing nitrogen in its roots and can therefore grow on bare mineral substrates. Russian olive can also affect nutrient cycling and system hydrology by colonizing lowland riparian areas and creating a relatively dry upland site after reducing or drying up water sources.

CONTROL METHODS

As with all invasive species, early intervention is best. Control of Russian olive is most effective when action is taken before the tree matures and seeds develop. Selecting a control method will depend on many factors. Tree size, habitat, size of infestation, other desirable species existing within the area, and herbicide and prescribed fire rules and regulations should be taken into account when determining the appropriate method of control. Whichever method is selected, eradicated infestations should be monitored for several years to prevent reestablishment from resprouted roots.

Physical control: Russian olives with small diameters (3.5 inches) can be removed using a weed wrench when the soil is moist. Larger trees can sometimes be removed using a tractor/chain if all root fragments are removed or dealt with so that resprouting does not occur. Girdling and cutting are effective only when combined with an additional control method (see “Chemical” control below).

Chemical: Herbicides that can be effective in control of Russian olive include triclopyr, glyphosate, imazapyr, and metsulfuron-methyl with a surfactant. The cut-stump method has proven effective if the tree's trunk is cut as close to the ground as possible and herbicides are immediately applied to the cut surface of the tree. Another option is girdling. The girdling method involves making shallow, overlapping cuts into the bark around the trunk base using a hatchet or chainsaw and then lightly spraying the entire cut surface with chemicals. Fall may be the best time of the year for these control methods, since that is when trees translocate reserves to their roots.

More information can be found in the [PNW Weed Management Handbook](#)

Use pesticides with care. Apply them only to plants, animals, or sites listed on the label. When mixing and applying pesticides, follow all label precautions to protect yourself and others around you. It is a violation of the law to disregard label directions. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

Fire control: Prescribed burning may control small seedlings but will not adequately control larger trees. Fire, combined with spraying the stumps with chemicals, can prevent Russian olive from sprouting from the root crown.

Biological control: There are no reported biological control agents registered to control Russian olive.

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