Autumn-Olive invading a roadside.

North Oakland Headwaters Land Conservancy

Russian-Olive invading a grassland. Photo by Robert Vidéki, Doronicum Kft., Bugwood.org

Herbicide Common Sense

NOHLC treats invasive Olives using an herbicide called glyphosate. ShoreKlear ™ and some other brands contain 53.8% of glyphosate with no surfactants added. ShoreKlear ™ is the only brand of glyphosate currently sold in small quantities for homeowners. ShoreKlear™ may be purchased online or at local stores such as McKays Do It Center in Holly and The Pond Place in Milford. Manufacturers recommend adding surfactants to glyphosate if the herbicide is sprayed. Roundup™, ShoreKlear Plus™, and other products are premixed with surfactants. However, surfactants are not necessary if the herbicide is placed on a cut stump, as described in this pamphlet. Surfactants may harm amphibians, fish, and other animals. NOHLC does not recommend these mixtures to control invasive Olives. Current research suggests that glyphosate without surfactants, used as described in this pamphlet, controls invasive shrubs without harming wildlife, and will kill any plants that absorb the herbicide.

Because glyphosate affects metabolism in plants but not animals, it has very low toxicity to humans. However, homeowners should take common-sense precautions; wear gloves when handling it, and mix and store the glyphosate in something that contains spills.

Where Can I get More Information?

More information on Russian and Autumn-Olive and lists of other native plants to replace it are available at:

- Midwest Invasive Plant Network (mipn.org)
- The Center For Invasive Species and Ecosystem Health at the Bugwood Network (bugwood.org)
- The Stewardship Network (stewardshipnetwork.org)

NOHLC offers a ***Starter Kit To Control Invasive Plants.*** This starter kit contains a chemical– resistant plastic dropper bottle containing a little biodegradable purple dye. The dye (food coloring may also be used) makes the herbicide more visible and easy to use. Fill the bottle halfway with glyphosate, a herbicide which may be used in wetlands. Then fill the bottle with distilled water.

A Homeowner's Guide to Invasive Russian and Autumn-Olive Shrubs

Russian and Autumn-Olive are invasive shrubs that turns native forests and grass lands into impenetrable thorny thickets, crowding out native understory trees, wildflowers, and harming our wildlife.

What's Wrong with Invasive Olive Shrubs?

The Russian-Olive (*Elaeagnus angustifolia*) and Autumn-Olive (*Elaeagnus umbellate)* in southeast Michigan are invasive shrubs or small scrubby trees up to 20 feet tall. They were imported from Eurasia as ornamental plants and windbreakers in the 1800's. Without the natural competitors from their native Eurasia, they are growing unchecked in Michigan, crowding out native wildflowers and other native plants. These invasive Olives change the soil chemistry, disrupting native plants. Olive shrubs produce dense shade that turns prairies, roadsides, and even forests into thorny thickets. They make parkland and fields unusable, and harm our wildlife by choking out the native plants and trees that wildlife depend on for food and shelter. It is best to eliminate invasive Olives when they are small, before they produce berries and spread.

Above: Russian-Olive leaves, thorns and flowers. Young bark is reddish brown.

Left: Autumn-Olive. The backs of the leaves are silvery.

Is This Plant Autumn or Russian-Olive?

Invasive Olives may be identified by the color of their leaves and bark, their berries, and their long growing season. Russian and Autumn-Olive are two closely related species which are both invasive in the Midwest. Both invasive Olives have dark green leaves with a distinctive silver underside.

The leaves are elongated oval (Autumn-Olive) or lance (Russian-Olive) shaped. Invasive Olives have a long growing season, so the leaves appear in spring before native plants leaf out and persist into late fall. Young bark is smooth and red-brown in color with coppery dots, and becomes rough and gray with age. Many stems have very long thorns. Both invasive Olives have yellow flowers in May, June and July. Small berries appear in late summer and are yellowish-green (Russian-Olive, photo above), or pinkish red with silver or brown specks (Autumn-Olive, photo below. Invasive Olives spread primarily when birds eat the berries and disperse seeds in their droppings. In this way, invasive Olives crowd out native plants and create thorny thickets.

Russian Olive leaves and berries. Photo by C. M. Pearce.

Autumn-Olive leaves and red berries. Bugwood.org

Non-Chemical Controls

The best way to control invasive shrubs is by pulling or digging out young seedlings or saplings, roots and all. Invasive shrubs can be pulled any time of year when the ground is not frozen. If invasive shrubs are cut, or if large roots are left in the ground, the stumps will resprout. Because seeds remain viable in soil for years, new seedlings must be removed for several years.

This stump was cut but not treated. It re-sprouted, making control more difficult.

Small shrubs can be pulled or dug up, roots and all.

Cut and Treat

If an invasive shrub is too large to pull or dig out, it must be cut and herbicide applied to the cut stump. Cutting and treating the stump can be done in in summer, fall, and winter. Because sap is rising upwards in the spring , the herbicide applied in the spring does not move down into the roots. Cutting and treating the stump is most effective in the summer, fall, and winter. On small shrubs, the cut stump can be covered with a drop of herbicide. On larger cut stumps, simply apply the herbicide to the ring of darker wood just inside the bark. This part of the wood, called the cambium, will transport the herbicide into the roots.

Cut larger shrubs with clippers, loppers, or saws.

Treat small stumps with herbicide to prevent resprouting. Treat larger stumps by painting a ring of herbicide just inside the bark.