BRANDYWINE CONSERVANCY
Preserving Our Land & Water

RUSSIAN & AUTUMN OLIVE

(Elaeagnus angustifolia & umbellata)

Russian olive **outcompetes native vegetation** for nutrients and water and can dominate riparian vegetation. Its nitrogen-fixing root system allows it to grow on bare mineral substrates. Like Russian olive, autumn olive thrives in poor soils, fruits prolifically, and grows and spreads rapidly.

IDENTIFY

RUSSIAN OLIVE | Patrick Breen, Oregon State University, Bugwood.org

CHARACTERISTICS

Olives are small perennial trees or shrubs; species can grow from 20 feet to 30 feet tall. Both Russian and autumn olive species have silvery leaves with smooth edges. The autumn olive has silvery scales on only the bottom side of the leaf, while the Russian olive has silvery scales on both sides of the leaf. Both species produce yellow flowers, blooming in June/July after 3 years. Russian olive fruit consists of clusters of silver to yellow, dry, olive-shaped fruits, while autumn olive fruits are round, red, and juice-filled. Both species establish and reproduce primarily by seed, dispersed by birds.

WHERE FROM

Russian olive was first cultivated in Germany in 1736. It was introduced into the United States in the late 1800s as an ornamental plant, recommended for wildlife planting and windbreaks. Autumn olive, originally from Asia, was first introduced to the US in the 1830s for revegetation and reclamation of disturbed landscapes.

AUTUMN OLIVE FOLIAGE
James H. Miller, USDA Forest Service, Bugwood.org

WHERE FOUND

Russian and autumn olives are present from mid-western states to eastern states, Maine through Virginia. Russian olive thrives along streams, fields and open areas; its seedlings are tolerant of shade. Russian olive survives various soil and moisture conditions, including bare mineral substrates and areas of high salinity. Autumn olive also thrives in a variety of soil types but is less tolerant of wet and shady conditions.

AUTUMN OLIVE FOLIAGE & FRUITS
Pennsylvania Department of Conservation & Natural Resources Forestry Archive, Bugwood.org

RUSSIAN OLIVE FOLIAGE & FRUITS
Patrick Breen, Oregon State University, Bugwood.org

CONTROL

CHEMICAL METHOD

Cut the plant off at the main stem and apply herbicide directly to the stump, using glyphosate (e.g., *Roundup* or *Rodeo*) in a 10–20% solution. This method is particularly effective late in the growing season. For thickets where risk to non-targeted species is minimal, consider a foliar application. If *Roundup* is used, be aware this is a non-selective herbicide and care should be taken to avoid contacting non-targeted species. The basal bark method is effective throughout the year. Apply a mixture of 25% triclopyr (e.g., *Turflon*) and 75% horticultural oil to the lower 12–18 inches of the trunk. Thorough wetting with the herbicide mixture is necessary for good control.

MANUAL METHOD

The most effective method for eradication is to mow olive hedges with a brush-type mower and remove the cut material. Seedlings and sprouts can be pulled by hand when the soil is moist enough to ensure removal of the root system.

REMEMBER

When removing, **be careful** not to remove or destroy desirable species.

FOLLOW–UP

If the plants are cut without application of an herbicide, vigorous production of new growth can occur.

REPLANT

Replant with native shrubs appropriate to site conditions.

(*Read and follow all herbicide labels carefully before use.*)

SOURCES
U.S. Dept. of the Interior, National Park Service, Plant Conservation Alliance (www.nps.gov/plants/)
U.S. Dept. of Agriculture, National Agricultural Library (www.invasivespeciesinfo.gov)
The Nature Conservancy (www.tnc.org) and http://www.dcr.virginia.gov/natural_heritage/documents/fselum.pdf
Pennsylvania Dept. of Conservation of Natural Resources (www.dcnr.state.pa.us) and http://www.se-eppc.org/manual/autolive.html