

The Introduction, Spread, and Control of Non-Native, Invasive Species in Tennessee Forests: Autumn Olive

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AUTUMN OLIVE (*ELAEAGNUS UMBELLATA*)

This highly invasive shrub was introduced to form ornamental hedges, shelterbelts/windbreaks, and a source of food in wildlife openings. Unfortunately, autumn olive produces an abundance of fruit and seed (refer to photograph) that are consumed and transported by birds. The plant is a habitat generalist, occurring on open and transitional (edge) areas. It proliferates in most habitats, except wet areas and dense woods. Landscapes colonized or planted with autumn olive include old fields, pastures, grasslands, savannas, woodlands, roadsides, wildlife openings, and reclaimed strip mines. With its nitrogen-fixing root nodules, the species can adapt to poor soils and droughts once established. Autumn olive should not be planted because of its invasive and seeding abilities. An associated species, Russian olive (*Elaeagnus augustifolia*) is also invasive, commonly has thorns, occurs mostly in the central and western U.S. where it was planted, and has many of the same biological properties.



Autumn olive furts.

Photo Credit: Leslie J. Mehrhoff, Univ. of Connecticut, Bugwood.org



Autumn olive shrub.

Photo Credit: Chris Evans, Univ. of Illinois, Bugwood.org

Autumn olive begins to produce seeds at 3 years of age. It sprouts vigorously after burning or cutting and grows rapidly. Shrubs can grow to 18 feet tall, and the shade cast supplants ground vegetation. The foliage of autumn olive is distinctive with its silvery lower surface and green upper surface. The elliptical leaves are one to three inches long arranged alternately on the stem.

Control of autumn olive follows that of privet and bush honeysuckle. Hand-pulling, cutting or girdling stems before seed dispersal is effective, but the plant will resprout vigorously unless conducted in conjunction with herbicide application. Foliar application on stems < 6 feet tall with glyphosate or triclopyr (amine), both non-selective herbicides with little soil activity, are best on autumn olive thickets where risk is minimal to non-target plants.

For taller shrubs, basal sprays of triclopyr (ester) that completely encircle the stem should be applied anytime except during the spring when stems are beginning to bud. The dormant season is preferred for basal spray when foliage is absent. The cut stump method can also be used anytime except during sap flow in the spring with glyphosate or triclopyr (amine or ester). The goal with any of these methods is for the herbicide to be translocated to the roots, killing the roots, and thus, affecting re-sprouts. Foliar re-application may be necessary on resprouts to ensure that the energy reserves in the roots are depleted.

FURTHER REFERENCE WEBLINK

Pennsylvania State University Extension
<https://extension.psu.edu/autumn-olive>



Autumn olive on margin of a woodland.
Photo Credit: Chris Evans. Univ. of Illinois, Bugwood.org



Flowers of autumn olive.
Photo Credit: Nancy Loewenstein, Auburn University, Bugwood.org