



AUTUMN OLIVE

Elaeagnus umbellata

IDENTIFICATION

Autumn olive is a deciduous shrub/small tree with grey speckled bark. Young branches have thorns that can grow up to 2 in. long. The leaves are elongated oval shaped and grow opposite on the stem. The leaves are a muted green color on top and have a silvery appearance underneath.



Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

REPRODUCTION

Between April and June, fragrant, tubular, yellowish flowers develop in clusters of 1-8. By September or October, brown fruit will ripen and turn bright red. The fruit is speckled at all stages. The fruit are eaten by wildlife which disperses the seeds.



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HABITAT

Typically found in old agricultural fields, along forest edges, roadsides, and in other disturbed areas. Autumn olive is tolerant of many soil types and moderate shade.

THREAT

Autumn olive is easily spread which can lead to large populations that can outcompete native shrubs and trees. The fruit are also a poor nutrient source for wildlife.



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INTEGRATED PEST MANAGEMENT FOR

AUTUMN OLIVE

Due to the threat of autumn olive to local ecosystems, it is important to reduce the size and limit the spread of existing populations. Invasive species are controlled through prevention, eradication, containment and suppression. An integrated pest management (IPM) approach should be adopted to control unwanted species. The integrated approach is a combination of manual, mechanical, biological and chemical controls. IPM requires post treatment monitoring and treatment over a period of several years, leading to more successful outcomes (<https://nysipm.cornell.edu/about/defining-ipm/>).

PRACTICES TO AVOID

1. Avoid just cutting or mowing due to likelihood of re-sprouting. Pair with herbicide treatment to limit growth.
2. Avoid leaving bare soil after treatment. This can allow seeds hiding in the seed bank to sprout.

MANUAL AND MECHANICAL CONTROL

Small individuals are easily pulled when the soil is damp. Weed wrenches can be used for larger individuals, but be sure to remove all of the root to prevent re-sprouting. Mowing can be used to prevent individuals from going into seed, but they will re-sprout if not treated with herbicide after.

BIOLOGICAL CONTROL

Goats graze on autumn olive foliage and bark, which can cause the plant to die. Avoid overgrazing due to the threat of erosion and loss of native plant seedlings.

HERBICIDE CONTROL

Herbicide is the last resort control method and is reserved for widespread, large infestations. For more information about which herbicide to use, see “Herbicide Treatment for Homeowners/Private Landowners.” Please consult an expert or certified applicator when applying herbicides. Read and follow herbicide product labels as required by law. Seek out proper local, state, and federal permitting when applying herbicides.



HERBICIDE TREATMENT FOR HOMEOWNERS/PRIVATE LANDOWNERS

TIME OF YEAR: MAY TO OCTOBER

EXAMPLE CHEMICAL(S) TO USE: READ ALL PRODUCT LABELS AS REQUIRED BY LAW

Product names are listed as examples, and not as endorsement or recommendation. The suitability and details for specific use of these products are provided through their labels.

Chemical (Products containing)	Timing	Application Technique	Notes
Glyphosate (Aquaneat, Round- Up, Rodeo)	May-October	<ul style="list-style-type: none"> Foliar Cut Stump 	<ul style="list-style-type: none"> Mixing with triclopyr amine can reduce non-target effects Monitor for several years after initial treatment to evaluate need for repeat treatment
Triclopyr -Amine (Vastlan, Garlon 3A) -Ester (Garlon 4)	May- October*	<ul style="list-style-type: none"> Foliar Cut-Stump Basal Bark 	<ul style="list-style-type: none"> Basal bark treatments are best performed during the dormant season (winter)*

Terrestrial invasive species disclaimer:

If there is water present near the infestation, a permit from the DEC is required. For more information regarding aquatic pesticide permitting, please contact the nearest DEC Regional Office: Division of Environmental Permits at (518) 357-2069 or visit: <http://www.dec.ny.gov/permits/209.html>.

Aquatic invasive species disclaimer:

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TIMELINE OF ACTION



For More Information Seek out the Cornell Guidelines for Pesticide Use:

The Cornell Guidelines offer the latest information on topics such as pest management, crop production, and landscape plant maintenance. Each title in the series is updated by Cornell University researchers and Extension specialists and is designed as a practical guides. <https://www.cornellstore.com/books/cornell-cooperative-ext-pmep-guidelines>



NATIVE REPLACEMENTS

After removing or treating **Autumn Olive**, it is important to reseed or plant the disturbed soils with native species common in the geographic area. Replanting will help restore the ecosystem and prevent old infestations from re-establishing. Consider using stress tolerant plants in harsh environments that are best suited to a given site. If pre-existing native plants are present on site, protect these species from harm, during management. The surrounding native species can then be used to aid in the healthy reestablishment of the area. More information about native plants, shrubs and trees can be found:

Alternatives to Ornamental Invasive Plants “A Sustainable Solution for New York State”

- <https://nysipm.cornell.edu/sites/nysipm.cornell.edu/files/shared/documents/NYSIPM-alt-inv.pdf>

NYSDEC Native Plant Factsheets

- https://www.dec.ny.gov/docs/lands_forests_pdf/factnatives.pdf

Westchester Community College Native Plant Center

- <https://www.sunywcc.edu/about/npc/>

DEFINITIONS:

Manual Control: a technique to remove small infestations. Some examples of manual control is hand-pulling, mulching, burning, digging, and removal of the entire plant, portions of a plant, nests, egg masses, or other life stages. This type of control is only economically feasible for small infestations.

Herbicide Control: a technique which uses chemicals to remove or decrease the population of a species. Herbicides are usually one of the last choices for control as they are usually expensive and have adverse effects to the environment. There are different methods to apply an herbicide. Some examples are: foliar spray, basal bark, bundle and cut, and cut-stump treatment.

Biological Control: a technique where an animal, insect, fungi or disease is used to manage a large invasive species population. This control species is studied intensively to see if there could be any negative effects for native species.

Foliar Spray: method of herbicide control where the chemical is sprayed directly on the leaves. Sprayers can be hand held, on a backpack or mounted on a vehicle. If a plant has a waxy surface, a surfactant may be needed to allow the herbicide to work.

Cut-stump treatment: method of herbicide control where the stem is cut, near the base of the plant, and an herbicide is applied. Water-based herbicides should be applied immediately following the stem cut while oil-based can be applied later. The herbicide can be applied use a sprayer or sponge/paint brush.

Selective herbicides: a type of herbicide which kills specific groups of plants but not others. For examples, a selective herbicide may kill broadleaf plants, like dandelions, but not grasses.

Non-selective herbicides: a type of herbicide which kills all types of plants. When using this herbicide, any plant that is sprayed will be effected.

DISCLAIMER

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