

Identification and  
Recommended Management  
Techniques  
*for*  
**Autumn Olive**  
*Elaeagnus umbellata*

# Species Identification

- **Species Description:** An often thorny, deciduous shrub or small tree that can grow up to 20 ft. tall and 30 ft. wide. Brownish scales may give the bark of this plant a speckled appearance.
- **Habitat:** It is moderately shade tolerant plant, and can be found in open woods wetlands, disturbed areas such as roadsides.
- **Leaves:** this plant bears simple, alternate leaves that range from 2-4 inches long. The top of the leaf is green while the underside is silver in color.
- **Flowers:** the flowers are fragrant and tubular, bearing four petals each. They are cream to light yellow in color.
- **Fruit:** the fruit is a silvery drupe with brown scales before fully developed, and a speckled red or yellow when fully developed. Fruit ripens in early to mid fall.
- **Reproduction:** by seed (the fruit is eaten and the seeds are heavily distributed by birds), can also spread by root sprouting.



# *Recommended Control Measures*

Autumn olive is a resilient plant that will resprout from cutting and burning efforts that are not accompanied by some form of chemical treatment. There are several methods of control that can be taken to treat this plant. Like many invasive species, treatment for this plant should be ongoing and may require subsequent treatment and follow up for maximum effectiveness.

## *Early Detection*

As with any invasive species, early detection is critical to prevent autumn olive from naturalizing itself. Monitor areas of concern that are sunny and open. Begin monitoring for this species in early spring, as it tends to leaf out before many native species. If detected early enough, young seedlings may be pulled by hand before roots become too extensive.

## *Method I: Foliar Spray*

If the tree trunks are under six inches in diameter and under six feet tall, a foliar spray may be used to treat the leaves. For foliar sprays, use an herbicide spray containing glyphosate, triclopyr, fluroxypyr, and picloram. Be sure to avoid using foliar sprays around other plants, as some broadleaf herbicides (such as glyphosate) are non selective and can adversely affect native species as well. For autumn olive, foliar sprays are best used in late spring, or between July and September. Always follow the directions on the herbicide label.

# Recommended Control Measures

## Method II: Cut Stump Treatment

If the tree trunks are over six inches in diameter and under six feet tall, cut stump treatment is the recommended control method. The best time for this treatment method is in June, after the sap has stopped running in the tree. After cutting the trees, immediately apply herbicide within thirty minutes for optimal absorption of the chemical in to the plant. The herbicide recommended for cut stump treatment is triclopyr, which can be used in either the ester or amine variant. While the ester formulation (such as Garlon 4 Ultra) is viewed as more effective, it is important to use the amine variant of triclopyr (such as Garlon 3A) in wetland settings as the ester formulation should not be used near water, is not water soluble. If treating near or in a wetland, it is necessary to obtain the proper treatment permit from the Michigan Department of Environment, Great Lakes and Energy.

## Method III: Basal Bark Treatment

Basal bark treatments are also effective with this species. This method involves applying an herbicide containing triclopyr ester, mixed with No. 2 diesel oil or high grade mineral oil or basal oil. This should be applied on the bark from the ground up to between 12 to 18 inches high for maximum effectiveness, and can be applied any time of year that this part of the tree is accessible to treatment.

## Avoiding Regrowth

In order to avoid autumn olive from returning to an area, it may be effective to plant native trees in its place. Be sure to wait at least six months for herbicide to work its way out of the system. Some alternatives to autumn olive are red osier dogwood (*Cornus sericea*), silky dogwood (*Cornus amomum*), gray dogwood (*Cornus racemosa*) and arrowwood viburnum (*Viburnum dentatum*).

# About the CAKE CISMA



## Who We Are

The CAKE CISMA is the Charlevoix, Antrim, Kalkaska and Emmet Cooperative Invasive Species Management Area. The CAKE CISMA provides education, outreach and land management assistance to the public within its service area, and is funded by the Michigan Invasive Species Grant Program, a funding effort by the Michigan Department of Natural Resources, the Michigan Department of Agriculture and Rural Development, and the Michigan Department of Environment, Great Lakes and Energy. The CAKE CISMA is directed by a steering committee comprised of invested environmental agencies and organizations, including the Antrim Conservation District, Kalkaska Conservation District, Emmet Conservation District, Little Traverse Conservancy, Grand Traverse Regional Land Conservancy, Little Traverse Bay Band of Odawa Indians, Tip of the Mitt Watershed Council, and the Walloon Lake Association and Conservancy.

## Our Mission

*“The mission of the CAKE CISMA is to protect the natural resources, economy, and human health in Northern Lower Michigan through collaborative outreach and management of invasive species.”*

## Contact Us

For invasive species related questions and concerns, don't hesitate to visit the CAKE CISMA office at the Antrim Conservation District, 4820 Stover Road Bellaire MI 49615, or call the office at 231-533-8363 ext. 5, or email the CAKE CISMA program coordinator at [benjamin.vandyke@macd.org](mailto:benjamin.vandyke@macd.org).