



INVASIVE PLANTS OF OHIO

Fact Sheet 7

Autumn-olive and Russian-olive

Elaeagnus umbellata, *E. angustifolia*

AUTUMN-OLIVE



DESCRIPTION:

Autumn-olive and Russian-olive are deciduous shrubs or small trees that grow to a height of 30 feet. Stems, buds, and leaves have a dense covering of silvery to rusty scales. Autumn-olive leaves are small, oval, smooth-margined and dark green. It has small, light yellow fragrant flowers in May-June, replaced by small round, juicy, reddish to pink fruit dotted with silver or brown scales. Russian-olive stems can be thorny; leaves are egg or lance-

shaped and dull green. Highly aromatic, creamy yellow flowers appear in June and July and are later replaced by dry, yellow, mealy fruit. At three years of age, plants typically begin to flower and fruit.

Autumn-olive is native to China and Japan. It was introduced to North America in 1830. Russian-olive was first cultivated in Germany in 1736. It was introduced into the U.S. in the late 1800s and was planted as an ornamental; it subsequently escaped into the wild. Until recently, the USDA Natural Resources Conservation Service recommended both species for wildlife planting and windbreaks.

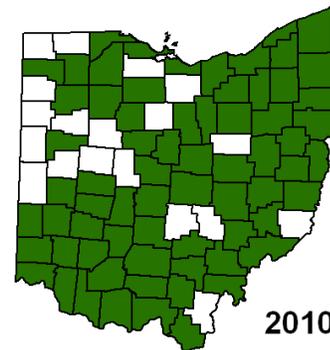
HABITAT:

Autumn-olive and Russian-olive have nitrogen-fixing root nodules, which allow them to adapt to many poor soil types including bare mineral substrates. Autumn-olive is found throughout Ohio, occurring in various open to semi-shaded habitats including old fields, grasslands, barrens, woodlands, savannahs, alvars (limestone prairies), roadsides, reclaimed strip-mined areas, and open disturbed sites. Russian-olive occurs in similar open habitats as autumn-olive, but is far less common.

INVASIVE CHARACTERISTICS:

Autumn-olive and Russian-olive aggressively outcompete native plants and shrubs. They grow rapidly and re-sprout quickly after cutting or burning. Both species are prolific fruit producers. Birds are the primary fruit disperser. Since they grow well in poor soils, they have been used extensively in eastern Ohio for reclamation projects.

AUTUMN-OLIVE



RUSSIAN-OLIVE



CONTROL:

Mechanical: Manual removal of seedlings and saplings with their roots is most effective when soil is moist. Any remaining exposed roots should be cut off below ground level and buried. Both species can be minimally controlled with fire or repeated mowing, but they re-sprout vigorously and should be kept at brush height with regular mowing or burning. Mechanical equipment such as bobcats can be used to completely remove adult shrubs/trees in large

populations, but this is most effective when used in combination with herbicide application to any of the remaining stumps.

Chemical: Selective herbicide application is the most effective control method for woody invasive plants, especially those that have extensive root systems like these species. Herbicides can be applied to the foliage (during the growing season), cut stems, or bark at the base of stems/trunks. Systemic herbicides such as Roundup, Glypro, AquaNeat, Garlon 3A, Razor, Krenite, Arsenal, and Escort are effective for foliar treatment, while Garlon 4, Stalker, Pathfinder, and Pathway can be used for cut-stem or basal bark treatment. To be most effective, most herbicides require a penetrating or sticking agent. For shrubs that do not have to be removed, exposing more than 50% of the cambium by cutting into the bark with a saw or ax close to ground level and applying herbicide to the exposed areas is also effective.



Biological:

No biological controls have been researched for either species.

Credits and additional information:

Plant Conservation Alliance-Alien Plant Working Group
Ohio Department of Natural Resources, www.ohiodnr.gov
The Nature Conservancy, Ohio Chapter
USDA Forest Service (Russian-olive photo)
The Ohio State University Extension, <http://woodlandstewards.osu.edu>
OIPC webpage, www.oipc.info

Note: Maps of species' ranges are based on records as of 2010.