





BRANDYWINE CONSERVANCY INVASIVE SPECIES PROTOCOLS

Russian Olive (*Elaeagnus angustifolia*)

<p>What It Is</p>  	<ul style="list-style-type: none"> • Small perennial tree or shrub that can grow to 30 feet tall • Leaves have a leathery texture and are silver in color on the underside of the leaf • Leaves are simple, alternately arranged on the stem, are lanceolate or oval shaped, and approximately 1.5-3.5 inches in length • Silver colored scales cover the stems and buds • Yellow flowers bloom in June and July after 3 years • Fruit consists of clusters of silvery olive-shaped fruits • Establishes and reproduces primarily by seed, often dispersed by birds • Nitrogen fixing roots • Not known to be eaten by herbivorous animals • Consumed by few insects
<p>Where It Is Found</p>	<ul style="list-style-type: none"> • Present in central, western, and eastern United States from Virginia to Pennsylvania • Found along streams, fields and open areas • Seedlings are tolerant of shade • Thrives in a variety of soil and moisture conditions, including bare mineral substrates and areas of high salinity
<p>Where It Is From</p>	<ul style="list-style-type: none"> • First cultivated in Germany in 1736 • Introduced into the United States in the late 1800's as an ornamental plant • Was recommended for wildlife planting and windbreaks
<p>Why It Is a Problem</p>	<ul style="list-style-type: none"> • Out-competes native vegetation for nutrients and water • Can dominate riparian vegetation • Nitrogen-fixing root system allows it to grow on bare on mineral substrates
<p>How to Eradicate It</p>	<ul style="list-style-type: none"> • Currently, the most effective method for eradication is to mow Russian 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 insure removal of the root system • When treating individual trees or when desirable species are present consider the cut stump method (cut the plant off at the main stem and apply herbicide to the stump) <ul style="list-style-type: none"> ○ Particularly effective late in the growing season, but also effective during the dormant season ○ Glyphosate treatment (e.g. Roundup, Rodeo herbicides) applied directly to the stump in a 10-20% solution • For thickets where risk to non-targeted species is minimal consider the foliar spray method (spray the plants with herbicide) <ul style="list-style-type: none"> ○ 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 herbicide to the lower 12"-18" of the trunk) <ul style="list-style-type: none"> ○ Apply mixture of 25% triclopyr (e.g. Turflon herbicide) and 75% horticultural oil to the lower parts of the trunk ○ Thorough wetting with the herbicide mixture is necessary for good control
<p>What Not To Do</p>	<ul style="list-style-type: none"> • If the plants are cut without application of an herbicide, or if the plants are burned during the dormant season, vigorous production of new growth can occur

References

- 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)
- Pennsylvania Dept. of Conservation of Natural Resources (www.dcnr.state.pa.us)