

# European Buckthorn

## *Rhamnus cathartica*

### What is it?

European or common buckthorn is a non-native plant that originated in Eurasia. It was brought to the United States to use for hedges and as ornamental shrubs. Minnesota has classified buckthorn as a noxious weed. Selling or transporting buckthorn is illegal. Removal is advised.

Once mature buckthorn plants are established in an area, it is spread to new areas by birds. Birds eat the berries and distribute the seeds through their droppings. These seeds sprout along structures and in natural areas, becoming a nuisance.



European buckthorn quickly out-competes beneficial native plants. An area infested with buckthorn often lacks other vegetation. This may result in soil erosion and lead to poor water quality. Natural areas become less able to support wildlife, and species diversity declines.

# Identifying Buckthorn

European buckthorn grows to the size of a shrub or small tree. It may reach 25' tall and 12" in diameter.

Small 1/4" blue-black fruits hang from the twigs. Each fruit contains 3 to 4 seeds. Although birds readily consume them, *the berries are toxic to humans.*



The thin bark varies from light gray to a purplish brown color. It often has small dots or horizontal lines, much like a cherry or plum tree. The bark on older trees may peel like that of a mature cherry or plum.

Thorns develop at the branch tips; and may grow longer in following years.

Leaves vary in size, shape, and color. Even the leaf margins and arrangement on the branch may vary considerably. The most consistent leaf characteristic is the unusual curving of the leaf veins along the

edge of the leaf. (*Dogwoods also have curving leaf veins, but they always have opposite leaves.*)



***Buckthorn is easily identified in the late fall. It's leaves stay dark green and remain on the shrubs long after all other leaves have fallen.***

# Controlling Buckthorn

The Maplewood Nature Center and other natural areas have implemented buckthorn control programs. We remove mature plants; then use prescribed burns to kill buckthorn seedlings in areas which tolerate fire. This is not feasible for most homeowners. We recommend the following methods for homeowners:

- 1. For seedlings and saplings up to 1½" in diameter:** pull in level areas away from water to prevent erosion. Try not to disturb native wildflowers. Pull by hand or use a weed wrench. Make sure that the soil is moist and your knees are bent to prevent back strain. Gather the plants and place them roots up to dry. This will prevent

re-rooting. Buckthorn seeds remain viable in the soil for several years; pulling may need to be repeated. Dried buckthorn may be burned in areas where burning is allowed, otherwise, contact your garbage contractor for pick-up information. Call your city hall to learn about burning ordinances.

**2. For trees greater than 1½” diameter:** cut and apply herbicide, **only in the fall**, when buckthorn is easiest to identify, and the sap is moving to the roots for the winter. Cut trees close to the ground and treat the stumps immediately with herbicide. If you do not herbicide the stump, the plant will resprout.

We recommend one of the following herbicides:

- Glyphosate (Roundup®) at a concentration of 25-27% active ingredient.
- Triclopyr (Brush-B-Gon®) at a concentration of 8% active ingredient.

The herbicides listed above should **not** be used near water since they can kill fish and other aquatic life. This includes use near **storm sewers, ditches, streams, rivers, wetlands, lakes or ponds**. If you are removing buckthorn near areas with water, we recommend using Rodeo® herbicide (at 25% concentration), which does not kill fish.

**3. A few tips for using herbicides:**

*Labels:* When using herbicides, always read and follow the label directions.

*Concentration:* An herbicide may be sold in many different concentrations. You'll need to check the label when you are buying the herbicide to ensure you are getting the correct concentration of active ingredient. Try to buy the recommended concentra-

tions. Lower concentrations may not be effective and higher concentrations may be harmful.

*If using a spray bottle:* Carefully transfer the herbicide to the spray bottle. You may add food coloring to the bottle, to visibly mark what you have sprayed. Hold the sprayer close to the stump; avoid nearby plants. Be careful that the spray does not run off the stump. Avoid stepping on the stump after spraying, to prevent exposure to humans and nearby plants. If resprouting occurs, you may need to repeat the process.

*Protect yourself and others:* Always use caution when using chemicals. Please wear protective gear. Old clothes (long sleeves and pants), eye protection, rubber gloves, and rubber knee high boots are highly recommended. Remove footwear outside. Always wash this clothing separately from other household laundry.

## Replacement Plantings

Once buckthorn has been removed, the area may be devoid of vegetation. Many beneficial, non-invasive native shrubs and perennials may be planted as substitutes. Visit the nature center to see examples of native plants, and pick up a copy of our replacement shrub list at your city hall. It is also available on our website.

Maplewood Nature Center &  
Neighborhood Preserves  
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# Buckthorn Management



## Maplewood Nature Center & Neighborhood Preserves

*Illustrated by Carole J. Hornby Gernes*

