

# European Buckthorn

## *Rhamnus cathartica*

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; species diversity declines.

### Identifying Buckthorn

***Buckthorn is easily identified in the late fall. Its leaves stay green and remain on***

***the shrubs long after all other leaves have fallen.***

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.*



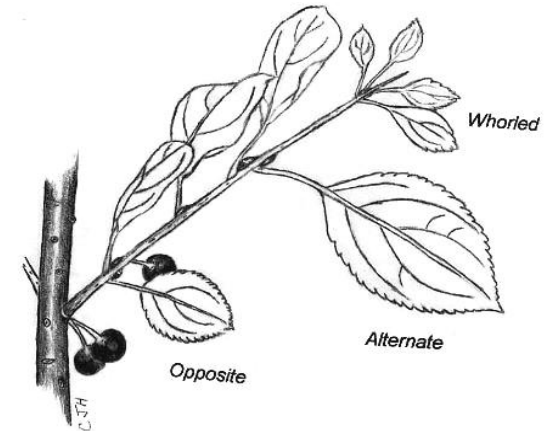
The thin bark varies from light gray to a purplish brown color. It often has small dots or horizontal lines, much like a cherry or plum tree. The bark on older trees may peel like that of a mature plum tree.

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

Leaves vary in size, shape, and color. Leaf margins have fine, rounded "teeth". Leaf veins curve to the edge of the leaf. ***Dogwoods also have curving leaf veins, but they have opposite and/or whorled leaves without teeth on their edges.*** To differentiate between buckthorn, cherries and plum; look at how leaves are

arranged on the branch. Plums and cherries ***always*** have alternate leaves. European buckthorn is the ***only shrub in our area that may have opposite, alternate and whorled*** leaf arrangements all on the same plant:

Leaf Arrangements:



### Controlling Buckthorn

Maplewood manages buckthorn on city property. 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:

***Pulling buckthorn is not recommended. Pulling causes soil disturbance, resulting in new invasions of garlic mustard, buckthorn seedlings and thistle.***

***Recommended method:*** buckthorn may be ***cut and treated with herbicide in the fall***, when buckthorn is easy to identify, and herbicide will move with the sap to the roots; killing the plant. Cut level, to prevent herbicide run off, close to the ground, then treat the stump ***immediately***. ***If you do not***

**herbicide the stump, the plant will resprout.** We recommend herbicide brands with 8% or 8.8% Triclopyr as the active ingredient. Look for ingredients on the container's front label; lower right corner.

**Do NOT use herbicides near water** - they kill aquatic life. Do **NOT** use near **storm sewers, wetlands, ditches, streams, rivers, lakes or ponds.** If you are removing buckthorn near areas with water, you must use an **aquatic formulation.**

**Herbicide use tips:** Use herbicide **only in the fall** to avoid resprouts. When using herbicides, **always read and follow the label directions; the label is the law for its use.** Exception: do not drill holes in stumps and pour herbicide into the holes. This is ineffective, wasteful, could pose a health hazard and harm nearby plants or animals.

**Concentration:** An herbicide may be sold in many different concentrations. Check the front label, lower right corner, to ensure you are buying the correct active ingredient concentration. Lower concentrations may not be effective and higher concentrations may be harmful.

**If using a spray bottle,** carefully transfer herbicide to the spray bottle. You may add food coloring to the bottle, to visualize what you have treated. Hold the sprayer close to the stump; avoid nearby plants. Spray the yellow or orange ring of soft wood just underneath the bark. 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, cut and apply herbicide again.

**Protect yourself and others:** Always use caution when using chemicals. Please wear

protective gear. Long sleeves and pants, eye protection, rubber gloves, and rubber knee high boots are required personal protective equipment (PPE). Remove footwear outside. Always wash herbicide clothing twice, separately from other household laundry and follow with an empty rinse cycle.

**Mark and protect native trees and shrubs** before starting. Recent research shows that pulling buckthorn disturbs the soil, resulting in weed and other invasive plant establishment the following year. **Pulling is no longer recommended.**

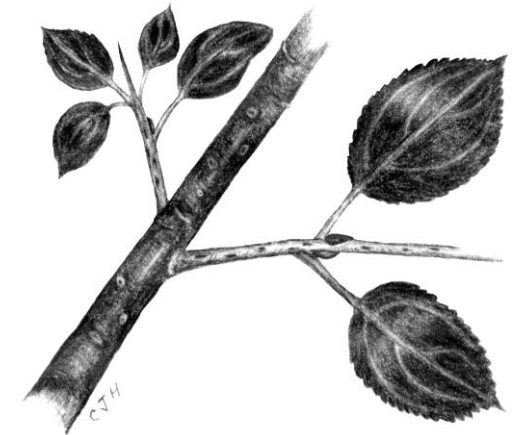
**Disposal:** Dried buckthorn may be burned in areas where burning is allowed, otherwise, contact your garbage contractor for information. Call your city hall or county to learn about burning ordinances or compost sites.

## Replacement Plantings

Once buckthorn has been removed, the area may be devoid of vegetation. Suppressed native plants may reappear over time. Many beneficial, non-invasive native shrubs and perennials may be planted in bare areas. Visit Maplewood Nature Center to see examples of native plants, and pick up a copy of our native shrub list (also available on our website).

Maplewood Nature Center &  
Neighborhood Preserves  
<http://maplewoodmn.gov/>  
651-249-2170

# Buckthorn Management



## Maplewood Nature Center & Neighborhood Preserves

*Carole J. Hornby Gernes*

