

## burning bush

*Euonymus alatus*

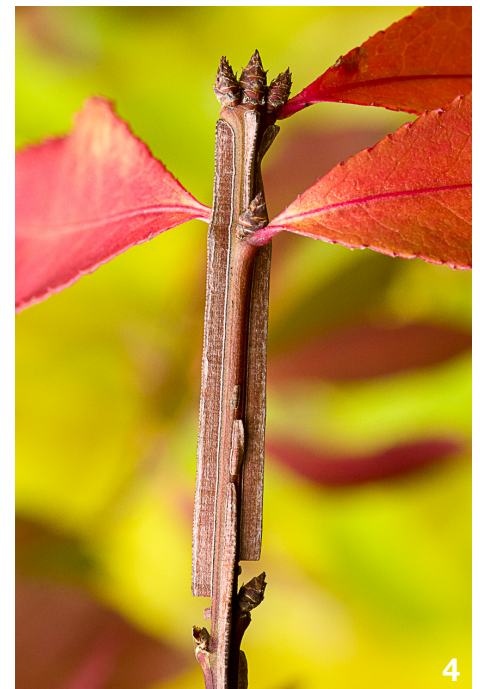
### Identification:

**Celastraceae (Bittersweet family)**

**Uncommon Perennial shrub, deciduous Height:** 6-15'    **Width:** 6-15'    **Leaf Arrangement:** opposite  
**Flower:** Cream, Green    **Blooms:** Mid-spring to Late spring    **Fruit:** Red berry    **Fall Color:** Red

Burning bush is a medium-sized shrub with opposite branching. The bright red fall color is the inspiration for this species common name. However, many wild-grown plants have a fall color that is pink with some green. Young twigs are green, with narrow ridges which are referred to as 'wings'. Typically these wings run at right angles to each other along the length of the stems. These wings inspire the species other common name, winged euonymus. Older bark is striped parallel to the length of the branch. Leaves are generally ovular with a prominent drip tip, finely-serrated margins and are smooth on the underside. Flowers are four-petaled, creamy-white and green and bloom in mid-to-late May. By late summer these develop into red berries that hang in pairs, subtended by the hard fruit casing.

Be careful not to confuse burning bush with the native eastern wahoo (*Euonymus atropurpureus*). Wahoo will have ridges on its twigs like burning bush, but these ridges are less prominent, rarely more than 1/8" inch high. The underside of wahoo leaves are pubescent (have hairs on the surface), which is especially prominent along mid-vein. Wahoo has red-maroon flowers, and the twin berries of wahoo remain encased in their smooth, pink, 4-lobed capsules.



# Weed Information Sheet:

burning bush

*Euonymus alatus*



**NR-40 Restricted**

**AKA: winged euonymus, winged spindle-tree**

## Description & Impact:

Originally from Asia, burning bush was introduced into North America as an ornamental plant in the 1860's. It was widely used in landscaping from the late 19th and through the 20th century. Burning bush grows in a variety of habitats, usually in shade but it also grows in full-sun. It is notable for its high shade tolerance, which allows it to grow in our currently unnaturally heavily-shaded woodlands. Additionally, it is not palatable to deer, and so it has a strong competitive advantage over native trees and shrubs in areas where deer populations are high. In the East Coast states, burning bush is among the most abundant invasive shrubs and is known to dominate forest understories. However, in the Midwest it is currently less common. It is most problematic in areas near where it was planted long-ago, often in affluent communities, near urban areas and in communities with many vacation homes and estates.

Because it can out-compete native plants in these environments burning bush reduces resources for pollinators, song birds and game species. Further, since there is often bare soil underneath them, it can also increase erosion, especially in steep terrain.

## Control Methods:

**Traditional:** The most effective control method is to cut each stem close to the ground and treat the stump with concentrated herbicide at the rate recommended on the product label. Glyphosate (Round-Up®, etc.) mixed 1:1 in water is effective and has the lowest potential for negative impacts to surrounding vegetation. On very cold winter days or early-spring a solution of triclopyr (Garlon® 4, etc.) in mineral oil may be more effective. It is best to apply the herbicide to the cut stumps immediately after cutting so as not to lose track of them. Basal bark treatment with triclopyr in oil is effective and time-efficient when dealing with large numbers of small stems. Always read herbicide labels carefully before use and always apply according to the instruction on the product label.

**Organic:** A new technique to control invasive shrubs is called critical period cutting. This involves cutting the plants multiple times, with the first cut being at roughly chest-height. This initial cutting should be done in late-May when the buckthorn have fully leafed-out and the plant's energy reserves are at their lowest. With this initial cut, also remove lower branches that contain leaves. Follow-up in mid-September by stripping the newly sprouting branches either by hand or with hand pruners or a small electric saw. If necessary, repeat this stripping again after leaf-out in the spring and again in early-fall.

Saplings (less than 1/4" in diameter) can be hand pulled in loose or moist soils. Larger individuals may be removed with the aid of a Weed Wrench. But consider the effects of soil disturbance and erosion when uprooting plants, especially on slopes. Regular prescribed fire will prevent the establishment of this species and help control seedlings.

**Citations:** <https://www.illinoiswildflowers.info/trees/plants/wahoo.htm>  
<https://www.fs.usda.gov/database/feis/plants/shrub/euoaala/all.html#DISTRIBUTION%20AND%20OCCURRENCE>