

# winged burning bush

(*Euonymus alatus*)

## Homeowners Fact Sheet

**Tips for identifying, controlling, and monitoring winged burning bush on your property**

### Background

Winged burning bush (*Euonymus alatus*) is a deciduous shrub that is native to Asia. It was first introduced to the United States in the 1860s for ornamental use. Winged burning bush prefers moist, well-drained, slightly acidic soils in full sun, but is very adaptable to poor soils, heat, drought, periodic shearing, pollution, and partial to full shade. It threatens old fields, open woods, mature second growth forests. Winged burning bush and its cultivars (varieties) are still sold and planted in residential and commercial landscapes; it is very popular due to its attractive, bright red autumn foliage that can be seen in Cook, DuPage, and Lake Counties.

### Why Should You Care?

Winged burning bush spreads by seed and root stem cuttings. Birds and small mammals will eat its fruits and deposit seeds over long distances. As it grows in dense thickets it displaces native plants and the native animals that depend on those plants are deprived of food and shelter. Its shade and dense root system also inhibit growth of plants nearby.



Bright red autumn foliage make winged burning bush a popular garden plant. (Photo taken by Brendon Panke, U Wisconsin-Madison)



Corky wings along greenish stems with autumn foliage. Photo taken from Oregon State website)

### Identification

- Perennial, woody, shrub that loses its leaves in autumn.
- Leaves are medium to dark green, 1 to 3 inches long, with a short petiole.
- Leaves are opposite to slightly alternate, elliptical to oval, with finely toothed margins.
- In autumn, leaves are a brilliant flaming red in sunny sites or a faded pink-red in shady sites.
- Matures very slowly and can reach 15 feet tall by 15 feet wide; cultivars are smaller (10' by 10', or less).
- Yellow - green small flowers in late May and early June, usually inconspicuous and hidden among leaves.
- Fruits are small, green in summer and mature to a beige-red capsule, which splits open to show a few orange fruits in September that are often concealed by autumn leaves.
- Green strips occur along the thick stem, surrounded by very prominent tan to brown corky wings.

## Some Suggested Control Methods

Do not plant winged burning bush and replace any plants in your landscape or garden with native or non-invasive plants!

**Mechanical** Small infestations of young plants can be pulled by hand before they produce seeds, but be sure to wear thick gloves and a long sleeve shirt to protect your hands and arms from the spines. A Weed Wrench® can be used to uproot roots of young plants and entire larger plants (stems up to 2.5 inches) when the soil is moist. The entire root should be removed to avoid re-sprouting. Shrubs can also be mowed or cut back repeatedly during the growing season.

### Chemical

**Basal bark method** This method is effective throughout the year as long as the ground is not frozen. Prepare a mixture of 25% triclopyr plus 75% horticultural oil and apply to the base of the shrub to a height of about a foot from the ground. Thorough wetting is necessary for good control, but be careful not to produce runoff at the ground line. A dye added to the mixture will help keep track of treated plants.

**Cut stem method** This method is most effective if the stems are first cut by hand or mowed to ground level and herbicide (triclopyr or glyphosate) is applied immediately to cut stem tissue. Herbicide applications can be made any time of year as long as rain or snow is not expected for at least 24 hours, and there is little or no wind during application. Fall and winter applications will avoid or minimize impacts to native plants and animals.

**Foliar application** Because this method involves applying herbicide mix to leaves, it should be considered mostly for large infestations where the risk to non-target species is minimal. The best time to treat is late fall or early spring when rain or snow is not expected for at least 24 hours, and there is little or no wind (less than 8-10 mph) during application. Apply a 2% solution of glyphosate or triclopyr and water to thoroughly wet all leaves. Mix should not be dripping off leaves. If desirable plants are nearby, establish a no-spray buffer area to protect non-target plants.

### Follow-up

After winged burning bush is removed from the site, fill the space with native or non-invasive plants by seeding or planting. A variety of attractive shrubs native to the Midwest are available that provide nectar, seed, and host plant material for butterflies, hummingbirds, and other wildlife. They include Eastern wahoo (*Euonymus atropurpureus*), Black Chokeberry (*Aronia melanocarpa*) and its cultivars var. 'Elata,' and 'Aronia Iroquois Beauty,' Blackhaw (*Viburnum prunifolium*), Nannyberry (*Viburnum lentago*), Sugar Shack™ Buttonbush (*Cephalanthus occidentalis* 'Sugar Shack'), Raspberry Tart™ Viburnum (*Viburnum dentatum* 'Rastzam'), and Shining Sumac (*Rhus copallina*) and its cultivar 'Prairie Flame Shining Sumac' (*Rhus copallina* var. *latifolia* 'Morton'). Other shrubs that may also be available at local nurseries include Dwarf

Fothergilla (*Fothergilla gardenii*), Itea Little Henry® Virginia Sweetspire (*Itea virginica* 'Sprich,' Itea Scarlet Beauty™ Virginia Sweetspire (*Itea virginica* 'Morton'), and Red Chokeberry (*Aronia arbutifolia*) 'Brilliantissima.'

## Precautions

- In areas where spring wildflowers or other desirable native plants occur, herbicide application should be carefully targeted with protection of surrounding plants or conducted prior to their breaking ground in the spring, delayed until they senesce in late summer or autumn, or after the last killing frost. Foliar application of the herbicide MUST be applied to the target plant while it is in an active growth stage.
- Herbicidal contact with desirable plants should always be avoided. If native grasses are intermingled with winged burning bush, triclopyr should be used because it is selective for broad-leaved plants and will not harm grasses.
- Because triclopyr amine is a water-soluble salt that can cause severe eye damage, it is imperative that you wear protective goggles to protect yourself from splashes. Triclopyr ester is soluble in oil or water, is highly volatile and cannot be used in temperatures above 80°F; and can be extremely toxic to fish and aquatic invertebrates. It should not be used in or near water sources or wetlands and should only be applied under cool, dry, and low wind conditions.
- If using herbicide, be sure to follow all label instructions
- Monitor treated area and treat resprouts as needed!

## Equipment & Supplies You May Need

Loppers or machete

Weed Wrench®

Weed wacker and/or mower

Herbicide (glyphosate and triclopyr)

Rubber gloves and appropriate eye protection

Long pants, long sleeved shirt, closed-toe shoes

Spray bottle and Liquid dye (food coloring or Rit dye works)

Patience, persistence, and commitment (this will take years)

## Additional Resources

**Midwest Invasive Plant Network Control Database**

<http://mipncontroldatabase.wisc.edu/>

**Northeast Illinois Invasive Plant Partnership** [www.niipp.net](http://www.niipp.net)

