

# Invasive Alien Plant Species of Virginia

## Winged Burning Bush (*Euonymus alatus* (Thunb.) Siebold)

### Description

Winged burning bush is a deciduous shrub that will grow to 15 to 20 feet tall and equally as wide. It is a member of the Staff-tree family (Celastraceae) with elliptic to obovate leaves, which are opposite or sub-opposite, 1 to 3 inches long and ½ to 1¼ inches wide. The leaves turn a bright red in the fall before dropping. Occurring in May to early June, the small green flowers are inconspicuous. The green to brown stems have two to four prominent corky wings.

### Habitat

Native to northeastern Asia to central China, winged burning bush, also known as winged euonymus and burning bush euonymus, was introduced into this country about 1860 as an ornamental shrub. It is very adaptable to a variety of soils, including being pH adaptable, performing best in well drained soils and poorest in waterlogged soils. It grows well in full shade and full sun but shows stress in soils subject to drought.

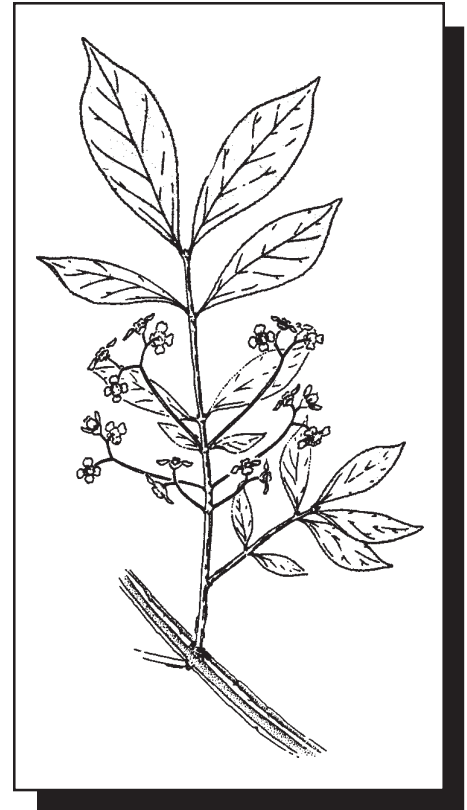
### Distribution

Winged burning bush, because of its spectacularly red autumn foliage, is one of the most popular shrubs on the market. Consequently, its distribution is limited only by its

hardiness, extending from New England south to northern Florida and the Gulf Coast. It is commonly used in landscaping, especially for malls and highways. However, reports suggest winged burning bush may spread by seed from wherever it is used as an ornamental shrub.

### Threat

The threat to natural areas from burning bush euonymus is that it shades out native herbs and crowds out native shrubs. Unfortunately, birds are very fond of the 1/4- to 1/3-inch long red fruit and consequently distribute the seeds across the countryside where plants readily sprout and establish themselves, enhancing the extent of the plant's distribution. According to the *Atlas of Virginia Flora*, 3rd edition (1992), it appears in only four counties of Virginia. That information is not up-to-date. The shrub may become one of our most troublesome plants because of the ease with which its seeds are spread, the readiness of germination, its adaptability to various soils, its tolerance of full shade and its spectacular fall foliage. Even Fernald recognized this in his 8th edition of *Gray's Manual of Botany* printed in 1950 as noted by his comment, "spreads from cult[ivation]." It appears entirely



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predictable that we will be unable to persuade either landscapers or nurserymen to voluntarily abandon either the use or sale of this plant.

### Control

Control is therefore considered difficult once a parent plant has become established. It will probably not be much of a problem in cities, towns or thickly developed areas, but any nearby woodland where birds can roost may quickly become

For more information, contact the Department of Conservation and Recreation or the Virginia Native Plant Society.



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infested. Therefore, abstaining from using the plant becomes the most important step toward control. Continued use of winged burning bush may result in it becoming a widespread invasive. No information on control of this species was found researching this fact sheet. Attempt control as for any shrub species.

### Alternative Plants

A native shrub of rather limited availability that is not invasive to natural landscapes is red chokeberry (*Aronia arbutifolia*). It is spectacular in October when the foliage turns a brilliant red. The growth is more lax and less compact than the winged burning bush. The cultivar

“Brilliantissima” is recommended for more brilliant red foliage in the fall. Another choice would be the non-invasive exotic Koreanspice Viburnum (*Viburnum carlesii*), which may have reddish to wine-red fall color; however, fall selection is advised to be certain of the color one may expect.

For more information on native plant conservation, contact the Virginia Native Plant Society at the address below. For information on Virginia’s natural areas and natural heritage resources, contact the Virginia Department of Conservation and Recreation’s Natural Heritage Program (*see address below*).

### References

Dirr, M.A. 1990. Manual of woody landscape plants. Stipes Publishing Co., Champaign, IL.

Fernald, M.L. 1950. Gray’s manual of botany, eighth edition. American Book Company, Boston.

Gleason, H.A. and A. Cronquist. 1991. Manual of vascular plants of northeastern United States and adjacent Canada. New York Botanical Garden.

Harvill, A., et al. 1992. Atlas of Virginia flora. Burkesville, VA.

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