



# TORONTO MASTER GARDENER

# INVASIVE PLANTS FACT SHEETS

.....

## EUNONYMUS

.....



SUPPORTED BY  
THE INVASIVE SPECIES CENTRE



Invasive  
Species  
Centre



Photo: Helen Battersby  
*Euonymus fortunei*



Photo: Helen Battersby  
*Euonymus europaeus*

## BURNING BUSH, EUROPEAN EUONYMUS, WINTERCREEPER (*Euonymus* spp.)

### WHAT IS EUONYMUS

Euonymus may refer to one of a number of popular ornamental shrubs native to Eurasia. There are three invasive species of *Euonymus* available in Ontario:

- **Burning bush**, also known as winged spindle bush and winged euonymus (*Euonymus alatus* (syn. *Celastrus alatus*).
- **European euonymus**, also known as European spindletree (*Euonymus europaeus*).
- **Wintercreeper**, also known as climbing euonymus (*Euonymus fortunei* syn. *Elaeodendron fortunei*, *Euonymus japonicus*, *Euonymus radicans*). Cultivars of wintercreeper include Emerald and Gold and Emerald Gaiety.

*E. alatus* and *E. europaeus* are often selected for their colour, while *E. fortunei* may be chosen as a fast growing groundcover. All species contain toxic chemicals and while some birds appear to be unaffected, these are poisonous to children and animals including dogs and cats.



Photo: Helen Battersby  
*Euonymus alatus*

## WHY ARE INVASIVE EUONYMUS A PROBLEM

These three euonymus species are considered ecological threats. While well behaved in the garden, they and their cultivars produce large quantities of easily germinating seeds which are spread widely by birds into all areas including natural areas and ravines. Growing in all except heavy wet soils and environmental conditions including dense shade, they form dense thickets blocking sunlight and nutrients from understory native plants and seedlings, supplanting native plants such as trillium, maple and oak trees and other plants necessary to insects, birds and other species. *E. fortunei* or wintercreeper is a rapid growing ground cover and climbing vine which will eventually climb trees and bushes depriving them of light necessary to their health and growth.

## IDENTIFICATION

All invasive euonymus species share the following identification characteristics:

**Leaves** are opposite. Colour can vary and variegated cultivars are popular.



*E. alatus*: leaves

**Flowers** are greenish yellow, 4-petalled.



*E. alatus*: flowers

**Fruit** are reddish capsules with orange fleshy seeds, appear in September to October.



*E. alatus* capsule and seeds

Further identification characteristics include:

- **Burning bush** varies in size from dwarf (60cm) to up to 6.1 m in height.



- **Stems** may form two to four corky ridges along the length of young stems except in shady areas.



- **Leaves** are 5 cm long, round and smooth, taper at the tips and turn bright crimson to a purplish color in the fall.



Photo: Helen Battersby

- **European euonymus** is similar to burning bush but does not have the ridges on young stems.
- **Wintercreeper** is a spreading, climbing evergreen perennial vine.
  - **Leaves** are 2.5-6.4 cm long, glossy, dark green, oval, slightly toothed, with light-colored veins.



Photo: TMG

## MANAGEMENT FOR THE TORONTO GARDENER

Do not plant invasive euonymus or cultivars. Where necessary, seedlings up to 60 cm in height, can be hand pulled when the soil is moist. Large areas can be smothered with cardboard, newspaper or other light blocking

materials – it may take up to a year to kill such invasives. Larger shrubs may be dug out, being careful to remove the roots. If cut at ground level sprouting will occur, but repeatedly cutting to the ground will eventually exhaust the shrubs carbohydrate reserves and the stump will die. Removing reproductive parts could control spread but it is very labour intensive just to remove the flowers and there is always a risk of missing a few. For climbing wintercreeper, remove smaller vines from trees and bushes. Cutting larger vines close to the ground will cause the upper portion to die and drop off. Careful disposal is necessary to prevent spread of these euonymus species. Avoid throwing garden cuttings and vegetation into ravines, roadsides and other areas. Leave branches in the sun to dry out. Bag cuttings with flowers and seed heads in heavy duty plastic bags, and dispose in the garbage.

**If you see “escaped” *Euonymus* species** or other invasive species in the wild, please contact the Invading Species Hotline at 1-800-563-7711, or visit [EDDMapS Ontario](https://www.ontario.ca/govt/eddmap) to report a sighting.

## SIMILAR NATIVE PLANTS AND ALTERNATIVES

There are two species of native euonymus:

**Eastern wahoo**, also known as arrowwood (*E. atropurpureus*), has the blazing red color of the non-native *E. alatus* without its invasive tendencies. It can be distinguished by its hairy leaf underside and maroon flowers.



**Running strawberry bush** (*E. obovatus*) is a short woody vine much smaller than wintercreeper with obovate (like the name!) leaves, five part flowers and unusual three lobed fruit. Running strawberry bush is an excellent groundcover plant.



Image: Chris Evans, University of Illinois, Bugwood.org licensed under a [Creative Commons Attribution-Noncommercial 3.0 License](https://creativecommons.org/licenses/by-nc/3.0/).



**OTHER NATIVE SHRUBS WHICH MAKE  
EXCELLENT ALTERNATIVES TO INVASIVE  
EUONYMUS INCLUDE**



**DOGWOOD**

*(Cornus spp.)*



Image: Wendy VanDyk Evans, Bugwood.org  
licensed under a Creative Commons Attribution-Noncommercial 3.0 License.

**MAPLELEAF VIBERNUM**

*(Viburnum acerifolium)*



**CHOKEBERRY**

*(Aronia melanocarpa)*



**SERVICEBERRY**

*(Amelanchier spp.)*



**GROUNDCOVER SUBSTITUTIONS FOR  
WINTERCREEPER INCLUDE:**



**BEARBERRY**  
*(Arctostaphylos uva-ursi)*



**FOAMFLOWER**  
*(Tiarella cordifolia)*



**WOODLAND/WILD  
STRAWBERRY**  
*(Fragaria vesca, F. virginiana.)*

## REFERENCES

- CAB International. (2021). Invasive Species Compendium: *Euonymus fortunei* (wintercreeper). Retrieved Apr. 24, 2021 from <https://www.cabi.org/isc/datasheet/23204#tosummaryOfInvasiveness>
- Casagrand, T. (2019). *You should be concerned when this plant goes vertical*. Retrieved Apr. 10, 2021 from: <https://moinvasives.org/2019/08/15/you-should-be-concerned-when-this-plant-goes-vertical/>
- Dean, A. & Stairs, E. (2018). *More invasive plant species in High Park*. Retrieved Apr 22, 2021 from <https://highparknature.org/article/more-invasive-plant-species-in-high-park/>
- Eierman, K. (2021). *Spotlight on invasive plants: Burning bush (Euonymus alatus)*. Retrieved Apr. 16, 2021 from <https://www.ecobeneficial.com/2013/10/spotlight-invasive-plants-burning-bush-euonymus-alatus/>
- Global Invasive Species Database. (2021). *Species profile: Euonymus alata*. Retrieved Apr. 12, 2021 from <http://www.iucngisd.org/gisd/speciesname/Euonymus+alata>
- Global Invasive Species Database. (2021). *Species profile: Euonymus fortunei*. Retrieved Apr. 12, 2021 from <http://www.iucngisd.org/gisd/speciesname/Euonymus+fortunei>
- Missouri Botanical Garden. (n.d.). Plant finder: *Euonymus*. Retrieved Apr. 10, 2021 from <http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderProfileResults.aspx?basic=euonymus>
- NRCS. (n.d.). *Brush management – Invasive plant control burning bush – Euonymus alatus*. Retrieved Apr. 16, 2021 from [https://efotg.sc.egov.usda.gov/references/public/VT/JS314-Burning\\_Bush.pdf](https://efotg.sc.egov.usda.gov/references/public/VT/JS314-Burning_Bush.pdf)
- OFAH/OMNR Invading Species Awareness Program. (2021). *Winged Euonymus*. Retrieved Apr. 10, 2021 from <http://www.invadingspecies.com/invaders/terrestrial-plants/>
- Ontario Invasive Plant Council. (2020). *Grow Me Instead (Southern Ontario) guide, 3<sup>rd</sup> Edition*. Retrieved Apr 12, 2021 from <https://www.ontarioinvasiveplants.ca/grow-instead-southern-ontario-guide-3rd-edition-now-available-online/>
- Ontario Invasive Plant Council. (2021). Quick reference guide – Terrestrial plants. Retrieved Apr. 16, 2021 from [https://www.ontarioinvasiveplants.ca/wp-content/uploads/2019/04/reducedQuickReferenceGuide\\_TerrestrialPlants.pdf](https://www.ontarioinvasiveplants.ca/wp-content/uploads/2019/04/reducedQuickReferenceGuide_TerrestrialPlants.pdf)
- PUExtension. (2016). *Invasive plant species: Wintercreeper FNR-524-WV*. Retrieved Apr. 23, 2021 from <https://www.youtube.com/watch?v=rRxHICeBECg>

## PHOTO CREDIT

Photos courtesy of :

Peter M. Dziuk and Katy Chayka (Minnesota Wildflowers: <https://www.minnesotawildflowers.info>)

Helen Battersby and the Toronto Master Gardeners (as marked in individual copyright information)

Chris Evans, Wendy VanDyk Evans (Bugwood.org)