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# Alternatives to Invasive Landscape Plants

In 2004, the N.H. Invasive Species Committee finalized a list of 18 plant species to be immediately prohibited from sale, transport, distribution, propagation or transplantation in New Hampshire. These species join 14 aquatic species already prohibited since 1998 (see entire list appended to this fact sheet).

On January 1, 2007, all varieties and cultivars of *Euonymus alatus* (Burning bush), *Berberis thunbergii* (Japanese barberry), and *Acer platanoides* (Norway maple) will join the list. Existing stocks of these species may be sold legally until that date. For information on the laws and criteria regarding invasive species in New Hampshire, please see the [State's webpage](#).

*Euonymus alatus*, *Berberis thunbergii*, and *Acer platanoides* are ornamental plants currently prominent in the regional landscape plant palette, and their loss could have a large economic impact on nursery and landscape businesses. We have developed the following lists of potential alternatives for these three species with input from nursery owners and growers, landscape architects and designers, landscape contractors, arborists, and concerned citizens.

While recognizing that no single plant can substitute directly for all the functions and aesthetic qualities of the invasive plant of concern, the lists provide suggestions suitable for a range of site conditions and plant functions. The plants listed are known to be adaptable to New Hampshire conditions (within the appropriate hardiness zones) and currently available or able to be brought into production in sufficient quantities to meet future demand.

## **Alternatives for *Euonymus alatus*, Burning bush**

Burning bush is a popular component of the landscape, selected primarily for its brilliant fall color. Its adaptable nature and stress tolerance allow it to thrive in shade or sun and throughout a wide range of soil conditions. It has a dense, wide-mounded or spreading form up to 20' wide and 20' high at maturity. The ridged bark is an identifying characteristic. Its prolific seeds are eaten and spread by birds and other wildlife. Consider the following alternatives when selecting large shrubs for fall color.

[American cranberrybush viburnum](#) (*Viburnum trilobum*) This native plant is hardy throughout the state. Coarse in texture and form, it is adaptable to most well-drained soils, and likes full sun or partial shade. While the fall color is not outstanding compared to burning bush, it has multi-seasonal interest with large white flower clusters in spring, cranberry-like fruit in summer through fall, and subdued burgundy and gold fall foliage. Songbirds returning to the area in late winter/early spring greatly appreciate the fruits. Cultivars such as 'Alfredo' and 'Redwing' have been selected for superior fall color. Mature size varies according to cultivar, but plants may grow 8'-10' tall and wide. A word of caution, however; the viburnum leaf beetle, a new invasive insect, does find this species an attractive host.

**Highbush blueberry** (*Vaccinium corymbosum*) Grown primarily for the edible berries, highbush blueberry also makes an excellent landscape plant in the right conditions; i.e, acidic soils in full sun to partial shade. A shallow-rooted species, it should be mulched. Native, hardy to zone 3, and slow in growth, the plants develop an upright, spreading form, up to 12' tall and 6'-8' wide. Two dual-use varieties for New Hampshire are 'Spartan', with brilliant red fall foliage, and 'Bluejay', with orange fall foliage. This is one of the best plants for wildlife, providing nectar for insects, larval food for butterflies, and fruit for a wide array of mammals.

**Redvein enkianthus** (*Enkianthus campanulatus*) Fall color varies, ranging from true gold to bright red, but all are very attractive. In addition, lovely clusters of pink to white bell-shaped flowers appear in spring. Another slow-grower, this plant has an upright, open habit when young and fills out as it matures, reaching 6'-8' tall and wide. It requires acid, moist soil for best growth, is suitable for full to partial sun, and is hardy to zone 4 or 5.

**Fothergilla** (*Fothergilla gardenii* or *Fothergilla major*) Fothergilla is an underused plant, with great fall foliage in shades of yellow, orange and red, all on the same plant! It also has fragrant, bottlebrush-type flowers in spring, and a dense rounded form with medium texture. *F. gardenii* (2'-4' high and wide) is a smaller version of *F. major*, which can grow 6'-10' and form colonies from suckers. Like enkianthus, it needs acid, moist soil, full to partial sun, and is hardy to zone 4 or 5.

**Red chokeberry** (*Aronia arbutifolia*) Native to New England, red chokeberry is an attractive, slow-growing plant, 6'-10' high and 3'-5' wide, forming colonies through suckers. It is adaptable to most soil conditions in sun to partial shade. It has attractive red berry-like fruit (not considered edible by humans, but serving as a late winter food source for birds) and red to purplish fall foliage. 'Brilliantissima' is a cultivar selected for superior red fall color; 'Autumn Magic' is a selection of black chokeberry, *Aronia melanocarpa*. Hardy to zone 3 or 4.

#### **Alternatives for *Berberis thunbergii* (Japanese barberry)**

Japanese barberry is a durable, dense mounded, low-maintenance plant, most popular for its red or purple-leaved cultivars which add color to the border. Potential alternatives include some that provide the red color but not the compact form, and others that provide the desired form but not the red color. Unfortunately, it's hard to find both in one plant.

**Weigela** (*Weigela florida*) New purple-leaved cultivars of this plant, such as the low-mounding 'Midnight Wine' and the larger 'Wine and Roses', can provide a nice splash of color in the border, with prolific pink flowers as well. These tend to be spreading, dense, rounded shrubs which can be cut back hard during the winter. Best in full sun and adaptable to many soils, weigela is hardy to zone 4 or 5, or even 3 with the selection of the proper cultivar.

**Slender deutzia** (*Deutzia gracilis*) Another good match for the low, broad mounding form of Japanese barberry, but lacking a purple-leaved form. Suitable for zones 5 and 6, the plant is tough and adaptable, and very ornamental when in bloom in the spring. 'Nikko' is a graceful low shrub with abundant white flowers in spring and attractive burgundy fall color.

**Common ninebark** (*Physocarpus opulifolius*) A hardy, durable and adaptable shrub, common ninebark is generally an upright grower, coarse in texture. We include it here because of the introduction of two purple-leaved cultivars — 'Diabolo' which grows to 8'-10', and the brand-new 'Summer Wine', which

has a finer texture and more compact form, and grows 5'-6' high. Both have white flowers in mid-summer and attractive peeling bark. Cut them back in winter to keep plants more compact. A good plant for bird shelter, it also serves as the host for spring azure butterfly larvae.

**Shrub roses** (*Rosa* species and hybrids) Shrub roses can substitute for the dense, mounding form of barberry, but the flowers make roses a focal point in the landscape. All except redleaf rose, *Rosa glauca*, have green leaves. Proper selection and placement is critical if you want to minimize maintenance, since the thousands of species and varieties on the market vary widely in size and form.

*Do not buy roses grafted onto multiflora rootstock, a prohibited invasive.* Many roses are subject to Japanese beetles and diseases such as black spot, and many are not winter hardy. A few tried and true varieties for New Hampshire are 'Sea Foam', 'The Fairy', 'Harrison's Yellow' and 'Glory of Edzell'. Rose hips make good winter food for birds and mammals, and the dense thorny branches provide excellent nesting cover for songbirds.

Other shrubs to consider using in place of burning bush or barberry include **summersweet** (*Clethra alnifolia*), Southern bush-honeysuckle (*Diervilla sessilifolia*), **Virginia sweetspire** (*Itea virginica*), mapleleaf viburnum (*Viburnum acerifolium*), spreading cotoneaster (*Cotoneaster divaricatus*), **Northern bayberry** (*Myrica pennsylvanica*), cutleaf stephanandra (*Stephanandra incisa*), and 'Gro-low' fragrant sumac (*Rhus aromatica* 'Gro-low'). Many **spireas** can be used, although some people consider them potentially invasive as well. In some cases, perennials such as purple-leaved *Heuchera* or *Alternanthera* may provide the desired effect. For more information on selecting perennials and shrubs, refer to *The Best Plants for New Hampshire Gardens and Landscapes*, published by the New Hampshire Plant Growers Association in cooperation with UNH Cooperative Extension.

### **Alternatives for *Acer platanoides* (Norway maple)**

Norway maple, introduced from Europe in 1756, has become one of the most frequently planted and occurring street trees in the U.S., especially in the eastern and north central regions of the country. Its popularity can be explained by its rapid early growth rate, site adaptability, ease of transplanting, and tolerance of urban conditions, including exposure to road salt. In addition, the cultivar 'Crimson King' has attractive maroon-red leaves all summer, and has become a favorite shade tree for home and commercial landscapes.

When selecting an alternative for this large-growing, attractive shade tree, consider the conditions at the intended planting site. While there is no shortage of desirable tree species to choose from, most are not as widely adaptable and tolerant as Norway maple.

Some salt tolerant shade trees, listed from largest to smallest mature size:

Red maple (*Acer rubrum*) has red spring color when in bloom, turning green as the foliage appears. Although red maple is native throughout much of the east, cold hardiness of seedlings or grafted varieties is not always consistent and it is important to purchase plants from northern sources. Red maple will tolerate wet soils. 75' tall by 60' wide at maturity.

Northern red oak (*Quercus rubra*) is sometimes difficult to establish and slow to start growing, but makes a nice green shade tree for lawn areas. Acorns may become an annoyance to some people, but the squirrels love them. 75' tall by 60' wide.

**Ginkgo** (*Ginkgo biloba*) is slow-growing but very long lived, and has a nice, clear yellow fall color. It is salt, heat and drought tolerant, making it a good urban tree if given adequate room to grow. Female trees are undesirable because they have malodorous fruit. 75' tall by 40' wide.

**Japanese tree lilac** (*Syringa reticulata*) is a good choice for a smaller tree, 30' x 20' at maturity; smaller cultivars are available. It has lilac-type white blossoms in mid-summer (but lacks the lilac fragrance) and attractive cherry-like bark. 'Ivory Silk' is a popular cultivar selected for compact form and prolific bloom. (Note: Can become weedy in some areas.)

Some red-leafed trees:

**European beech** (*Fagus sylvatica*) Nothing is more beautiful than the purple-leaved 'Riversii' European beech, one of the few large shade trees with purple leaves. This tree becomes enormous over time, however, so should not be used as a street tree or in other areas with limited growth potential. The nuts provide excellent wildlife food. 60' tall by 45' wide.

**Flowering crabapple** or plum (*Malus* varieties; *Prunus cerasifera*): For those who must have a purple-leaved tree, a few cultivars of flowering crabapple, plum and cherry fit this order. However, these are all much smaller than Norway maple. Choose disease-resistant, zone-hardy cultivars and prepare to tolerate pests, such as Eastern tent caterpillar. Cherry and plum are often subject to winter injury, as well as diseases such as black-knot, and may be short-lived, especially north of zone 5. Both *Malus* and *Prunus* species provide fruit and cover for birds and other animals, and serve as hosts to many butterfly species in the larval stage.

Some crabapple varieties that have purple leaves and good disease resistance include 'Purple Prince' and 'Thunderchild'. 'Pink Princess' and 'Pink Spires' have purplish-green foliage and moderate to good resistance. 15'-20' tall by 12-25' wide, depending on variety. Zone 4.

Flowering plum (*Prunus cerasifera*) varieties with purple leaves include 'Atropurpurea', 'Newport', 'Mount Saint Helens', and 'Thundercloud'. The latter is restricted to zone 5 or warmer, while the others are suitable for zone 4. Mature sizes vary; 15-30' high and 15-25' wide.

For more information on selecting shade trees for urban or landscape situations, refer to *Selecting Trees for Urban Landscape Ecosystems*, published by the N.H. Department of Resources and Economic Development, Division of Forests and Lands, Concord N.H.

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## New Hampshire Prohibited Invasive Species List

(\*indicates species already prohibited in NH since 1998)

<i>Ailanthus altissima</i>	Tree of heaven
<i>Alliaria petiolata</i>	Garlic mustard
<i>Berberis vulgaris</i>	European barberry
<i>Butomous umbellata</i> *	Flowering rush
<i>Cabomba caroliniana</i> *	Fanwort
<i>Celastrus orbiculatus</i>	Oriental bittersweet
<i>Cynanchum nigrum</i>	Black swallow-wort
<i>Cynanchum rossicum</i>	Pale swallow-wort
<i>Egeria densa</i> *	Brazilian elodea
<i>Elaeagnus umbellata</i>	Autumn olive
<i>Heracleum mantegazzianum</i>	Giant hogweed
<i>Hydrilla verticillata</i> *	Hydrilla
<i>Hydrocharis morsus-ranae</i> *	European frogbit
<i>Iris pseudoacorus</i>	Water-flag iris
<i>Ligustrum obtusifolium</i>	Blunt-leaved privet
<i>Lonicera bella</i>	Showy bush honeysuckle
<i>Lonicera japonica</i>	Japanese honeysuckle
<i>Lonicera morrowii</i>	Morrow's honeysuckle
<i>Lonicera tatarica</i>	Tatarian honeysuckle
<i>Lythrum salicaria</i> *	Purple loosestrife
<i>Myriophyllum aquaticum</i> *	Parrot feather
<i>Myriophyllum heterophyllum</i> *	Variable milfoil
<i>Myriophyllum spicatum</i> *	European water-milfoil
<i>Najas minor</i> *	European naiad
<i>Nymphoides peltata</i> *	Yellow floating heart
<i>Phragmites australis</i> *	Common reed
<i>Polygonum cuspidatum</i>	Japanese knotweed
<i>Potamogeton crispus</i> *	Curly-leaf pondweed
<i>Rhamnus cathartica</i>	Common buckthorn
<i>Rhamnus frangula</i>	Glossy buckthorn
<i>Rosa multiflora</i>	Multiflora rose
<i>Trapa natans</i> *	Water chestnut

Prohibited Invasive Species as of Jan. 1, 2007

<i>Acer platanoides</i>	Norway maple
<i>Berberis thunbergii</i>	Japanese barberry
<i>Euonymus alatus</i>	Burning bush