



URBAN TREES FOR USE UNDER UTILITY LINES

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Selecting trees for use under utility lines presents a unique challenge. It is often desirable to have trees that are large enough to provide shade, architectural effects, and ornamental features, all without interfering with overhead utility lines. Below we have listed trees that have a typical mature height of less than 30 ft. In most cases the mature height listed is very optimistic. If growing conditions are not ideal, the mature height can be considerably less than what is indicated. The height of utility lines vary considerably and care should be taken to select trees with mature sizes that are less than the overhead clearance. If possible, it is often desirable to set trees back from the utility lines. In doing so, larger maturing trees (see HIL 8638, *Large Trees for North Carolina*) can be selected if they are planted at a distance of $\frac{1}{2}$ the diameter of the mature crown from the wires.

In certain cases, specific cultivars have been listed below. These cultivated varieties may have particular merit due to exceptional ornamental features or due to a unique form, size, or habit. The hardiness ratings

presented conform to the USDA hardiness zone map. Zones 6, 7, and 8 correspond roughly to the Mountains, Piedmont, and Coastal Plain regions of North Carolina, respectively.

All planting sites are different and no single species is suited for all sites and locations. Consideration should always be given to local soil conditions, occurrence of diseases and insects, microclimate, hardiness zone, and mature tree size when selecting any plant. Maintaining a good diversity of species in any landscape planting will help ensure that insects, diseases, and changing environmental conditions will not, at some point, result in widespread problems. Use of different species of trees for each adjacent block of street tree plantings is a good practice. As a general rule, it is desirable to have not more than 10% of the trees in an urban area of any one genus and not more than 5% of the trees of any one species.

Although this list includes many desirable plants, it is not all inclusive. Experimentation with new introductions and cultivars is encouraged.

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Species	Cultivar(s)	Hardiness Zones	Mature Ht/Wd (ft)	Form	Special Considerations/ Limitations
<i>Acer buergeranum</i>	limited availability of cultivars	5-8	30/30	oval rounded	Very adaptable, no substantial problems.
<i>Acer ginnala</i> Amur Maple	'Flame' var. <i>smenowii</i>	2-7 2-7	25/25 15/15	rounded	Leaf spot and <i>Verticillium</i> wilt have been reported.
<i>Acer griseum</i> Paperbark Maple	limited availability of cultivars	4-7	30/25	oval	Exfoliating bark, slow grower, no serious problems. Best in well-drained sites.
<i>Acer leucoderme</i> Chalkbark Maple	limited availability of cultivars	5-9	30/25	oval rounded	Good fall color, tolerates dryness. Avoid poorly drained sites.
<i>Acer nikoense</i> Nikko Maple	limited availability of cultivars	5-7	25/25	vase/round	Good fall color, slow growing, does best on well-drained sites.
<i>Acer palmatum</i> Japanese Maple	'Bloodgood' 'Crimson Queen' 'Sango Kaku'	6-8 6-8 6-8	20/20 10/13 22/18	rounded globe globe	Require well-drained, but moist soil conditions. Slow growing and expensive.
<i>Acer platanoides</i> Norway Maple	'Globosum'	4-6	15/18	globose	Tolerates urban conditions. Shallow roots and various disease and insects are reported.
<i>Acer tataricum</i> Tatarian Maple	'Rubrum'	3-7	20/15	rounded	Must train/prune to tree form, good fall color.
<i>Acer triflorum</i> Three-flower Maple	limited availability of cultivars	5-7	30/30	upright/ rounded	Good bark, foliage, and fall color. Needs low pH.
<i>Acer truncatum</i> Purpleblow Maple	limited availability of cultivars	4-8	25/20	round headed tree	Good fall color. Tolerates dry conditions. Tar spot has been reported.
<i>Amelanchier spp.</i> Serviceberry	'Autumn Brilliance' 'Princess Diana' 'Robin Hill' Spring Glory™ Tradition™	4-7 4-7 4-7 4-7	25/20 25/20 30/15 15/10 30/15	ovate rounded ovate ovate ovate	White flowers, good fall color, fruit is good wildlife food. Fire blight, lace bugs, and mites can be problems. Tolerates partial shade.
<i>Caragana arborescens</i> Siberian Peashrub	species 'Sutherland'	2-6 2-6	20/18 20/12	oval upright	Stress tolerant, yellow flowers (May). Leaf-hoppers can be a problem.
<i>Cercis canadensis</i> Eastern Redbud	species var. <i>alba</i> 'Forest Pansy' 'Flame'	4-9 4-9 6-9 5-9	25/25 25/25 25/25 25/25	spreading spreading spreading spreading	Requires adequate drainage, tolerates some shade. Canker disease can be a problem.
<i>Cercis canadensis</i> ssp. <i>texensis</i> Texas Redbud	'Oklahoma' 'Texas White'	7-9 7-9	18/18 18/18	spreading spreading	Large flowers, thick leathery leaves. Canker disease can be a problem.
<i>Cornus kousa</i> Kousa Dogwood	'Milky Way Select'	5-8	20/20	rounded	Tolerates part shade. Good flowers, fruit and fall color.
<i>Cotinus coggygria</i> Smoketree	'Daydream'	5-8	15/15	open	Adaptable, <i>Verticillium</i> wilt.

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<i>Cotinus obovatus</i> American Smoketree	limited availability of cultivars	4-8	25/25	rounded	Excellent fall color.
<i>Crataegus viridis</i> Green Hawthorn	'Winter King'	4-7	30/30	rounded vase	Tolerates dry soils and poor drainage.
<i>Tetradium daniellii</i> * Korean Evodia	limited availability of cultivars	4-8	30/30	rounded	Adaptable, dark lustrous foliage, white flowers in July.
<i>Heptacodium miconioides</i> Seven-Sons Flower	limited availability of cultivars	6-8	20/10	open vase	Autumn flowering, needs to be pruned/trained to tree form.
<i>Hovenia dulcis</i> * Japanese Raisintree	limited availability of cultivars	6-7	30/20	oval	No serious problems, adaptable.
<i>Ilex spp.</i> Hollies	'East Palatka' 'Foster's #2' 'Nellie R. Stevens'	7-9 6-9 6-9	25/15 25/12 25/15	pyramidal pyramidal broad pyr.	No serious problems. Tolerates dry soils and pollution.
<i>Lagerstroemia spp.</i> Crapemyrtle	'Apalachee' 'Osage' 'Sioux' 'Yuma' 'Choctaw' 'Natchez'	7-9 7-9 7-9 7-9 7-9 7-9	15/12 15/12 15/12 15/12 20/20 25/20	upright arching vase vase vase vase	Adaptable. Aphids can be a problem on certain cultivars. See HIL 8642, <i>Crapemyrtles for North Carolina</i> , for more information.
<i>Maackia amurensis</i> * Amur Maackia	limited availability of cultivars	3-7	30/30	round	White flowers in June, exfoliating bark, adaptable.
<i>Magnolia spp.</i> Magnolia	'Ann' 'Ballerina' 'Betty' 'Merrill' <i>stellata</i>	5-8 3-8 5-8 3-8 5-8	20/15 20/20 20/15 25/25 20/15	upright rounded upright rounded rounded	Best on moist but well-drained soils.
<i>Malus spp.</i> Flowering Crabapple	'Adirondack' 'David' <i>floribunda</i> 'Prairifire' Sugar Tyme®	4-8 4-8 4-8 4-8 4-8	18/10 12/12 18/25 20/20 18/15	upright rounded horizontal spreading oval	These varieties are recommended based on superior ornamental merit as well as good disease resistance. See HIL 8613, <i>Superior Crabapple Trees for the Landscape</i> , for more information.
<i>Myrica cerifera</i> Southern Waxmyrtle	limited availability of cultivars	7-9	20/20	upright/ rounded	Can be trained/pruned to a tree form. Tolerates salt. Anthracnos can be a problem.
<i>Prunus caroliniana</i> Carolina Cherrylaurel	limited availability of cultivars	7-10	20/15	oval	Can be trained/pruned to a tree form. Leaf spot. Best on well-drained soils.
<i>Prunus cerasifera</i> Cherry Plum	'Krauter Vesuvius' 'Thundercloud'	5-8 5-8	20/15 20/20	oval rounded	Purple foliage. More tolerant of poor drainage than other <i>Prunus spp.</i>
<i>Prunus mume</i> Japanese Apricot	over 250 cultivars	6-9	20/20	rounded	Winter flowering. Best on well-drained sites.
<i>Prunus serrulata</i> Japanese Cherry	'Amanogawa' 'Shogetsu'	6-8 6-8	25/8 18/18	columnar rounded	Best on well-drained sites. Japanese beetles, root rot.

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<i>Prunus x spp.</i> Hybrid Cherries	'Accolade' Big Cis <i>blireiana</i> 'Hally Jolivette' 'Newport' 'Okame' 'Snow Goose' 'Spire'	4-7 2-8 5-8 5-8 5-8 5-8 5-7	25/25 14/12 20/20 20/20 20/20 25/20 25/25 30/12	open rounded rounded rounded rounded ovate rounded fastigate	Best on well-drained sites. Japanese beetles and root-rot can be problems.
<i>Styrax japonicus</i> Japanese Snowbell	'Emerald Pagoda' 'Pink Chimes'	5-8 5-8	30/25 25/20	oval/round upright	Flowers in May/June.
<i>Syringa oblata</i> var. <i>dilatata</i> Early Lilac	limited availability of cultivars	4-7	12/10	oval	Profuse early flowering (April), red/purple fall color.
<i>Syringa reticulata</i> Japanese Tree Lilac	'Ivory Silk' 'Summer Snow'	3-7 3-7	30/20 25/25	ovate globose	Large white fragrant flowers in June.
<i>Thuja orientalis</i> Oriental Arborvitae	species	6-9	25/15	columnar	Many cultivars available. Bagworm and mites can be problems.
<i>Viburnum prunifolium</i> Blackhaw Viburnum	limited availability of cultivars	3-9	18/12	rounded	Needs to be pruned/trained to a tree form. Tolerates dry soils. Few problems.
<i>Viburnum sieboldii</i> Siebold Viburnum	'Seneca'	4-7	20/15	open	Must be trained/pruned to a tree form.
<i>Xanthoceras sorbifolium</i> * Yellowhorn	limited availability of cultivars	4-6	20/15	upright	Striking white flowers (May). Tolerates high pH.

* Limited testing in North Carolina and should only be used on an experimental basis.

For Further Reading

Bir, R.E. 1992. *Growing and propagating showy native woody plants*. The University of North Carolina Press, Chapel Hill, NC.

Dirr, M.A. 1990. *Manual of woody landscape plants: Their identification, ornamental characteristics, culture, propagation and use*. 4th. ed., Stipes, Champaign, IL.

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