

Pennsylvania TreeVitalize
Tree Species for Metropolitan Areas



Zones: 5-6, see NOTES and KEY on last page.

Scientific Name	Common Name	Comments	Avail.
LARGE TREES > 40 feet			
<i>Acer rubrum</i> cvs.	Red Maple	overplanted, but tolerates wet/clay soils; choose for form and fall color; 'Franksred' recommended	h
<i>Acer x freemanni</i> 'Autumn Blaze'	Autumn Blaze' Freeman Maple	red & silver maple cross; broad oval; excellent orange-red long lasting color; upright var. good for sidewalk cuts	h
<i>Acer x freemanni</i> 'Celzam'	Celebration' Freeman Maple	red & silver maple cross; upright-pyramidal; golden-yellow to red	h
<i>Acer saccharum</i>	Sugar Maple	'Legacy' recommended, but not for street tree or parking lot use, sensitive to road salt	l
<i>Catalpa speciosa</i>	Northern Catalpa	parks only, large seed pods, locate carefully	l
<i>Celtis occidentalis</i>	Common Hackberry	good tree but hard to find; fruit favored by birds	l
<i>Cercidiphyllum japonicum</i>	Katsura-tree	not drought tolerant, not a street tree	l
<i>Corylus colurna</i>	Turkish Filbert	once established tolerates drought, wide pH range, other adverse conditions	m
<i>Eucommia ulmoides</i>	Hardy Rubber Tree	nice tree; low availability; good tree for planting in sidewalk cuts	l
<i>Ginkgo biloba</i>	Maidenhair-tree/ Ginkgo	select males only; good for planting in sidewalk cuts	l
<i>Gleditsia triacanthos</i> var. <i>inermis</i>	Thornless Honeylocust	R, S ; tough as nails, good for streets & parking lots; sometimes overused; Allentown bans for sidewalk lifting	h
<i>Gymnocladus dioica</i>	Kentucky Coffeetree	hard to find; lg seed (seedless 'Macho'); doesn't look like much for first few years growth	l
<i>Liquidambar styraciflura</i>	Sweetgum	parks, not for streets; large seed (seedless 'Rotundiloba'); may lift sidewalks; some not cold hardy in N PA	m
<i>Liriodendron tulipifera</i>	Tuliptree/Yellow-poplar	needs space, gets big; parks mostly but ok for street tree	l
<i>Magnolia acuminata</i>	Cucumber Magnolia	needs space, gets big; parks mostly but ok for street tree	l
<i>Magnolia grandiflora</i> cvs.	Southern Magnolia cultivars	not cold hardy in NE PA	l
<i>Metasequoia glyptostroboides</i>	Dawn Redwood	great tree for lg area; prune up for street tree; stock size small; transplants B&B easily, bare root ok	m
<i>Nyssa sylvatica</i>	Black Tupelo/Black Gum	S ; great tree; can be used on streets; difficult to transplant: use small B&B only	l
<i>Platanus occidentalis</i>	American Sycamore	R ; anthracnose problematic - do not use on streets or parks	l
<i>Platanus x acerifolia</i>	London Plane-tree	R ; great tree; needs space; 'Bloodgood' is the best	h
<i>Quercus acutissima</i>	Sawtooth Oak	S ; lots of acorns; possibly invasive	m
<i>Quercus alba</i>	White Oak	good tree but hard to find; hard to establish	l
<i>Quercus bicolor</i>	Swamp White Oak	R ; very good tree; no fall color but transplants well even bare root & tolerates wet clay soils	h
<i>Quercus coccinea</i>	Scarlet Oak	difficult to transplant B&B or bare root	m
<i>Quercus ellipsoidalis</i>	Northern Pin Oak	less chlorotic than <i>Q. palustris</i> but not tolerant of alkaline soils	l
<i>Quercus imbricaria</i>	Shingle Oak	very good tree; limited supply; difficult to transplant B&B or bare root	l
<i>Quercus macrocarpa</i>	Bur Oak	grows big, park use primarily; difficult to transplant B&B or bare root: use small caliper; golf ball size acorns!	m
<i>Quercus palustris</i>	Pin Oak	R ; transplants well B&B or bare root (fall); lower branches droop; obscure scale a problem; chlorotic in high pH	h
<i>Quercus phellos</i>	Willow Oak	lower branches droop; chlorotic in high pH soils; not cold hardy in NE PA	l
<i>Quercus robur</i>	English Oak	S ; many columnar cultivars for narrow spaces; powdery mildew serious problem	m

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<i>Quercus rubra</i>	Red Oak	S ; great tree in NE PA; uniform lustrous green leaves; high pH limits use;oak wilt; leaf scorch a concern in south	m
<i>Quercus shumardii</i>	Shumard Oak	good tree; seldom insect or disease problems; high pH limits use	
<i>Sophora japonica</i>	Japanese Pagodatree/Scholar-tree	S ; messy fruit; gets necrotic canker when young	m
<i>Sorbus alnifolia</i>	Korean Mountainash	least susceptible Sorbus to borers; harder wood so less storm damage; showy white flower clusters	
<i>Taxodium distichum</i>	Common Baldcypress	S, R ; good tree for wet clay soils; needs sun	l
<i>Tilia americana</i>	American Linden	R ; needs space, gets big; fast growth	l
<i>Tilia cordata</i>	Littleleaf linden	broad tree; branch forks usually too tight; declines due to salt & drought; aphids & honeydew problem	l
<i>Tilia tomentosa</i>	Silver Linden	better Tilia selection; more heat & drought tolerant; no honeydew problem (aphids dislike pubescence)	l
<i>Ulmus parvifolia</i>	Chinese Elm	high urban tolerance; problems: roots in sewer pipes, poor form & structure, insects; 'Athens' a great cultivar	
<i>Ulmus spp.</i>	Elm species	R, S ; 'Accolade', 'Homestead', 'Groenveldt' do well planted bare root on streets	m
<i>Zelkova serrata</i>	Zelkova	S ; very good tree;'Halka' has open form, less included bark; avoid 'GreenVase'; non-cultivar very tall & wide; S	m

MEDIUM TREES 30 - 40 feet

<i>Acer buergerianum</i>	Trident Maple	good street tree; low availability	l
<i>Acer griseum</i>	Paperbark Maple	not for street tree use: too expensive, slow grower, low availability	m
<i>Acer truncatum</i>	Shantung/ Painted Maple	S ; good street tree with low branches removed	l
<i>Aesculus x carnea</i>	Red Horsechestnut	limited street tree use: seed is an issue, is too small when planted; 'Briotii' almost seedless;not drought tolerant	l
<i>Betula nigra</i> 'Heritage'	Heritage River Birch	R ; only single stem form suitable for street tree use; multistem clumps suitable in parks or riparian zones	m
<i>Betula utilis</i> ' Jacquemontii'	Whitebarked Himalayan Birch	R	m
<i>Carpinus betulus</i>	European Hornbeam	typically low branched and must be pruned up for street tree use; good for planting in sidewalk cuts	
<i>Carpinus caroliniana</i>	American Hornbeam	slow growth, not very drought tolerant; low availability	l
<i>Cercis canadensis cvs.</i>	Eastern Redbud	S ; choose for flower and form	h
<i>Cornus kousa.</i>	Kousa dogwood	not for street tree use, excellent for planting around buildings; not drought tolerant	h
<i>Crataegus crusgalli</i> var. 'Inermis'	Thornless Cockspur Hawthorn	R, S ; thornless variety; low availability	l
<i>Crataegus laevigata</i> 'Crimson Cloud'	Crimson Cloud or English Hawthorn	leaf spot defoliates by July in SE PA, aphids, fire blight, major dieback with time in NE PA	m
<i>Crataegus viridis</i> 'Winterking'	Winterking' Hawthorn	S ; locate carefully, thorns!	h
<i>Halesia carolina</i>	Carolina Silverbell	low availability	l
<i>Koelreuteria paniculata</i>	Goldenraintree	S ; long yellow flower clusters mid-summer; relatively pest free	m
<i>Maackia amurensis</i>	Amur Maackia	interesting bark, late summer flower	l
<i>Magnolia</i> 'Galaxy'	Galaxy Magnolia	nice tree; beautiful flowers; low availability	l
<i>Ostrya virginiana</i>	Hophornbeam	difficult to transplant, slow to recover; very sensitive to salt; does not do well in SE-- cankers, low vigor	l
<i>Oxydendrum arboreum</i>	Sourwood	Slow growth rate; not pollution tolerant	l
<i>Phellodendron amurense</i>	Amur Corktree	not for street tree use: shallow, spreading root system	l
<i>Prunus sargentii</i>	Sargent Cherry	S ; a hardy cherry; 'Columnar' recommended	m
<i>Pyrus calleryana</i>	Callery Pear	good: 'Cleveland Select', 'Chanticleer', 'Capital'; bad: 'Bradford', 'Redspire'; invasive, only use in downtowns	l
<i>Sorbus x hybrida</i> & <i>S. x thuringiaca</i>	Oak-Leaf Mountainash	for small areas and under wires	

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SMALL TREES < 30 feet			
<i>Acer ginnala</i>	Amur Maple	usually shrub form, but single stem form can do well under wires	m
<i>Acer campestre</i>	Hedge Maple	S ; 'Queen Elizabeth' not cold hardy	m
<i>Acer tataricum</i>	Tatarian Maple	S ; often shrub-like, specify single stem form	l
<i>Acer triflorum</i>	Three-flower Maple	may be as wide as it is tall	l
<i>Amelanchier laevis</i>	Allegheny Serviceberry	nice tree; needs some shade, full sun heat causes insect problems (mites); lots of great x grandiflora cultivars	h
<i>Magnolia stellata</i>	Star Magnolia	beautiful white fragrant flowers in spring, but susceptible to frost damage	h
<i>Malus spp.</i>	Crabapple species; many	Choose for form, flower and disease resistance, S	h
<i>Malus spp.</i>	Adams'	disease resistant	m
<i>Malus spp.</i>	Centurion'	disease resistant	
<i>Malus spp.</i>	Donald Wyman'	disease resistant	l
<i>Malus spp.</i>	Indian Magic'	disease resistant	m
<i>Malus spp.</i>	Mary Potter'	disease resistant	l
<i>Malus spp.</i>	Ormiston Roy'	disease resistant	l
<i>Malus spp.</i>	Prairiefire'	disease resistant	m
<i>Malus spp.</i>	Professor Sprenger'	disease resistant	m
<i>Malus spp.</i>	Sargentii'	disease resistant	l
<i>Malus spp.</i>	Snowdrift'	disease resistant	l
<i>Malus spp.</i>	Sugar Tyme'	disease resistant	m
<i>Malus spp.</i>	x Zumi 'Calocarpa'	disease resistant	l
<i>Parrotia persica</i>	Persian Parrotia	very ornamental bark; showy red flower stamens in early spring; relatively pest free	
<i>Prunus serrulata cvs.</i>	Japanese Flowering Cherry	cultivars are important; try 'Accolade', 'Okame', 'Autumnalis'; don't plant 'Kwanzan'	h
<i>Prunus virginiana</i> 'Schubert'	Common Chokecherry	Schubert' has nice reddish-purple leaves; black knot a serious disease in NE PA: lives only 10-15 years	m
<i>Syringa reticulata</i> 'Ivory Silk'	Ivory Silk Japanese Tree Lilac	great street tree but susceptible to vandalism: brittle when young; creamy white flower clusters in spring	m
<i>Syringa reticulata</i> 'Summer Snow'	Summer Snow Japanese Tree Lilac	same flowers as 'Ivory Silk', grows slower	m

NOTES:

Availability **h** (high availability), **m** (moderate availability), **l** (low availability)

KEY:

S = species observed to have some salt tolerance

R = species suited for Riparian or stream buffer zones

REFERENCES:

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Jason Lubar - Morris Arboretum

Al Sam - State College Borough Urban Forester

Bill Elmendorf - PSU Assistant Professor of Urban Forestry

Vincent Cotrone - PSU Extension Urban Forester

Julianne Scheiffer - PSU Extension Urban Forester

Manual of Woody Landscape Plants - Michael A. Dirr

Recommended Urban Trees: Tree Selection for Stress Tolerance - Cornell University

Landscape Tree Factsheets - Pennsylvania State University

Creating the Urban Forest: The Bare Root Method - Cornell University

TreeVitalize SD-F-Acceptable Tree Species
