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Deciduous Trees for Ohio

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Selecting the Proper Tree

Deciduous trees are those that drop their leaves in late fall and go dormant for the winter season. They re-leaf in the spring with the return of more sunlight and warmer temperatures. While most people choose a tree for its shade, growth rate, or flowers alone, there are other considerations that are equally important. Consider these parameters as you select a deciduous tree for your landscape:

- Be sure that the tree is hardy to the USDA hardiness zone where you live to ensure that it will survive an average Ohio winter.
- Consider how big (height and width) the tree will be when mature. Will it fit into the space you have available? Will it interfere with overhead wires?
- Choose a tree that matches your site conditions. Will it get the proper sun exposure, moisture, and soil pH?
- Make sure your selection fulfills the function you want the plant to serve — whether for shade, screening, or spring flowers.
- Select a tree that is resistant to known pests and diseases, if possible.
- Finally, be aware of the amount of maintenance required. Some trees require lots of attention to thrive. Others, if misplaced in the landscape, can become maintenance headaches, such as large trees planted in small spaces that constantly need pruning.

Understanding Tree Names

Trees have both scientific and common names. While most people find common names easier to remember, it's important to realize that some plants have multiple common names, but only one scientific name. Therefore, the scientific name is more specific, and you can be certain that you are buying the tree you want. Trees in nurseries are usually tagged with the scientific name, but not always the common name. Know your tree's name when you go shopping for it.

The scientific name, which is either italicized, underlined, or in bold type, consists of the genus name and the specific epithet. Together, these make up the species name. For example, the maple genus name is *Acer*, while *rubrum* and *palmatum* are specific epithets. Within the maple genus there are many species, such as *Acer rubrum* and *Acer palmatum*. The common name for *Acer rubrum* is Red Maple, and the common name for *Acer palmatum* is Japanese Maple.

There may be several types of *Acer rubrum* known as "cultivars" or "varieties." A cultivar is a particular plant that has been selected for a specific quality and then propagated, while a variety is a naturally occurring variation within the species. For example, several cultivars of *Acer rubrum* are 'Red Sunset,' 'Northwood,' and 'Autumn Flame.' Each has characteristics that set it apart from the others. Cultivar names are written in single quotes.

Tree Tables

The tables in this fact sheet give basic information on deciduous trees that are recommended for Ohio; the trees are organized by mature height. All of the trees listed are hardy to Zone 5, which means that they can generally withstand the winter temperature extremes of Ohio. If you live in Zone 6, you may want to do some additional research on trees that are hardy for the southern half of Ohio. Once you have selected several trees that will fit your needs, you will want to do more in-depth research about them. A list of suggested resources is at the end of this fact sheet.

Trees that are native to Ohio are noted. For more complete information on native trees, see the reference to Ohio State University Extension's bulletin, *The Native Plants of Ohio*, in the resource section.

Desirable Trees

Small Species — Height: 15' to 30'

Name	Attraction	Limitation	Comments
Acer ginnala Amur Maple	Yellow flowers; dark striations on bark; easily transplanted.	Abundant seed can be a problem.	Multi-stemmed habit requires pruning if tree form is desirable. Variable fall color; select cultivar for this trait.
Acer griseum Paperbark Maple	Exfoliating cinnamon brown bark; beautiful russet-red fall color; few disease and pest problems.	Expensive because difficult to cultivate commercially. Slow growing.	Transplant in spring.
Acer palmatum Japanese Maple	Single or multi-stemmed form. Leaves vary in shape by cultivar. Good fall color.	Slow growing. Can be expensive.	Can be used as a specimen plant. Plant in a protected site. Hundreds of cultivars available.
Acer tataricum Tatarian Maple	Greenish-white flower panicles; tolerant of soil alkalinity and drought.	May be hard to find; slow-grower.	Requires pruning to maintain tree form.
Aesculus pavia Red Buckeye	Red flowers in spring. Select a cultivar for best flowers.	Loses leaves early, in late September.	Grows best in full sun, but will tolerate some shade. Can be grown as a small tree or multi-stemmed, large shrub.
Amelanchier spp. Serviceberry *Amelanchier arborea* and *laevis* are native.	Attractive flowers, bark, and fruit; excellent orange to red fall color. Nice winter form.	Somewhat susceptible to pests and diseases.	Woodland edge plant that can be a multi-stemmed shrub or tree-form. Considered a "four-season plant."
Cercis canadensis Eastern Redbud Native	Good for naturalized settings; attractive reddish-purple flowers in early spring; very adaptable.	Numerous small dead branches; some disease and insect problems. Can be short-lived.	Prefers alkaline soil and partial shade.
Cornus florida Flowering Dogwood Native	Unique layered branching for winter effect; beautiful flowers with showy red fruit; excellent fall foliage color; red to reddish-purple.	Susceptible to many pests including borer and anthracnose. Not tolerant of pollution or soil moisture extremes; marginally hardy.	Woodland edge plant. Many cultivars are available. Often improperly sited in full sun, so tree becomes stressed and susceptible to borers.

Name	Attraction	Limitation	Comments
Cornus kousa Kousa Dogwood	Horizontal branching makes for good winter character; reddish-purple to scarlet fall color; beautiful white to pink bracts ("flowers") in June.	Grows best in acid soil; fruit can be litter problem; somewhat difficult to grow.	Woodland edge plant. Blooms later than the flowering dogwood.
Crataegus spp. Hawthorn *C. phaenopyrum* is native.	Tolerates adverse sites; white flowers; attractive bark and fruit.	Thorns and dense branching habits; flowers have disagreeable odor; susceptible to rust disease.	Various forms by species. Thornless cultivars are available.
Magnolia stellata Star Magnolia	Good accent plant; attractive white flowers.	Grows best in acid soil; flower buds and flowers sometimes killed by spring frost.	Plant in sheltered location; avoid southern exposures.
Magnolia virginiana Sweetbay Magnolia	Medium to fast grower; multi-stemmed; can be used as a specimen. Tolerates shade. Flowers are lightly scented.	Flowers are not outstanding, but can be noticed close up.	No serious problems. Several cultivars are available.
Malus spp. Flowering Crabapple	Attractive flowers and fruit; various sizes and shapes.	Prone to suckers and water sprouts; some cultivars are highly susceptible to scab disease (fungus).	See Suggested Resources — Special Circular 157 for cultivar descriptions.
Syringa reticulata Japanese Tree Lilac	Compact habit; good for small areas; white flowers in June; reddish-brown bark.	Holds flower panicles for extended period, which may be considered unattractive.	Flower fragrance not appealing to some.

Medium Species — Height: 30' to 45'

Name	Attraction	Limitation	Comment
Acer campestre Hedge Maple	Disease and pest resistant, good for alkaline soils.	Slow-growing, develops water sprouts.	Can be used for hedges.
Betula nigra River Birch Native	Interesting exfoliating bark; good for wet areas; fast grower; more pest resistant than other birches.	Develops iron chlorosis in alkaline soil pH; multi-stem is the most common form.	Transplants well. Prune in summer only (this tree "bleeds" copious sap if pruned in late winter).

Name	Attraction	Limitation	Comment
Carpinus betulus European Hornbeam	Low maintenance tree; tolerates wide range of soils; nice, yellow fall color.	Minor disease and pest problems.	Withstands heavy pruning; can be used for hedges.
Cercidiphyllum japonicum Katsuratree	Interesting shaggy bark; fast-grower; leaves emerge as reddish-purple.	May be difficult to establish. Does not tolerate drought and compacted soils.	Leaves give off cinnamon and brown sugar odor when crushed.
Eucommia ulmoides Hardy Rubber Tree	Tolerates broad range of site conditions; no serious disease or insect problems.	Poor fall color (yellowish-green); may be difficult to find in the trade.	A functional tree for tough sites.
Koelreuteria paniculata Goldenraintree	Tolerant of urban conditions; beautiful, yellow panicled flowers in July; no serious diseases or insects.	Leaves may be damaged by late spring frosts. Marginally hardy in northern Ohio.	Requires occasional pruning to maintain shape; transplants best in spring.
Magnolia x *loebneri* Loebner magnolia	Attractive white flowers; good specimen plant.	Plant in sheltered location to protect flower buds from spring frost.	
Nyssa sylvatica Black Gum Native	Excellent specimen tree with outstanding summer and fall foliage and habit. Great fall color — yellow to orange to red to purple.	Slow-grower. Requires acid soil with pH 5.5 to 6.5. Has some disease problems.	Difficult to transplant; plant in spring.
Ostrya virginiana American Hophornbeam	Few pest problems; attractive bark, fruit, and foliage.	Slow to re-establish; sensitive to salt; may be difficult to find.	Yellow fall leaves drop early.
Phellodendron amurense Amur Corktree	Pest free; tolerates urban conditions; transplants easily.	Requires ample space for its shallow, spreading root system.	
Prunus sargentii Sargent Cherry	Attractive flowers, foliage, and bark; requires little maintenance.	Short-lived (20 years); susceptible to occasional pest problems.	Borers can severely damage trees.

Name	Attraction	Limitation	Comment
Pyrus calleryana Callery pear	Tolerant of adverse conditions; attractive foliage and flowers. A plant that is effective in all four seasons.	'Bradford' cultivar is over-planted and short-lived; brittle wood and tight branching habit leads to storm breakage.	Pruning is key to reducing storm damage and eliminating poor branching. Choose cultivars other than 'Bradford.'
Quercus acutissima Sawtooth Oak	Suited to smaller spaces than most other oaks; tolerates adverse conditions.	Susceptible to iron chlorosis; requires space for wide branching.	Holds leaves throughout winter.
Ulmus parvifolia Lacebark Elm, Chinese Elm	Resistant to insects and diseases; beautiful mottled bark; tolerant of adverse conditions.	Needs ample clearance from sidewalks, curbs, and sewer lines.	Do not confuse with Siberian Elm (*Ulmus pumila*), an undesirable species.

Large Species — Height: More Than 45'

Name	Attraction	Limitation	Comment
Acer platanoides Norway Maple	Good shade tree; fast-growing; easily transplanted; adaptable.	Susceptible to Verticillium wilt; surface roots can cause problems with paving and sewer lines.	May develop frost cracks in south or southwest exposures. Girdling roots are often a problem. Overused in landscapes.
Acer rubrum Red Maple Native	Fast-grower; smooth gray bark; brilliant yellow or red fall color.	Susceptible to leaf scorch and chlorosis (Mn deficiency); thin bark can be easily damaged. Some cultivars are susceptible to Verticillium wilt; research carefully.	Numerous cultivars available; often selected for fall color.
Acer saccharum Sugar Maple Native	Brilliant yellow fall color; good suburban tree. Nice growth habit.	Avoid compacted or dry soils; not tolerant of urban stresses.	One of the best shade and open-lawn trees; not for crowded conditions.
Fagus grandifolia American Beech Native	Beautiful bronze fall color; smooth gray bark.	Not tolerant of wet or compacted soil; difficult to grow grass underneath this tree. Difficult to transplant.	Good for parks and large-area use; nuts are edible. Adversely affected by construction over root zone.
Fraxinus americana White Ash Native	Stately tree; provides medium shade; maroon to yellow fall color.	Sensitive to drought; susceptible to numerous diseases and pests.	Choose cultivars for good reddish-maroon to purple fall color.

Name	Attraction	Limitation	Comment
Fraxinus pennsylvanica Green Ash Native	Withstands urban stresses; provides medium shade.	Abundant seeds and flower galls on female trees can be a nuisance, susceptible to numerous pests.	Wet site plant.
Ginkgo biloba Ginkgo	Pest resistant; tolerates urban stresses; wonderful yellow fall color.	Fruit on female trees is messy and foul-smelling. Slow growing.	Choose male cultivars. Pyramidal form when young; variable and distinctive with age.
Gleditsia triacanthos Honeylocust	Nice yellow fall color; provides light shade; one of the most salt-tolerant trees.	Some cultivars are highly susceptible to numerous diseases and pests. Species has thorns; select a cultivar for landscape use.	Over-planted in urban areas; carefully consider this tree before selecting.
Gymnocladus dioicus Kentucky Coffeetree Native	Free of diseases and pests; provides light shade; good specimen tree.	Not tolerant of shady sites; branch breakage and pods can cause litter problem.	Coarse winter texture; fine summer texture. Seed poisonous to humans but rarely fatal; foliage and shoots highly toxic.
Liquidambar styraciflua Sweetgum Native	Rich yellow-purple-red tones in the fall; symmetrical shape.	Susceptible to iron chlorosis and other pest and diseases. Slow growing.	Prefers slightly acidic soil pH; fruit can be a nuisance.
Liriodendron tulipifera Tuliptree Native	Beautiful tree when in the proper setting; pretty yellow-green-orange tulip-like flowers.	Soft bark is easily damaged by lawn equipment. Aphids and scale insects may be a problem. May drop leaves during drought. Weak-wooded.	Good for parks and large-area use; dropped flowers and fruit can be a litter problem.
Quercus alba White Oak Native	Brown to wine fall color.		Acorns can be a litter problem.
Quercus bicolor Swamp White Oak Native	Transplants more readily than other white oaks. More tolerant of heavy soil than other oaks.		Acorns can be a litter problem.

Name	Attraction	Limitation	Comment
Quercus phellos Willow Oak	Interesting lance-shaped leaf; transplants more successfully than most oaks.	Marginally hardy in northern to central Ohio; not common. Plant in protected areas.	Good for park and large-area use; acorns can be a litter problem.
Quercus imbricaria Shingle Oak Native	Attractive leaves; tolerates city conditions; transplants more easily than other oaks.	Susceptible to twig galls and leaf miner problems.	Acorns less of a litter problem than with other oaks.
Quercus macrocarpa Bur Oak Native	Large, stately tree; tolerates urban stresses. Drought tolerant.		Acorns are larger than any other oak.
Quercus palustris Pin Oak Native	Attractive pyramidal shape; red fall color.	Highly susceptible to iron chlorosis when grown in alkaline soil conditions. Leaf and twig galls common.	Acorns can be a litter problem.
Quercus robur English Oak	Tolerates variety of conditions.	Mildew on leaves is often a problem.	Acorns can be a litter problem.
Quercus rubra Northern Red Oak Native	Tolerates urban conditions; perhaps the fastest-growing oak for landscapes; transplants easily.	Susceptible to iron chlorosis and galls.	Acorns can be a litter problem. Nice fall color.
Quercus shumardi Shumard Oak Native	Resistant to chlorosis; good russet-red fall color; drought-tolerant.	Susceptible to usual oak pests and diseases.	Acorns can be a litter problem.
Sassafras albidum Sassafras	Resistant to pests and diseases; variable leaf shapes; outstanding orange to scarlet fall color.	Susceptible to chlorosis; basal sprouts require frequent pruning. Difficult to transplant.	Aromatic bark, stems, and roots.
Sophora japonica Japanese Pagoda Tree	Tolerates wide range of city conditions; long, white, fragrant panicled flowers.	Flowers stain concrete; susceptible to minor pests and diseases.	One of few trees to flower in late summer.

Name	Attraction	Limitation	Comment
Tilia americana American Linden, Basswood Native	Reasonably adaptable to urban conditions.	Intolerant of salt; susceptible to minor pests and diseases; basal sprouts require occasional pruning.	Japanese beetle can devastate trees if they are prevalent in an area.
Tilia cordata Littleleaf Linden	Good shade tree; more tolerant of heat and compacted soil than *T. americana*.	Somewhat sensitive to drought and salt; susceptible to pests and diseases; basal sprouts require occasional pruning.	Japanese beetle can devastate trees if they are prevalent in an area. Adapts to above-ground planters.
Tilia tomentosa Silver Linden	Fast-grower; fragrant yellowish-white flowers; tolerates heat, drought, and pollution better than other Lindens.	Susceptible to minor pests and diseases; basal sprouts require occasional pruning.	Rich-scented flowers are narcotic to bees; gets its name from the silver color on the underside of the leaf.
Zelkova serrata Japanese Zelkova	Good substitute for American Elm; good tolerance of suburban environments; resistant to Dutch elm disease and most other pests. Fast growing.	Splitting due to narrow branch angles; young trees susceptible to frost.	Plant in spring.

Less Desirable Trees for the Home Landscape

Trees in this list may be less desirable for use in the home landscape due to ultimate size, pest problems, structural problems, limited ornamental value, or messiness. However, there very well may be situations where these plants would be useful. Carefully consider the limitations of these plants before selecting them for landscape use.

Name	Attraction	Limitation
Acer negundo Boxelder	Medium to large tree; great for stabilizing stream banks; survives under difficult conditions. Fast growing.	Susceptible to many pests and diseases; litter problems. Soft wood may split in ice storms.
Acer saccharinum Silver Maple Native	Large tree; great for stabilizing stream banks; survives under difficult conditions. Fast growing.	Vigorous root system will cause problems with sidewalks and sewers. Susceptible to chlorosis, scorch, pests, some diseases, and is over-planted.
Aesculus glabra Ohio Buckeye Native	Showy flowers in spring.	Tends to develop leaf scorch. Leaves drop prematurely in drought. Leaf blotch, a fungal disease is not uncommon.

Name	Attraction	Limitation
Ailanthus altissima Tree of Heaven	Survives in polluted areas. Fast growing; 3'–5' per year.	Little landscape value; leaves and fruit have foul odor. Splits in ice storms.
Catalpa speciosa Catalpa	Beautiful orchid-like flowers; great shade tree; survives under difficult conditions.	Limited landscape value because of coarseness; brittle wood causes litter problems.
Celtis occidentalis Common Hackberry Native	Adaptable to a wide range of soil conditions. Performs well under difficult environmental conditions.	Susceptible to several diseases and insect pests, some of which can disfigure the tree.
Elaeagnus angustifolia Russian Olive	Good for hedges and wind screens; survives under difficult conditions; corrects nitrogen problems in soil.	Highly susceptible to Verticillium wilt and other diseases and pests; thorny branches. Invasive.
Gingko biloba (female) Gingko	Interesting leaf shape. Good for large landscapes.	Fruit is extremely objectionable — messy and smelly.
Maclura pomerifera Osage Orange, Hedge Apple	Tough and durable tree; good for hedgerows.	Large fruit creates extreme litter problems; thorny branches.
Morus species Mulberry Native	Attractive berries; great for wildlife.	Litter problems from droppings of birds that eat the fruit. Berries and bird droppings stain surfaces.
Platanus occidentalis American Sycamore Native	Great for stabilizing stream banks; interesting white mottled bark.	Susceptible to anthracnose; constantly dropping leaves, twigs, bark, and fruits.
Populus deltoides Eastern Cottonwood Native	Great for stabilizing stream banks.	Constant litter from leaves and twigs; highly susceptible to diseases and pests; vigorous roots cause problems with tiles and sewers. Cottony seeds are messy.
Prunus cerasifera Purpleleaf Plum, Cherry Plum	Small tree with attractive purple foliage.	Highly susceptible to many pests and diseases; short-lived; overused.

Name	Attraction	Limitation
Pyrus calleryana 'Bradford' Bradford Pear	Fast-growing; attractive fragrant white flowers; uniform shape.	Extremely weak-wooded; narrow branch crotches make this tree very susceptible to storm breakage; highly over-planted.
Robinia pseudoacacia Black Locust Native	Used for reclaiming strip-mined areas; corrects nitrogen problems in soil; survives under difficult conditions.	Becomes ragged and scraggly with age; thorny branches; aggressive propagation by seed and root sprouts; susceptible to locust borer.
Salix species Willow	Best for stabilizing stream banks.	Litter problems from leaves, broken twigs, and branches; weak wood makes it prone to extensive storm damage; vigorous root system will cause problems with sidewalks and sewers.
Sorbus aucuparia European Mountain Ash	Excellent clustered-fruit effect.	Highly susceptible to fireblight as well as other diseases and pests; not tolerant of poor conditions. Short-lived.
Ulmus species (except *U. parvifolia*) Elm	Large stately trees; great for wet areas.	Highly susceptible to diseases (especially Dutch Elm disease) and pests.

Suggested Resources

Dirr, Michael A. 1998. *Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation, and Uses.* Stipes Publishing Company.

Draper, Erik A., James A. Chatfield, Kenneth D. Cochran, Peter W. Bristol, David E. Allen. 1998. *Comprehensive Aesthetic Evaluations of Crabapples at Secrest Arboretum in Wooster: 1993-1997.*

Hightshoe, Gary L. 1987. *Native Trees, Shrubs, and Vines for Urban and Rural America: A Planting Design Manual for Environmental Designers.* John Wiley & Sons.

Rose, Mary A., James Chatfield. 1998. *Ornamental Plants: Annual Reports and Research Reviews.* Special Circular 157. Ohio Agricultural Research and Development Center. The Ohio State University. (Crabapple evaluations.)

Rose, Mary A., Cassandra Sheaffer. *The Native Plants of Ohio*. Ohio State University Extension Bulletin No. 865. The Ohio State University. 1998. This bulletin is available on the *Ohioline* website at: **ohioline.ag.ohio-state.edu/b865/index.html**

Rose, Mary Ann, Elton Smith. *Preparation for Planting Landscape Plants.* Ohio State University Extension Fact Sheet No. 1014-97. Available at: **ohioline.ag.ohio-state.edu/hyg-fact/1000/1014.html.**

Check out the Ohio State University Department of Horticulture and Crop Science's *Plant Dictionary* web site at **www.hcs.ohio-state.edu/plants.html.** This is a searchable site that provides photographs of plants, cultural information, usage, and more.

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http://ohioline.ag.ohio-state.edu

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