

How to Select a Tree



- A high-quality tree has:**
- a root ball with a diameter equal to or exceeding a ratio of 12" for each inch of diameter at the base of the trunk (caliper).
 - a single leader or central trunk or well-spaced, multi-stemmed trunk that does not show signs of crowding or stem squeeze.
 - a trunk free of mechanical wounds and wounds from incorrect pruning.
 - a strong form with well-spaced, firmly attached branches along the upper two-thirds of the trunk.
 - leaves with good color and no obvious insect or disease damage.



- A low-quality tree has:**
- crushed or circling roots in a small root ball or small container.
 - a trunk with wounds from mechanical impacts or incorrect pruning.
 - a weak form in which multiple stems squeeze against each other or branches squeeze against the trunk.
 - undersized or discolored leaves.

TIP Smaller trees establish more quickly and grow faster because fewer roots are lost in transplanting.

Up-and-coming Selections

The following trees have been identified by the *Under The Canopy* Editing Team as soon-to-be-popular trees with desirable features for urban settings:

Early Glow™ Buckeye
Aesculus glabra 'J.N. Select'

Crescendo™ Sugar Maple
Acer saccharum 'Morton'

Purple Catalpa
Catalpa x erubescens 'Purpurea'

White Shield Osage-orange
Maclura pomifera 'White Shield'

Emperor™ Ginkgo
Ginkgo biloba 'Woodstock'

Cobblestone® Oak
Quercus macrocarpa 'JFS-KW14'

Urban Pinnacle® Oak
Quercus macrocarpa 'JFS-KW3' PP 22815

Exclamation!™ London Planetree
Platanus x acerifolia 'Morton Circle'

Commendation™ Elm
Ulmus 'Morton Stalwart'

New Horizon Elm
Ulmus japonica x pumila 'New Horizon' PP 8684

UNDER THE CANOPY

CREATING PERSONAL GREENSPACE



A GUIDE TO
SELECTING, PLANTING AND
CARING FOR TREES IN ILLINOIS



Second Edition

Updated tree recommendations and up-and-coming selections

Sponsors



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Council



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[FSC Certification
information will be
added]

Planning Your Landscape

What a difference trees make in our communities! Stately and beautiful sentries, they clean our air and provide shady respite for our homes and outdoor family activities while inviting songbirds into our yards and gardens.

Working together, we can maximize the benefits trees provide to you and your community. This guide will assist you in planning your landscape, planting new trees and providing our leafy friends with proper care and maintenance. Please recycle this brochure by sharing it with a friend.

In Your Planning, Consider:

Season: For best results, plant trees from mid-March through May or from mid-September through November. Spring-dug trees can be planted from June to early September, but require a more attentive watering program. Attentive watering also helps conifers transplant well in mid-summer, but only after candle/shoot elongation is complete.

Site: Soil conditions dictate how well or poorly your tree will grow. Compacted clay—common in newer subdivisions—can limit proper drainage. Sandy soils or those on a slope may drain more quickly and require a more drought-tolerant species. Low areas that are often wet may require a tree tolerant to flooding or wet soil conditions. In addition, consider the amount of sunlight needed and tolerance to extremely hot or cold temperatures.

Space: Give your tree sufficient room to grow, both above the ground for canopy and below the ground for its root system. Consider proximity to buildings, driveways, sidewalks, pools, patios and overhead, underground and ground-level utilities.

Selection: Once you have determined your purpose, planting site and space requirements, use the tree species selection guide for urban trees recommended by local arborists. By carefully selecting the right tree for your location, you can avoid the need for fertilization, which is a major source of water pollution.

Have a Purpose

- Create a privacy buffer or winter wind-break. Dense evergreens north and northwest of a home block winter winds.
- Cool your home and conserve energy by shading roof, walls, patios, driveways and air conditioning unit. Deciduous trees on the east, southeast, west and southwest sides of homes provide cooling summer shade and allow warming winter sun.
- Preserve special views from within your home.
- Attract birds and other wildlife.
- Beautify your property.

Right Tree/Right Place Checklist

Soil

Most new subdivision soils have been disturbed and are poorly drained clay.

- | | |
|---------------------------------------------|--------------------------------|
| <input type="checkbox"/> Well drained/Dry | <input type="checkbox"/> Sandy |
| <input type="checkbox"/> Poorly drained/Wet | <input type="checkbox"/> Loam |
| <input type="checkbox"/> Shallow soil depth | <input type="checkbox"/> Clay |

Space

Consider the mature height and spread of the tree.

- | | |
|-------------------------------------------------------------|--------------------------------------------------|
| <input type="checkbox"/> Open space | <input type="checkbox"/> Adjacent building |
| <input type="checkbox"/> Important views | <input type="checkbox"/> Other landscaping/trees |
| <input type="checkbox"/> Overhead and underground utilities | |
| <input type="checkbox"/> Road signs or streetlights | |

Sunlight

Most trees require partial to full sun.

- | | |
|-------------------------------------|-------------------------------------------|
| <input type="checkbox"/> Full sun | <input type="checkbox"/> Partial sunlight |
| <input type="checkbox"/> Full shade | |

Characteristics

Unique attributes of trees can be attractive in all seasons.

- | | |
|-------------------------------------------------|------------------------------------------|
| <input type="checkbox"/> Flowering | <input type="checkbox"/> Fall leaf color |
| <input type="checkbox"/> Fruiting | <input type="checkbox"/> Unique shape |
| <input type="checkbox"/> Bark texture and color | |

Types of Trees

Only evergreen trees hold foliage throughout winter.

- | | |
|------------------------------------|------------------------------------|
| <input type="checkbox"/> Deciduous | <input type="checkbox"/> Evergreen |
|------------------------------------|------------------------------------|

Special Situations

You may have additional site considerations.

- ☐ Salt burn from street and sidewalk de-icers
- ☐ Root space restrictions
- ☐ Disturbed soils from construction
- ☐ Future landscape or hardscape development

Trees near utility lines should be no taller than 20 feet at mature size.

Large shade trees generally should be planted at least 30 feet from overhead utility lines.

If an existing tree is too close to a building, consult a Certified Arborist before considering removal. A healthy, well-maintained tree can functionally coexist within close proximity to buildings.

Small trees are best suited close to house, but should be spaced at least 10 feet from house.

Medium to large trees should be located 20 to 25 feet from buildings.

Maintain a plant-free zone for unobstructed visibility.

Plant private trees at least 5 feet from public sidewalks.

Hardest trees belong on parkway.

TIP

In areas of new home construction, it's best to establish lawns before planting trees since irrigating new turf can easily over-water newly planted trees. Plan to plant new trees the year following a new lawn.

Proper Tree Spacing

Above-ground space for canopy

Small trees = 20 feet minimum

Medium trees = 30 feet minimum

Large trees = 40 feet minimum

Below-ground space for roots (minimum 2-foot soil depth)

Small trees = 100 to 200 square feet

Medium trees = 150 to 300 square feet

Large trees = 200 to 400 square feet



Always Avoid:

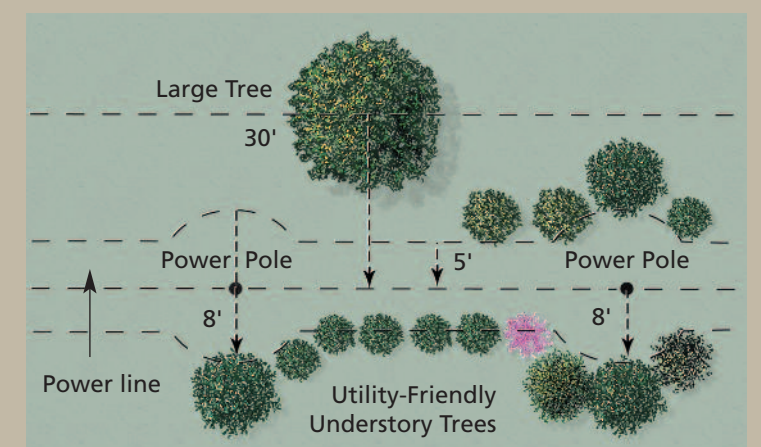
- blocking traffic signs, fire hydrants, views of oncoming traffic, pedestrian crosswalks and desirable night lighting. City ordinances may require planting permits and dictate corner planting setbacks.
- planting too close to sidewalks, foundations or other pavement areas.
- planting trees or shrubs around underground utilities.
- planting flowers in root areas of young trees.
- planting trees too close together. Allow room for mature spread of each adjacent tree.
- blocking desirable views from within a home or frequented area of the yard.
- shading gardens.
- encroaching on neighbor's gardens or yard space without consultation.
- planting too many of the same species.
- planting evergreen trees on parkways.

Planting Near Utility Lines

Plant only utility-friendly trees (mature height of 20 feet or less) within 15 feet of utility lines; no closer than 8 feet to power poles; and 5 feet from center of utility easement when access to utility is limited.

Some narrow-shaped trees may be able to survive closer than 30 feet to utility lines without creating a conflict, but in no case should trees that grow to or above utility lines be planted closer than a distance equal to one-half their mature spread.

Suggested tree setbacks from power lines are for typical overhead residential distribution lines and do not apply to high-voltage transmission rights-of-way.



Tree Species Selection Guide for Illinois

These trees are just a start. There is an abundance of tree species, many native to Illinois, suitable for planting in urban and rural landscapes. See your local nursery or tree specialist for guidance.

Common <i>Scientific Name</i>		At Maturity		Growth Rate*	Preferred Planting Season	Desirable Features	Adaptability	Considerations
		Height	Spread					
SMALL TREES	Allegheny Serviceberry ▲ <i>Amelanchier laevis</i> (N)	20'-30'	15'-20'	Medium	Spring/Fall	Profuse, white, fragrant flowers in spring. Edible fruit. Yellow/orange/red fall color.	Shade tolerant but also thrives in full sun. Drought sensitive. Prefers well drained, moist, acid soil.	Attractive all-season tree with multiple stems and rounded crown. Not a good choice for new subdivisions as it is not a reliable grower under high stress conditions.
	Blackhaw Viburnum <i>Viburnum prunifolium</i> (N)	10'-15'	10'-15'	Slow-Medium	Spring/Fall	Creamy white flowers in spring. Reddish-purple fall color. Edible fruit used to make preserves.	Adaptable to many soils, including dry conditions. Easily transplanted. Sun or shade.	Interesting small specimen tree or multi-stemmed shrub with horizontal branching. Fruit makes it best to locate away from sidewalks, driveways and parking lots. Prone to suckering.
	Corneliancherry Dogwood <i>Cornus mas</i>	15'-20'	15'-20'	Slow	Spring	One of the first trees to bloom in spring with clusters of bright yellow flowers. Fruit brilliant red. Attractive winter bark. Very pest-free plant.	Adapts to most soil types and pH levels. Full sun to part shade. Young trees easily transplanted.	Very pest-free plant. One of the most durable Dogwoods for Midwestern conditions.
	Crabapple <i>Malus</i> spp.	10'-30'	8'-20'	Medium	Spring/Fall	Spring flower color varies depending on cultivar. Showy fruit adds red, red-orange, and golden yellow colors to the fall landscape.	For optimum development, plant in full sun. Prefers moist soil, but will tolerate dry conditions.	Beautiful, small flowering tree. Choose disease-resistant species/cultivars such as 'Camelot', 'Donald Wyman', 'Luwick', 'Prairifire', Red Jewel™, Royal Raindrops®, 'Sinai Fire', 'Sugar Tyme', and Sargent.
	Fox Valley® River Birch ▲ <i>Betula nigra</i> 'Little King' (N)	8'-10'	10'-15'	Medium	Spring/Fall	Exfoliating bark with pale salmon and cinnamon-red on trunks and main branches that shows at a young age. Bright green foliage with sheen. Excellent resistance to bronze birch borer.	Easily transplanted. Adapts well to most soil types and growing conditions. Heat and drought tolerant.	Wonderful alternative to other small ornamental trees. Neat, compact, low-branching habit is unique for species and perfect for limited space applications. A unique dwarf selection of a native Illinois tree.
	The Rising Sun™ Redbud ▲ <i>Cercis canadensis</i> 'The Rising Sun' (N)	12'-15'	12'-15'	Medium	Spring/Fall	Small tree with full shape whose rosy-orchid, sweet pea-like flowers appear before spring foliage. The newly emerging tangerine and peach colored leaves are an attractive feature through spring and summer.	New tree introduced in 2010 that is reported to be drought resistant and cold hardy to zone 5. Adaptable to full sun or partial shade and many soil types.	The Rising Sun™ is perfect for smaller spaces and in-town neighborhoods as well as for specimen and accent plantings. A discovered selection of redbud featuring colorful changing leaves.
	Sweetbay Magnolia <i>Magnolia virginiana</i>	10'-20'	10'-20'	Medium	Spring	Cream-colored, lemon-scented flowers in late spring. Glossy green foliage that flashes its silvery white underside in the breeze. Dark red fruit.	May have hardiness issues in the northern part of the state. Requires acid soil. Tolerates wet conditions and shade. For a large Magnolia, try Cucumber Magnolia—cold hardy throughout IL.	Illinois cultivars to choose from: 'Mayer', introduction from Urbana IL, JC McDaniel; 'Moonglow', from Jacksonville IL, Earl Cully; 'Havener', from Mt. Pulaski IL, JC McDaniel
MEDIUM TREES	White Fringetree <i>Chionanthus virginicus</i>	12'-20'	12'-20'	Slow	Spring/Fall	Drooping clusters of white, fragrant flowers with long fringe-like petals in June just as leaves are filling in. Dark blue fruit.	Likes full sun and moist, acid soil. Very tolerant of urban conditions.	Outstanding flowering tree/shrub that will draw attention. Rarely requires pruning. Flowers at an early age. Fruit relished by birds.
	American Hophornbeam <i>Ostrya virginiana</i> (N)	30'-40'	20'-30'	Slow	Spring	Unusual ornamental fruit that resemble hops. Interesting shredding-like bark.	Very sensitive to salt. Intolerant of severe urban stresses. Partial shade or full sun. Recovers slowly from transplanting.	Attractive small to medium-sized, understory tree with horizontal or drooping branches. Best suited for wide parkway or sufficient open space to allow horizontal branching to stretch out.
	American Hornbeam <i>Carpinus caroliniana</i> (N)	20'-35'	20'-35'	Slow	Spring	Yellow/orange/red fall color. Irregularly fluted smooth gray bark is similar in appearance to a muscular arm hence its nickname musclewood.	Somewhat difficult to transplant and prefers late winter/early spring planting. Tolerates heavy shade and periodic flooding. Adaptable to clay soils.	Well suited for small spaces on shady suburban or rural sites. Often multi-trunked.
	American Smoketree <i>Cotinus obovatus</i>	20'- 35'	10'-20'	Medium	Spring/Fall	Plume-like flowers create smoke-like effect. Yellow/amber to red/purple fall color.	Well-adapted to limestone soils but can tolerate a wide variety of soils and pH ranges. Sunny location preferred.	Top choice for intense fall color. Large upright shrub or medium, round-headed tree. Susceptible to Verticillium Wilt so do not plant near known infected areas. Rare in nursery trade but worth the search.
	Carolina Silverbell <i>Halesia carolina</i> (N)	30'-40'	20'-35'	Medium	Spring	White, bell-shaped spring flowers.	Sun to part shade. Prefers moist, well-drained acid soil. Intolerant to drought. Protect from afternoon sun. Can become chlorotic in high pH soils.	Handsome, native flowering tree that thrives in shady areas.
	Frontier Elm ▲ <i>Ulmus</i> 'Frontier'	25'-40'	20'-30'	Fast	Spring/Fall	Lustrous foliage emerges reddish in spring, turning green in summer, and a lovely purple-red in fall. High tolerance to Dutch elm disease and elm yellows, moderate resistance to elm leaf beetle. Seedless.	Transplants easily and grows well in a wide range of climates. Very tolerant of urban conditions, drought, poor soil and compaction.	Handsome medium-sized, vase-shaped tree that better suits the space constraints of most residential yards. Fall color is a bonus.
	Katsuratree <i>Cercidiphyllum japonicum</i>	40'-50'	20'-50'	Medium	Spring	Reddish-purple, heart-shaped foliage changes to bluish green in summer and yellow to apricot in fall.	Somewhat difficult to transplant and needs supplemental watering during dry, hot periods or leaf drop may occur. Prefers rich, well-drained soil. Protect from afternoon sun.	Magnificent tree for a variety of locations. Unusual spicy cinnamon odor during leaf drop.
	Miyabe Maple <i>Acer miyabei</i>	40'-50'	20'-25'	Medium	Spring/Fall	Handsome corky bark and yellow fall color.	Prefers moist, well-drained soil. Tolerant of urban conditions. Cold hardy alternative to Hedge Maple for northern Illinois.	Cultivar 'State Street'™ ('Morton') is a Chicagoland Grows® introduction, selected from the Morton Arboretum. Hardy, long-lived tree and an excellent alternative to Norway Maple.
	Paperbark Maple <i>Acer griseum</i>	25'-35'	15'-30'	Slow	Spring	Cinnamon brown exfoliating bark. Russet-red fall color.	Full sun to part shade. Prefers well-drained soil, but tolerates alkaline or acid soil.	Outstanding season-long aesthetic qualities. Unique flaky multicolored bark adds interest to winter landscape. Extra care and pruning needed for optimum development.
EVERGREENS	Turkish Filbert <i>Corylus colurna</i>	40'-50'	35'-40'	Medium	Spring/Fall	Edible Filbert nuts (3-5) are enclosed in a wild-looking medusoid husk. Flaky, orange-brown bark. Disease and insect resistant.	Very tolerant of heat, cold and adverse conditions. Prefers full sun and well-drained location. Somewhat difficult to transplant. pH adaptable.	Stately tree with unique heavy-textured leaves, fruit and bark that thrives in adverse city conditions when Maples suffer.
	Concolor Fir <i>Abies concolor</i>	30'-50'	15'-30'	Slow-Medium	Spring/Fall	Beautiful blue foliage that resembles Blue Spruce but prettier and less prickly.	Withstands heat and cold and more urban tolerant than most firs. Prefers moist, well-drained soil. Dislikes heavy clay. Will tolerate light shade. Susceptible to windblown road salt.	Excellent Fir for the Midwest. Attractive growth habit and beautiful foliage. Also try Douglas Fir.
	Limber Pine <i>Pinus flexilis</i>	30'-50'	15'-30'	Slow	Spring/Fall	Deeply fissured scale like bark. Dark bluish-green foliage. Cones.	Transplants well. Tolerant to wind. Sun to part shade. Prefers moist, well-drained soil. Susceptible to windblown road salt.	Very adaptable, hardy species for Midwestern winters.
	Serbian Spruce <i>Picea omorika</i>	50'-60'	20'-25'	Slow-Medium	Spring/Fall	Superb dark green foliage and narrow pyramidal growth.	Prefers moist, rich, well-drained soil and semi-shade but adapts to full sun. Drought tolerant, pH adaptable and can tolerate city air. Does not tolerate poorly drained clay soils. Susceptible to windblown road salt.	A graceful, refined tree that tops other Spruces in looks. An excellent specimen tree. Also try Oriental Spruce.
LARGE TREES	American Basswood ▲ <i>Tilia americana</i> (N)	60'-80'	30'-50'	Medium	Spring/Fall	Fragrant flowers (that produce abundant nectar from which choice honey is made) are an attractive June feature. Seeds attract songbirds and blue jays.	Prefers moist, well-drained soils but tolerates dry alkaline soils and is pH adaptable. Likes full sun to partial shade. May be sensitive to air pollutants.	Large leaves produce a deep shade. May outgrow small yards. Cultivars American Sentry®, Continental Appeal™, Boulevard, and Legend® have distinct appeal.
	Baldcypress <i>Taxodium distichum</i> (N)	60'-80'	20'-45'	Medium	Spring	Fluted broad-spreading orange tinged trunk. Feathery, needle-like foliage that is yellow-green in spring and russet-red in fall. Round cones.	Requires sunny location and acid soil. Tolerates wet or dry sites but does not tolerate high pH. Wind resistant. Susceptible to windblown road salt.	Graceful deciduous conifer that makes a distinctive specimen. Also try the Earl Cully Illinois cultivar 'Shawnee Brave' that is more narrow in habit. A similar option is Dawn Redwood.
	Bur Oak <i>Quercus macrocarpa</i> (N)	70'-90'	60'-90'	Slow-Medium	Spring	Impressive size and habit when grown in open space. Lustrous green foliage in summer. Fringed capped acorns.	Can be difficult to transplant if root ball is not sufficiently sized. Very adaptable to range of soils, including clay. Requires full sun.	Massive, long-lived tree. Allow plenty of room. Attracts wildlife. Many champion sized Bur Oaks reside in Illinois. Try cultivar 'Heritage', an interesting Bur/English hybrid.
	Chinkapin Oak <i>Quercus muehlenbergii</i> (N)	40'-55'	40'-65'	Medium-Fast	Spring	Bold scaly gray bark on old historic tree specimens. Lustrous foliage. Yellow/orange/brown fall color. Sweet acorns are favorable to wildlife.	Can be difficult to transplant if root ball is not sufficiently sized. Tolerates alkaline soils. Requires full sun. Drought resistant.	Distinctive, Midwestern tree that requires large area. Also known as Yellow Chestnut Oak.
	Ginkgo (Male) <i>Ginkgo biloba</i>	50'-80'	40'-80'	Slow	Spring/Fall	Unusual fall leaf drop is a pleasurable experience (Ginkgo trees can have syn-chronized leaf drop in a matter of hours as a response to a night's first hard freeze and or day length). Unique fan-shaped foliage. Yellow fall color.	Easy to transplant. Durable tree that grows in almost any soil. Requires full sun. Growth rate can be dramatically increased with adequate watering.	An impressive tree in appearance and historical interest that improves with age. Exceptional fall color.
	Japanese Zelkova <i>Zelkova serrata</i>	50'-80'	40'-50'	Medium-Fast	Spring	Interesting patchy colored bark develops with age. Yellow/orange/brown to sometimes more intense reddish/purple fall color.	Transplants readily. Prefers well-drained soil. Once established, very wind and drought tolerant.	Unusual vase-shaped tree that is well suited to lawns and residential areas. Young trees are susceptible to frost.
	Kentucky Coffeetree (Male) <i>Gymnocladus dioicus</i> (N)	55'-75'	45'-65'	Medium	Spring/Fall	Pink/purple tinged leaves of spring changing to dark green in summer. Yel-low fall color.	Requires full sun. Adaptable to a wide range of growing conditions. Tolerant of urban areas.	One of the latest trees to leaf out and earliest to drop its leaves. Grass grows well underneath. Perfect tree for passive solar homes.
	Silver Linden <i>Tilia tomentosa</i>	60'-70'	45'-55'	Medium	Spring/Fall	Gleaming, two-toned foliage of dark green on upper side of leaves and silver underneath. Yellowish white, fragrant flower in early summer. May be more Japanese Beetle resistant than Littleleaf Linden.	Readily transplanted. Grows best on deep fertile soils, but is adaptable to pH. Full sun to part shade.	Stunning ornamental shade tree that tolerates heat and drought better than other lindens. Ideal for residential plantings.
	Sugar Hackberry <i>Celtis laevigata</i> (N)	50'-80'	50'-80'	Medium-Fast	Spring/Fall	Small fleshy fruit attracts birds and wildlife. Unique light gray bark can be smooth or covered with corky wart-like bumps.	Prefers rich, moist soils but also grows in dry, heavy, sandy, rocky soils. Wind resistant and tolerant of urban conditions. Requires full sun. Marginally cold hardy in northern Illinois.	Sturdy native tree for Midwestern prairie states. Performs well under adverse conditions. Common Hackberry is a better choice for northern Illinois.
	Swamp White Oak <i>Quercus bicolor</i> (N)	60'-80'	50'-80'	Medium	Spring	Ornate patchy bark with deep red, gray and brown hues. Two-toned foliage is dark green on top and silvery underneath. Yellow/copper fall color.	Transplants more readily than White Oaks. Tolerates drought and salt in urban environments. Requires full sun and acid soil.	Majestic, durable, long-lived tree that is a very imposing specimen when full grown. For an option 'Regal Prince' is an appealing Swamp White/English Oak hybrid.
	Triumph™ Elm ▲ <i>Ulmus</i> 'Morton Glossy'	50'-60'	40'-50'	Medium-Fast	Spring	Strong, upright branching with refined oval habit. Large lustrous dark green foliage turns yellow in fall. Disease and insect resistant, tolerant to drought.	Easily transplanted, balled and burlapped. Quick to establish and regain rapid growth. Adaptable to most soil types unless excessively wet.	Excellent shade tree for home landscapes or for along streets. Triumph™ Elm is one of several elms introduced from Chicagoland Grows®.

(N) = a species or a selection of an Illinois native tree ▲ = New Selection * **Growth Rates: Slow** = under 12" per year; **Medium** = 12" to 24" per year; **Fast** = 25" or more per year

Best Way to Plant a Tree

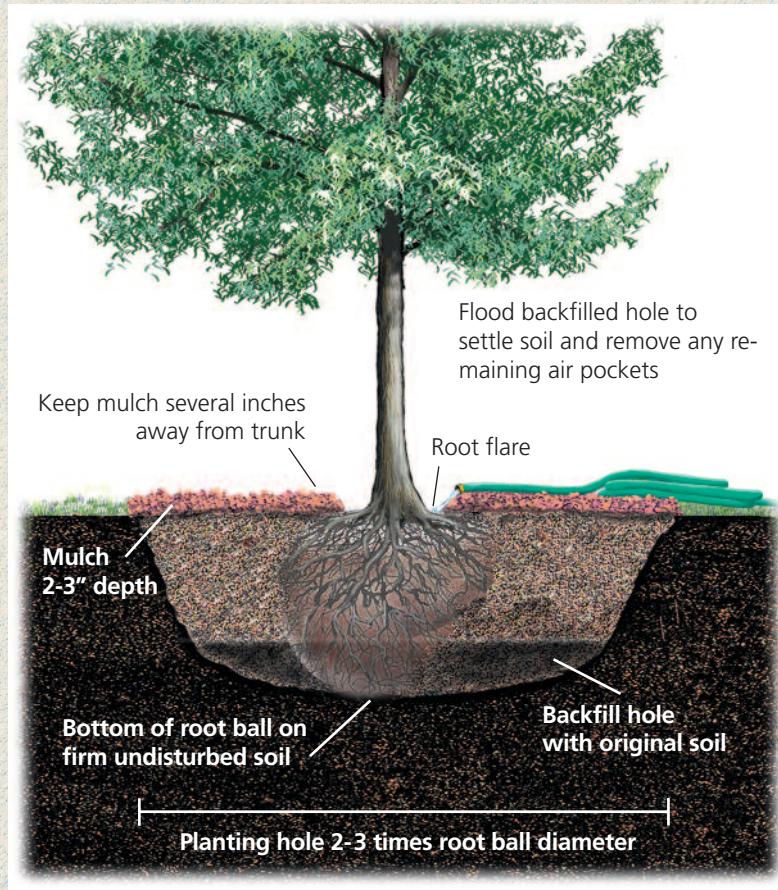
1. Call JULIE before you dig! Illinois law requires calling for underground utility locations at least two working days before digging. The number is 800-892-0123 and the service is free. Residents within the city limits of Chicago must call DIGGER at 312-744-7000.

2. Dig a hole that is at least 2 times wider than the root ball (3 times wider in compacted soil). For depth of hole, you will need to vertically measure a firm root ball. If it is not solid and moist, water root ball and let sit overnight. Next, measure from bottom of root ball to root flare (the point where the top-most root in the root ball originates from the trunk). You may need to scrape off excess soil to expose the root flare. The depth of the hole should be equal to or slightly less than this distance. The bottom of the root ball should sit on undisturbed soil. The top-most structural root should be 1 - 3 inches below the soil surface when measured at 4 inches from trunk. It is better to plant trees up to 3 inches shallow rather than too deep, especially in poorly-draining clay soils.

3. Carefully roll or lift tree into planting hole. Small container trees can be carefully removed from container and placed into hole. Circling roots, if present, should be straightened or trimmed. Balled and burlap trees should be left intact. Broken or damaged roots frequently result in the loss of newly-planted trees, so always lift trees by the root mass and never by the trunk. If tree is too heavy to lift, dig a ramp into planting hole and slowly roll it in.

4. Straighten and secure tree. Look at tree from two different angles, carefully adjusting tree so trunk is true vertical. Check both angles of view a second time, then secure tree by compacting soil with foot pressure around bottom third of root ball.

5. Cut away all burlap and twine above the bottom third of the root ball. If wire basket exists, cut top one or two rings of wire off and remove from hole. Never leave burlap, twine or wire material in hole, as these will create air gaps.



uations where the tree will not be able to stand on its own, such as in sandy soils or windy locations. If staking is used, make sure ties around tree are rubber cords/tubing or flat straps to avoid girdling as the tree grows. *Wire and garden hose combinations are not good.* Do not stake so tightly as to restrict trunk movement. All staking should be removed after one year so tree can naturally strengthen with wind movement.

9. Create a 2-inch to 3-inch thick mulch bed so the root ball has good air exchange and water access. Mulch an area around the base of the tree equal to 3 feet per inch of trunk diameter (2" tree = 6 foot diameter mulch area). If space is restricted, mulch as large an area as possible to limit turf and weed competition and retain moisture. Properly mulched trees can grow up to three times as fast as trees that have turf, flowers or weeds within the recommended mulch area. Don't overdo the amount of mulch; too much can suffocate a tree.

10. Inspect and water your new tree. It is important to keep the root ball moist but not saturated with light, frequent watering for the first two years of establishment.

6. Break up soil into small pebble-sized particles. Fill remainder of hole, lightly tamping every 4 to 6 inches. Amend backfill with 25% compost if soil has high clay content. Do not over compact the backfill, as soil needs to remain loose enough for good root development.

7. Settle backfill by thoroughly watering tree immediately after planting to settle soil. Be attentive, as the first watering is the time a tree may lean to one side, especially if root ball was loose or sandy. If that happens, tenderly pull tree back to straight position. Add more soil if settling occurs.

8. Stake tree only when necessary. Staking is not recommended except in sit-

Care and Pruning

Year Round Care

Spring

- Tree planting is good March through May.
- Replenish mulch to a depth of no more than 2 to 3 inches.

Summer

- Prune spring flowering trees and shrubs.
- New trees may need small amounts of water (1 gallon per trunk inch) every 3 to 5 days during July and August.
- Established trees need a thorough watering once a month during dry periods.
- Do not overwater! Excessive turf irrigation or tree watering can cause foliar diseases and drown trees.
- Inspect trees regularly for insect, disease or mechanical damage.
- Conifers can be transplanted after candle elongation.

Fall

- Tree planting is good September through November.
- Select tree species that are adaptable to fall season planting.
- Water trees beyond leaf drop, if soil becomes dry, until freezing temperatures arrive.

Winter

- Inspect trees for branch and structural problems.
- Most trees can be pruned, except for spring blooming trees.
- Water evergreens when winter temperatures warm to above freezing.
- Develop landscape designs and tree locations.

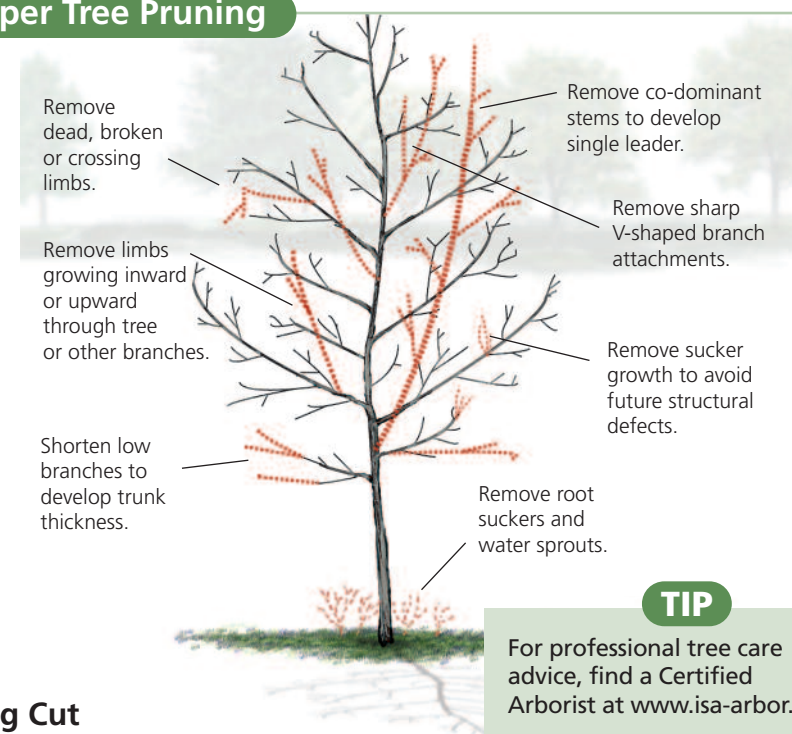
How Much Water?



The amount of water given to newly-planted trees should be carefully measured by slowly applying 1 gallon of water for each diameter inch of trunk every 5 to 7 days when there has been less than half an inch of rain during that week. Hot, dry periods, sandy soils or Southern climates may require watering every 3 to 5 days to keep soil sufficiently moist. Containerized trees grown in bark mix readily dry out and may require frequent light waterings throughout the week during summer months. Otherwise, do not water trees daily or drown young trees with long soakings or turf irrigation.

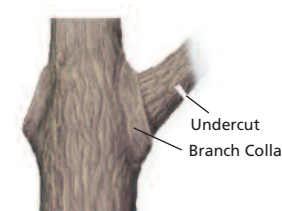
Proper Tree Pruning

- Limit pruning to dead or broken limbs for the first three years since foliage helps regenerate the root system.
- Wound dressing is not necessary.
- All pruning should be done at bud or branch junctions.
- Never prune any tree close to electrical lines.
- Always maintain the upper two-thirds of the tree in branches and foliage whenever possible.
- Never remove more than 25% of the tree's foliage in one season.
- Never top a tree, leave a stub or remove the branch collar by a flush cut.
- Always disinfect pruning tools with rubbing alcohol, Lysol® or Listerine® between trees (or between cuts on infected trees) to prevent the spread of disease.

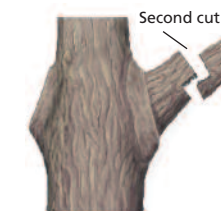


Three-Step Approach for a Proper Pruning Cut

1. Undercut 12-24" up from the branch collar. This stops the bark from tearing.



2. Make the second cut from the top all the way through the branch, 2-3" above cut #1.



3. The final cut should be just beyond the branch collar. Support the stub so it does not tear the bark.

