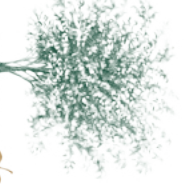
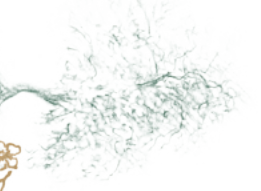


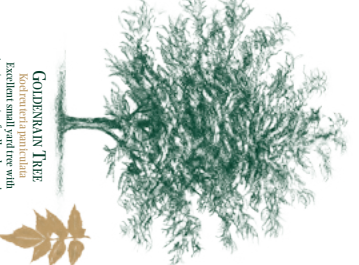
Recommended Trees For Planting In Bowling Green



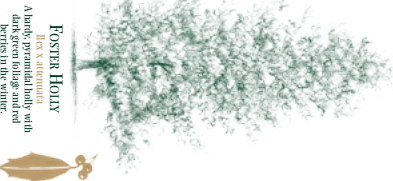
EASTERN REDBUD
Cercis canadensis - **NATIVE**
A small tree with clusters of lavender blossoms in early spring.



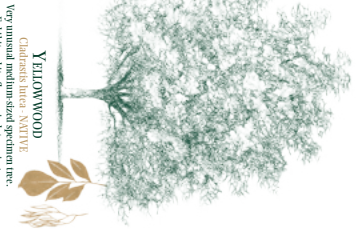
FLOWERING CANNALILY
Milvex sp.
Superb small tree, noted for its showy display of flowers and fruits. Many cultivars available. Excellent wildlife tree.



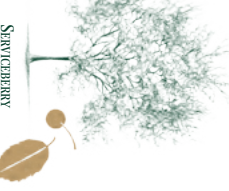
GOLDFINCH TREE
Boniretort parviflora
Excellent small yard tree with golden-yellow leaves in late summer.




FOSTER HOLLY
Ilex x alternata
A large, pyramidal bush with white berries in the winter.



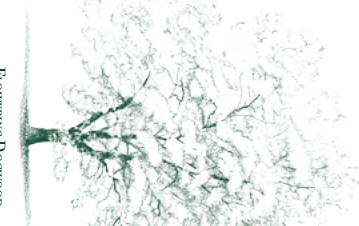
YELLOWWOOD
Cladonia lutea - **NATIVE**
Very unusual medium sized specimen tree. Exhibits white flowers in late spring.



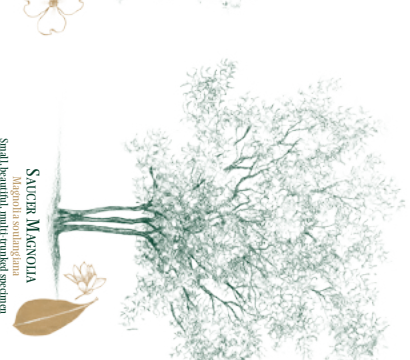
SERVICEBERRY
Amelanchier grandiflora - **NATIVE**
A small, pleasing, naturalistic tree used to best advantage in woodland settings. Good fall color.



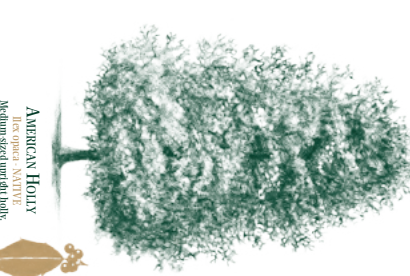
WASHINGTON HAWTHORNE
Crataegus phaenopyrum - **NATIVE**
A small tree, useful for dense foliage and winter fruit display.



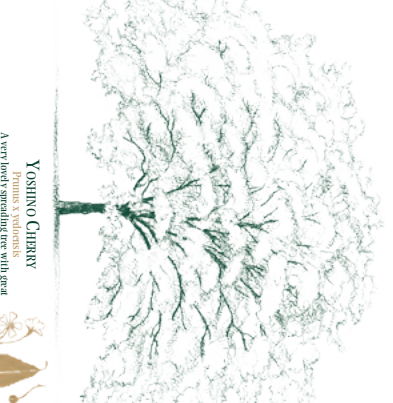
FLOWERING DOGWOOD
Cornus florida - **NATIVE**
A tree with clusters of white blossoms. Needs early morning sun.




SAUCER MAGNOLIA
Magnolia sauceriana
Small, spreading tree with white flowers.



AMERICAN HOLLY
Ilex opaca - **NATIVE**
Medium sized tree with red berries. Will grow well in half shade.



YOSHINO CHERRY
Prunus x yedoensis
A very large specimen tree with masses of white-pink flowers in the spring.



JAPANESE ZELKOVA
Elmora serrata
Medium sized tree with dense crown and a weeping shape.



SHINGLE OAK
Quercus muhlenbergii - **NATIVE**
A bushy, more upright tree with green foliage. Across small antiprized by wildlife. Some brown leaves may persist on lower branches through winter.



SOUTHERN MAGNOLIA
Magnolia grandiflora - **NATIVE**
A large, sturdy tree with glossy, dark, shiny, white and fragrant flowers.



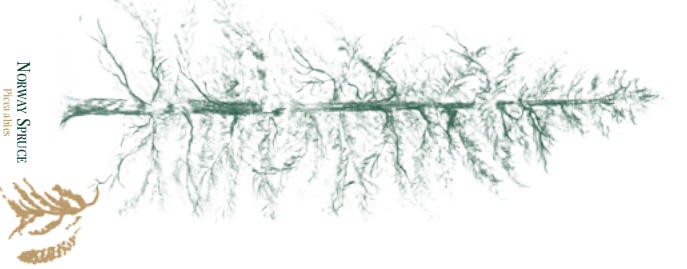
RED MAPLE
Acer rubrum - **NATIVE**
An excellent tree in many cultures and outstanding fall color.



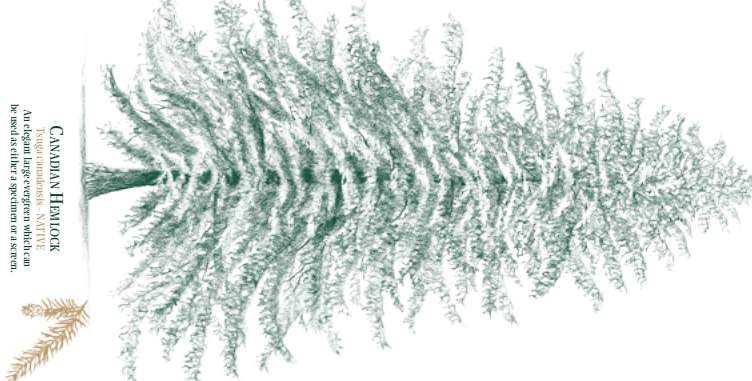
WHITE OAK
Quercus alba - **NATIVE**
A large, spreading tree with beautiful crimson tinged fall color. Slow growing but long-lived.



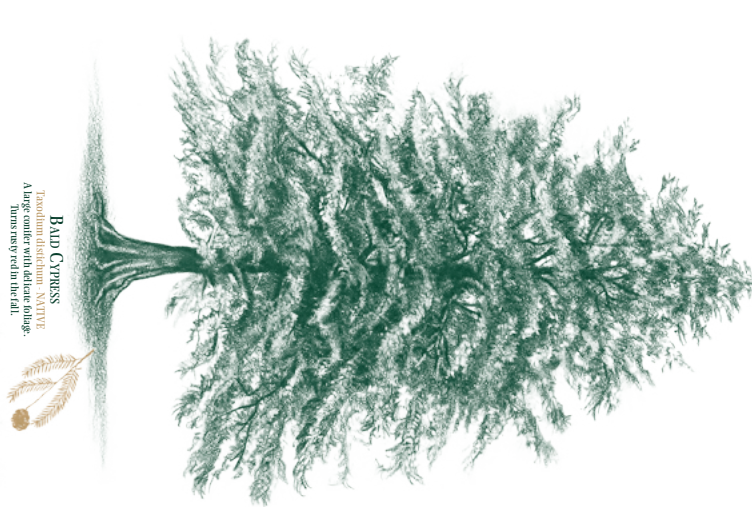
GINKGO
Ginkgo biloba
A very hardy tree with yellow fall foliage. Considered a living fossil.



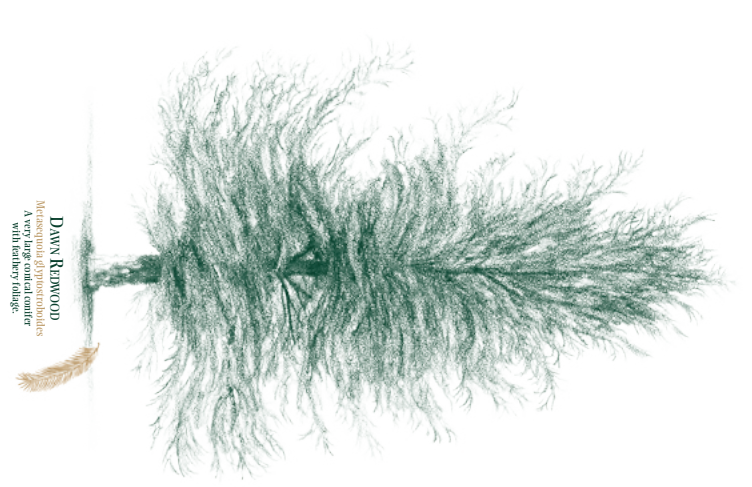
NORWAY SPRUCE
Picea abies
A large, beautifully shaped conifer with soft, dark green needles.



CANADIAN HEMLOCK
Tsuga canadensis - **NATIVE**
An elegant large evergreen with dense, dark green foliage. Specimens in a row.



BALD CYPRESS
Taxodium distichum - **NATIVE**
A large, spreading tree with dense foliage. Known for its "knees" in the soil.



DAWN REDWOOD
Metasequoia glyptostrobilus
A very hardy tree with yellow fall foliage.



TULIP POPLAR
Liriodendron tulipifera - **NATIVE**
Recently introduced as Kentucky's state tree. Prized for its beautiful, golden-yellow to orange tulip-like flowers and rounded leaves.



WILLOW OAK
Quercus phellos - **NATIVE**
A densely branched large oak with many acorns. Good wildlife tree.



WHITE ASH
Fraxinus americana - **NATIVE**
A large landscape tree with a straight trunk and beautiful fall color.



SUGAR MAPLE
Acer saccharum - **NATIVE**
One of the best of the large trees. It has a pleasing growing habit and good fall color.

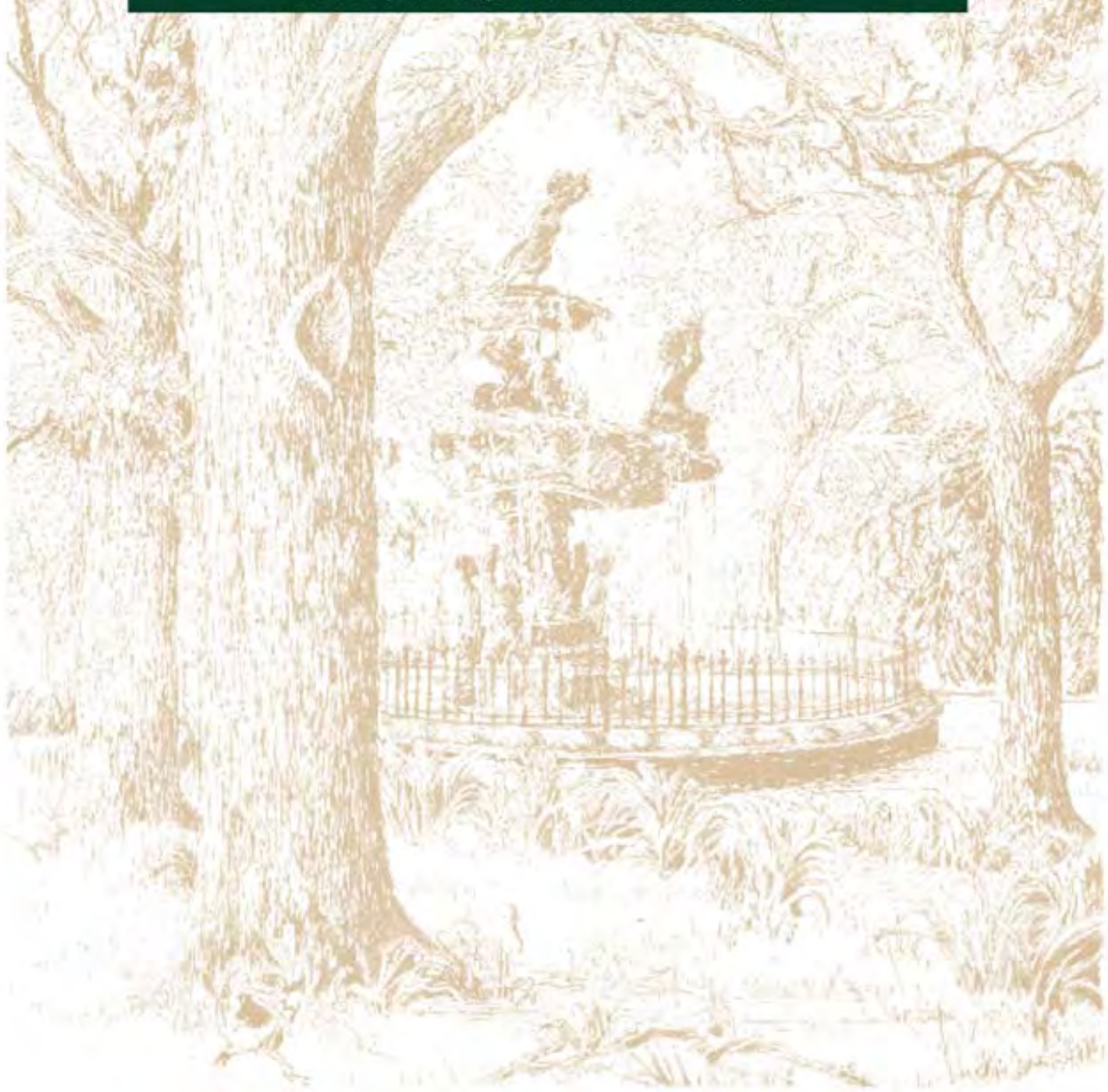
Tree Height and Spread Comparisons



PLANTING TREES IN BOWLING GREEN

A PRACTICAL GUIDE TO THE SELECTION, PLANTING
& CARE OF LANDSCAPE TREES

Produced by the Bowling Green Community Tree Advisory Board





Why Should You Consider Planting Trees?

*Well-placed shade trees can lower your roof and wall temperatures and help save over 15% on your electrical bills. **Shading and cooling** an air conditioning unit can increase its efficiency by 10%.*

*Trees can help your **property value**. Trees add beauty to neighborhoods and can add considerable value to the typical Bowling Green home, which helps to stabilize property values.*

*Trees help **clean the air** by removing poisonous gases and particulates such as dusts and pollens. They produce vital oxygen for us to breathe and absorb carbon dioxide, one of the so-called "greenhouse gases."*

*Trees provide food, nesting sites and protection to the birds, mammals and other **wildlife** that help fill our lives and our children's lives with beautiful sights, sounds, diversity and wonderment.*

*What better way to **remember** a friend or loved one or commemorate a birth or marriage than to plant a tree!*



I. WHERE TO PLANT

Sketch Out Your Plans

First, draw a rough diagram of your lot, including the house and any existing landscaping. After reading this brochure, draw on your sketch where trees can be properly located.

Consider The Benefits Of Shading

After completing the diagram of your lot, consider placing your shade trees on the side of the house that receives the most direct sun during the day.

Plan For Growth when Evaluating Locations

Make sure you give your tree adequate room to grow. Try to envision it 5, 10, or even 50 years into the future, know what a tree will look like at maturity and consider height, crown spread and root space when planting. For reference, the *Tree Species Selection Chart* lists average mature sizes for recommended trees. See also the *Things to Avoid* list for well-planned site selection.

Other Design Considerations

- Splitting:** Try to locate your tree in a position where it will not split your lot or view into equal halves.
- Framing:** To give your lot the appearance of greater depth, plant on a diagonal line outward from the corners of the house.
- Background:** Plant trees on the side or back of your home.
- Accents:** Small flowering trees can beautify and accent patios, pools or play areas.
- Utilities:** Consider the tree's mature size in relation to overhead and underground utilities.

Things To Avoid

- Enclosing the root zone in concrete.
- Planting over or too near buried utilities or sprinkler system.
- Planting tall trees under utility lines.
- Spreading branches that may tangle with wires or roof eaves.
- Shading gardens or other desirable sunny spots.
- Blocking windows or scenic views.
- Interfering with outdoor lighting.
- Covering chimneys.
- Encroaching on your neighbor's property.
- Covering traffic signs or blocking views at street corners.

II. WHAT TO PLANT

Selection:

There are many kinds of trees available for planting in this area. This brochure has illustrated 25 of our favorites and can aid you in deciding what to plant.


Purchasing:

Buy the highest quality tree that you can afford. If the tree has no leaves, scratch underneath the bark on a small twig and make sure that it is green and moist, and therefore alive.

III. WHEN TO PLANT

The Right Time

The best time to plant trees in Bowling Green is October through April.



IV. HOW TO PLANT

Recommended Equipment

To plant your tree:

A shovel and a rake; a pick ax if your soil is compacted

A bag of mulch (usually 3 cubic feet)

A bag or two of topsoil (only for very rocky or infertile soils)

A source of clean water

Step 1: Mark It

Pick the best spot for your tree according to its cultural requirements. Remove an area of turf at least two to three times the width of the root ball.

Step 2: Can Ya' Dig It?

Dig the hole with sloping sides as shown in the diagram. The hole should be two to three times the width of the root ball. The hole should be the same depth of the soil in the container or, in the case of a B&B tree, the height of the root ball, **never deeper**.



Step 3: Remove The Container

Remove or cut away the container just before the tree is put in the hole. Be sure to cut any circling roots. Move the tree by the root ball, not the trunk. Minimize the time that the roots are exposed to air and direct sunlight. Remove the wire basket now if the root ball will remain intact. If not, place the tree in the planting hole and remove as much as possible without breaking up the root ball.

Step 4: Plant It

Set the root ball in the hole and adjust it until the 'best' side faces the direction you want and the top of the root ball is about one inch above the surrounding soil level. A straight stick or shovel handle laid across the hole will help you decide if adjustment is needed. **Be careful not to plant too deep!** If you have a B&B tree now is the time to cut away any strings from around the trunk and to fold back the top 1/3 of the burlap down into the planting hole. Also remove any tags or labels.

Step 5: Fill The Hole

Use the soil that you removed from the hole to back-fill around the root ball. If the soil is full of rocks, remove the larger rocks over 2"-3". Break up any chunks of soil. If the soil is very poor mix it with good topsoil. Do not use other amendments such as peat or compost.

Step 6: Water In

When the hole is 2/3 full fill it with water and mix the mud with your shovel to settle the soil and remove any air pockets. Finish back-filling the hole and

tamp the soil around the root ball but do not compact it.

Step 7: Mulch

Put a three inch layer of mulch around the tree. Mulch helps to keep grass out, saves water and keeps lawn equipment such as string trimmers from damaging the thin bark of the young tree. **Do not pile mulch up on the tree trunk.**

Step 8: Stake

Stakes and wide soft ties should be used only when the tree can't stand by itself. When used this support should be removed after one year or less.

Step 9: Admire...

And Enjoy

V. CARING FOR YOUR TREE

Monitor

Schedule time to spend a moment simply looking at your tree. You'll be amazed how regular monitoring provides insight as to the health and growth of your tree.

Water

Regular watering is important. For a period of at least three years water your tree when rainfall is low. One inch per week is a good rule of thumb. A thorough deep soaking is best, but be careful not to flood the roots. They need both air and water to grow.

Fertilizer

Do not fertilize until spring of the second year following planting. We have found that applying $\frac{1}{2}$ pound of slow release granular fertilizer scattered within 3-4 feet of the trunk works well. Apply this fertilizer in the spring and it will be plenty for the tree throughout the entire season.

Prune

Do not prune a tree at planting unless it is to remove the following:

- Dead branches
- Diseased or damaged branches
- Crossing or rubbing branches
- Narrow crotches
- Multiple stems (usually only one main stem is desired except for some trees like Crepe Myrtle)

Pruning branches over 1" in diameter is a three-step process (see diagram). Branches less than 1" in diameter can usually be removed by following step #3. The three-step method prevents the tearing of live tissue on the main trunk. Do not prune roots except to remove damaged, diseased, or circling roots.



VI. TOPPING

Topping is one of the most destructive and unnecessary techniques practiced today. There are many alternative pruning methods when the size and shape of a tree needs to be controlled. With a little care and skill this can be done without ruining the tree's beauty and usefulness. Contact a qualified arborist, preferably an ISA certified arborist.

Why NOT to Top - Eight Good Reasons

Starvation: Good pruning practices rarely remove more than $\frac{1}{4}$ to $\frac{1}{3}$ of the crown. Removing more would seriously interfere with the ability of a tree's leafy crown to manufacture food. Topping removes so much of the crown that it upsets an older tree's well-developed crown-to-root ratio and temporarily cuts off its food-making ability.

Shock: A tree's crown is like an umbrella that shields much of the tree from the direct rays of the sun. By suddenly removing this protection, the remaining bark tissue is so exposed that scalding may result. There may also be a dramatic effect on neighboring trees and shrubs. If these thrive in the shade and the shade is removed then poor health or death may result.

Insects and Disease: The large stubs of a topped tree have a difficult time forming calluses. The terminal location of these cuts, as well as their large diameter, prevents the tree's chemically based natural defense system from doing its job. The stubs are highly vulnerable to insect invasion and the spores of decay fungi. If decay is already present in the limb, opening the limb will speed the spread of the disease.

Weak Limbs: At best, the wood of a new limb that sprouts after a branch is topped is more weakly attached than a limb which develops normally. If rot exists or develops at the severed end of the limb, the sprouts weight makes a bad situation even worse.



Rapid New Growth: The goal of topping is usually to control the height and spread of a tree. Actually, it has just the opposite effect. The resulting sprouts (often called water sprouts) are far more numerous than normal new growth, and they elongate so rapidly that the tree returns to its original height in a very short time - and with a far denser crown.

Tree Death: Some older trees are less tolerant to topping than others. Beeches, for example, do not sprout readily after severe pruning, and the reduced foliage can lead to the death of the tree.

Ugliness: A topped tree is a disfigured tree. Even with its re-growth it never regains the grace and character of its species. The bare branches will be seen during the winter when the leaves fall. Natural branching creates much nicer views during this time of the year. The landscape and the community are robbed of a valuable asset.

Cost: To a worker with a saw, topping a tree is much easier than applying the skill and judgment of good pruning. Therefore, topping may cost less in the short run. However, the true costs of topping are hidden. These include: reduced property value, the expense of removal and replacement when the tree dies, the loss of other trees and shrubs if they succumb to changed light conditions, the risk of liability from weakened branches, and increased future maintenance.

VII. SPACING GUIDE

Tree Size	Minimum Spacing from Wall	Minimum Spacing From House Corner
Small trees (to 25')	6' to 10'	5' to 8'
Medium trees (25' to 50')	10' to 15'	8' to 12'
Large trees (+ 50')	15' to 20'	10' to 15'

VIII. PROFESSIONAL ASSISTANCE

There are many sources of additional information in Bowling Green. Please consider the following:

Local nurseries (see the yellow pages)

Qualified, reputable arborists
(check references and insurance coverage)

The Cooperative Extension Office (842-1681)

International Society of Arboriculture
www.Treesaregood.com

Tree Species Selection Chart for Bowling Green

COMMON NAME BOTANICAL NAME	TREE TYPE	SHAPE	HEIGHT	SPREAD	GROWTH RATE	USEFUL LIFESPAN	MOISTURE CONDITIONS	BENEFITS	POSSIBLE PROBLEMS	COMMENTS
Red Maple <i>Acer rubrum</i>	Deciduous	Rounded	50'+	25'-50'	Rapid	50+ Years	Moderate	Fall Color	Surface Roots, Insects/Disease	Very shallow root system does not permit under planting. Thin bark is easily damaged.
Sugar Maple <i>Acer saccharum</i>	Deciduous	Rounded	50'+	50'+	Moderate	50+ Years	Moderate	Fall Color	Surface Roots, Insects/Disease	Poor performance in compacted soils. Good fall color.
Tulip Poplar <i>Liriodendron tulipifera</i>	Deciduous	Rounded	50'+	35'-50'	Moderate	50+ Years	Moist/Moderate	Flowers, Fall Colors	Aphids, Sticky Exudate	Tallest North American Hardwood. Needs plenty of room to grow.
Eastern Redbud <i>Cercis canadensis</i>	Deciduous	Spreading	≤25'	≤25'	Moderate	50+ Years	Moderate	Flowers	Brittle Wood, Fruit Drop	Adaptable to full sun or light shade. Best season is spring.
Yellowwood <i>Cladrastis lutea</i>	Deciduous	Rounded	25'-50'	25'-50'	Moderate	50+ Years	Moderate	Flowers	Needs Full Sun	Excellent small to medium size tree.
Flowering Dogwood <i>Cornus florida</i>	Shrubby	Rounded	≤25'	≤25'	Moderate	50+ Years	Moist	Wildlife, Fall Color, Flowers, Bark Texture	High Maintenance, Insects/Disease	Four season character. Prefers shade but is sun tolerant. Use only disease free nursery stock.
Washington Hawthorne <i>Crataegus phaenopyrum</i>	Deciduous	Rounded	≤25'	25'-50'	Moderate	50+ Years	Moderate	Wildlife	Fruit Drop	Excellent single specimen plant. Prefers sun. Very thorny!
Norway Spruce <i>Picea abies</i>	Evergreen	Pyramidal	50'+	25'-30'	Moderate	50+ Years	Moderate/Dry	Windbreak, Specimen Plant	High Heat Sensitive	Prefers acid soils. Plant in North/Northwest locations if possible.
Ginkgo <i>Ginkgo biloba</i>	Deciduous	Spreading	50'+	25'-50'	Moderate	50+ Years	Moderate/Dry	Fall Color	Fruit Drop	Plant in full sun. Unique foliage. Pest free. Plant only males.
Servicberry <i>Amelanchier x grandiflora</i>	Deciduous	Shrubby	≤25'	≤25'	Moderate	50+ Years	Moist	Wildlife, Fall Color	Drought Sensitive, Insects	Best suited in a naturalistic setting near the edge of woodlands and waterways.
Foster Holly <i>Ilex x attenuata</i>	Evergreen	Pyramidal	≤25'	≤25'	Moderate	50+ Years	Moderate	Wildlife	Needs Well Drained Site	Prefers sun. Heavily fruited in winter.
American Holly <i>Ilex opaca</i>	Evergreen	Pyramidal	25'-50'	≤25'	Moderate	50+ Years	Moist	Wildlife	Insects/Disease	Very picturesque tree. Prefers moist, shady sites but tolerates sun. Requires male & female for fruit set.
Flowering Crabapple <i>Malus sp.</i>	Deciduous	Varies with Species	≤25'	≤25'	Moderate	50+ Years	Moderate	Flowers, Fruit	Older varieties susceptible to fire blight & foliar disease	Many color varieties & shapes available
Dawn Redwood <i>Metasequoia glyptostroboides</i>	Deciduous	Pyramidal	25'-50'	50'+	Moderate	50+ Years	Moist	Attractive Pyramidal Shape	Japanese Beetles will attack foliage	Needs full sun & much moisture. Dramatic accent tree.
Southern Magnolia <i>Magnolia grandiflora</i>	Evergreen	Broadly Pyramidal	25'-50'	50'+	Moderate	50+ Years	Moist/Moderate	Flowers	Fruit Drop	Aristocratic broadleaf evergreen. Needs room to grow to develop. Slow to grow after transplanting
Smaller Magnolia <i>Magnolia soulangeana</i>	Deciduous	Shrubby	≤25'	≤25'	Moderate	50+ Years	Moderate	Flowers, Bark Texture	Late Spring Frost Nips Flower Buds	Lovely small accent tree. Prefers sun but will tolerate light shade.
Yoshino Cherry <i>Prunus x yedoensis</i>	Deciduous	Broadly Rounded	50'	25'-50'	Moderate	50+ Years	Moderate	Fall Color, Flowers, Bark Texture	Susceptible to bark borers & leaf spot	Tree of great beauty. Prefers sun.
Shingle Oak <i>Quercus imbricaria</i>	Deciduous	Rounded	50'+	30'-50'	Moderate	50+ Years	Moderate	Lustrous, dark green leaves, Wildlife	Retains leaves on lower branches well into winter	Prefers light sandy soils. Prefers main stream at transplanting.
White Oak <i>Quercus alba</i>	Deciduous	Rounded	50'+	50'+	Moderate	50+ Years	Moist/Moderate	Fall Color, Wildlife	Nut Drop	Prefers acid, well-drained soils. Difficult to transplant.
Willow Oak <i>Quercus phellos</i>	Deciduous	Rounded	50'+	50'+	Moderate	50+ Years	Moist/Moderate	Wildlife	Nut Drop	Prefers full sun. Popular shade tree. Crown density causes pruning problems.
Bald Cypress <i>Taxodium distichum</i>	Deciduous	Pyramidal	25'-50'	50'+	Moderate	50+ Years	Moist/Moderate	Fall Color, Bark Texture	Bagworms	Very distinctive tree. Good for wet areas. Spider mites a problem in hot, dry weather.
Canadian Hemlock <i>Tsuga canadensis</i>	Evergreen	Pyramidal	25'-50'	50'+	Moderate	50+ Years	Moist	Shape	Few Insects/Diseases	Very graceful evergreen. Commonly found along shady mountain streams.
White Ash <i>Fraxinus americana</i>	Deciduous	Rounded	40'-50'	50'+	Moderate	50+ Years	Moist/Moderate	Fall Color, Wildlife	Susceptible to borer & scale pests	Interesting multi colored fall foliage and boat paddle fruit.
Japanese Zelkova <i>Zelkova serrata</i>	Deciduous	Pyramidal	50'+	50'+	Moderate	50+ Years	Moist	Fall Color	Needs Plenty of Crown Space	Excellent urban tree which tolerates a wide range of conditions.
Goldenrain Tree <i>Koeleruteria paniculata</i>	Deciduous	Rounded	25'-50'	≤25'	Moderate	50+ Years	Moderate	Flowers	Wood Is Somewhat Brittle	Excellent small lawn tree which tolerates a wide range of soil conditions.



A special project of the Bowling Green Community Tree Advisory Board, this brochure was designed to provide current information on tree selection, planting and care procedures, along with specific recommendations of cultivars varieties suitable for growing in the Bowling Green area.

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Jay Dougherty, City Landscape Manager
Bowling Green, Kentucky

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REFERENCES

Arboriculture, Care of Trees, Shrubs, and Vines in the Landscape,
Richard W. Harris, 1983. Prentice-Hall, Inc.
Englewood Cliffs, New Jersey

Manual of Woody Landscape Plants, Michael A. Dirr, 1975
Sipes Publishing Co., Champaign, Illinois

Shading Our Cities, The American Forestry Association
1989. Island Press, Washington, D.C.

The Natural Arbor Day Foundation
100 Arbor Avenue, Nebraska City, Nebraska, 68410.
Tree city USA Bulletins No. 8 and 21
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