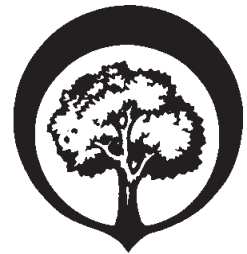


This tabbed folder is provided for your reference files, and contains articles and artwork about how to plant and care for trees.

Tree Care Information

from the



**TREE CITY USA[®]
BULLETIN**

This kit contains the one-page information summaries on the following topics:



How to Prune Young Shade Trees

What you do to your tree in the first few years of its life will affect its shape, strength, and even its life span. After selecting the right tree for the site and carefully planting it, early pruning is the most important thing you can do for a young tree. Proper pruning will save you money and give you safer, more beautiful, healthier, and easier-to-maintain trees.



When a Storm Strikes

Never is danger greater to a tree than during the inevitable trial by storm. The weight of ice or snow and the fury of wind test the strength of limbs, trunk, and roots. The homeowner, helpless at the moment, can only watch and hope that the tree survives. Survival or loss — the key can be the care you give your tree before and after a storm. Knowing ahead of time what to do when a storm strikes can also prevent or minimize your financial loss.



The Right Tree for the Right Place

Trees provide many benefits—shade, beauty, windbreak, privacy, cleaner air, less noise, less glare, and higher property values, to name a few. But the key to these benefits is to select the right tree and plant it in the right place. This not only assures a lifetime of satisfaction, but it also keeps maintenance costs low. Select tree species that will fill a particular role or function in your landscape. Then, plant them in the right places that will enable them to fill those functions.



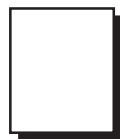
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Never cut main branches back to stubs. The sight of topped trees is all too common in the communities and along the roadways of America—trunks with stubby limbs standing naked in the landscape, trees stripped of all dignity and grace. Trees are often topped because they grow into utility wires, interfere with views or solar collectors, or simply grow so large that they worry the landowner. But, as one arborist has said, "Topping is the absolute worst thing you can do for the health of your tree."



Trees for Wildlife

A common thread that runs through the fabric of America is our love for wildlife. Whether it is a squirrel in our back yard or a hovering marsh hawk hunting the edges of a city park, wildlife is a valued resource to protect and enjoy. But to share our communities with wildlife takes understanding and planning. Not surprisingly, trees play an important role. By understanding a few basic principles, you can attract songbirds and other desirable wildlife to your home or neighborhood.



How to Select & Plant a Tree

Knowing what to look for in selecting trees at the nursery will give you trees that have the best possible chance to survive and grow. And planting, done with care and some knowledge of trees and their needs, will help your trees grow more rapidly and live at least twice as long as improperly planted trees.

This kit is made possible by support from:



**USDA
Forest Service**



**The National
Arbor Day Foundation[®]**

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How to Prune Young Shade Trees

What you do to your tree in the first few years of its life will affect its shape, strength, and even its life span. After selecting the right tree for the site and carefully planting it, early pruning is the most important thing you can do for a young tree. Proper pruning will save you money and give you safer, more beautiful, healthier, and easier-to-maintain trees.

Pruning for Strength and Form

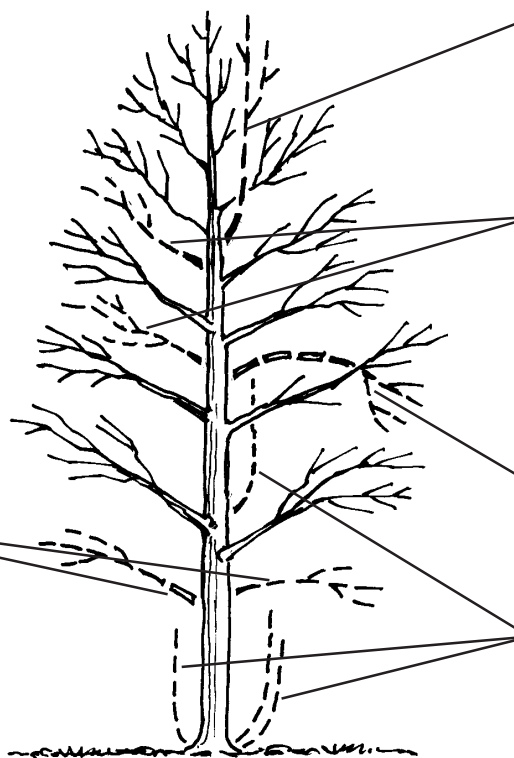
At Planting Time . . .

Prune modestly when transplanting a new tree. The immediate objective is to strengthen and expand the root system, which is helped by leaving intact as much of the leaf surface as possible. Only damaged or dead limbs should be removed.

After the first year, pruning should begin in earnest. Pruning with strength and form as the objective is the best way to avoid weak branches and prevent expensive corrections later on.

Temporary Branches

Branches below the lowest permanent branch can protect young bark from injury from sun scald and add taper and strength to the trunk. Particularly in lawn plantings where lower limbs do not block passage or tempt vandals, the limbs may be left for 3 to 4 years after planting. Then remove them over the next 2 to 3 years. Don't let temporary branches become large and vigorous.



Multiple Leaders

Protect the leader from competition. In trees with two equally vigorous leaders, remove the one that has a crook or other defects, or that creates a lopsided appearance.

Thinning and Spacing

Most trees benefit from thinning — removing some of the limbs that compete for space and light. A good rule of thumb is to try to maintain evenly spaced laterals, 8 to 12 inches apart in a young tree. Over-pruning can damage or even kill your tree. Always keep at least two-thirds of your tree as live crown.

Rubbing Branches

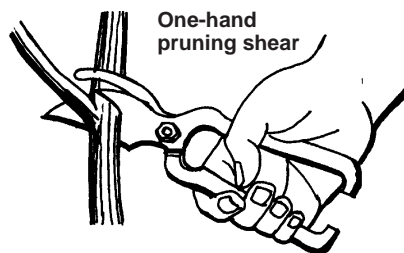
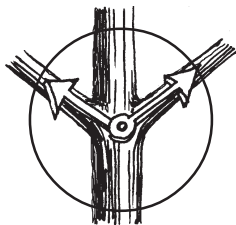
Branches that rub against each other result in wounds, decay, and notches. Remove one of the offending branches.

Watersprouts and Suckers

These can occur at the base or inside the crown. They are rapidly growing, weakly attached, and upright. It is best to remove them as soon as possible after the first year.

Keys to Good Pruning

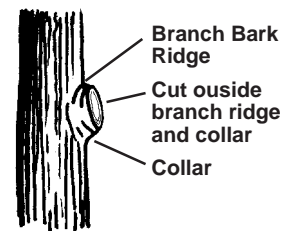
1. Prune early in the tree's life so pruning wounds are small.
2. Identify the best leader and lateral branches before you begin pruning and remove any defective parts before pruning to form. Try to find and use lateral branches that form "10 o'clock" or "2 o'clock" angles with the trunk.



One-hand pruning shear

3. Keep your tools sharp. One-hand pruning shears with curved blades work best on young trees.

4. When you prune back to the trunk or a larger limb, branches too small to have formed a collar (swollen area at base) should be cut close. For larger branches, cut just outside the branch bark ridge and collar. Do not leave a protruding stub.



5. When shortening a small branch, make the cut at a lateral bud or another lateral branch. Favor a bud that will produce a branch that will grow in a desired direction (usually outward). The cut should be sharp and clean, and made at a slight angle about 1/4 inch beyond the bud.

Correct Pruning Cut



Too Close



Too Long



Too Slanted



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The Morning After . . .

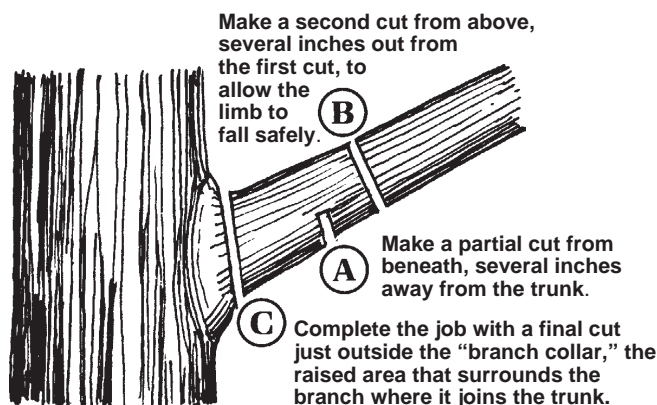
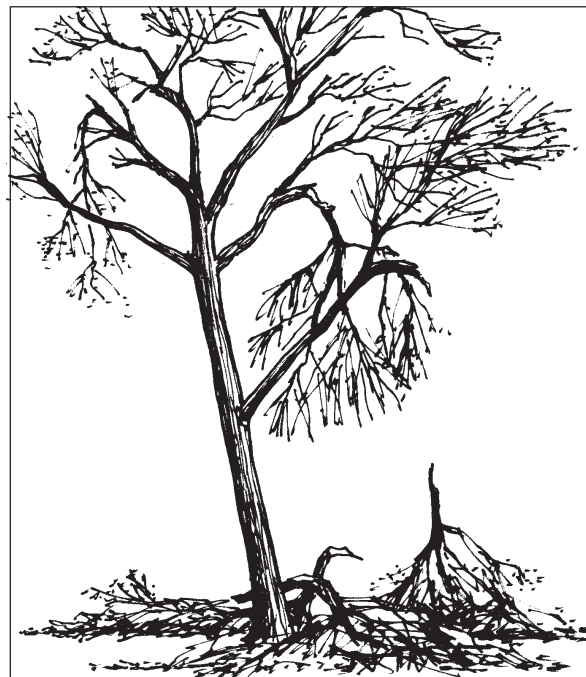
Although your trees may look mortally damaged after a storm, trees have an amazing ability to recover from damage. With proper pruning and care, all but the most severely damaged have a good chance to regain their original health and beauty. Here are some things to do following a major storm in your community:

1. Assess the Damage

Don't be too quick to declare a tree beyond hope. If damage is relatively slight, or if most of the tree's basic structure is still intact despite the loss of many smaller limbs, the tree stands a good chance of making it. On the other hand, if the trunk is split or if most of the tree's leafy crown is down, the tree may be beyond help.

2. Get Professional Help

If large limbs are hanging, if utility wires or structures are involved, or if high climbing is required, don't try to make repairs yourself. Secure the services of a certified arborist, a tree professional who can recommend needed repairs. They are generally listed in classified telephone directories under "Tree Service." Above all, don't hire just anybody who shows up on your doorstep with a chainsaw offering to remove or repair your trees. They are often interested in little more than removing your money.



Tree First Aid After a Storm

1. **Take safety precautions.** Be on the alert for downed power lines and "widow makers," dangerous hanging branches ready to fall. And, unless you really know how to use one, leave chainsaw work to the professionals.
2. **Remove broken branches** that are still attached to the tree. Branches should be pruned at the point where they join larger ones, following the steps shown at left.
3. **Don't top your trees!** Never cut the main branches back to stubs. Ugly, weakly attached limbs will often grow back higher than the original branches and be more likely to break off in a future storm.

An Ounce of Prevention

Follow these keys to preventing tree damage in future storms:

- ✓ Where early ice storms are a problem, avoid planting species that hold their leaves late into the fall.
- ✓ Keep trees healthy and vigorous by watering, fertilizing, and protecting the soil from compaction.
- ✓ Annually prune dead or weakened limbs, and occasionally thin excess branches from the crown. The goal is to produce a well-shaped tree with the center of gravity squarely over the trunk and a crown that lets wind pass through it rather than catching it like a sail.
- ✓ Avoid planting brittle species such as elms, willows, box elder, poplars or silver maple in locations where breakage can endanger life or property.
- ✓ When planting, try to visualize the tree when mature, and avoid placing it too close to buildings or power lines.

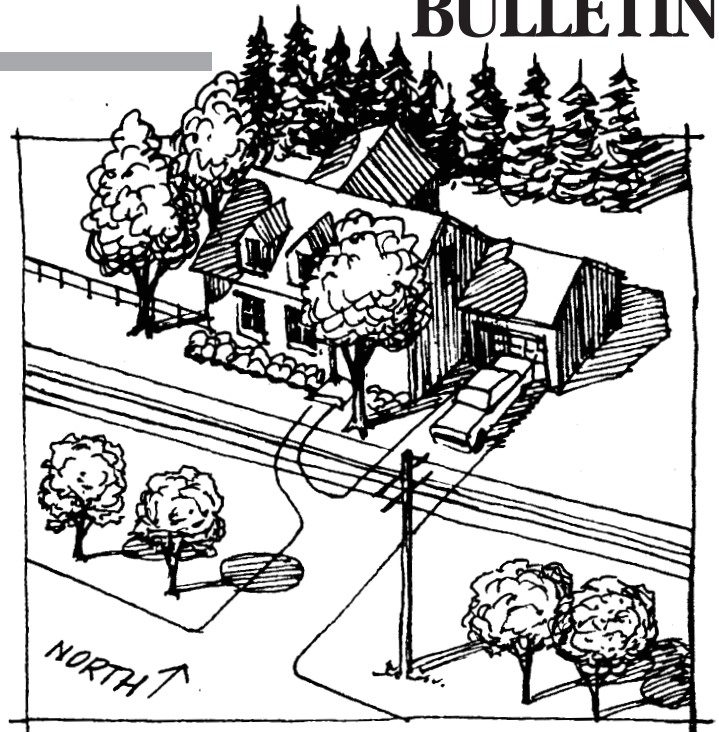
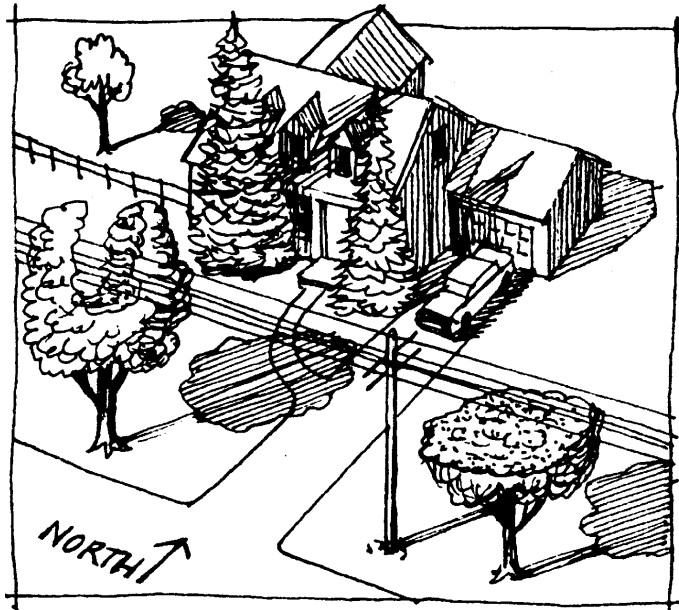




TREE CITY USA BULLETIN

The Right Tree for the Right Place

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Wrong Trees, Wrong Places

Planting large trees under utility lines can eventually mean mutilated trees as they grow to maturity. Large evergreens close to the house on the south block warming winter sunlight. No trees on the north side of the house can leave it vulnerable to icy winter winds.

Better Choices

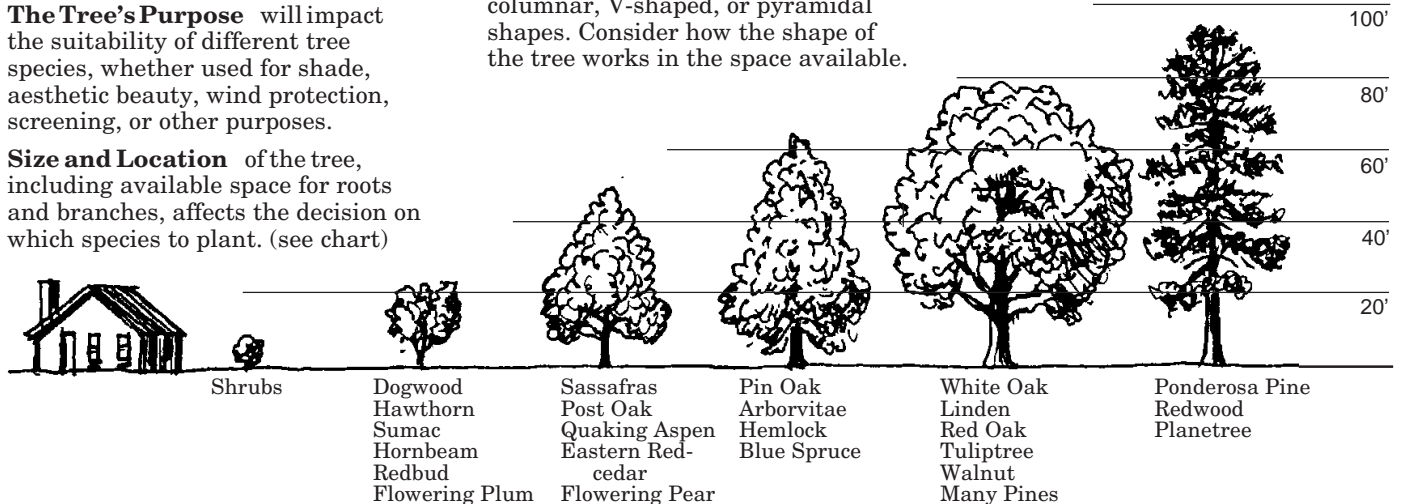
Short flowering trees don't clash with overhead utility lines. Large deciduous trees on the southeast, southwest, and west provide cooling shade in summer but don't obstruct the low winter sun. An evergreen windbreak on the north blocks cold winds in winter.

Factors to Consider

- The Tree's Purpose** will impact the suitability of different tree species, whether used for shade, aesthetic beauty, wind protection, screening, or other purposes.
- Size and Location** of the tree, including available space for roots and branches, affects the decision on which species to plant. (see chart)

- Crown Form or Shape** varies among species, including round, oval, columnar, V-shaped, or pyramidal shapes. Consider how the shape of the tree works in the space available.

Average Mature Height (feet)



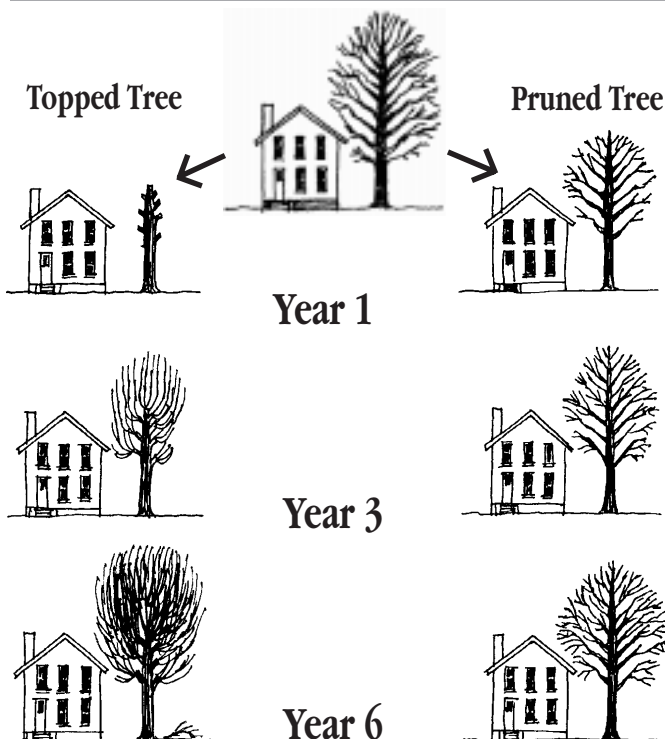
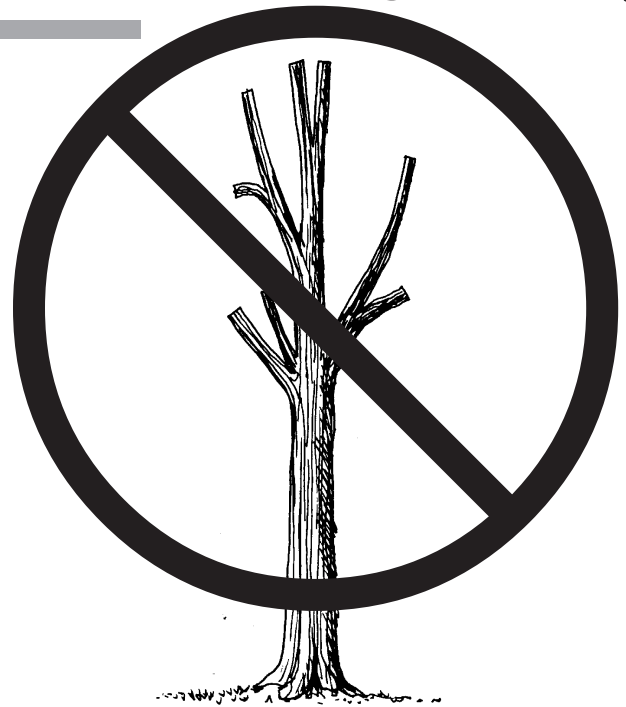


Don't Top Trees!

Never cut main branches back to stubs. The sight of topped trees is all too common in the communities and along the roadways of America—trunks with stubby limbs standing naked in the landscape, trees stripped of all dignity and grace. Trees are often topped because they grow into utility wires, interfere with views or solar collectors, or simply grow so large that they worry the landowner. But, as one arborist has said, “Topping is the absolute worst thing you can do for the health of your tree.”

Why NOT to “Top:” 8 Good Reasons

1. **Starvation:** Topping removes so much of the tree’s leafy crown that it dangerously reduces the tree’s food-making ability.
2. **Shock:** By removing the protective cover of the tree’s canopy, bark tissue is exposed to the direct rays of the sun. The resultant scalding can cause the tree’s death.
3. **Insects and Disease:** The exposed ends of topped limbs are highly vulnerable to insect invasion or decay fungi spores.
4. **Weak Limbs:** New branches that grow from a stubbed limb are weakly attached and more liable to break from snow or ice weight.
5. **Rapid New Growth:** Instead of controlling the height and spread of the tree, topping has the opposite effect. New branches are more numerous and often grow higher than before.
6. **Tree Death:** Some tree species can’t tolerate major branch loss and still survive. At best, they remain weak and disease-prone.
7. **Ugliness:** A topped tree is a disfigured tree. Even with new growth it never regains the grace and character of its species.
8. **Cost:** The true cost of topping is often hidden — lower property values, expense of removal and replacement if the tree dies.



Proper Pruning — The Alternative to Topping

When a decision is made to reduce the size of an older tree, it can be topped, or it can be pruned properly. Although the speed and nature of regrowth will depend on species and local factors, any comparison between irresponsible topping and competent pruning will be dramatic.

- **Year 1:**
The topped tree is an ugly stub and a remnant of a once lovely tree. If pruned properly, the tree’s size is reduced but form and beauty are retained.
- **Year 3:**
Vigorous sprouts have sprung out of the topped tree in large numbers and are growing with abnormal rapidity. The pruned tree adds growth, but it does so more slowly and distributes it more normally.
- **Year 6:**
In a relatively short time, the topped tree is as tall — and far bushier and more dangerous — than it was to begin with. The properly pruned tree is safer, more beautiful, and its size is better controlled.



Trees for Wildlife

from the



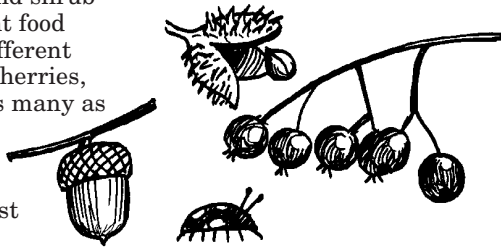
**TREE CITY USA[®]
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What Wildlife Needs

Food

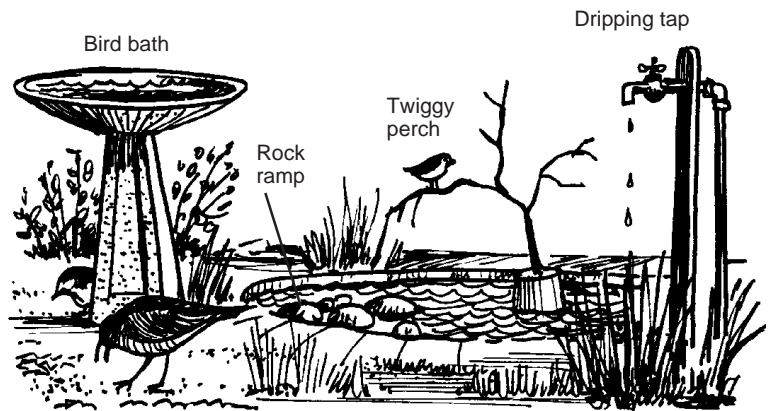
Each different tree and shrub species has a different food value and attracts different animals. Some, like cherries, may be relished by as many as 40 species. Having a wide variety of trees with high food value is the single best way to increase your pleasure in viewing wildlife.



Whatever the wildlife, whether a song sparrow or a butterfly or a squirrel, the key to its presence is habitat — the place where it lives. Habitat consists of three important elements, all of which are necessary in order for wildlife to find a home.

Water

Water is as essential for wildlife as it is for humans. Provide it and you will be rewarded with more birds, butterflies, and other wildlife. Shown below are a few ways water can be provided in a home landscape.



Cover

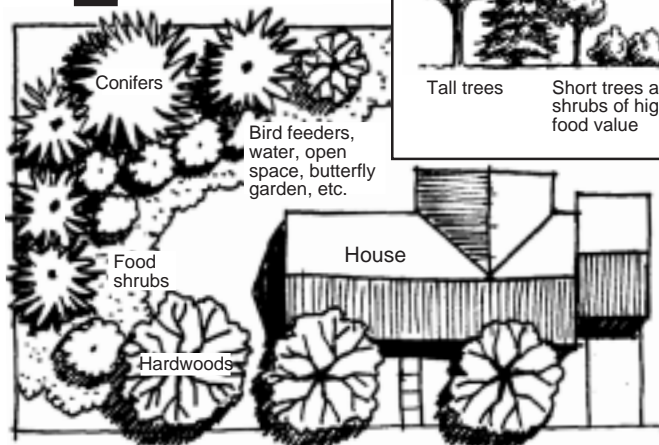
Cover provides protection for breeding, nesting, sleeping, traveling, and hiding from enemies. Ideal cover for a wide range of animals is provided by dense plantings of conifers. In urban settings, even a single spruce tree will help, but all the better if you have space for a group of evergreens or a hemlock hedge. Wild tangles, vines, and thorny shrubs in odd corners or narrow spaces also provide excellent cover.

Useful Vegetation Patterns to Help Wildlife

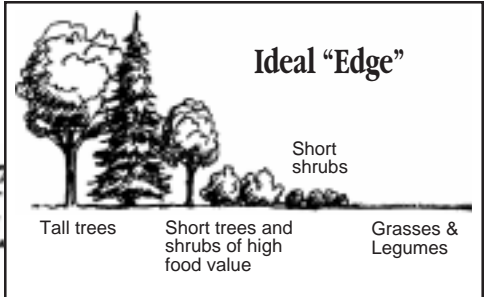
The arrangement of food sources, protective cover, and water will make a big difference in the kinds and quality of wildlife you attract. A few principles:

- The same arrangement of trees and shrubs that provides humans with wind protection and shade also works well for wildlife.
- To see more birds and provide for their safety, plant cover trees or shrubs within 10 to 15 feet of water sources.
- When possible, provide unbroken travel lanes (rows of trees, hedges, a brushy fence row, etc.) between wooded areas.
- Provide "edge" areas where woods or shrubbery meet a lawn or old field. Edge areas provide a combination of food, sunlight, shade, and security.

PREVAILING WINDS



Ideal "Edge"

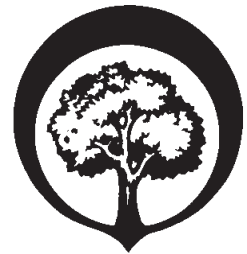


Note: When planting, always match species to hardiness zone, soil, and other site conditions.



How to Select & Plant a Tree

from the



TREE CITY USA[®]
BULLETIN

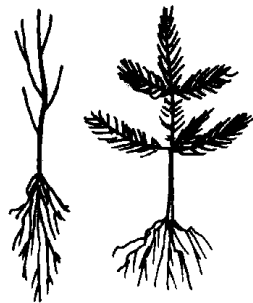
Knowing what to look for in selecting trees at the nursery will give you trees that have the best possible chance to survive and grow. And planting, done with care and some knowledge of trees and their needs, will help your trees grow more rapidly and live at least twice as long as improperly planted trees. Here are a few essentials to be aware of:

Selecting Your Tree

Look for these physical characteristics in your trees:

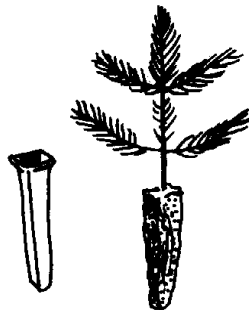
Trees are for a lifetime, so it pays to spend time now making sure that you get the best. Start by defining a purpose for your new tree (shade, privacy, aesthetics, windbreak, etc.). Identify the limitations of the site where you will be planting

(overhead wires, confined root zone, dry climate, clay soil, etc.). Select a species to plant that is best suited for the conditions you have identified. Finally, examine the trees carefully before you buy, and buy for quality.



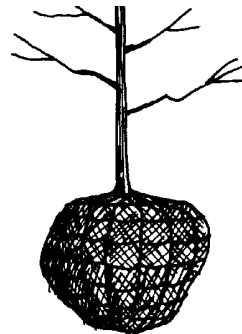
BARE ROOT SEEDLINGS

- Roots should be moist and fibrous.
- Deciduous seedlings should have roots about equal to the stem length.



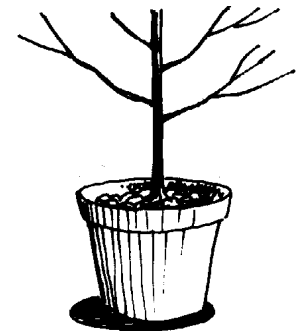
CONTAINERIZED

- Soil plug should be moist and firm.
- Avoid tall, spindly tops. Well-developed roots are more important.



BALLED & BURLAPPED

- Root ball should be firm to the touch, especially near the trunk.
- Root ball should be adequate for the tree's size.



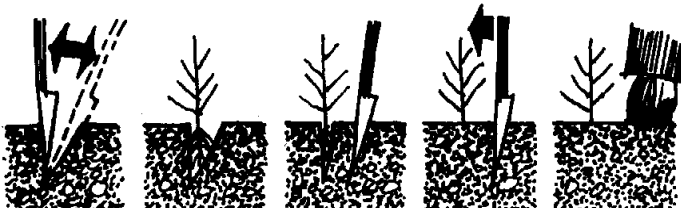
POTTED

- Pot should not contain large, circling roots.
- Pruned roots cut cleanly, none wider than a finger.
- Soil & roots joined tightly.

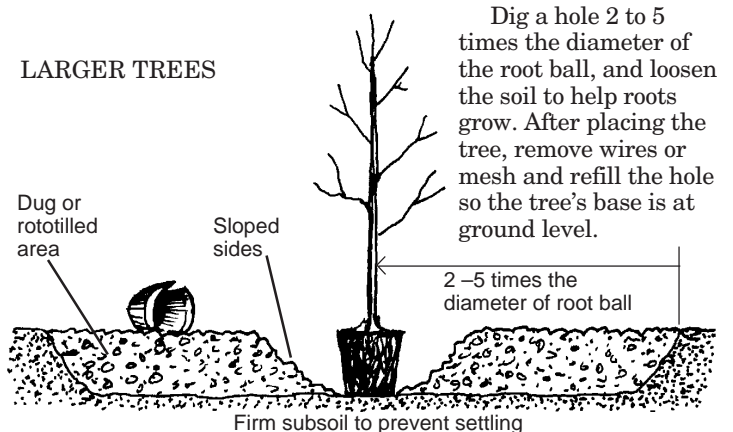
Planting Your Tree

BARE ROOT SEEDLINGS

In light or sandy soil, a planting bar or narrow shovel makes the job fast and easy. Remember to keep the roots from drying out. After creating a hole with the bar, place the seedling, insert the bar a few inches away and push to close the soil.



LARGER TREES



Following Up After Planting

Watering — is the key to tree survival. It should be used when filling the planting hole to eliminate large air cavities, firm the soil around fine roots, and make nourishment available to the tree. Water deeply around your tree once a week during dry spells.

Pruning — generally, it's best not to prune after planting, except for dead or broken branches.

Fertilizing — to avoid root burn, don't fertilize shade trees until the late spring of the second year after planting.

Mulching — mulch is a young tree's best friend, placed 2 to 4 inches deep on the soil around the tree, but not touching the trunk.

