

Stub cuts

Cutting branches several inches or feet from the parent limb or trunk does not allow for complete wound closure and can be an entry point for decay. Never leave a stub that a cap can hang from.

Pruning Paint

Painting wounds can inhibit wound closure, allow decay and waste money. **Only** use wound dressing when an oak or elm tree must be pruned during the growing season to reduce the chance of disease transmission.

How to Prune



A few minutes spent pruning is one of the best things you can do for your tree. But what are the best tools to accomplish your task and how can you avoid tearing or stripping bark from your tree?

1. Pole saw & lopper head
2. Hand saws
3. Helmet & safety glasses
4. Hand pruner
5. Leather gloves
6. Long handled lopper

Tools

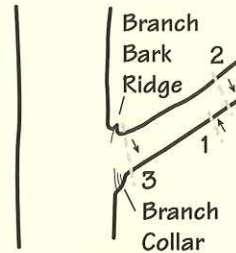
Pruning equipment should be sharp and well maintained. Loppers and hand pruners should be of the bypass or scissors type to prevent crushed limbs. Saws should have triple edged teeth for quicker and cleaner cuts. A hard hat, leather gloves and eye protection are recommended.

3-Step Cut

Avoid this!



Avoid tearing bark by using these three sequential cuts when pruning a limb you cannot support with one hand while cutting with the other. Torn bark often leads to decay.



Step 1

At least 12 - 18" from the final cut, make an undercut approximately 1/3 of the way through the branch.



Step 2

Outside the first cut, sawing from the top down, completely remove the branch. With the majority of the branch weight now gone, bark tearing should not occur.



Step 3

Begin the final cut outside the branch bark ridge, continuing at a slightly outward angle, finishing just outside the branch collar. Remember it is not necessary or appropriate to paint pruning wounds.



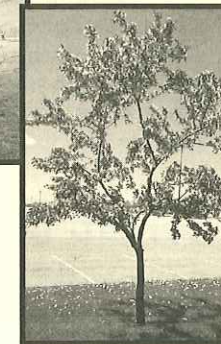
A properly pruned tree should look like nothing drastic has been done. Good pruning should not be determined by how many branches are on the ground, but rather by what remains in the tree.



Before



After



Final result

Text by Don Kissinger, Tracy Salisbury, Urban Foresters, WDNR and Genny Fannucchi Forest Resource Education and Awareness Specialist, WDNR. Design by Linda Pohlod, Graphic Artist, WDNR. Photos Bob Queen, Don Kissinger WDNR and Dr. A. Shigo. Shigo & Trees Associates. Special thanks to Ann Wied and Sharon Morrissey, UW-Cooperative Extension for their help with site selection and pruning.

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Proper Tree Pruning



“Pruning is one of the best things you can do for your tree... it is the kindest cut.”

Pruning is one of the most important maintenance tasks you can perform on your tree. If pruning is done correctly, you will enjoy a healthy, long-lived tree. Proper planning leads to successful pruning. Have a purpose before making any cut.



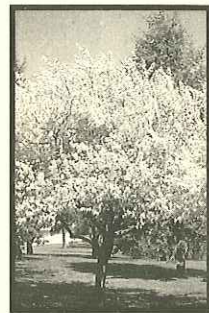
Why prune?

✓ **Future Health** - Young trees are pruned to establish good branch structure and spacing, a central trunk and proper trunk taper. Mature trees are pruned to remove dead and/or hazardous limbs.

✓ **Safety** - Pruning trees on boulevards, street intersections and front yards assures that vision or sight lines of motorists, bikers and pedestrians are not compromised. The need for safety pruning can be reduced if, when planting, you choose the right tree for the space provided.



✓ **Aesthetics** - Pruning helps trees beautify our environment and become landscape focal points. A well-pruned tree is not only safer, but also looks better and increases property value.



When to prune?

The **best** time to prune any deciduous tree is when it is dormant, typically November - March in Wisconsin. The second best time is mid-summer, after leaf growth is complete. The **worst** time to do major pruning is in the spring, when tree buds and/or leaves are still growing and food reserves are low. Dead limbs may be removed any time of year.

How much to prune?

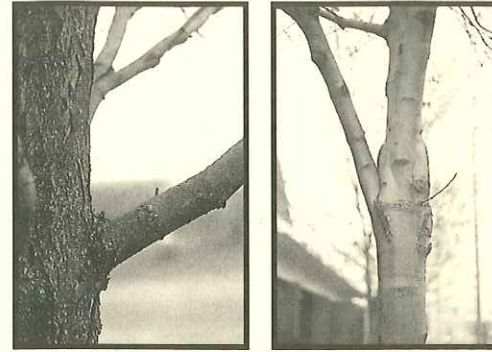
The amount to remove depends on the tree's size, species and age as well as your pruning objectives. Young trees can tolerate more branch removal than mature trees. **Avoid removing more than 25% of the live branches no matter the tree's age, size or species.**

What to do...

Before pruning get to know your tree. Take a step back and envision what you want it to look like in the future. If your tree is mature, its structure cannot be altered much. Limit the pruning of newly planted trees to dead, broken or torn branches or to establish only one central trunk if the tree has two or more.

Structural pruning may begin the second or third year after planting and every other year thereafter until about year 10. After that, pruning every 5 to 7 years should reduce any major structural problems.

Remove crossing, competing, broken, dead, vertical, downward-growing or sucker branches each time you prune. Never cut back your tree's leader, the top-most growing point of the tree, it is vital to letting the tree develop its natural form. Avoid removing branches larger than 4" in diameter as the wound takes a long time to close.



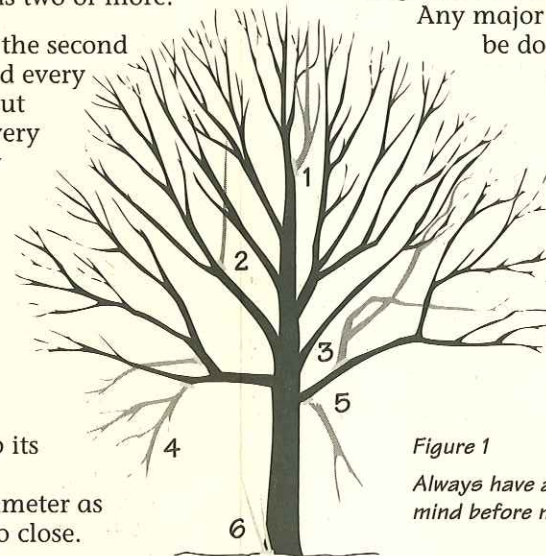
Strong U-Shaped union Weak V-Shaped union

Encourage strong branch attachments.

Prune to allow for and encourage U-shaped branch unions versus narrow V-shaped branch unions. V-shaped branch unions typically have included or in-rolled bark, indicating poor branch attachments that will fail over time.

Pruning Safely

Make safety your number-one priority. Do not prune trees near utility lines. If you can remove a tree's limbs while standing on the ground do so, but proceed carefully. Any major job on a big tree should be done by a professional certified arborist.



Branches to prune

1. Competing leader
2. Vertical
3. Crossing
4. Downward-growing
5. Broken or dead
6. Suckers

Figure 1

Always have a purpose in mind before making a cut.

What not to do...

Do not top trees

This hideous, high maintenance, expensive practice stubs off large limbs regardless of their function and location within the tree. Topping subjects the tree to large open wounds that will not quickly or easily close. It allows insect, disease and decay damage to occur and drastically shortens the life of your tree.

Many times homeowners top trees because they believe the tree is getting too large. Instead of making the tree smaller, topping stimulates the rapid growth of multiple, weakly attached branches.



These branches quickly get as tall or taller than the tree was prior to pruning, thus negating the reason for topping in the first place. **People and tree care services that advocate topping are not knowledgeable of tree biology and should never be allowed to work on your trees.**

Flush cuts

Making a finishing cut that removes the branch bark ridge and branch collar (see Fig. 2) creates a large wound and causes uneven and incomplete wound closure. Compare the results below of a flush cut (left) and proper cut (right).

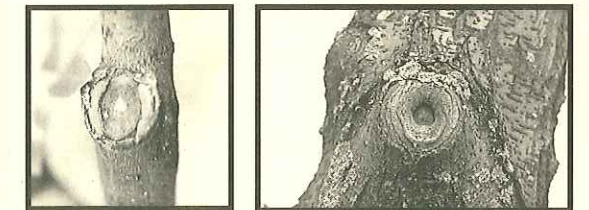


Figure 2