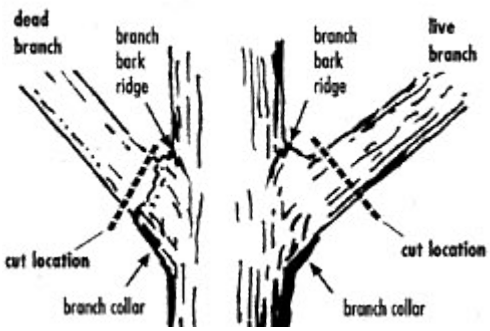
Winter is such a great time of year to prune most trees. It has many advantages over summer pruning.

- Defective tree parts such as dead, cracked or broken branches, weak forks and branch unions and other structural defects are easy to see when trees are without leaves.
- Trees can adapt to the loss of branches by adjusting the size or number of leaves the following season.
- Trees rapidly develop callus tissue around pruning cuts during the following summer, especially on cuts made in late winter.
- Tree pathogens are dormant so there is little risk of spreading infectious diseases.
- Frozen soil supports heavy equipment such as bucket trucks with little or no lawn damage.
- High-quality mulch can be processed from leafless debris.
- Qualified arborists and tree workers are more readily available.



PRUNING PRIORITIES:

FOR SAFETY

- Remove dead, damaged or broken branches, or branches that are weakly attached.
- Train a young tree to have one main trunk by pruning off branches (double leaders) that turn up and compete with it.
- Train a young tree to have well-spaced, well-attached side branches.
- Remove branches that interfere with the sidewalk, the street or other human needs.
- Let a professional with special training and special equipment remove branches that grow toward electrical power lines.

FOR HEALTH

- If two branches cross or rub, remove the least desirable branch. Remove diseased and low-vigor branches, suckers and water sprouts.
- Prune low, temporary branches so they stay smaller than half the diameter of the trunk.
- If a branch rubs on a sign, wire or other object that might damage the bark, remove it or prune it back to a side branch that is growing in a different direction.
- Thin branches for good structure, air movement, light penetration and/or weight reduction.
- Look for girdling roots and cut them before they strangle the tree.

FOR APPEARANCE

Before you prune for appearance, consider:

- What is the natural shape and character of this tree? If a tree has the natural pyramidal form of a littleleaf linden, do not try to change it into the rounded form of an Ohio buckeye.
- What is the function of this tree? If a tree is supposed to slow the winter winds or block an unsightly view, don't remove the lower branches that do that job. If a tree is supposed to frame a view, not hide it, remove branches that are in the way.

WHEN TO PRUNE

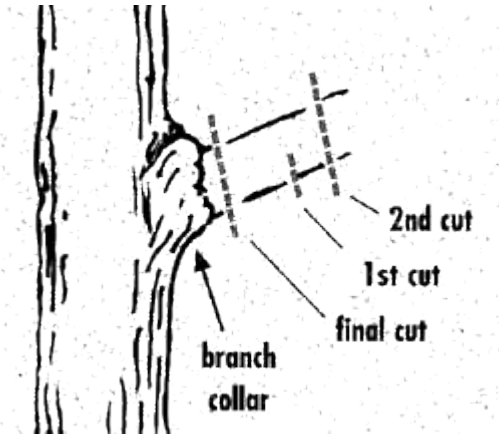
Start winter pruning in November and finish by April 15. Avoid pruning live wood from trees when leaves are forming or falling. During these times, the tree is busy either putting on spring wood and new leaves or storing starch and putting on new roots. Less energy is available to respond to pruning wounds than at other times of year.

Begin pruning a young tree the first winter after planting. Prune sparingly if last season's twig growth was less than 4" in length.

Removing dead and damaged branches are all that is usually needed for a mature tree that has had regular care throughout its life.

Source: http://www.dnr.state.mn.us/fid/october98/10019808.html

HOW TO PRUNE



Before you prune, inspect your tree from the top down and plan the work. Remember tree safety and health come before appearance. Make pruning cuts with respect for the natural defense system of the tree. Make cuts at branch unions. Leave branch collars. Use sharp tools and make smooth cuts. There should not be any loose bark around the cut. If a branch is too big to hold in your hand, use three cuts to remove it. When you must cut the main part of a branch back to a side branch, the side branch should be large enough to become the new leader. Select a side branch that is one third or more the diameter of the branch that you must cut off.

Learn to tell the difference between a strong branch union and one that is weak. A strong union is U- shaped and has a ridge of branch bark running through it. A weak branch attachment has a narrow, V-shaped union and bark turns into the union and is trapped between the branches. Never damage a branch collar with a pruning cut.

Plan which branches to remove so your tree develops well-spaced side branches. For a strong tree, the side branches should be less than one half the width of the main trunk.

PRUNING A YOUNG TREE

- Prune every one to two years.
- Limit pruning to one fourth of the live branches per year.
- Look specifically for branches that turn up and compete with the leader (trunk) and remove them completely or head them back to slow down their growth.
- Leave lower branches on the tree for several years, but keep them small relative to the trunk until it's time for removal.
- Select the main side (scaffold) branches that are well spaced along the tree trunk; about 18 inches apart on large species trees; 6-8 inches apart on small species trees.
- Remove broken, split or rubbing branches and those that interfere with the tree trunk or the main branches.

PRUNING A MIDDLE-AGED TREE

- Prune every two to four years.
- If you need a ladder or a chain saw, hire a professional arborist.
- Remove fewer live branches than you would on a young tree.
- Continue to prune as for a young tree to develop a strong trunk and well-spaced, well-attached branches.
- Remove problem branches such as those blocking site lines or rubbing on buildings.
- As the height of the tree increases, remove temporary lower branches in the bottom one-third of the tree. PRUNING A MATURE TREE
- Hire a professional arborist to prune the tree every five years.
- Remove dead, cracked and broken branches and only a few live ones if necessary.
- Never remove more than one-fourth of the live foliage in a single season.
- When old, dead branches have collars grown out along the branch, remove the branch and leave the collar uninjured.

Source: http://www.dnr.state.mn.us/fid/october98/10019808.html