

DORMANT SEASON TREE PRUNING

Most of the leaves are gone or nearly gone from the trees with the arrival of winter. You can see that there are some broken limbs or one side of the tree needs some pruning because it is growing too close to your house. Or, the tree limbs have overgrown the sidewalk or street on your property and are in need of trimming. Pruning trees from late fall to early spring is an ideal time to take care of those problems. Nip them in the bud, so to speak. Most all of the branches are visible making it easier to determine where pruning is needed.



During the dormant season insects and pathogens are less active and therefore are less likely to spread. Tree limbs are lighter with the leaves gone and it's easier to access most parts of the tree. And with fewer leaves, less cleanup is necessary. And with colder temperatures, as the ground hardens there is less damage from trimmed tree limbs and branches when they land below.

Before you decide to prune a tree, the purpose of the pruning needs to be established. The following types of pruning are to be considered;

- **Structural.** Removal of live limbs to maintain health and influence future growth. Good structural pruning over the life of a tree helps reduce the risk of tree, limb and branch failure.
- **Cleaning.** Removal of dead or diseased limbs only in order to promote and maintain tree health and to reduce the risk of failure.
- **Thinning.** This is the selective removal of small live branches to reduce the density of tree limbs in the top of the tree (crown) or to remove sprouts from the base or interior. Thinning is done to maintain health, reduce shade and wind resistance, influence flower or fruit production, improve the view or appearance of the tree. Caution must be exercised to not remove more than 40% of the tree limbs or remove the lower two-thirds of a tree crown. This can cause significant overall tree health to decline.
- **Raising.** This is the removal or reducing the number of lower branches to provide vertical clearance, improve a view or improve appearance. Never remove more than 1/3 of the crown when raising.
- **Reducing.** This is the selective removal of branches or stems to decrease the height or spread of the tree. This type of pruning can reduce the risk of failure and provide clearance and is typically done on smaller diameter limbs and branches. It will also help lower the incidence of decay. When trimming a small limb back to a larger branch no more than 25% of the leaves should be removed.
- **Restoring.** The main purpose of restoring a tree is to improve its appearance. Restoration pruning focuses on removal and reduction of new branches or sprouts to encourage tree growth back to its natural form. Usually about a third of the sprouts are removed until adequate branching is achieved.

- **Pollarding.** This type of pruning is to maintain tree size or influence a desired shape. It is normally done for aesthetics or for clearance. This is usually started when a tree is young by heading back limbs to desired points and then pruning sprouts **annually**, particularly if a reduced height is intended.
- **Conifers.** Some the pruning types mentioned may not be appropriate for conifers. For example, branch spacing is usually not necessary. Thinning on fir and spruce trees are rarely needed. Most conifers do not respond well to raising and reducing types of pruning.

Once you have determined the type of pruning necessary, the objective of your pruning should be decided upon. There are a number of pruning objectives to be considered;

- **Reduce Risk of Failure.** Risk of tree failure can be reduced by using one of several strategies. Structural pruning is for young trees less than 25 years old. For middle to mature aged trees cleaning, thinning, reducing, raising or restoration pruning can be used.
- **Provide Clearance.** Over time there can be a conflict of clearance between structures or other trees. Complete limb removal, raising, reducing or reduction type pruning can be used for this objective.
- **Reduce Shade and Wind Resistance.** To reduce shade or improve a trees' resistance to wind damage, thinning, reducing, or pollarding can be used.
- **Maintain Health.** Cleaning is the most appropriate type of pruning to promote tree health.
- **Influence Flower or Fruit Production.** Thinning or reducing type pruning can be used to promote flower or fruit production.
- **Improve a View.** Thinning, reducing pollarding, and raising can improve a view. This is also known as vista pruning.

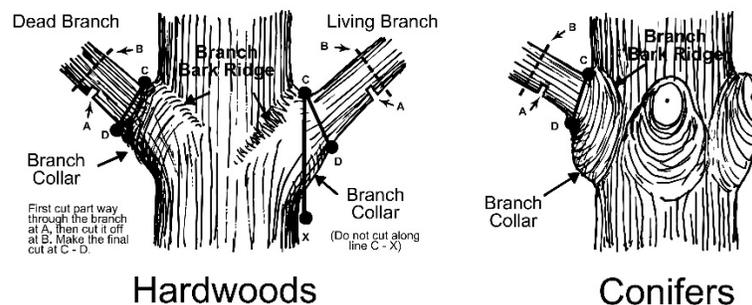
An important note should be made at this point. Never, ever top a tree. That is, never trim the tops and branches of trees down to the trunk leaving a stub. The damage this creates is irreversible and the life span of the tree will be reduced significantly.

You now know the objective of your pruning and the type of pruning necessary to meet those objectives. Proper pruning techniques help develop structurally sound and healthy trees. Keep in mind that any pruning you undertake will lessen the natural form that the tree tries to maintain. Pruning should be done with care so as to not injure the adjoining tree trunk, limbs, or branches. It is important to make the proper cuts so as to lessen the impact on the health of the tree. Failure to make a proper cut or damaging adjacent limbs can result in the eventual decay or the introduction and spread of fungus in the tree. Invasive insects are more likely to take up residence in a tree that has a wound that has not sealed properly.

There are generally three types of cuts that are recommended for tree pruning;

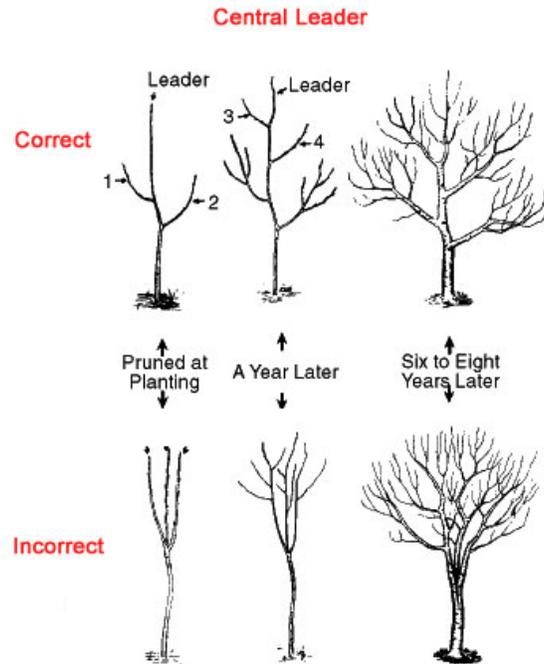
- **Branch Removal Cut.** Also known as a thinning cut, the goal is to remove a limb as close to the trunk as possible without damaging the branch collar.
- **Branch Reduction Cut.** Reduction cuts are made to shorten a limb or branch down to a smaller sized limb. A rule of thumb for reduction cuts is that the limb that remains should not be less than 1/3 to 1/2 the diameter of the removed limb.
- **Heading Cut.** A heading cut is made between branches that often leaves a stub. This is also considered a topping cut and should never be used unless you are removing flowers or trying to initiate sprouting on younger trees.

Proper Pruning Principles



When pruning or removing a branch a three step process should be used. The first cut is an under cut, the second cut is a cut above and outside the first cut, to drop the branch and leave a stub. The third cut is to remove the stub

by cutting back to the branch collar. Cutting too deep into the branch collar, called a flush cut, or a cut that leaves a branch stub is improper and will inhibit the trees response to seal the wound.



It is important to have the proper pruning tools to ensure the best technique. Hand pruners for small limbs 1 inch or smaller, loppers for limbs up to 2 inches, hand saws, pole saws and pruning chainsaws for larger limbs and extended reach. Make sure that your tools are sharp to prevent unnecessary tree limb injury and to make a clean cut. In some cases it may be necessary to sanitize the blades and teeth of the tools if you intend to remove diseased, infected, or tree limbs with invasive insects. Otherwise the spores, bacteria, or eggs can be spread not only from branch to branch, but tree to tree. To sanitize use 70% denatured alcohol or a 1:9 ratio of bleach to water. Tools should be immersed in alcohol or the bleach solution for 1 – 2 minutes and then rinsed with soap and water to prevent corrosion.

Pruning Tools



If you are ever in doubt of selecting the proper pruning type, pruning objective, or using the right tools for the job, contact a certified, professional arborist for the best advice. By making the proper pruning cuts now during the dormant season, you will be investing in the health of your tree for the future.