

Improve your winter pruning practices

As summer gives way to fall, the days grow shorter and temperatures begin to drop. This reduction in the photoperiod (length of daylight) sends signals telling trees to begin the process of entering a dormant state. At this time, most functions that promote the tree's growth and reproduction slow down, a process facilitated by the specialized hormone abscisic acid (ABA).

The formation of ABA is most easily recognized by changing leaf colors. These wonderful fall colors are expressed while the tree works to consolidate and reabsorb nutrients used during photosynthesis. When the process is complete, ABA (along with the additional hormones auxin and ethylene) trigger leaf abscission or leaf drop, the final step to dormancy.



Photo by Jacob Mares.

Why prune in winter?

The dormant season (November through March) lends itself to tree pruning in many ways. The absence of leaves makes it easier for arborists to determine which cuts they will make to improve the overall health and structure of the tree. While trees can be pruned year-round, the dormant season is the safest time to prune live wood and reduces the amount of stress the tree incurs.

Making cuts in the dormant season also reduces the chance of spreading diseases or attracting harmful insects. Still, never dispose of wood suspected of harboring diseases at a site near your trees.

Plan ahead

The bare branches of a dormant deciduous tree provide an unimpeded view of the tree's structure. Before pruning, take time to familiarize yourself with the tree. The methodology of pruning a fruit tree is

quite different from that of a shade tree, so proper identification is critical. Each type (genus/species) of tree has a specific growth pattern and needs that should be addressed during the pruning process.

In addition to assessing the tree's structure, consider its surroundings and the possible conflicts that could arise as it matures. Structures such as buildings and power lines may necessitate branch removal. Make sure to consider how a growing tree could affect areas that you play, park, or walk under.

Manage risk

Proper pruning practices can mitigate possible failures and lower the risk of accidents. Each cut made during the process should take these factors into consideration. Remember the following rule of thumb: **If it feels unsafe, it probably is.**

Prepare for the work by inspecting the tools and personal protective equipment (PPE) you intend to use while pruning. If you plan to use a ladder, complete a thorough inspection of all components before use. To lower the risk of a fall injury, consider asking another person to be on site while you're using the ladder.

Saws and hand pruners should be kept as sharp as possible to ensure clean cuts that heal properly. Tears in the bark and jagged cuts are hard for the tree to compartmentalize and can lead to bacterial infections and decay.

Always wear gloves and be alert when making cuts. Most arborist saws are extremely sharp, so be cautious when using them. Contact a certified arborist to tackle larger jobs that require specialized equipment and training. Chainsaws should only be used by professionals trained in tree-related use!

Start pruning

Once you've assessed your tree's pruning needs, start by removing the lowest, largest limbs you have targeted. The lowest permanent branch on most shade trees should be around 12 feet off the ground. These



How to make a snap cut. Photos by Jacob Mares.

cuts generally create the largest wounds and should be made when the tree is young if possible. On larger limbs, make snap cuts to minimize the chances of bark being stripped from the main trunk.

When you need to remove branches on immature trees, it is best to wait until they approach half the size of the main stem. Branches with poor (acute) attachment points should be removed. If they cannot be removed, because it might reduce the canopy too much or create too large a hole, suppression cuts can be used. These cuts remove growth from the end of a branch, which slows (suppresses) its growth.

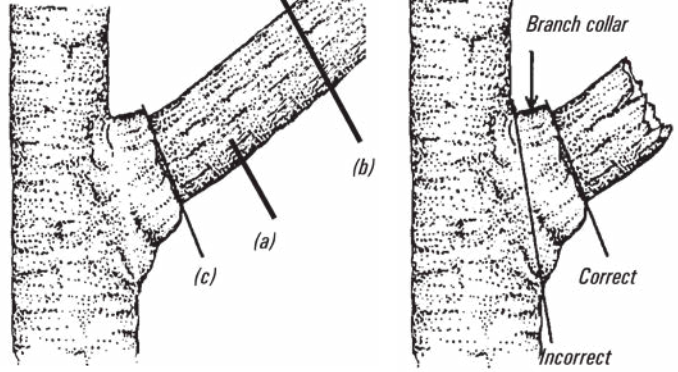
Always cut back to the next branch union to avoid leaving stubs, which can lead to branch die-back.

Take time to make clean cuts that will allow the



Poor attachment point. Photo by Jacob Mares.

Pruning large branches



Snap Cut

(a) Undercut one-third of the way through the branch.
 (b) Cut through until the branch falls away. (c) Cut back to the collar.

Remove branches flush with the collar, not flush with the trunk.

Credit: Sustainable Horticulture for Wyoming: Master Gardener Handbook, <https://bit.ly/master-gardener-handbook>

tree the best chance at healing. Wounds created too close to the trunk (flush cuts) can be detrimental to the health of the tree. Make cuts that reflect the angle of attachment and avoid damaging the branch bark collar. Removing this area puts the main stem at risk for infection and greatly reduces the tree's natural ability to close the wound.

Never apply wound dressing to trees! Products like tar, paint, and asphalt only serve to seal in moisture, which can lead to decay.

For more tips and practical advice on tree pruning, refer to the *Wyoming Tree Owner's Manual*. Digital copies are available at <https://bit.ly/all-things-trees>.

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The 1/3 Rule

When pruning, keep the following principle in mind: Never take more than one-third of live wood during one season. The removal of dead wood does **not** count toward the one-third rule; however, it can be difficult to assess dead branches during the dormant season. Making a single discard pile provides a visual reminder of how much wood you have removed and helps dictate whether you should proceed with further cuts.