



PLANT NEBRASKA

11 Tips for Successful Young Tree Pruning

Pruning can help to establish good structure and maintain tree health; reduce hazard risks; provide pedestrian or roadside clearance; influence flower or fruit production; and improve aesthetics. Here are some tips to consider:



1 First, do no harm. Pruning should be done with careful forethought, since it creates open wounds and reduces a tree's ability to produce food and store energy. Use proper, well-sharpened tools. A high-quality handsaw, a pole pruner and a bypass pruner should be adequate for most young tree pruning. Do not use a chain saw.

2 Time it right. Late winter is an ideal time to prune (after the coldest weeks have passed) because there is little chance for infection. Late spring or early summer after the tree has bloomed and leafed out is also a good time to prune. Avoid heavy pruning during springtime growth and during the late summer and early fall. Due to the potential for spreading oak wilt or Dutch elm disease, do not prune red oak species or American elms during spring or summer.

3 Prune trees within the first three years. Shorten lateral branches (those growing out from the trunk) so they do not grow thicker than half the trunk diameter.

4 Remove dead, damaged and diseased branches to prevent insects and decay organisms from entering the tree. Eliminate crossing branches to avoid damage from rubbing, and remove suckers and water sprouts (shoots growing out of dormant buds) to provide more food and water for the tree.

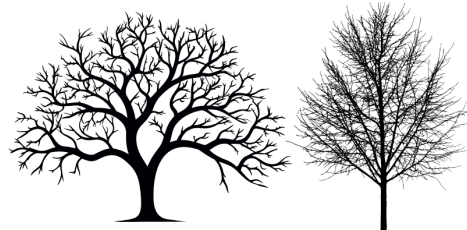
5 Identify the lowest branches in what will become the permanent canopy. Then shorten the lowest branches while the tree is still developing. These low branches can be completely pruned off later.

6 Consider the tree's branching structure. Trees have either excurrent branching (meaning there is one strong leader branch) or decurrent branching structure (meaning there are multiple leaders).

For trees with excurrent branching, prune to remove co-dominant stems to maintain a single, dominant leader. Multiple leaders make a tree more susceptible to wind and storm damage. Trees with decurrent branching do not need multiple leaders pruned.

7 Look for included bark, a weak spot in a tree where two or more branches grow too close together, trapping the bark between them. This can lead to splitting branches, especially during a storm. Shorten branches that have included bark to slow their growth.

decurrent vs. excurrent



11 Tips for Successful Young Tree Pruning



8

Make the right type of cut.

Removal cut—cutting a smaller branch back to a parent branch or the trunk.

Reduction cut—shortening a branch by cutting it back to a smaller lateral branch.

Subordination—reducing competing leaders or stems

9

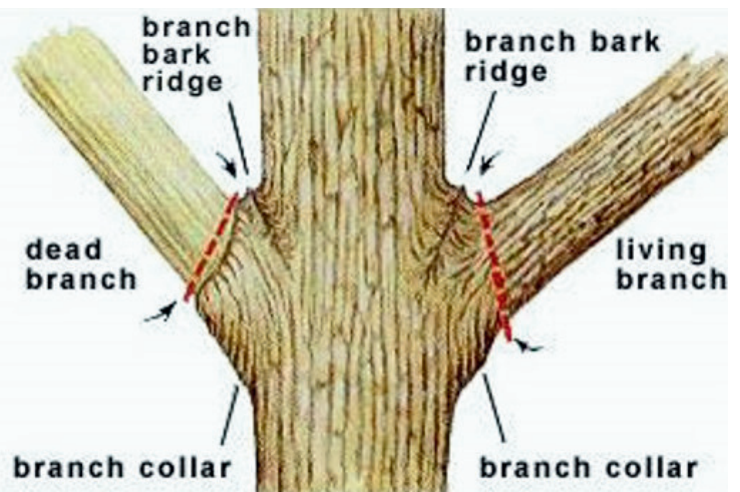
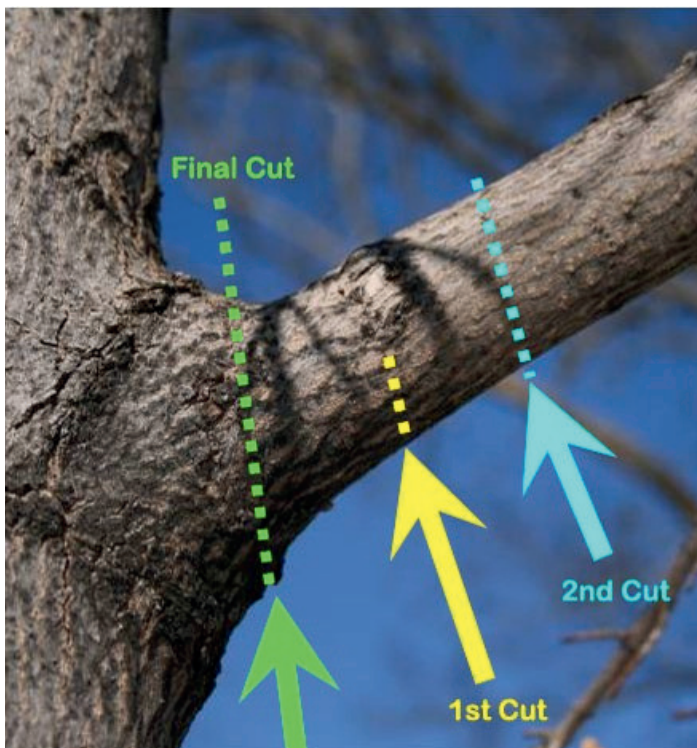
Make the cut in the right spot.

Structural pruning cuts should be made just outside the branch bark ridge and branch collar (see illustration at right; the dotted red line is the pruning cut). Cutting into the branch collar risks compromising the wound closure.

10

Prevent branch ripping.

For heavier branches, use the three-cut method (illustrated below) to prevent ripping the bark along the trunk. The first cut is the undercut (this is what prevents the bark from tearing). The second cut removes the length of the branch beyond the undercut and the final cut removes the stub.



11

Avoid These Mistakes

Try not to remove more than 25% of a tree's canopy at any one time. In general, prune trees more aggressively for good structure when young. Prune mature trees for load reduction and risk mitigation.

Avoid topping (drastic removal of large branches on mature trees) and crown thinning or lion tailing (removing interior branches to leave tufts at the ends of upright branches), which make the tree more prone to storm damage.

Don't cover the wound. A pruning wound never heals. Instead, the tree grows new tissue (callus) over and around the wound to prevent the spread of decay.

Visit plantnebraska.org for more tips on sustainable landscaping, tree care, watering guidelines and our lists of recommended trees.