



TREES & SHRUBS

Pruning Deciduous Trees

no. 7.207

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Quick Facts...

Pruning branches with a flush cut is incorrect and can lead to poor tree health.

Remove branches outside of the collar and branch bark ridge to preserve a natural barrier zone in the tree.

Do not prune away any portion of the trunk, including trunks that have divided.

Do not top any tree.

Wound dressings are not useful and can harbor disease organisms.

The key to good wound closure is to maintain tree health.

As trees grow, they form natural barrier zones at the base of each branch. Should storm damage or pruning occur, these barriers protect the tree from invading organisms such as decay and cankers. This barrier zone is not at the exact point where the branch and trunk appear to join when viewed from the outside. The barrier zone actually is a short distance (usually less than 1 inch) away from the trunk. Thus, when a branch is flush cut, the natural barrier zone is removed.

To identify the barrier zone, look closely at a branch. Near its base, there is a distinct swelling or collar, and often a ridge of bark that is distinct from the bark areas on either side. This ridge varies according to the angle of the branch as it is attached to the stem. The barrier zone is located in the collar area outside of the **branch bark ridge**. When you prune away a branch, always cut just outside of this collar to preserve the barrier zone (Figure 1).

Some trees do not have a distinct collar and ridge that completely circles the branch. In these cases, locate an area on the branch that is distinct and make your cut at a right angle to the branch (Figure 2).

Depending on the tree type, this procedure may leave a knob or slight stub. Do not, however, leave stubs beyond the collar. Such stubs will die back and allow decay organisms to get a foothold to enter the tree.

Not All Branches Are Branches

Most trees have a central trunk, but this trunk often divides into several stems that appear to be branches. These are referred to as **codominant stems**. If a stem cut **must** be made, always cut outside of the bark ridge (Figure 3).

Avoid removing stems, where possible, because there is no natural barrier zone where two or more stems join. Organisms have an easier time invading such cuts. Pruning out codominant stems also tends to promote weak sucker growth (water sprouts). **Avoid topping or pollarding any tree!**

Large Branch Removal

When removing large branches, first make an undercut several inches outside of the collar. Next, remove the limb with a second cut an inch or so outside of the undercut. This removes the limb weight and prevents stripping of the bark when the limb falls. Make the third cut just outside the collar, as described above (Figure 4).

Wound Dressings Not Useful

Wound dressings have been shown to interfere with the natural development of callus tissues that eventually close the pruning wound. In some cases, wound dressings can even harbor disease organisms, much like what

Safety First

If you need to climb more than a step ladder, or if the tree limbs to be removed are large or may fall onto utility wires or a structure, it is best to hire a bonded, professional tree company to do the job.

occurs when a bandaid is left on a skin cut too long. It is far more important to make the cut smooth, outside of the collar and allow the wound area to dry.

If a wound dressing is desired for aesthetic purposes, use a very thin coat, just enough to darken the wound area. Aerosol sprays of water-emulsified asphalt sold in garden centers are best. **Do not use oil-base** paints, thick tars or other materials that contain petroleum solvents.

Maintain Tree Health

The key to good wound closure following pruning is to maintain a healthy tree through proper watering, fertilizer application and pest control. Trees under stress from drought, overwatering, pest attack, lawnmower and other mechanical damage, and poor nutrition cannot successfully fight off invasion of organisms.

For other information on maintaining tree health, managing pests and proper watering practices, consult the Colorado State University Cooperative Extension office in your county for other fact sheets.

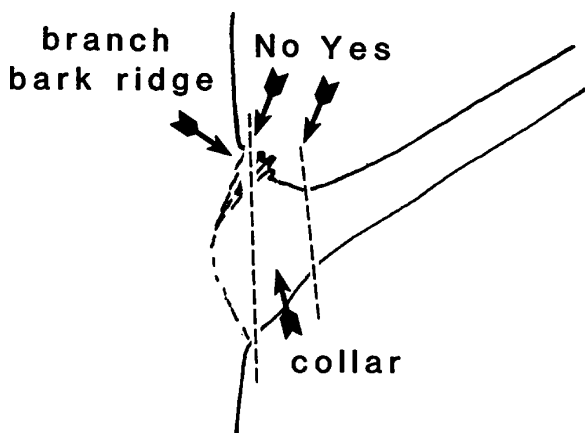


Figure 1: When removing a branch, always cut outside the branch bark ridge and collar. Do not make a flush cut.

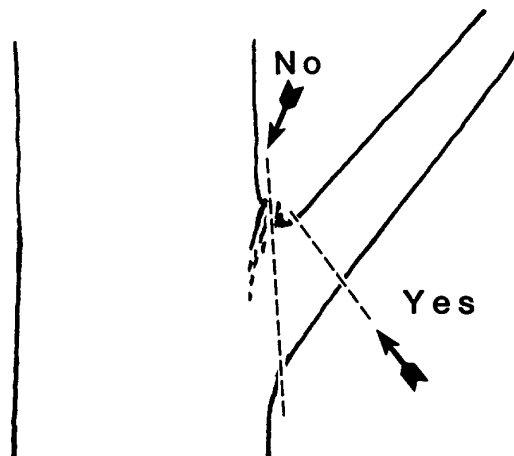


Figure 2: Branches that do not have a distinct collar should be cut at a right angle to the branch outside of the branch bark ridge.

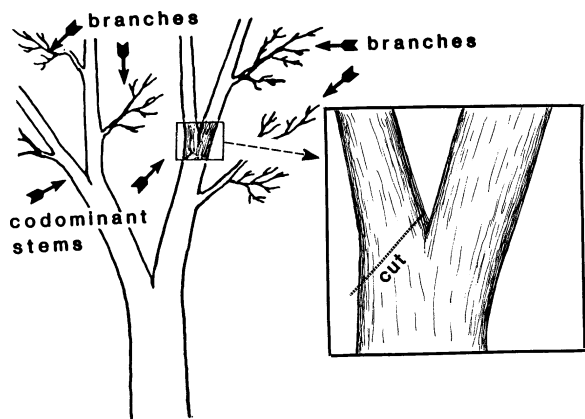


Figure 3: Trees have both branches and stems that look like branches, called codominant stems, as shown on the left. If a codominant stem must be removed, cut at an angle outside of the bark ridge as shown in the insert at right. Avoid leaving any stub.

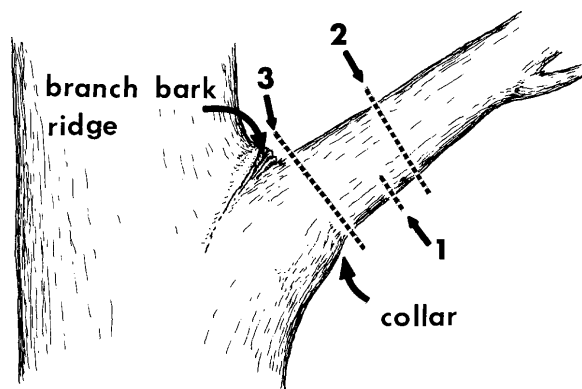


Figure 4: When removing heavy limbs, first make an undercut several inches outside of the collar. Then remove limb by a second cut an inch or so outside of the first cut. Remove stub with a third cut just outside of the collar.

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