

Training Young Trees

For Structure and Form





When is the best time to prune?

- It is best to prune most trees during the dormant season (December to February), or as close to the dormant season as possible.
- For mature native oaks, pruning during the dry season (late spring to late summer) is preferred to reduce the chance that decay fungi will invade new pruning wounds.
- Light pruning and removal of dead wood can usually be done anytime.
- Avoid pruning during the spring growth flush.

Why should we train young trees?

- Improve structural strength – to remove branches that will be more prone to breakage as the tree grows.
- Reduce future maintenance – good branch distribution and structure will reduce the need for future maintenance and will make any needed maintenance easier.
- Increase tree longevity – properly trained trees are less likely to suffer branch breakage that can shorten tree life.

Pruning tools

- **anvil bladed pruners** (left side of picture) have a straight cutting blade that presses onto an expanded flat platform (anvil) to sever the stem. These have the strength to cut small branches, but the wide anvil makes it hard to cut branches at the branch collar and it often damages tender bark;
- **bypass bladed pruners** (right side of picture) are recommended for tree pruning because the curved blade makes a clean cut on the branch bark and the pointed tip will reach into crotches to make close cuts.



Loppers

- **Loppers** are designed for cutting larger branches from one-half inch to possibly two inches diameter. They come in different sizes, with larger blades and longer handles for cutting thicker branches.
- Some *anvil bladed* loppers may be available, but these are not recommended for pruning trees. Select *bypass bladed* loppers for pruning trees.



Tree saws may be used on any size branch and are required for larger branches. Saws with folding blades (center in picture) are becoming popular because they are safer to store and transport. If you select a rigid saw, you will probably want to purchase a scabbard to protect you and the blade during storage and transport. Scabbards also may be attached with snaps or carabiners to belts and belt loops of pants for easy carrying and quick access.

Tree Saws



Pole Pruners/Saws

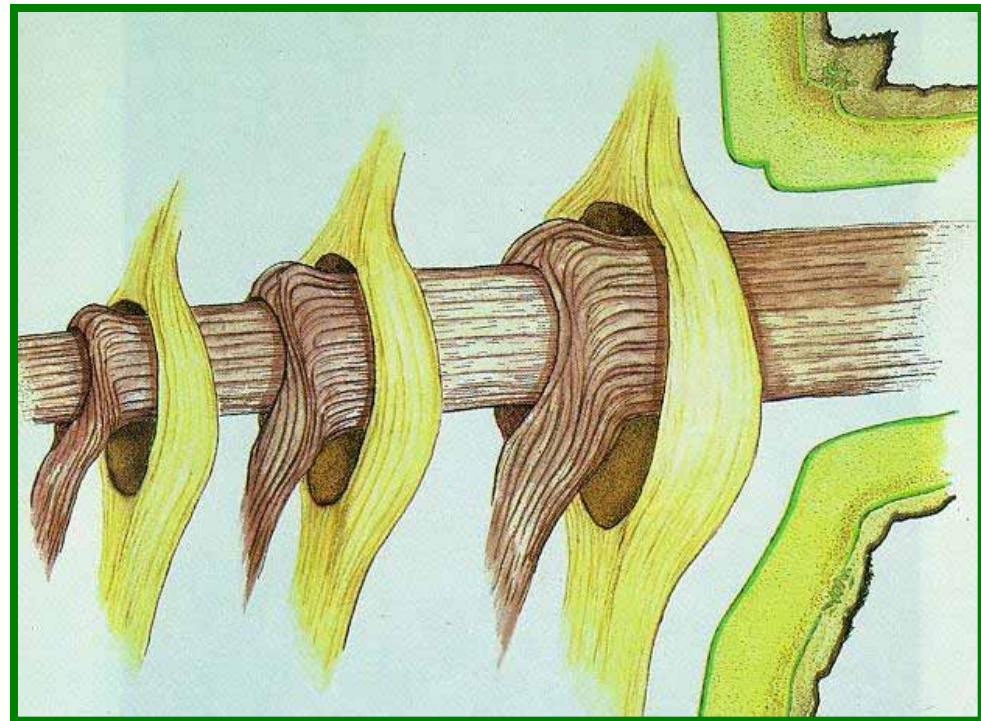
Pole Pruners (top in picture) are modified hook-and-blade loppers on an extension pole that are operated by pulling a rope. This allows a person to stand at ground level and perform basic pruning in tall trees. The maximum reach is about 12 feet. Sometimes the hook portion cannot be positioned exactly to make a natural target prune. After making about five cuts, we suggest you pause and bend your head to look at your feet to relieve the strain on your neck muscles.

Pole Saws (bottom in picture above) are similar to pole pruners, but a saw blade is attached to the end. Some manufacturers make telescoping extension rods for poles, and other manufacturers use sectional extensions as shown with snapping locks. A pole may be extended to 24 feet if you are strong enough to manipulate it.



Proper Pruning Cuts

The tissue outside the branch collar is separate from the trunk itself. If you prune a branch and protect the branch collar, the wound area will be as small as possible.



Expanded Branch and Trunk Collar.

Yellow is trunk tissue, red is branch tissue, yellow-green is phloem and bark tissue.



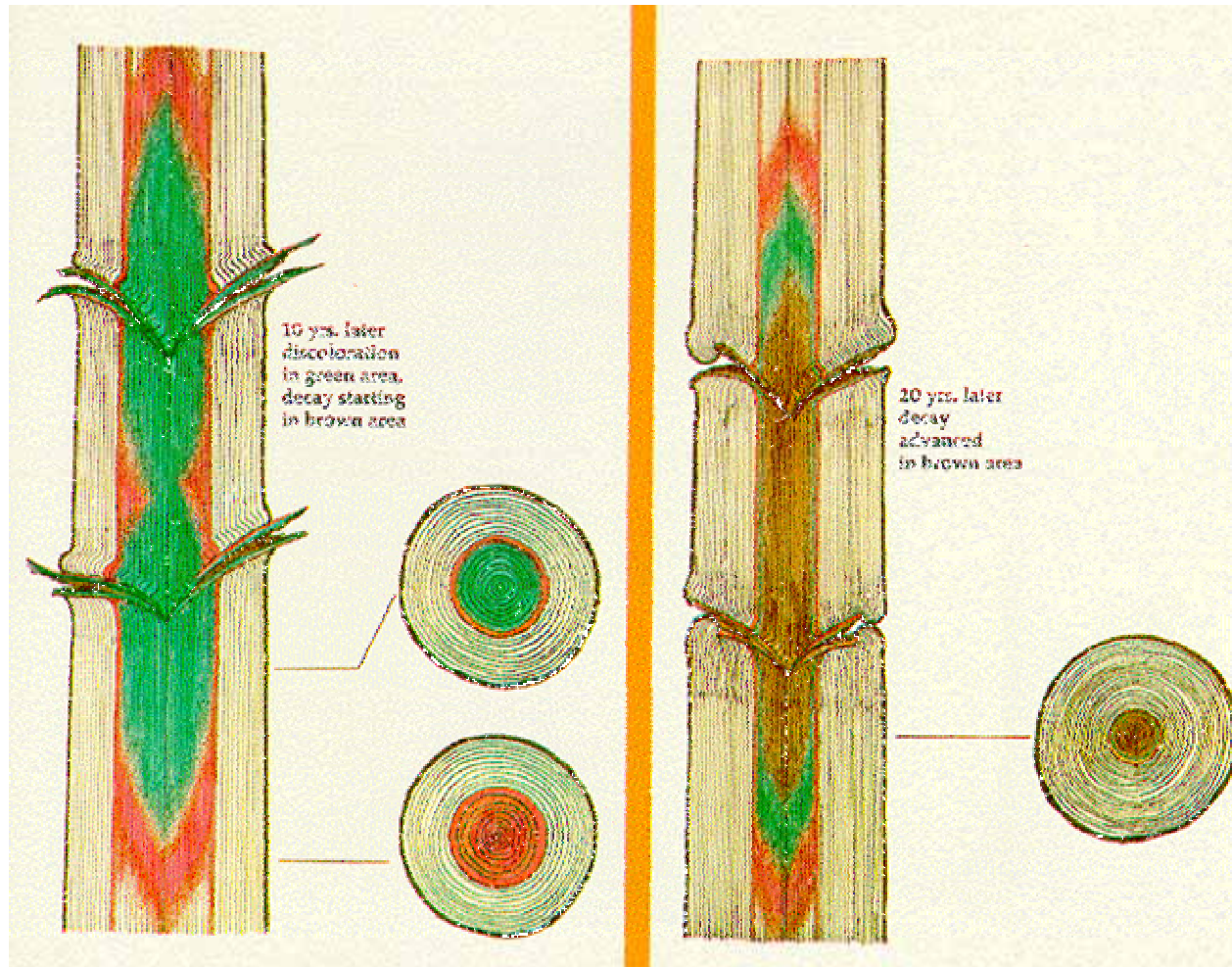
Poor Pruning



Poor Pruning



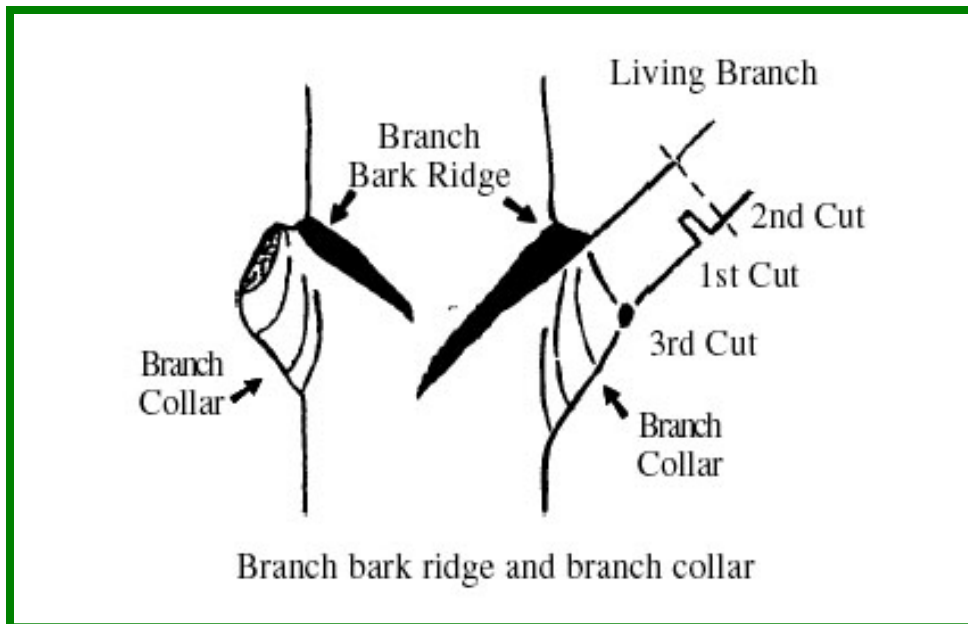
Great Pruning



Tree Wound Response

(left) 10 years later, discoloration in green area, decay starting in brown area.
(right) 20 years later decay advanced in brown area.

The 1 2 3 Rule



Pruning Cuts



Right



Wrong



Wrong

Pruning Options



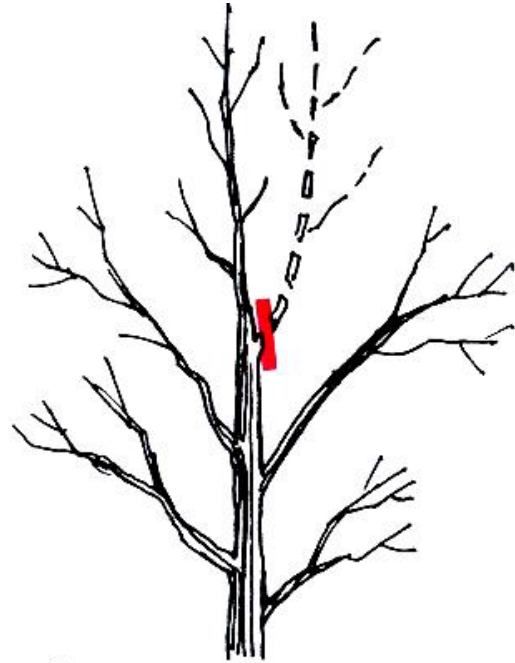
Before



After

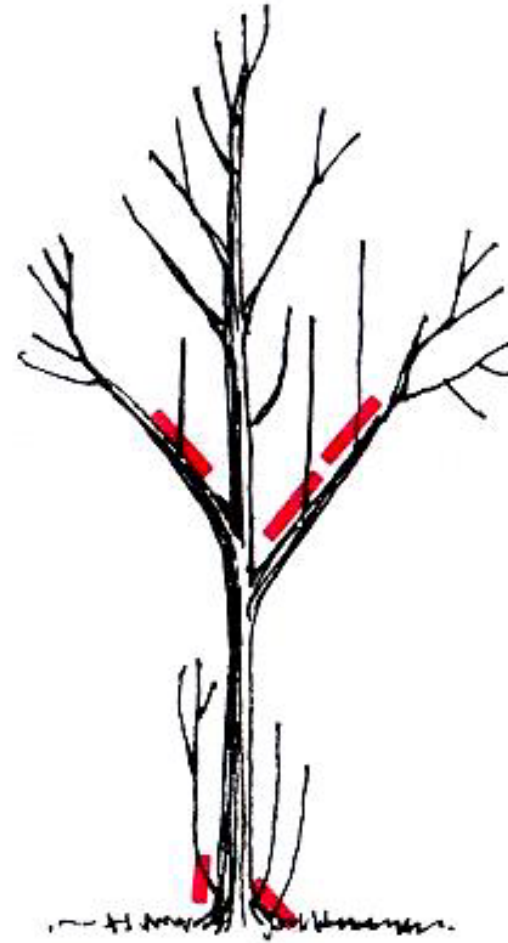


If you don't prune



Double Leaders

Pruning to eliminate a co-dominant leader on a young tree.



Water sprouts and suckers are thin, fast-growing twigs and stems that grow straight up from lateral branches in the canopy, or from the base of the trunk.



Pruning Fruit/Nut Trees:

<http://homeorchard.ucdavis.edu/general-pruning.shtml>

Five Steps for Training Young Trees

1. Remove broken, diseased, dying, or dead branches
2. Select a central leader and remove competing leaders
3. Select the lowest permanent branch
4. Select main (scaffold) branches and remove or cut back competing branches
5. Select and maintain temporary branches below the lowest permanent branch

Thank you



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