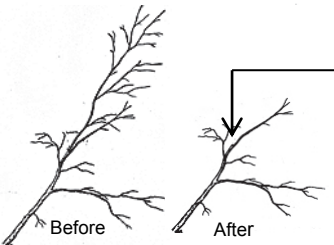
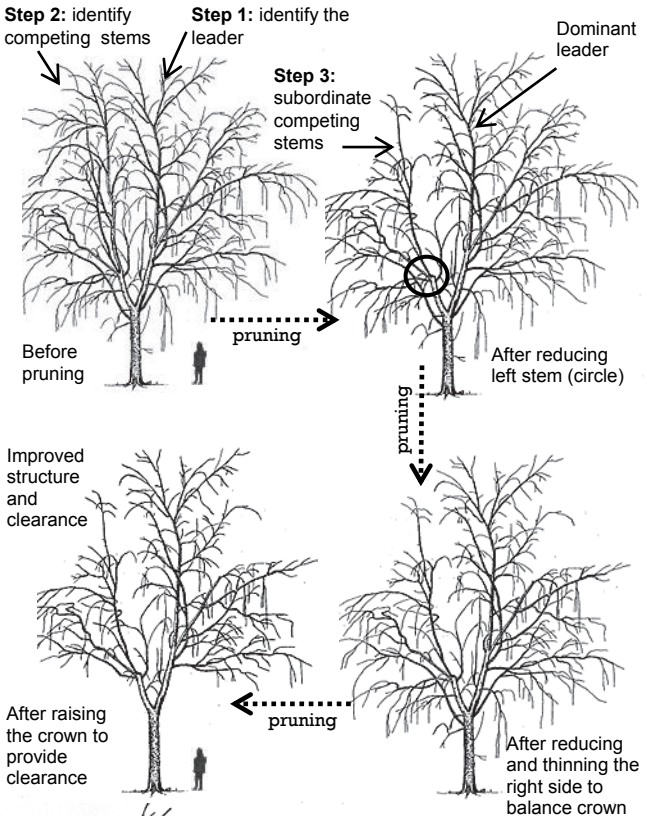


# Pruning Established Trees

The objective of **structural pruning** is to develop and maintain a dominant leader with branches that are no larger than half the leader diameter. Trees with this architecture are strong, have a high capacity to hold a large crown, and are efficient to manage. There are three steps to structural pruning.

- identify the stem that will make the best leader
- identify the stems and branches that are competing with this stem (i.e., those that are large relative to the trunk)
- subordinate competing stems and branches with reduction and removal cuts, balancing and raising the crown as desired



**Reduction cut:** Reduce a stem back to a live lateral branch to slow its growth. This subordinates the pruned stem forcing more growth into the unpruned leader (unpruned leader not shown).

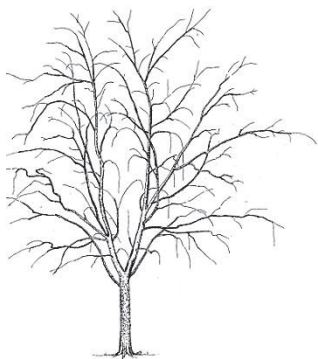
## OTHER PRUNING METHODS ON ESTABLISHED TREES

The primary focus when pruning established trees is to

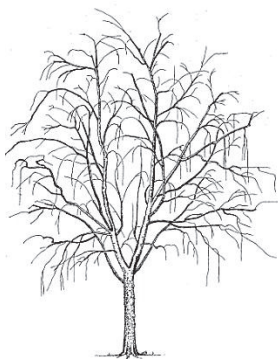
- reduce conditions that may contribute to weakness and failure
- provide desired clearance
- improve aesthetics

Structural pruning may apply a combination of two pruning methods (thinning and reduction, shown below) to certain sections of the crown to modify structure for the better, shown on the front side of this card. Following correction of structural weaknesses, other pruning methods can be applied to established trees. These include thinning, reducing, raising, and removal of dead and crossing branches (not shown). Each is used throughout the crown as shown below, or in portions of the crown. For example, one side of the crown was reduced to relieve a structural weakness and the other side thinned to balance shown on the front side of this cue card. Medium-aged and mature trees are the intended recipients of the thinning and reduction methods when they are applied to the entire tree, but neither corrects defects.

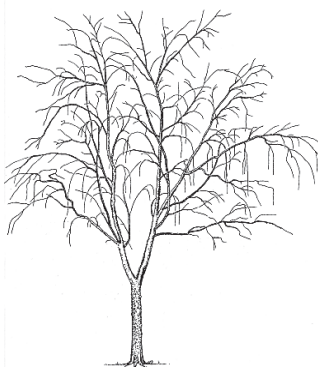
**Note:** Before-pruning illustration shown top left other side of card.



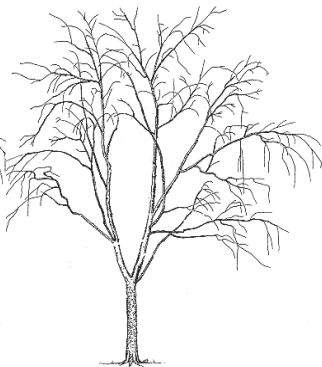
**Thinning:** branches removed mostly from crown periphery; tree crown remains same size



**Reducing:** longest branches shortened; tree crown gets smaller



**Raising:** branches removed only from bottom of crown



**Lions-tailing** (not recommended): branches removed only from the crown interior

Thanks to California Department of Forestry and Fire for also supporting this project.