



PRUNING

WHAT, HOW AND WHY



Mag Turple
Arborist 2
PARKS Planning and Technical Services

International Society of Arboriculture
Certified Arborist #PR-4787A



What is a Certified Arborist?

The International Society of Arboriculture (ISA) is a worldwide professional organization dedicated to fostering a greater appreciation for trees and to promoting research, technology, and the professional practice of arboriculture.



Did you know?

Trees can be valued up to \$30,000 and more!

AND

Trees and landscaping can increase property values by as much as 15%.



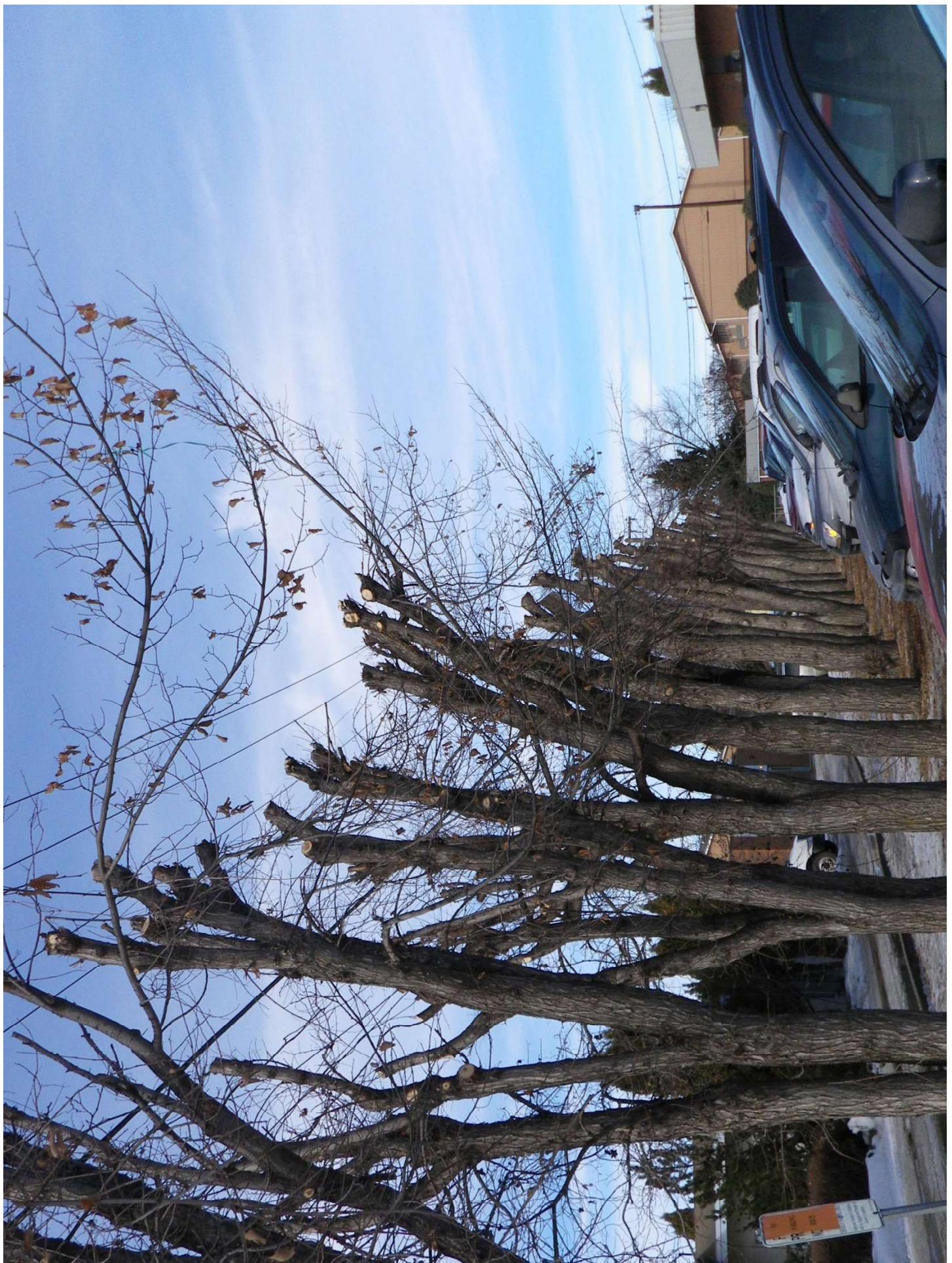


THE CITY OF
Red Deer



Poor pruning practices not only
disfigures and damages trees it also
devalues them.





Trees are an investment

Trees and shrubs require maintenance.

Maintenance can be complicated.

Proper maintenance and care when a tree is young can minimize problems in the future.



Do we have to corrective prune this to remove
crossing rubbing and start structural pruning?



Main objective of pruning:

- To produce strong, healthy, attractive plants.
- Begin with the end in mind.



Why prune?

1. Promote plant health
The three ‘D’s’ =
Deadwood, diseased & damaged



Why prune?

2. Aesthetics

Enhancing natural form, fruit and
flower production



Why prune?

3. Safety

Poor attachments, sight lines, utility lines



When to prune?

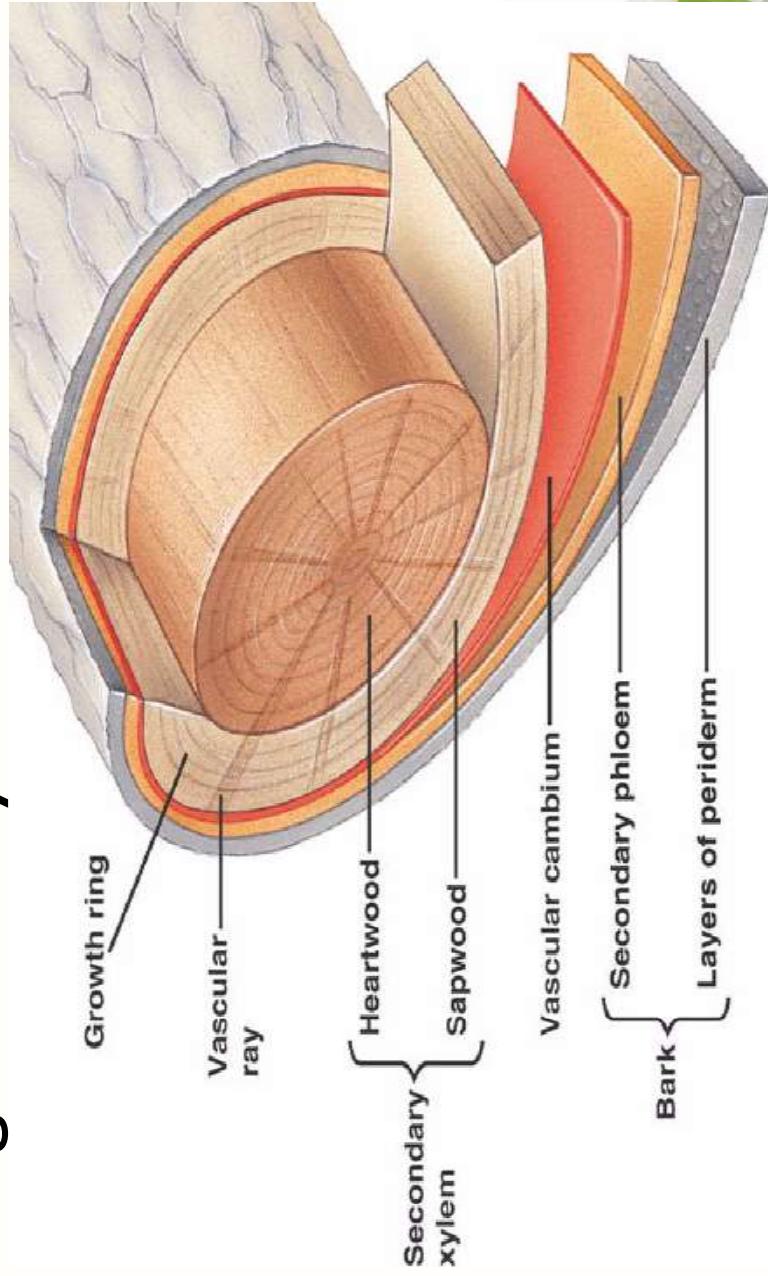
Optimum time = Full leaf or full dormancy

Worst time = bud break to full leaf expansion



TREE ANATOMY

Trees grow in layers



Leaves and twigs are arranged in either of the following ways:

- Alternate
- Opposite







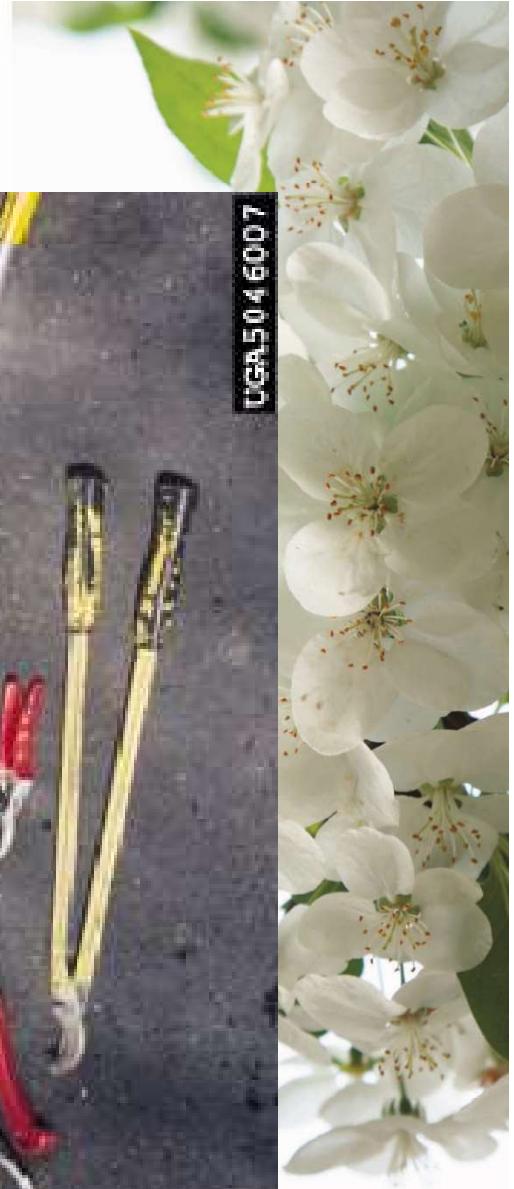


How to Prune Young Trees

1. Pruning tools
2. Making the cut
3. Establishing good tree structure
4. Pruning conifers
5. Types of pruning
6. Topping and tipping
7. Insects and diseases



I. Pruning tools



2. Making the cut

Where you choose to make the cut can be critical to the tree's response in growth and wound closure.



Natural Target Pruning

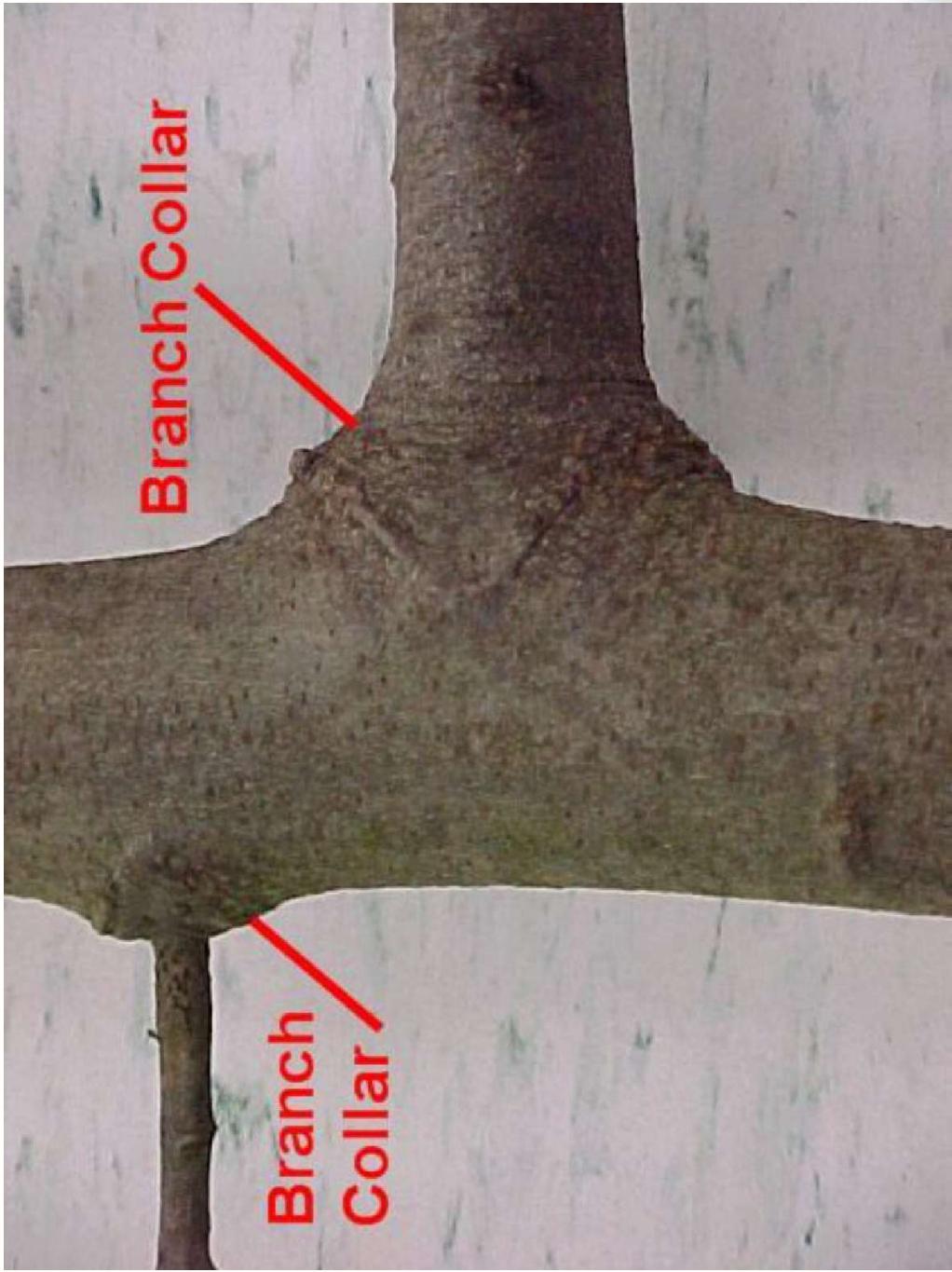
Natural-target pruning is a proven technique for removing branches that avoids discolored or decaying wood associated with other pruning methods.



Branch Collar

The *branch collar* is a ‘shoulder’ or bulge formed at the base of a branch by the annual production of overlapping layers of branch and stem tissue.





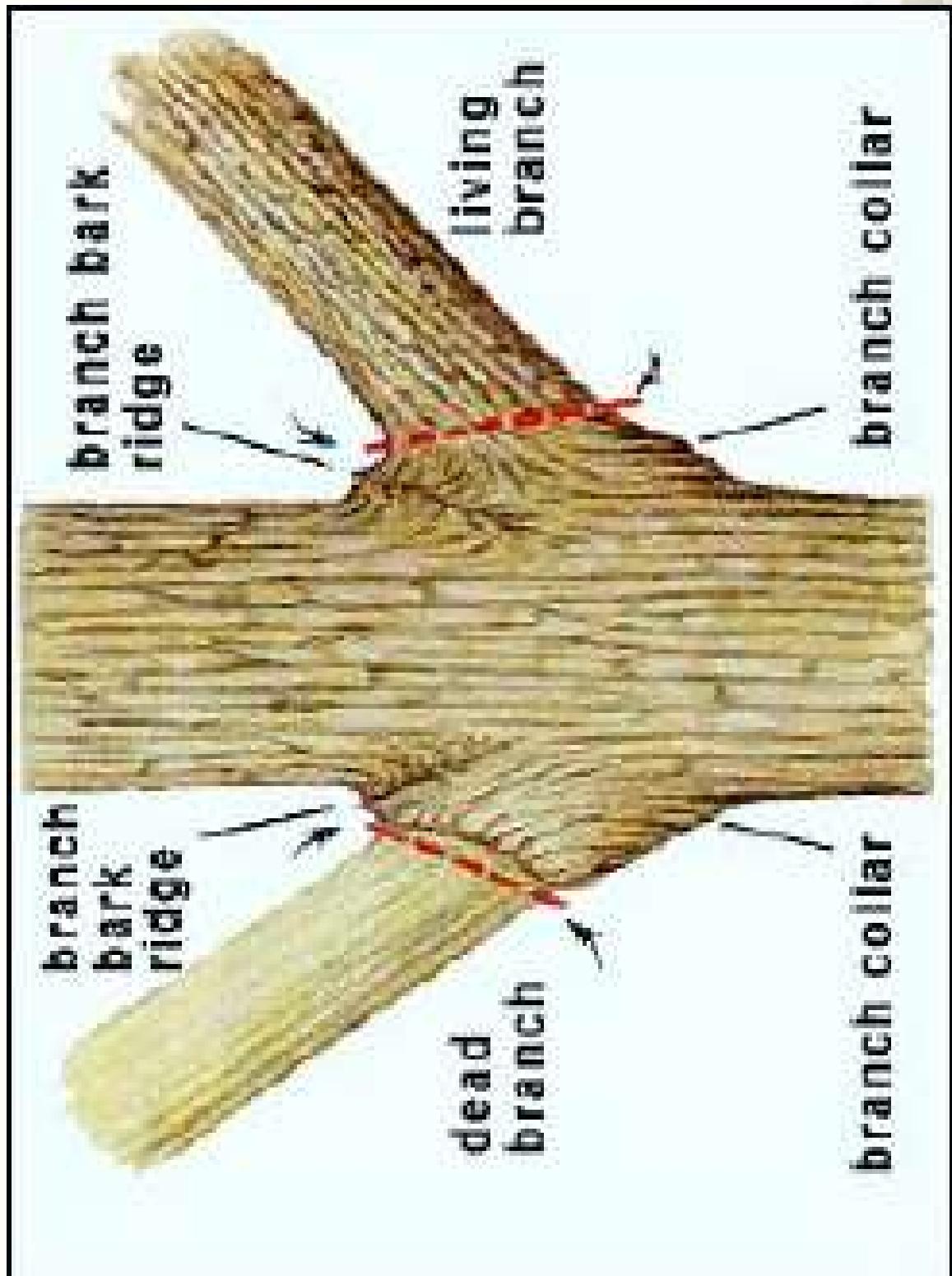
Branch Bark Ridge

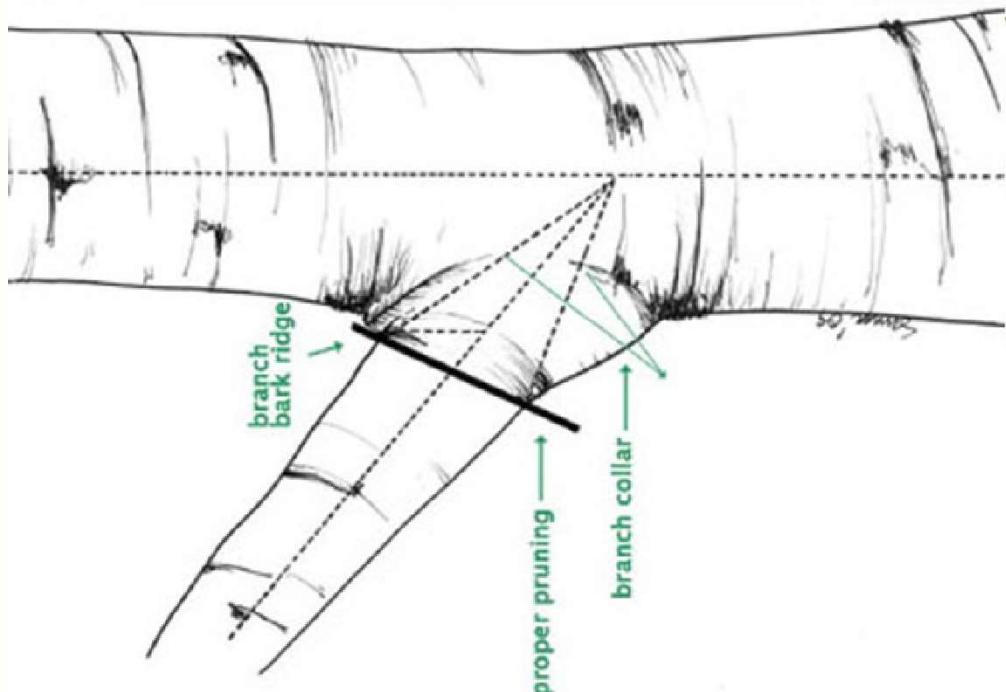
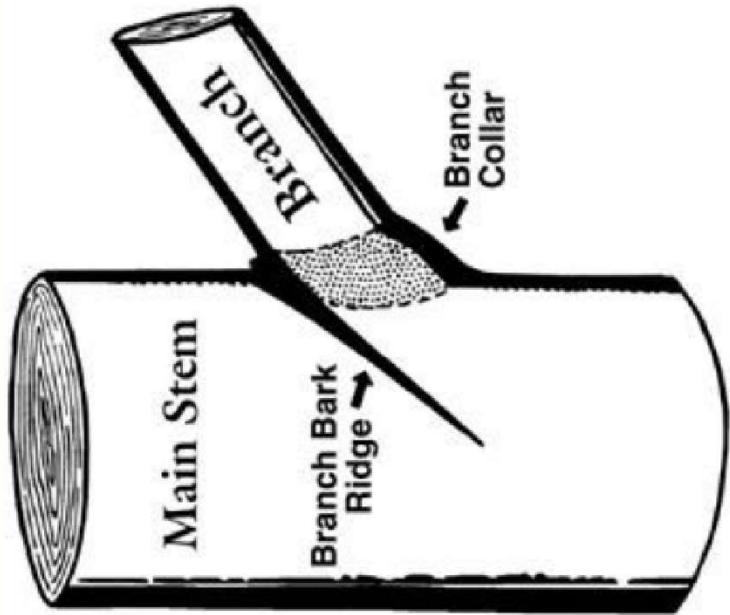
The *branch bark ridge* is a ridge of bark that forms in a branch crotch and partially around the stem resulting from the growth of the stem and branch tissues against one another.





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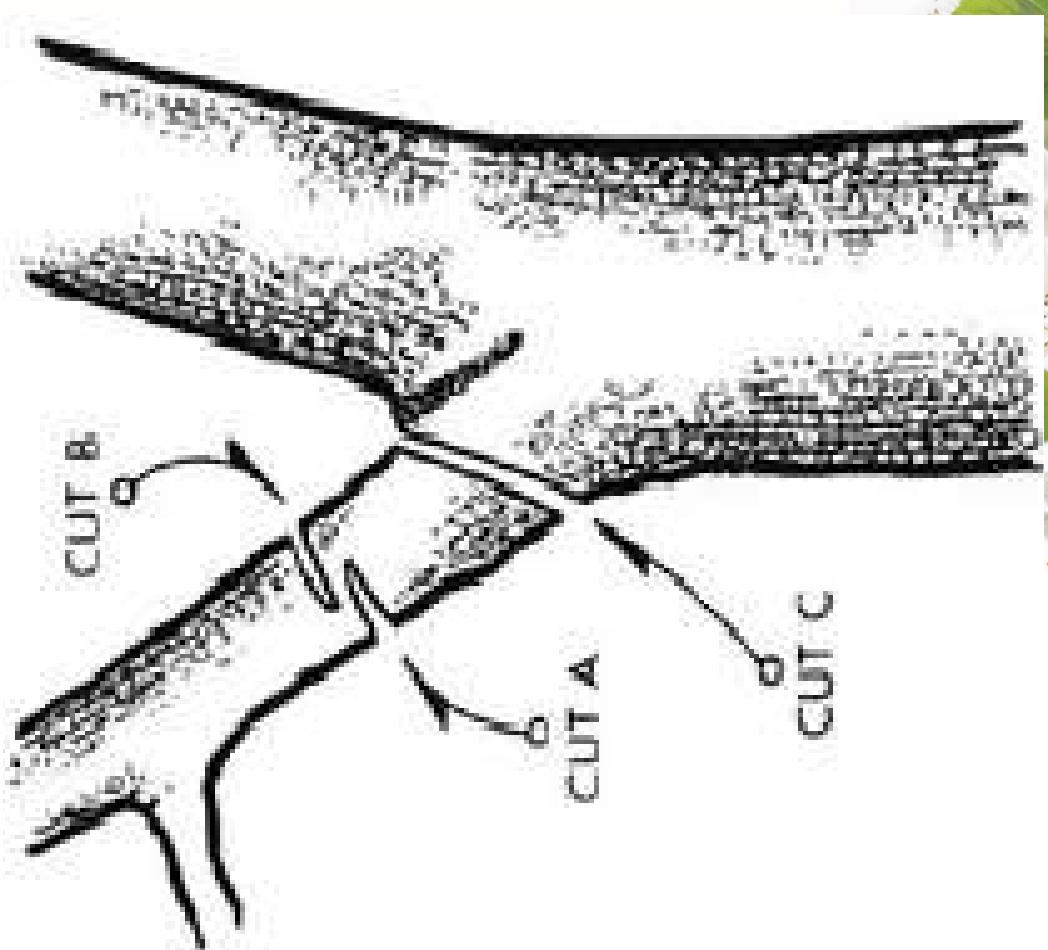
Do not injure the branch collar when pruning

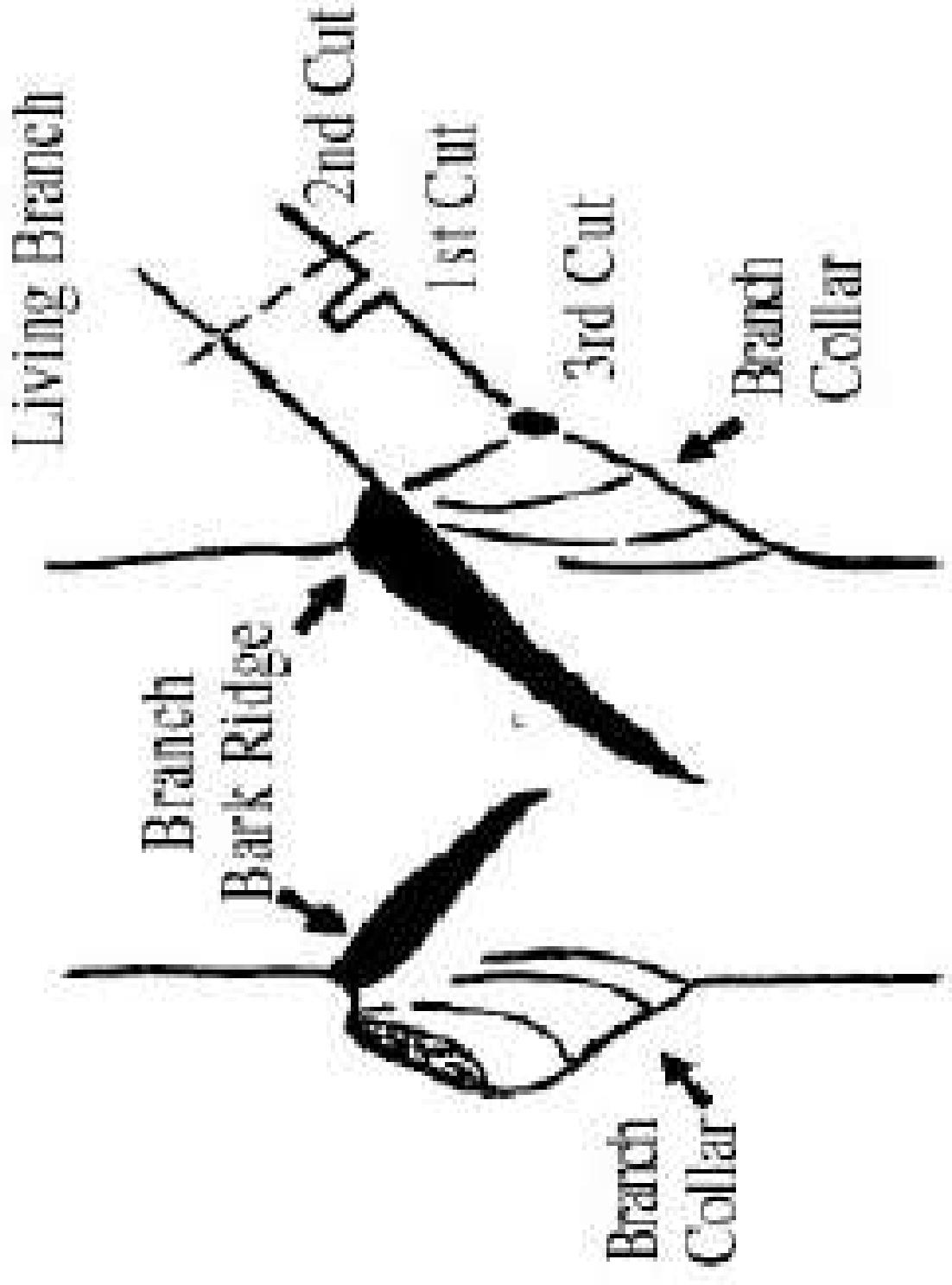


Removing the ‘end weight’

It is important to remove the ‘end weight’ on a branch before you make the final cut near the branch collar

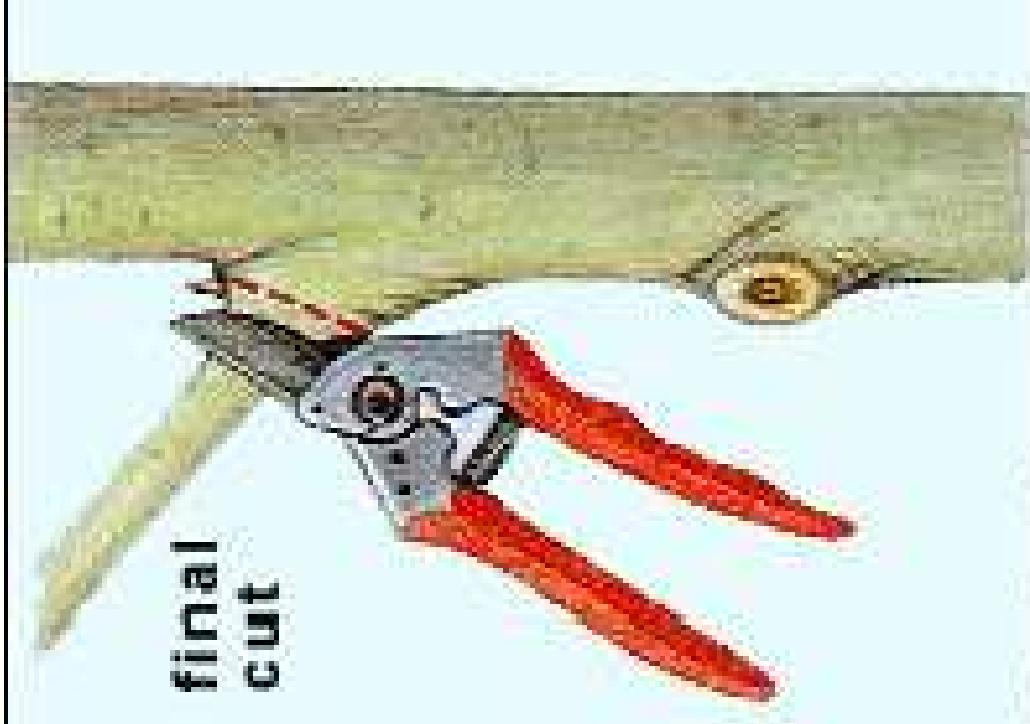




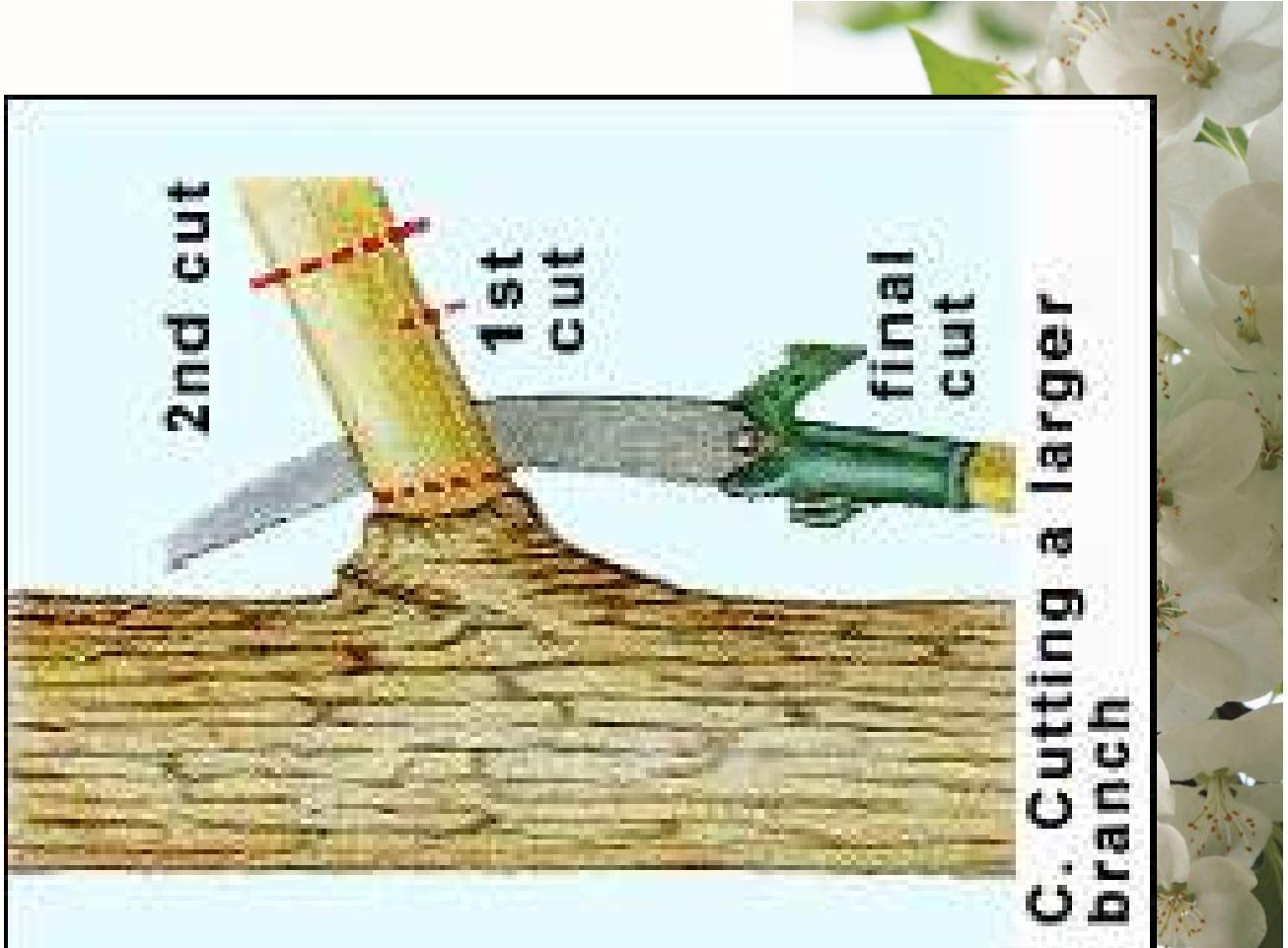


Branch bark ridge and branch collar

B. Cutting a small branch



C. Cutting a larger branch



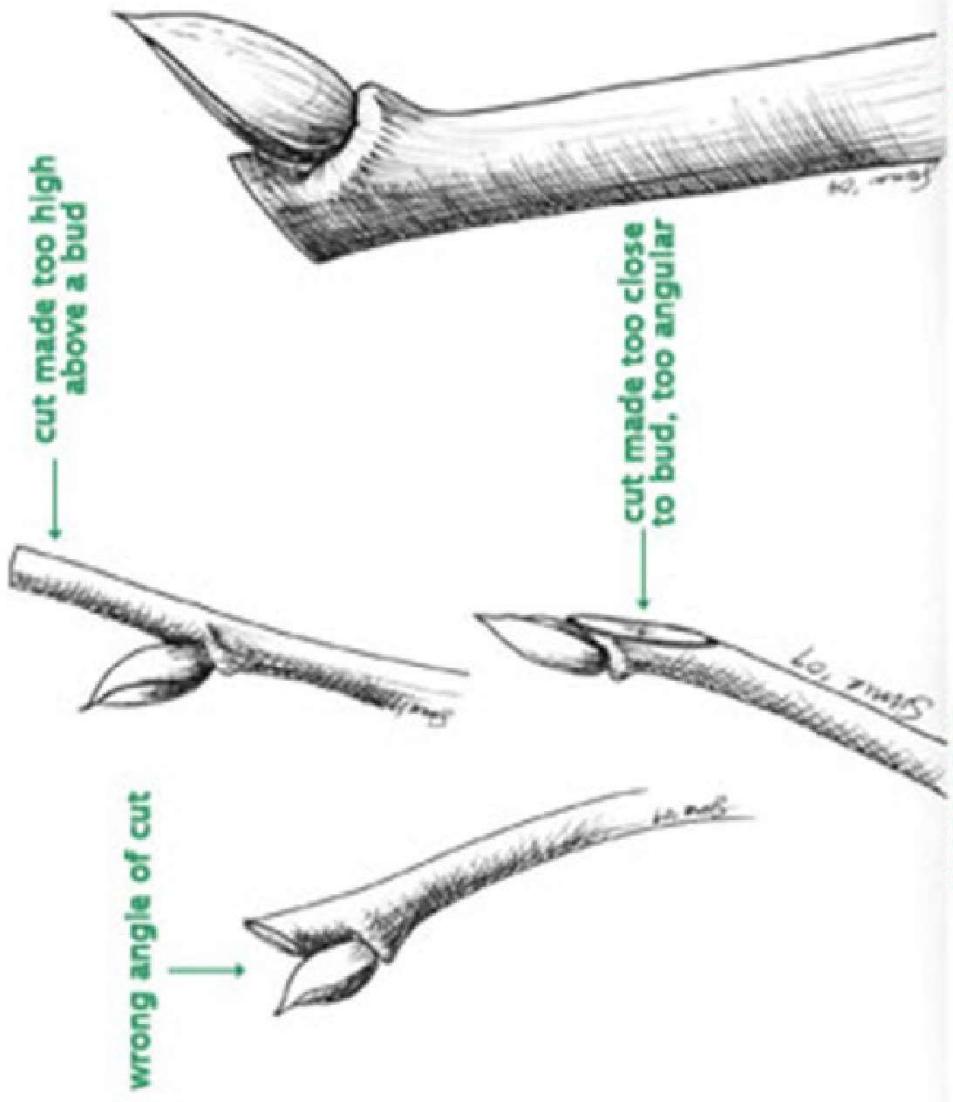
Red Deer





Removing smaller branches and limbs - BUDS

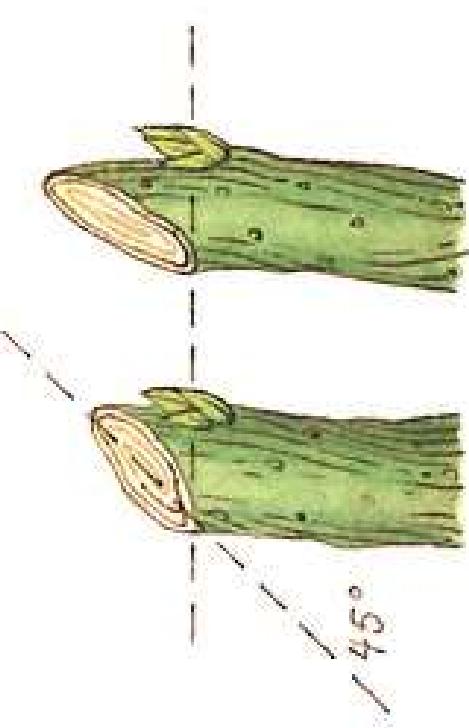




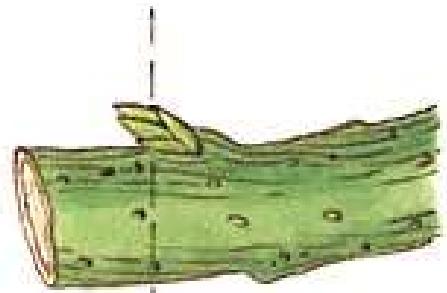
CORRECT

INCORRECT

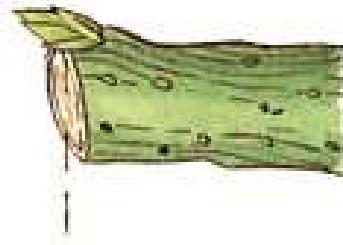




GOOD
CUT



TOO
ANGULAR



TOO
LOW

Callus tissue and CODIT

Proper cuts – a properly pruned branch will have a circular closure around the wound



Callus tissue and CODIT cont'd

- CALLUS TISSUE – is formed by the tree in response to wounding or pruning cuts
- CODIT – Compartmentalization Of Decay In Trees is the mechanism in a tree that enables the tree to defend itself from internal decay









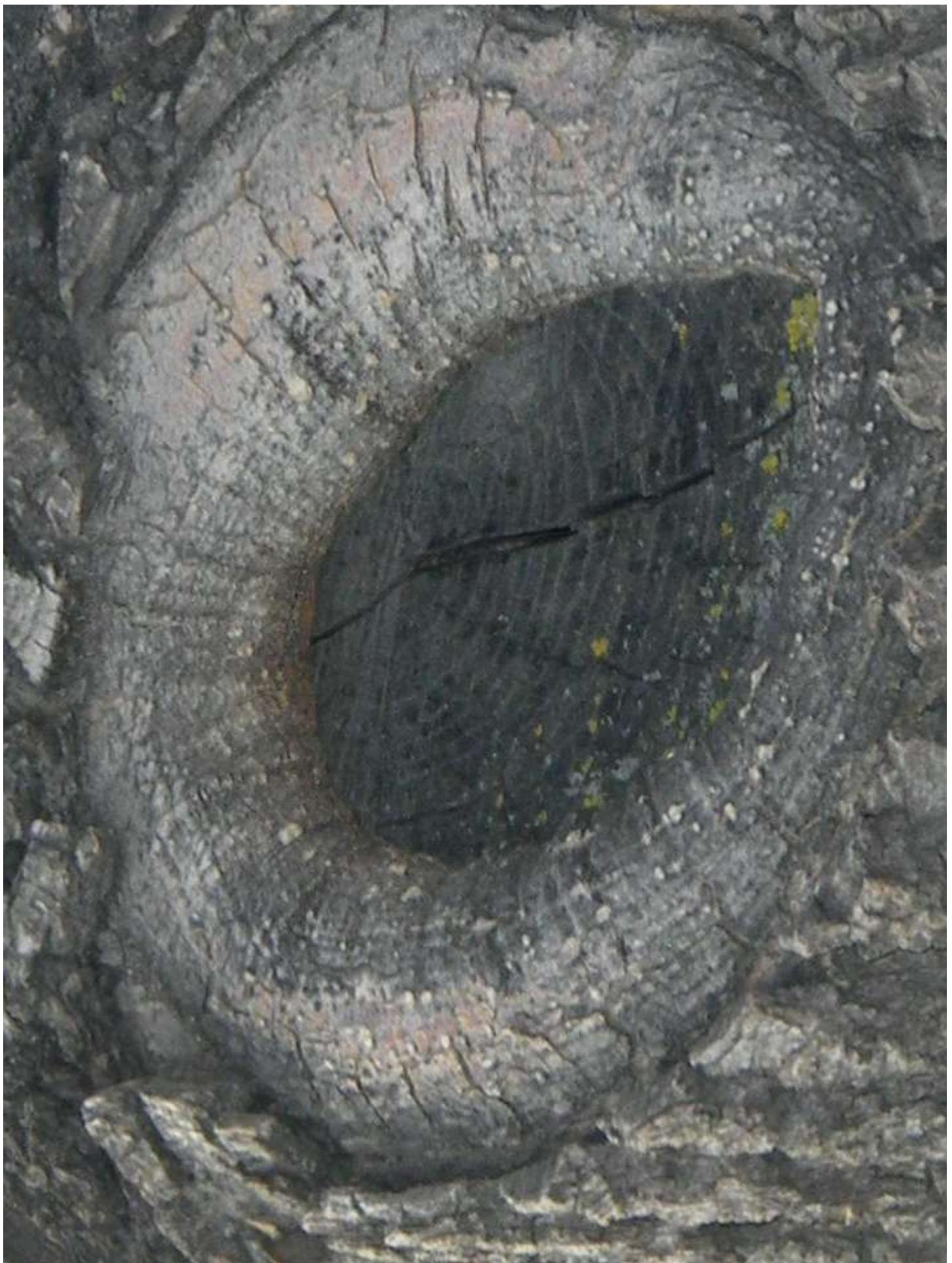
Flush cuts

When the branch is cut off too close to the trunk, the closure will be oval or distorted.





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Stubs

When the branch is cut off too far outside the branch bark ridge or branch collar. These cuts leave branch tissue attached to the stem

