

TEXAS A&M AGRILIFE

# Proper Pruning in the Landscape



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# WHAT IS PRUNING?

Removal of plant parts to improve its form and growth

Minimal damage to the cambium or growing tissue to insure quick sealing





## REASONS FOR PRUNING

*Pruning is done for the following reasons:*

- To **train** the plant
- To **maintain** plant health
- To **improve** the quality of flowers, fruit, foliage, or stems
- To **restrict** growth



# Pruning Objectives

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- To reduce risk of \_\_\_\_\_
- Provide clearance
- Reduce shade and wind resistance
- Maintain or improve \_\_\_\_\_
- Influence flowering and \_\_\_\_\_

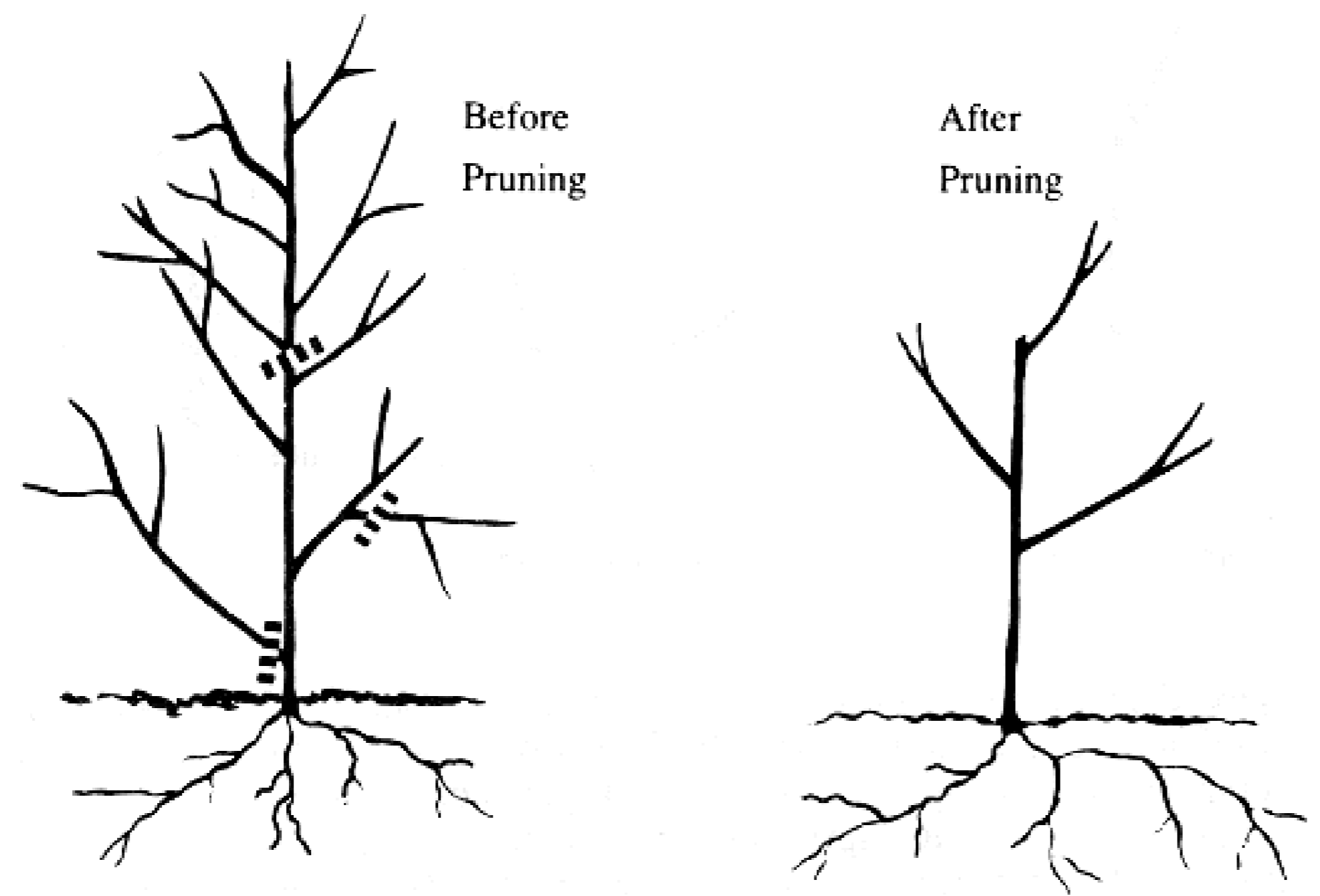


# Training

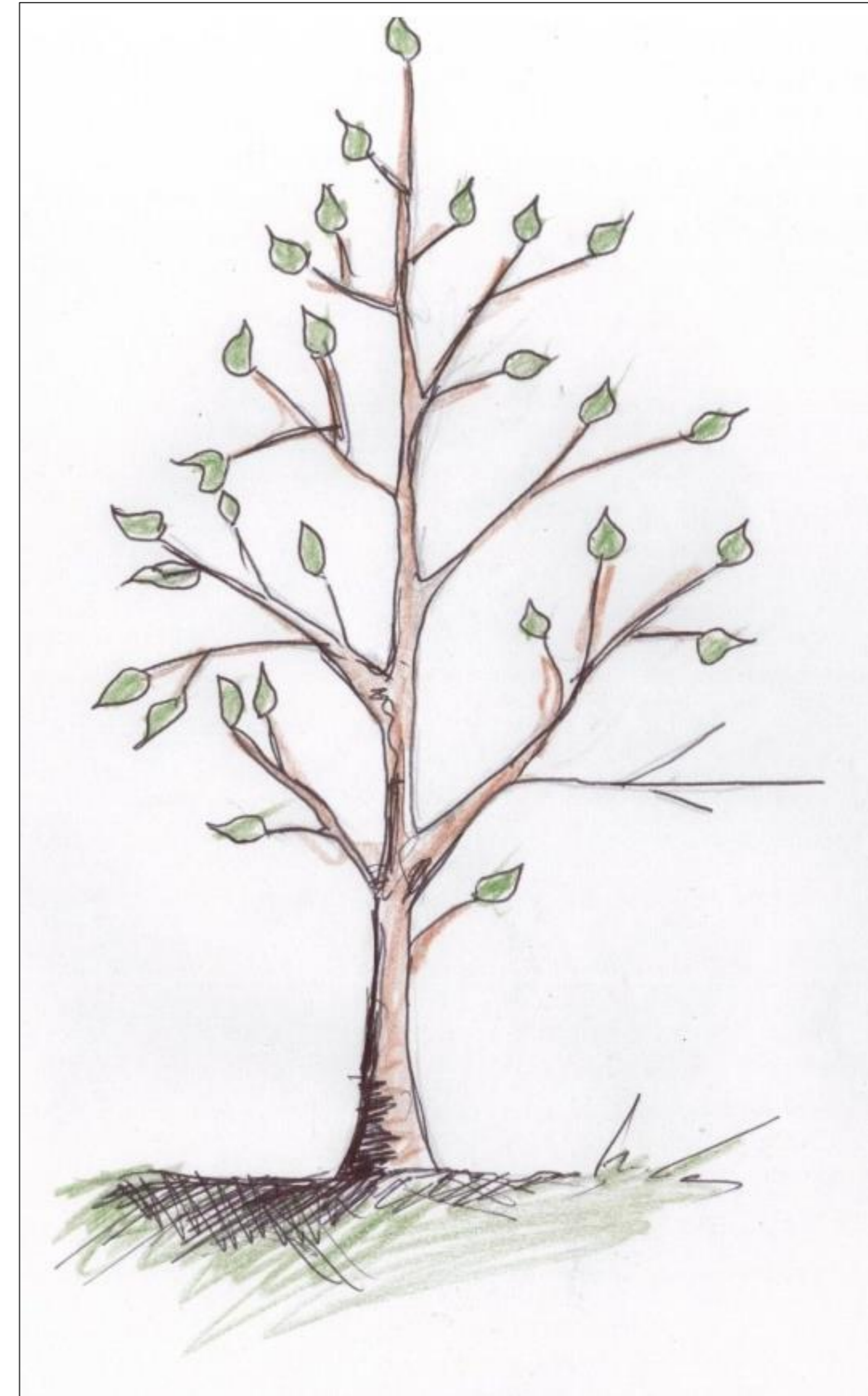
- Young trees: remove broken, crossing and weakly structured branches
- Maintain desired shape and shorten vigorous shoots
- Street/patio tree: 10-12' or more above the ground



# Training



- Trees: branches selected for permanent scaffolds should have a wide angle of attachment
  - 60-70° have a strong attachment
- Shade tree scaffold: spaced at least 8" preferably 20" vertically apart





# Plant health

- Eliminate dead, dying, pest infested or diseased wood
- Entry point for insects or disease
  - Make cut back to healthy wood, beyond infection point
- Clean blade between cuts
  - 10% bleach
- Evergreen trees/shrubs
  - Thinning will allow penetration of light and air throughout resulting in even growth



# Maintaining Health

- **The 4 “D’s”**
  - Dead
  - Diseased
  - Damaged
  - Defective





## Improve Quality of flowers, fruit, foliage or stems

- Reduces the amount of wood and diverts energy into production of larger (possibly fewer) flowers and/or fruit
- Flowering shrubs will bloom on 1-year old growth or new growth
- Properly timed = increase wood production & flowers/fruit

# Promote Plant Health



- Remove
  - Dead/dying branches
  - Branches that rub together
  - Branch stubs



# Intended Purpose

- Encourage flower & fruit production
- Hedge-dense habit
- Maintain or encourage a desired plant form - topiary

# Protect People & Property

- Hazardous trees should be removed
- Weak or narrow-angled branches: overhang homes, parking areas, sidewalks
- Eliminate branches interfere with streetlights, traffic signs
- Overhead wires – leave it to a certified arborist
- Block vision at intersection





# When?



- It depends...
- Late dormant season best time for most pruning

# Pruning Dose

**Light pruning done biannually or annually**

**10% on young and medium-aged trees**

**Does little to remove defects**

**Does little to direct growth**



# Pruning Dose

## Severe Pruning

**>50% on young trees**

**>25% on medium aged trees**

**>10% on mature trees**

**Can lead to excessive sprouting**



# Pruning Dose

Maximum percentage of live wood to be removed:

Young- 50%

Medium-aged- 25%

Mature- 10%



# Pruning Dose

**Pruning that removes...**

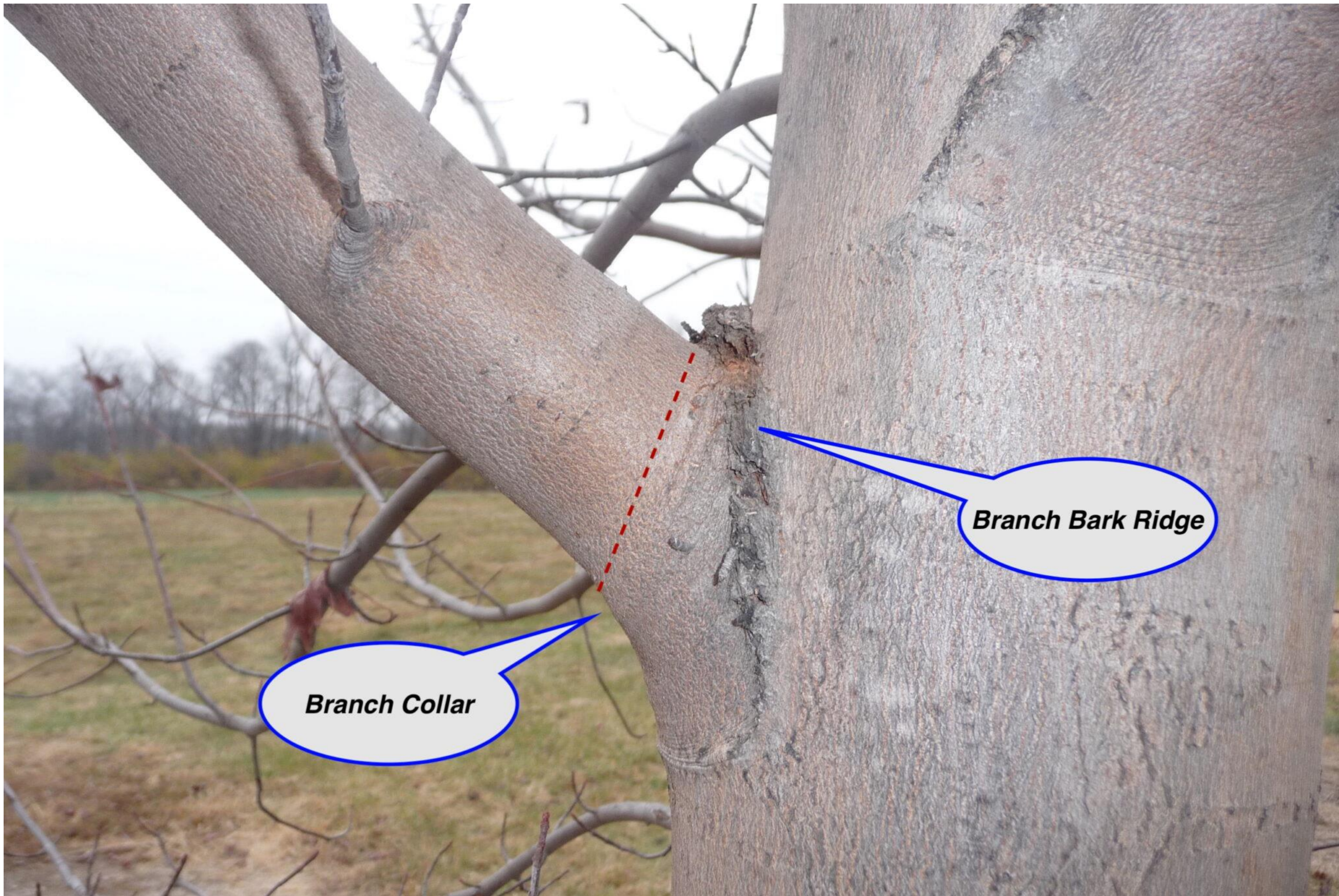
**>20% on medium-aged and**

**>40% on young trees**

**...means pruning was delayed  
too long**

**Consider splitting work**

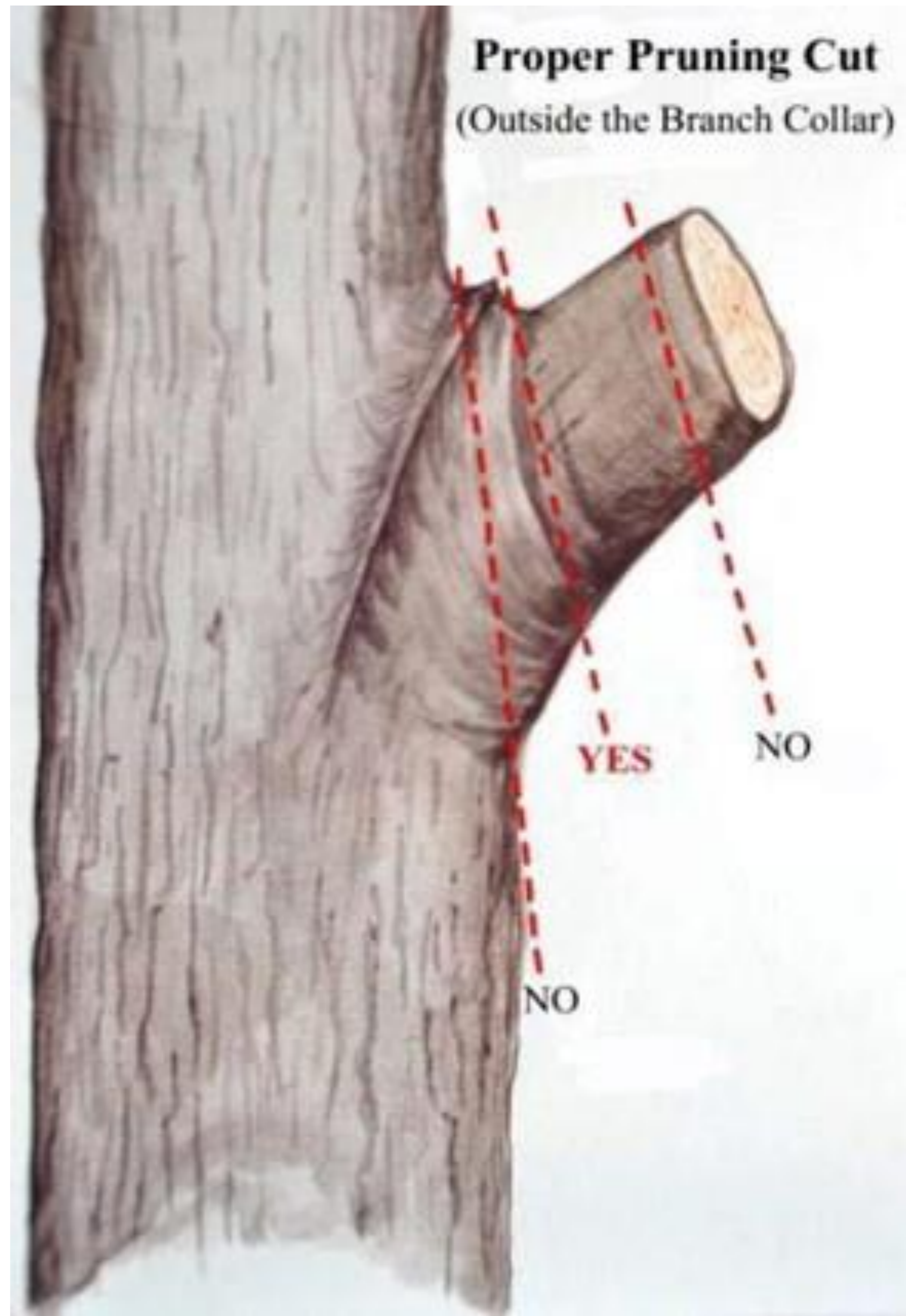


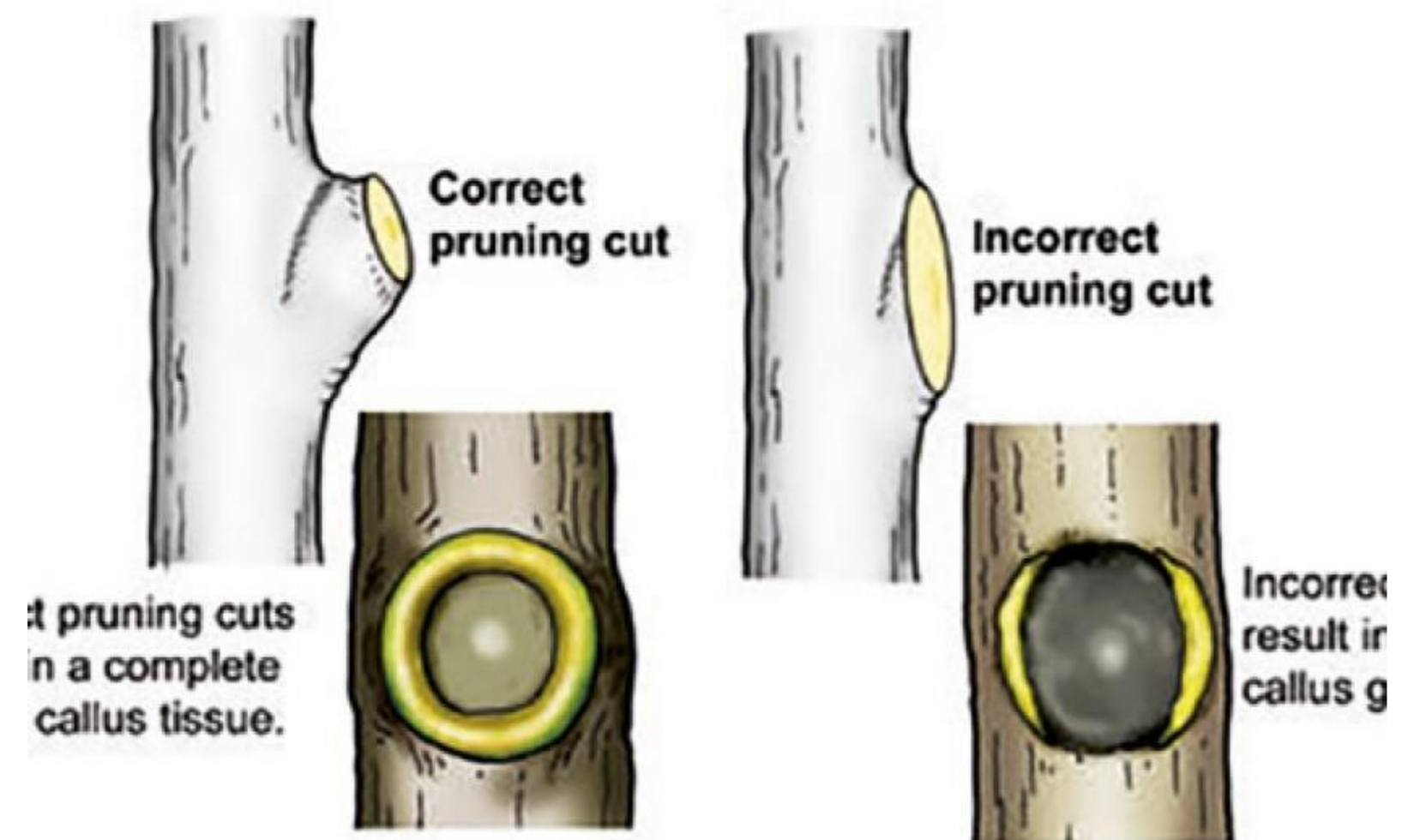
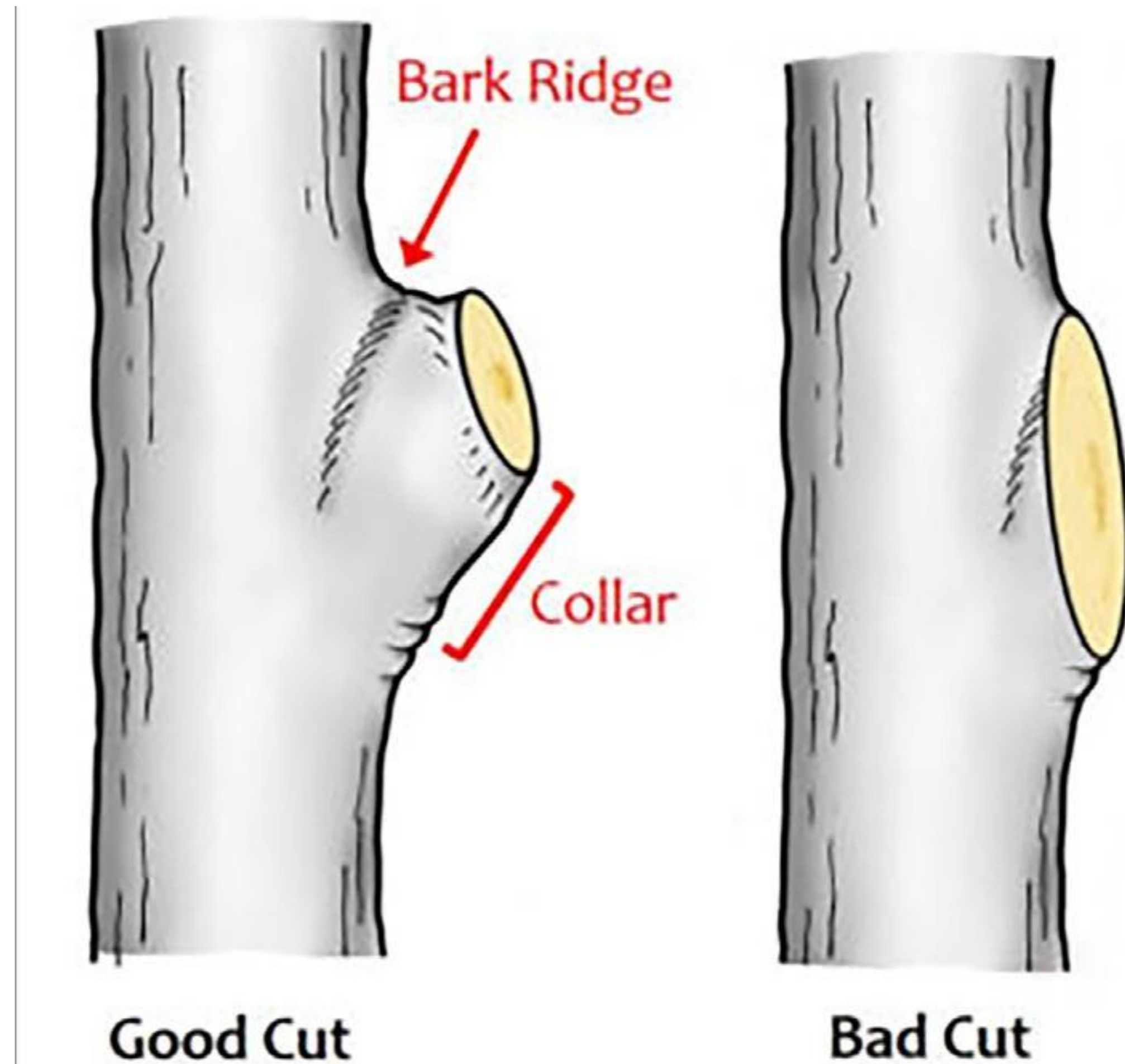
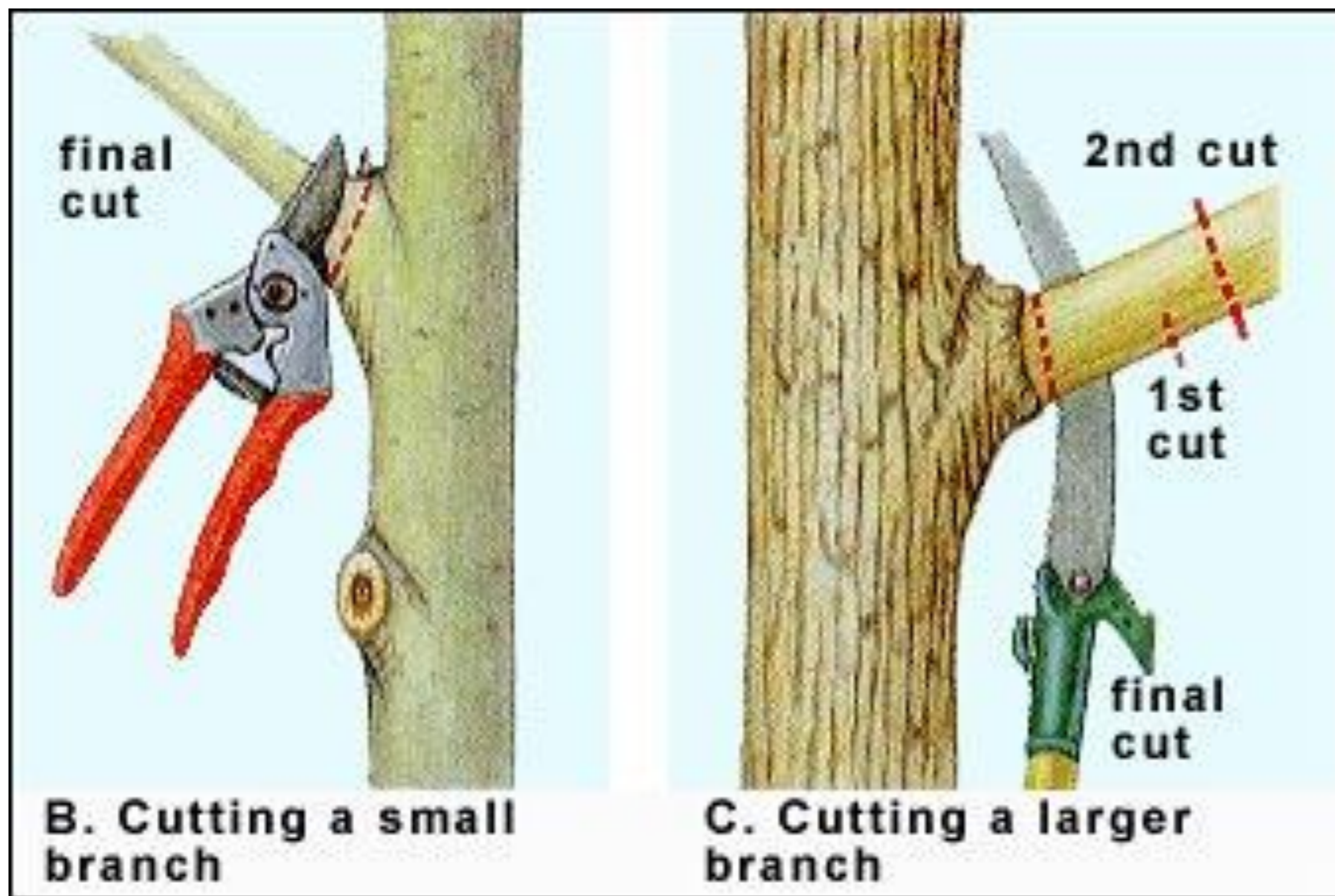


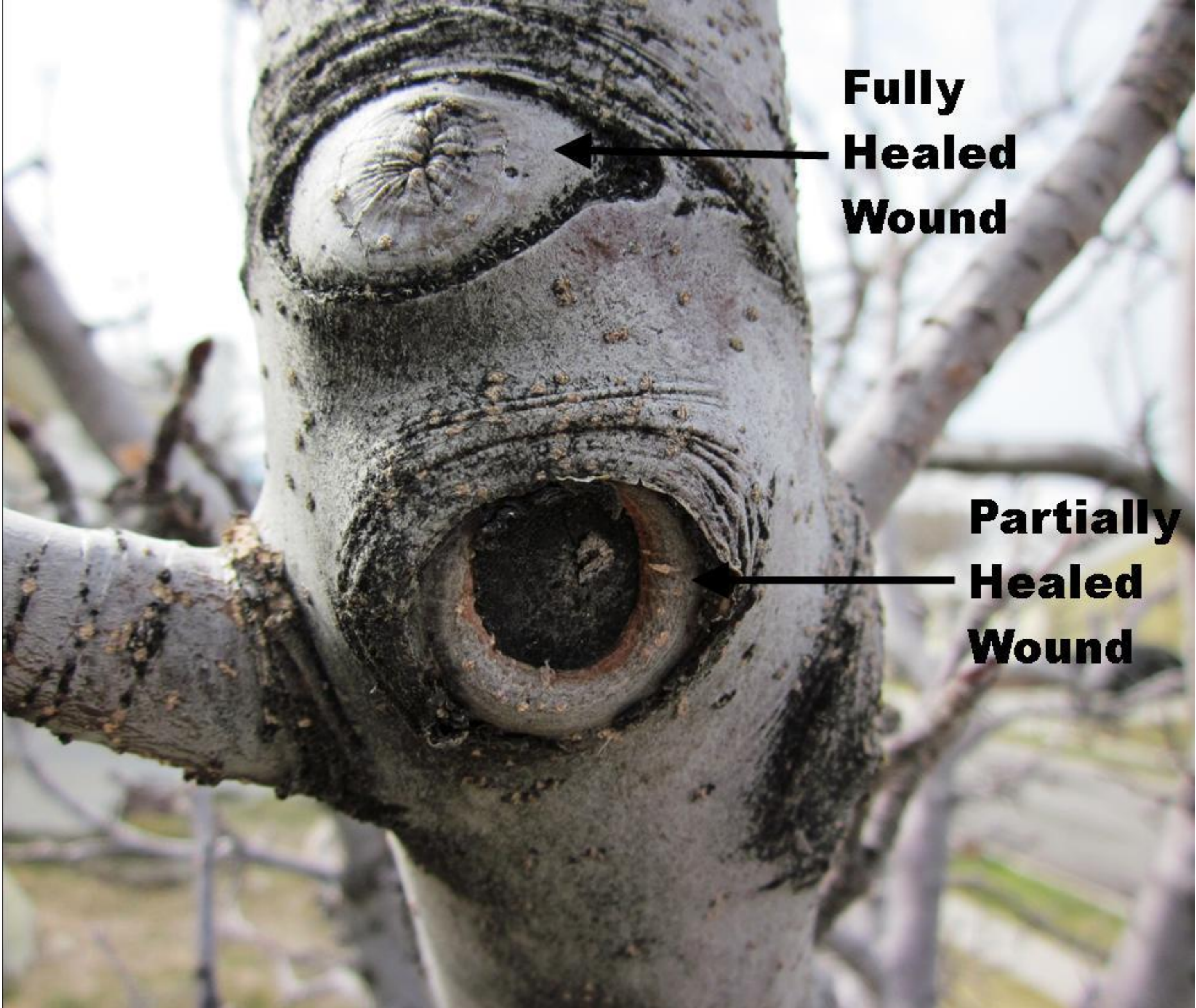
**Branch Collar**

**Branch Bark Ridge**

**Proper Pruning Cut**  
(Outside the Branch Collar)



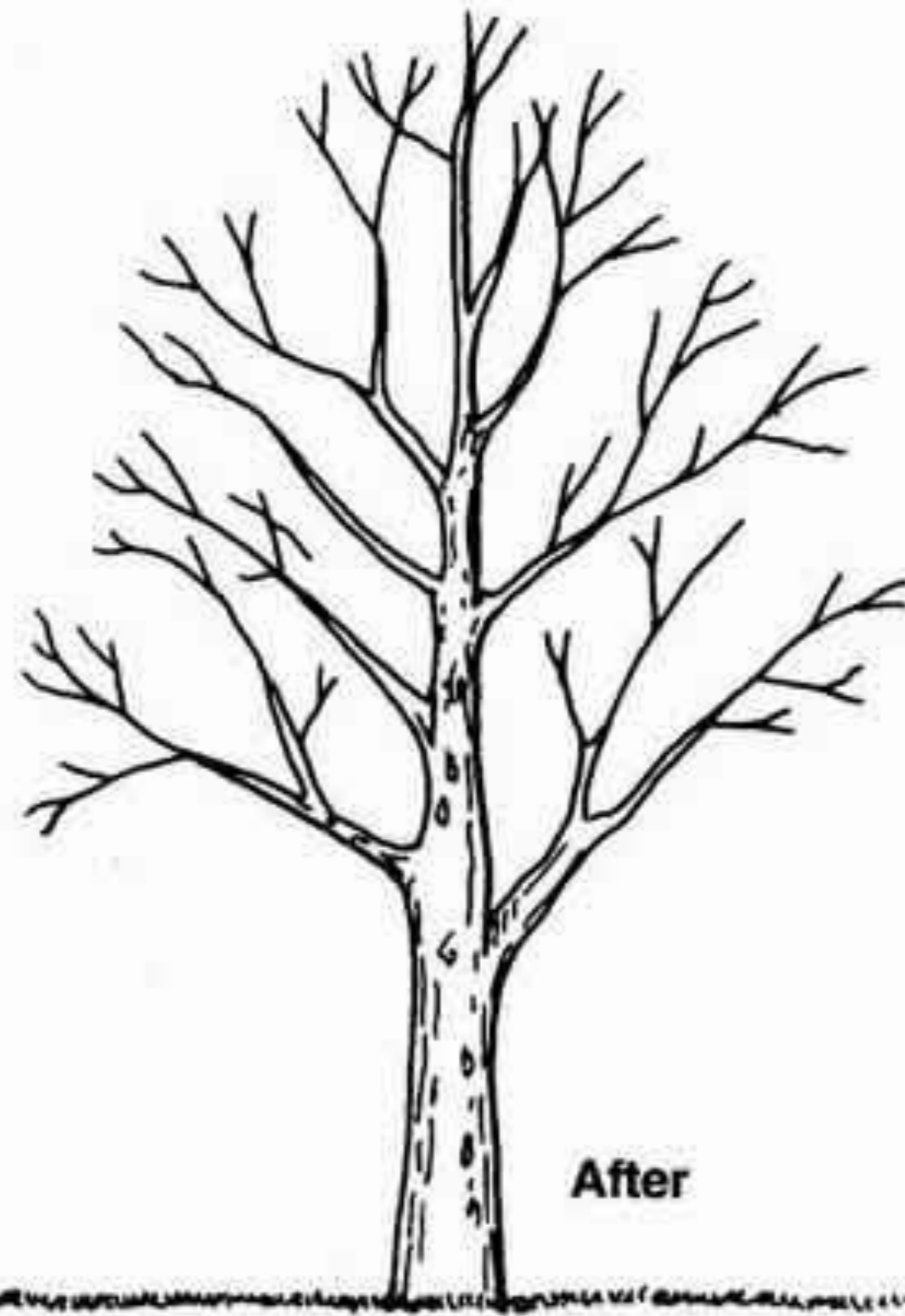
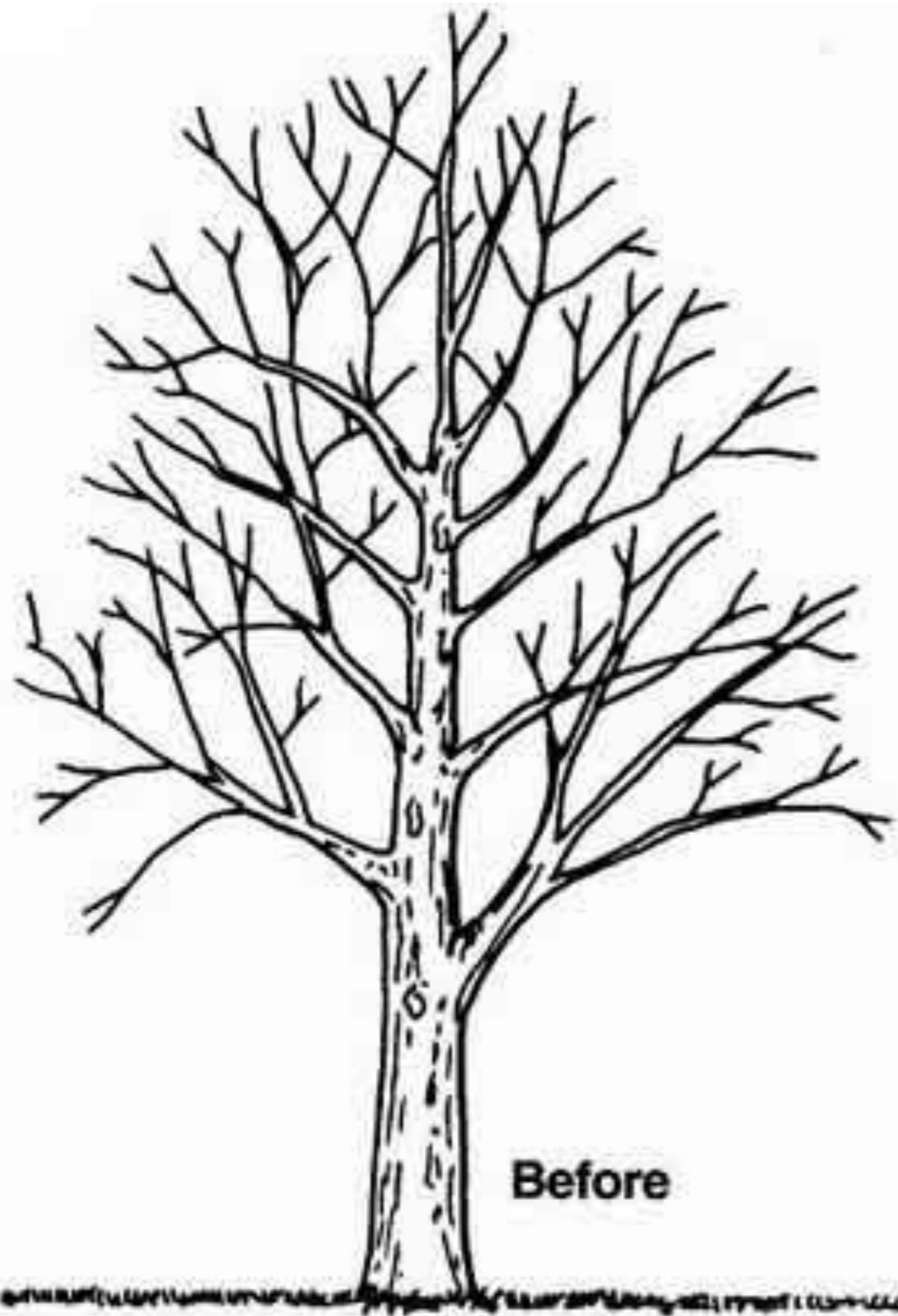




**Fully  
Healed  
Wound**

**Partially  
Healed  
Wound**

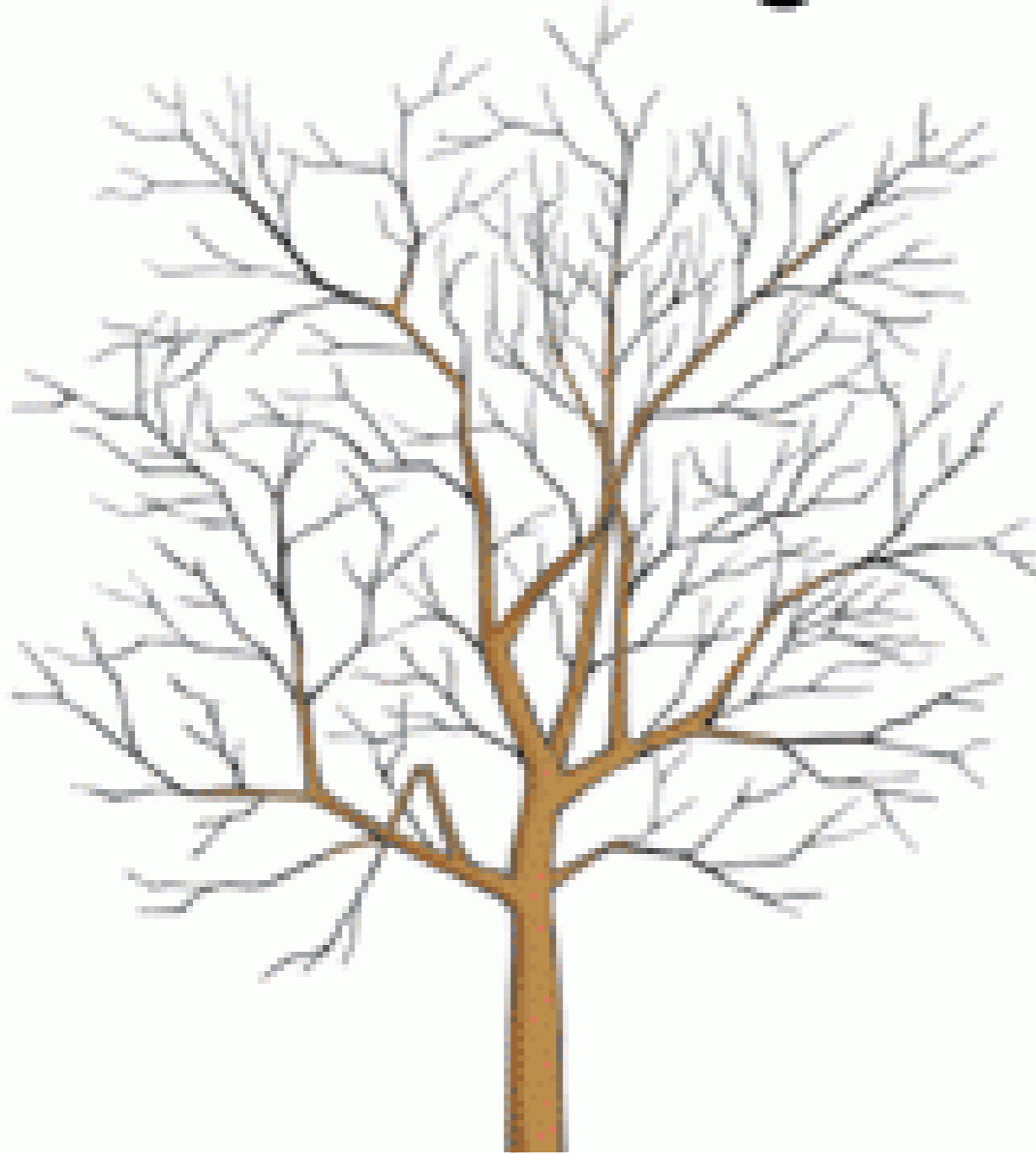




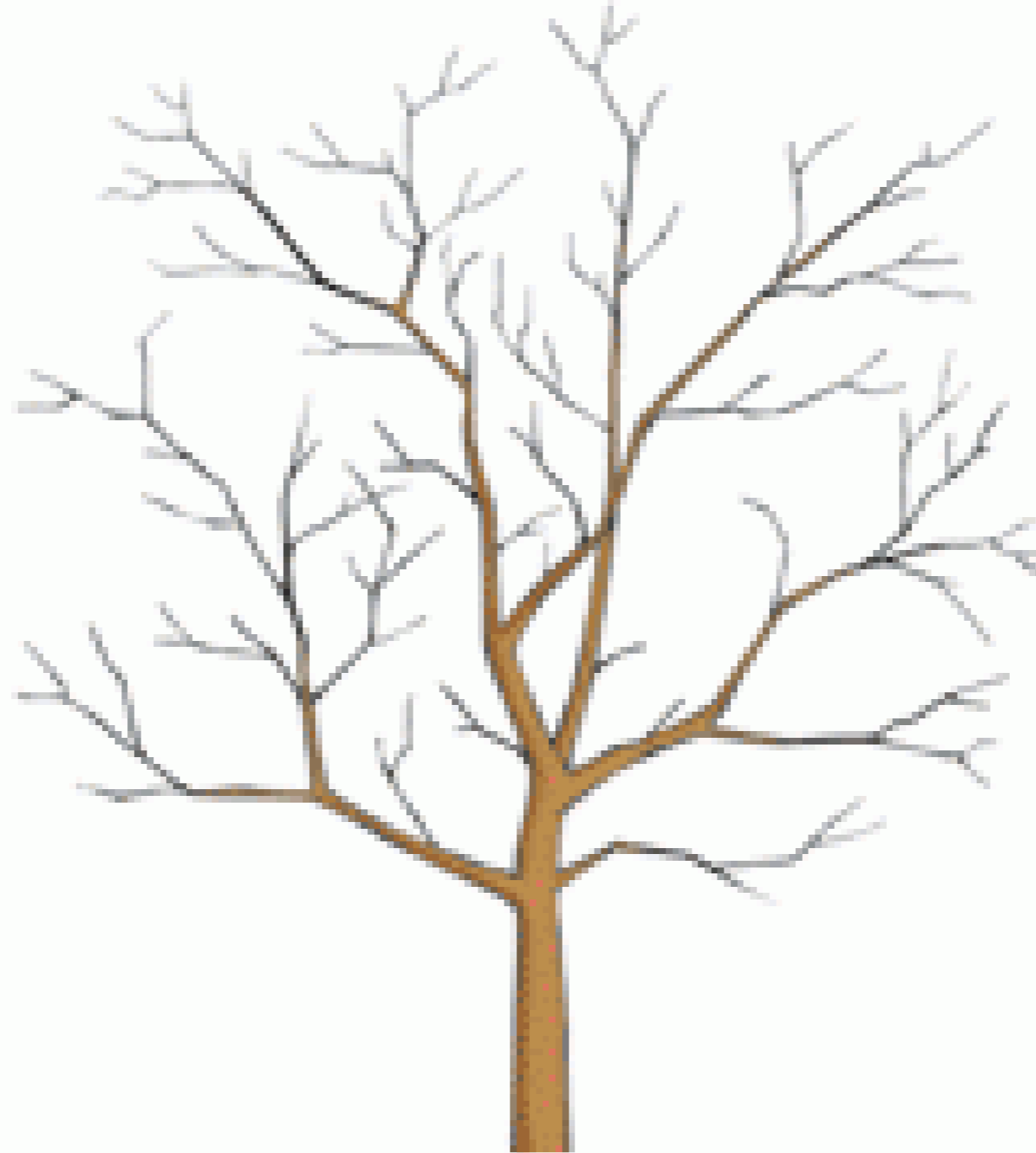
# A Look at Pruning

**GOOD**

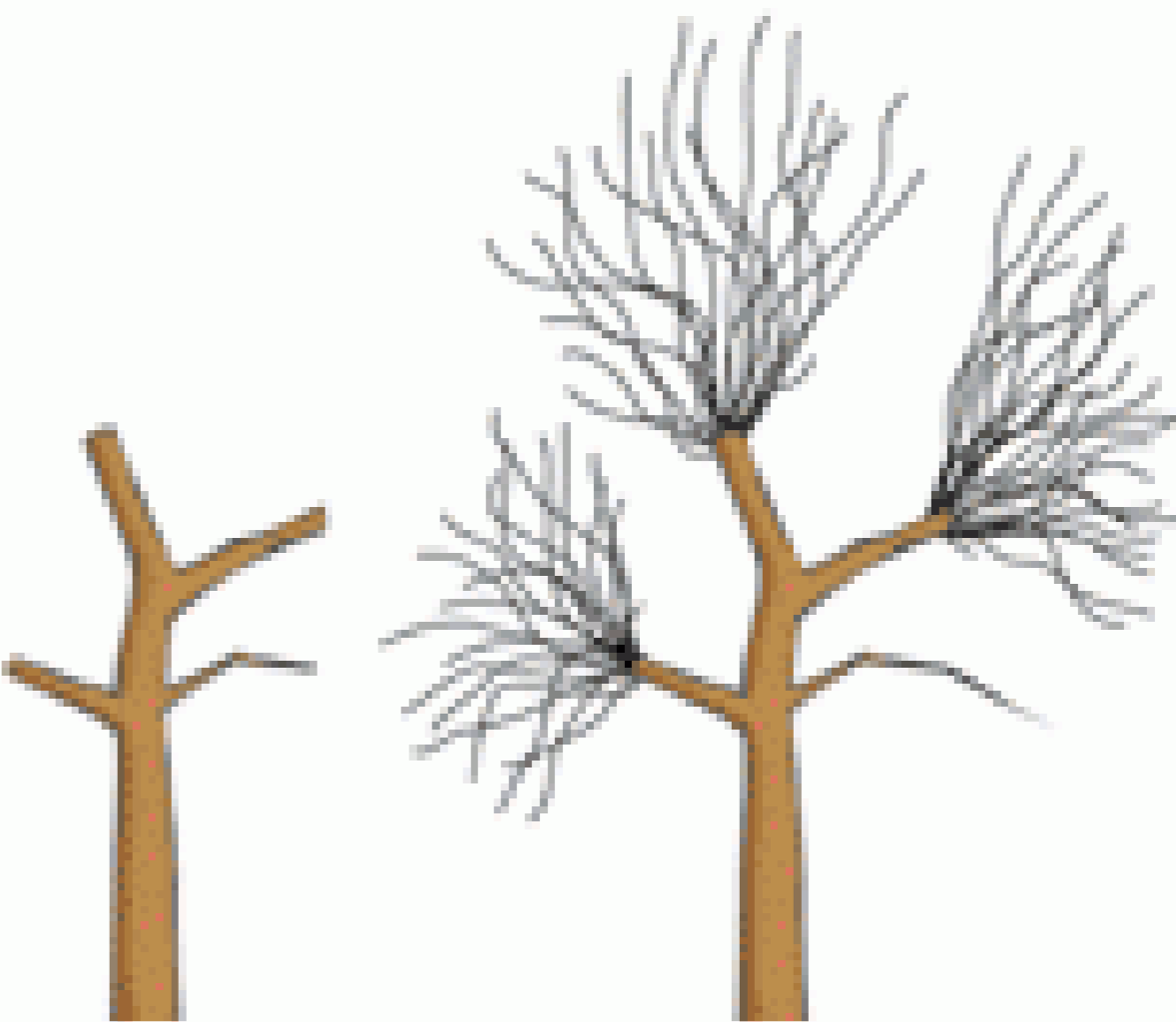
**NOT GOOD**



Before Pruning



Well-Pruned, Open Head



Topping produces clumps of uncontrolled growth

# PRUNING TECHNIQUES

- **THINNING:** REMOVAL OF ENTIRE BRANCH BACK TO MAIN TRUNK OR STEM
- **HEADING BACK:** SHORTENING THE LENGTH OF THE BRANCH
  - **TIPPING/SHEARING:** < 6" INITIATES GROWTH OF BUDS ALONG THE REMAINING BRANCH



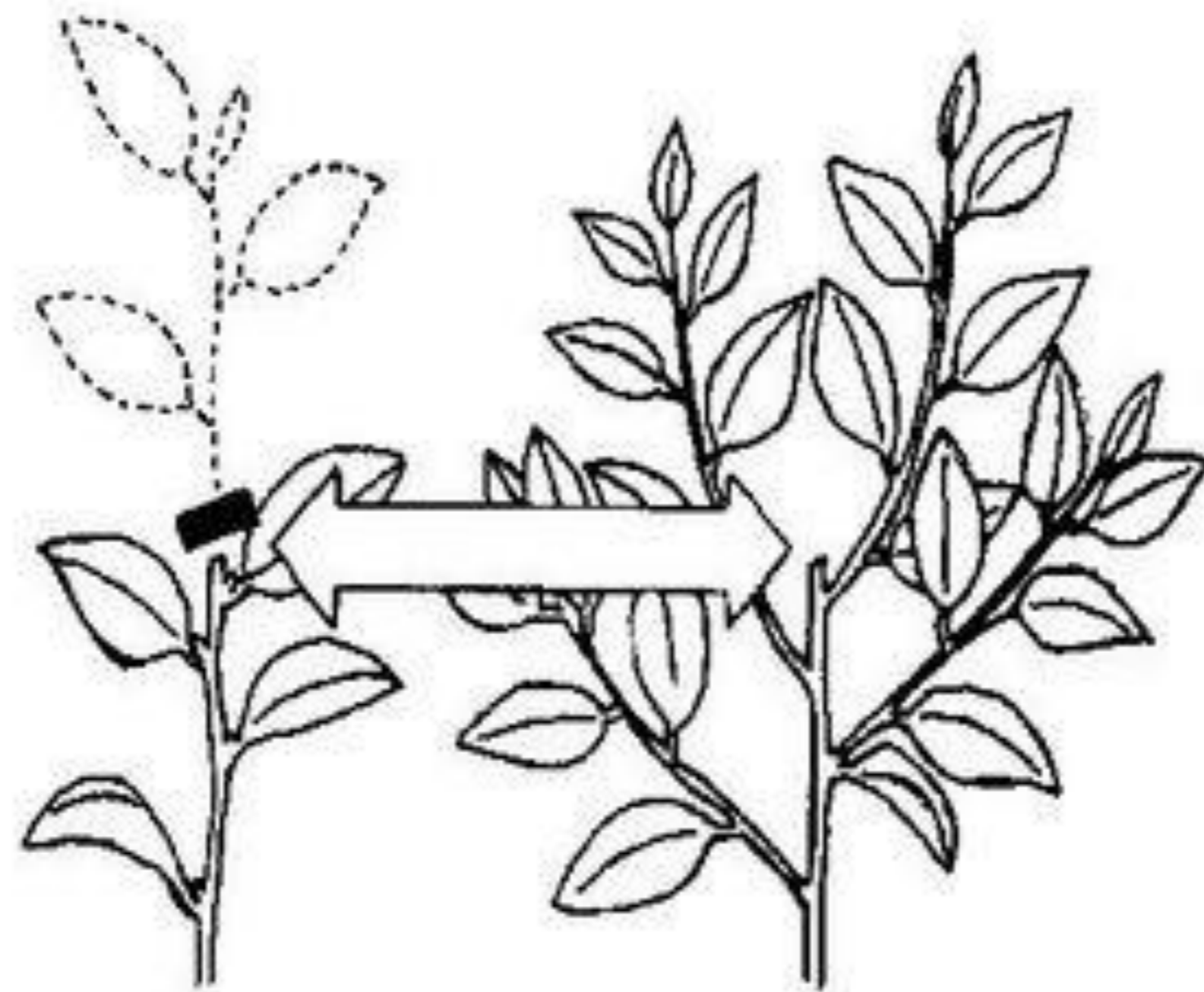
**Heading and thinning cuts**

*Heading and thinning cuts have different effects on subsequent growth.*



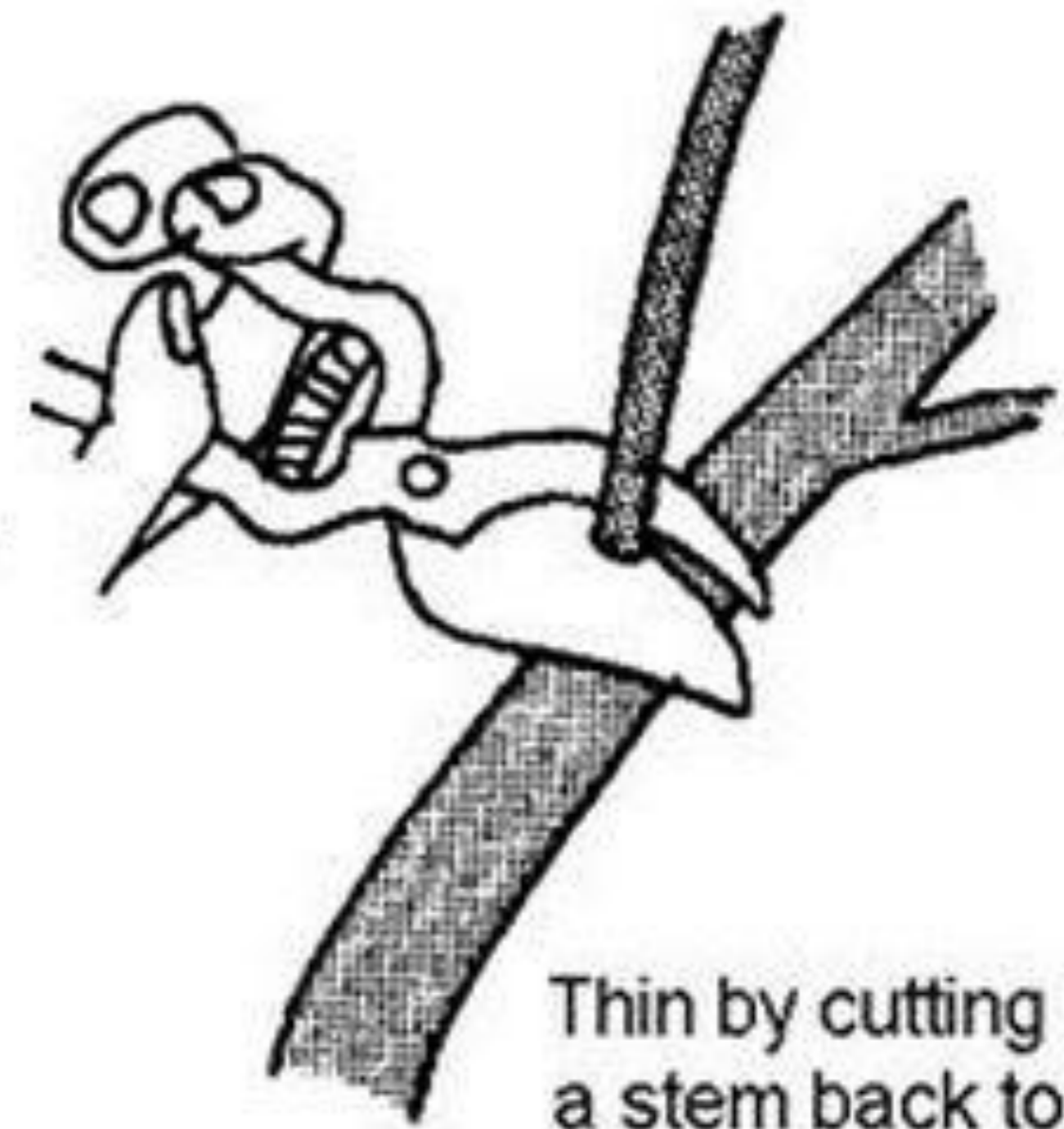
Cut above a healthy side branch

**Heading Back**



Pinching out terminal tips stimulates buds in the area to grow

**Pinching Back**

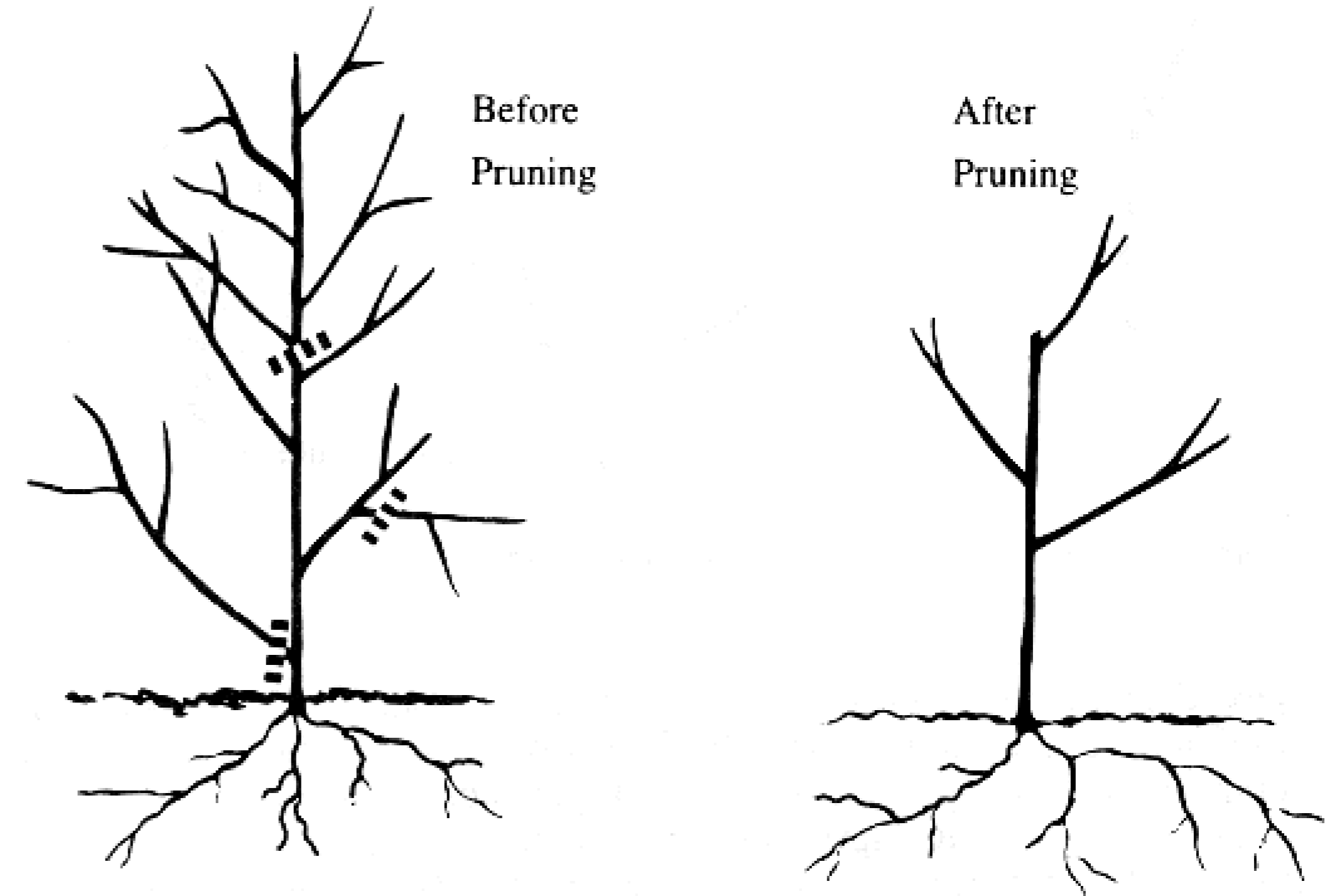


Thin by cutting a stem back to a main branch

**Thinning Cut**

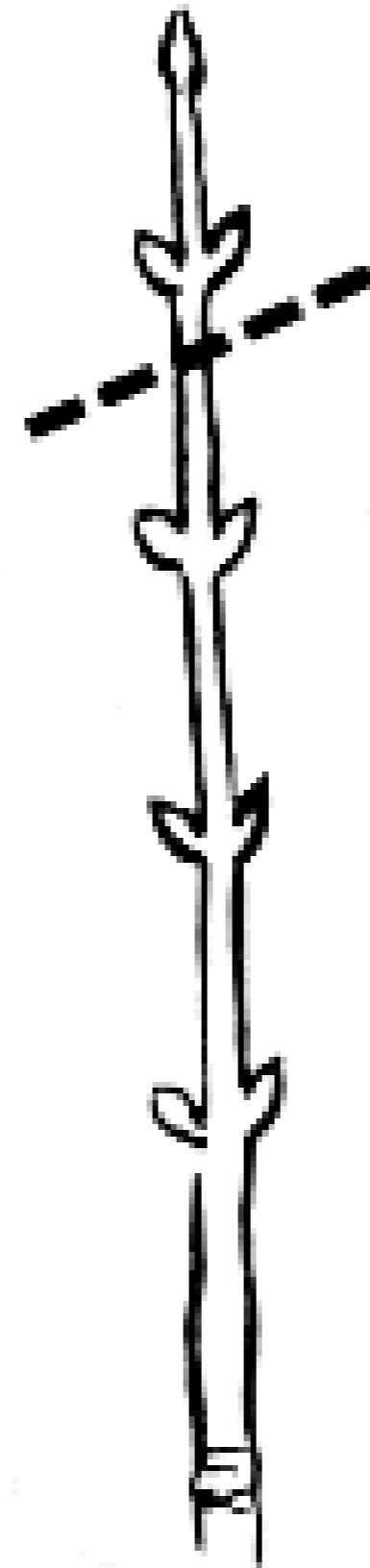
# PRUNING TECHNIQUES

- **REJUVENATION:** REMOVAL OF OLD OR OVERGROWN GROWTH (USUALLY SHRUBS)
  - THINNING CUTS TO SHAPE AND REMOVE SPINDLY GROWTH AND CROSSING BRANCHES
  - HEADING CUTS TO REDUCE THE PLANT TO A SMALLER, DESIRED SIZE
  - CONSIDER REMOVAL

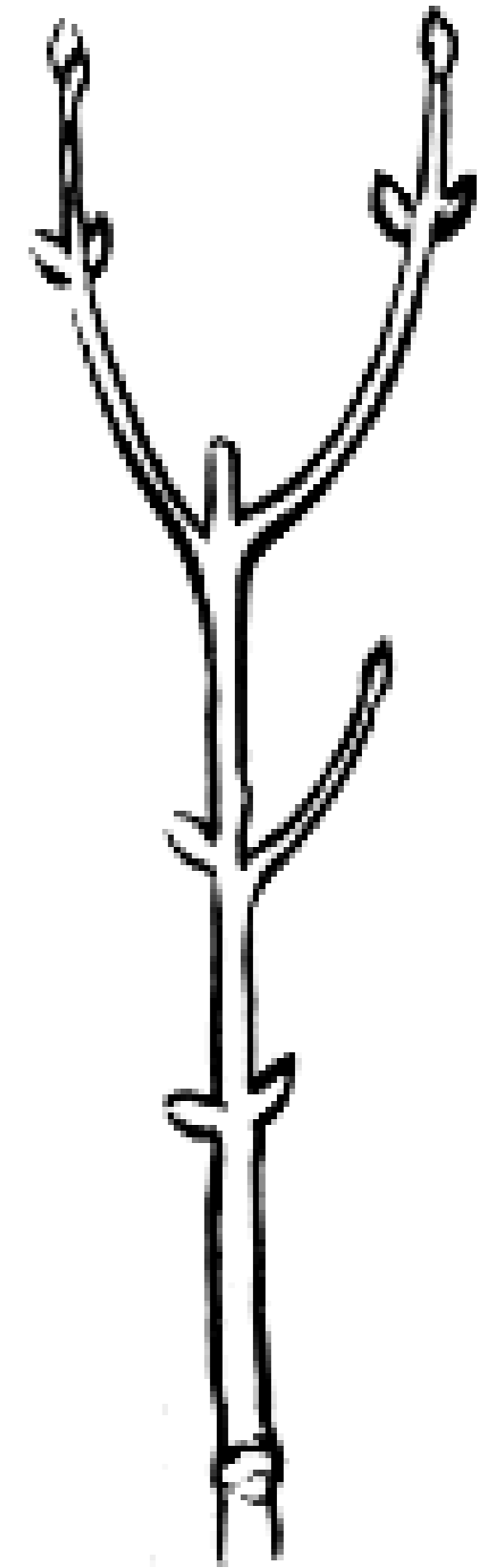




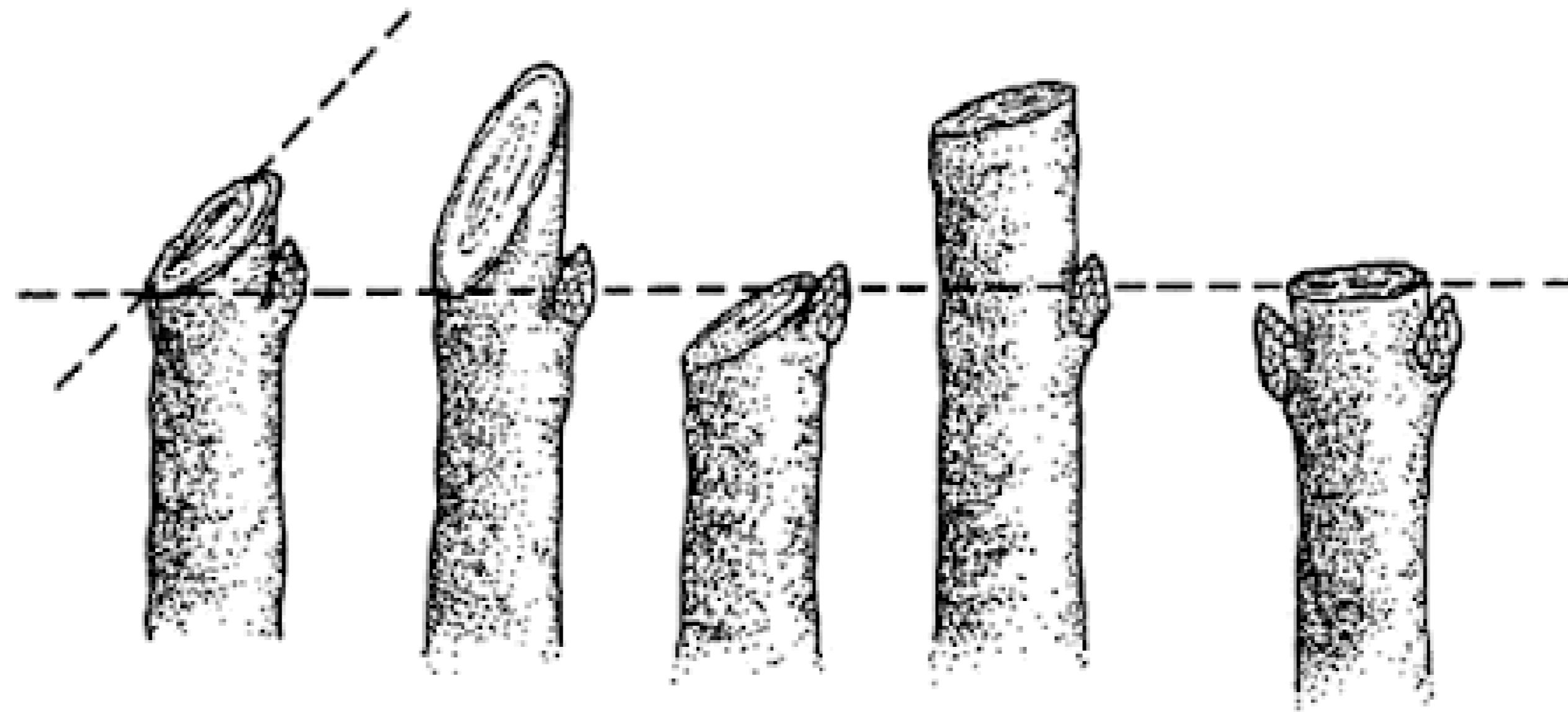
Alternate  
Bud  
Arrangement



Opposite  
Bud  
Arrangement



# Directing growth: Cutting above a bud



45° angle  
Good!

Too angular

Too low

Too high

Good!

Alternate-budded plants

Opposite

*Twigs and Small Branches:*

- **Cut** back to a bud or an intersecting branch

*Thick, Heavy Branches:*

- Should be **removed** flush to the collar at the base of the branch, not flush with the trunk

# MAKING THE PRUNING CUT



Just above a healthy bud.



Just above a strong lateral shoot.



At the point of origin leaving no stubs.



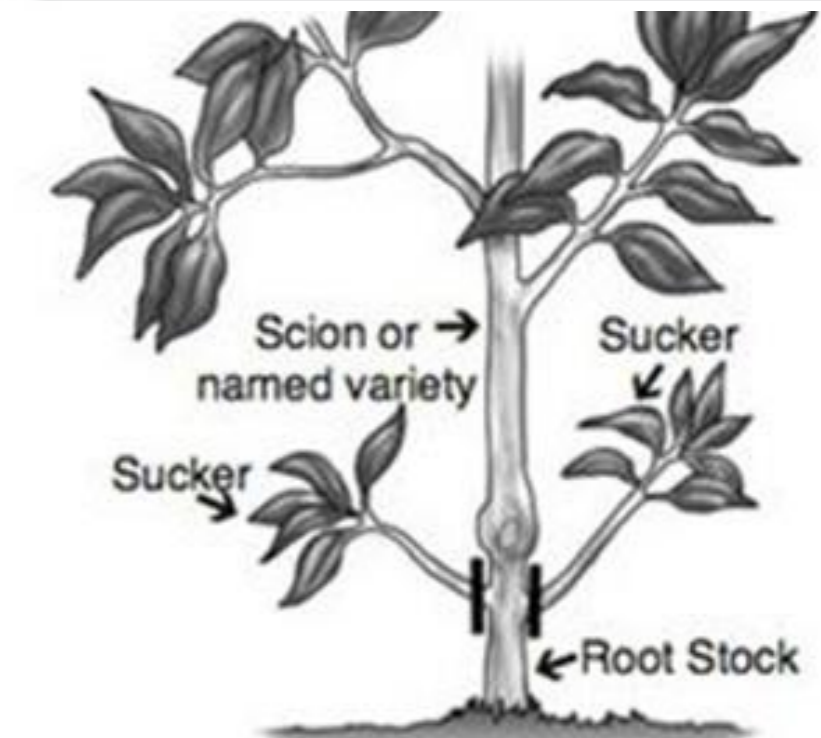
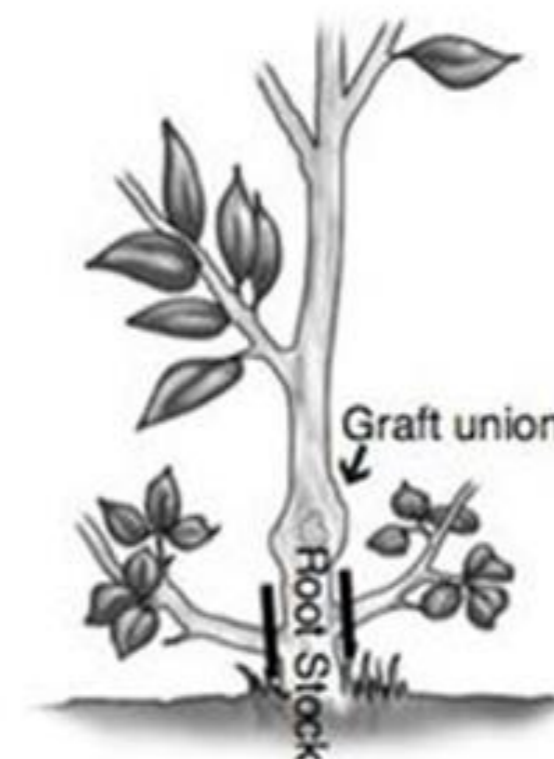
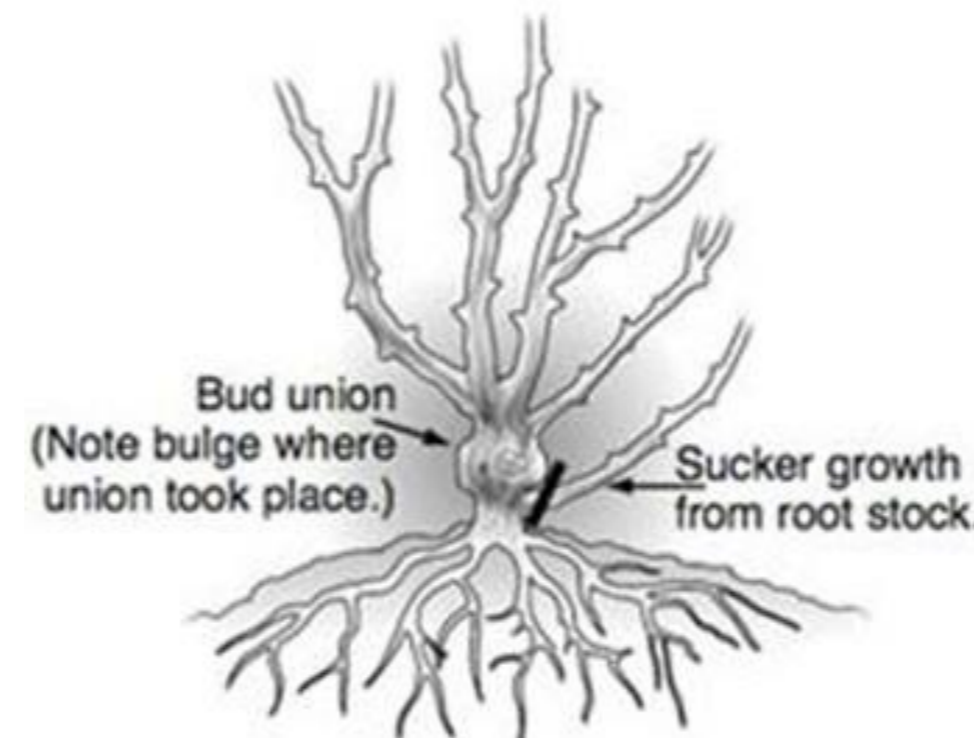
So no stubs remain. Remove stub with saw or rasp.



Above a bud or lateral branch, not between buds or shoots.

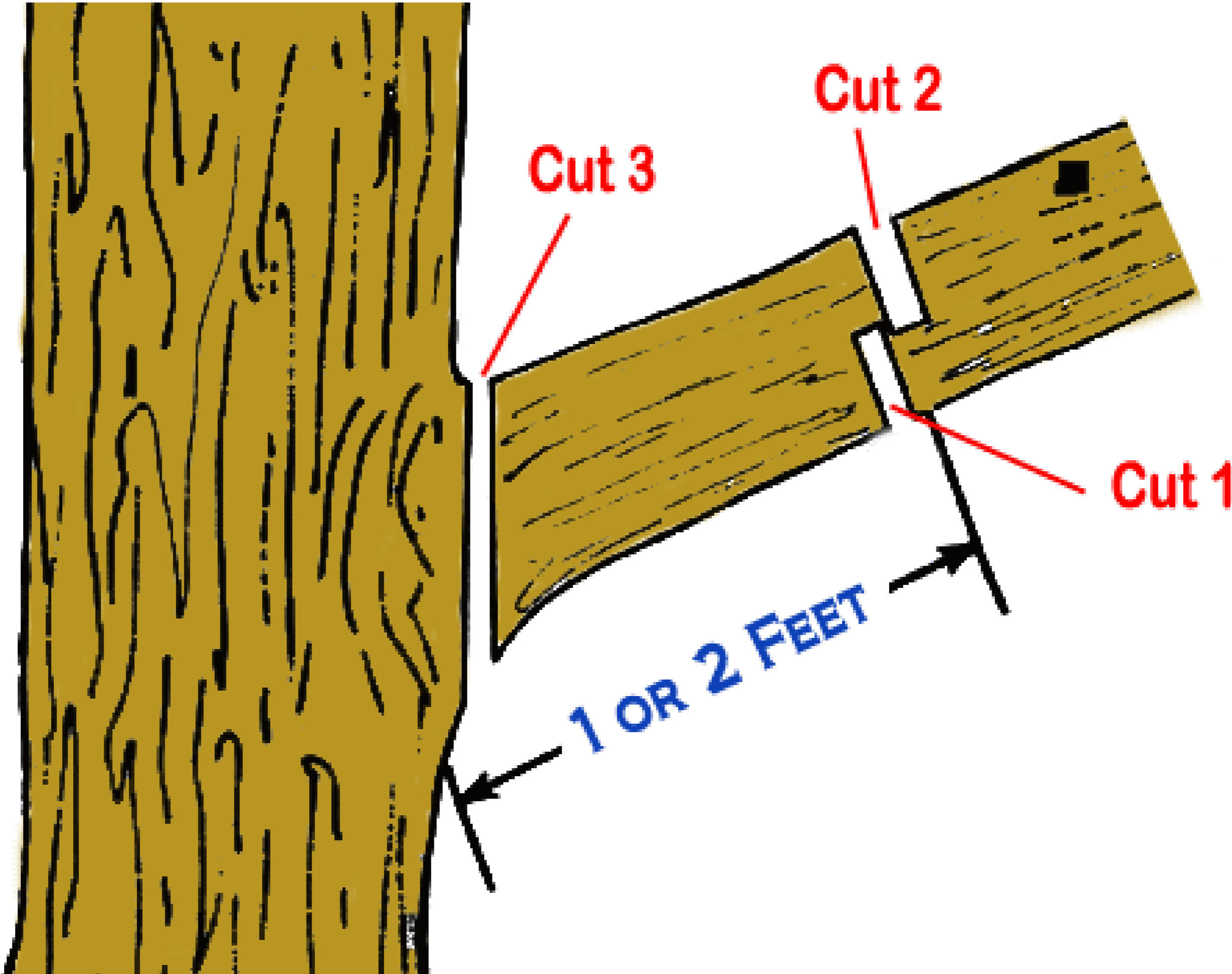


If freeze damage is suspected, start cutting back from tip until sound wood is exposed.





# Three Cut Pruning Method

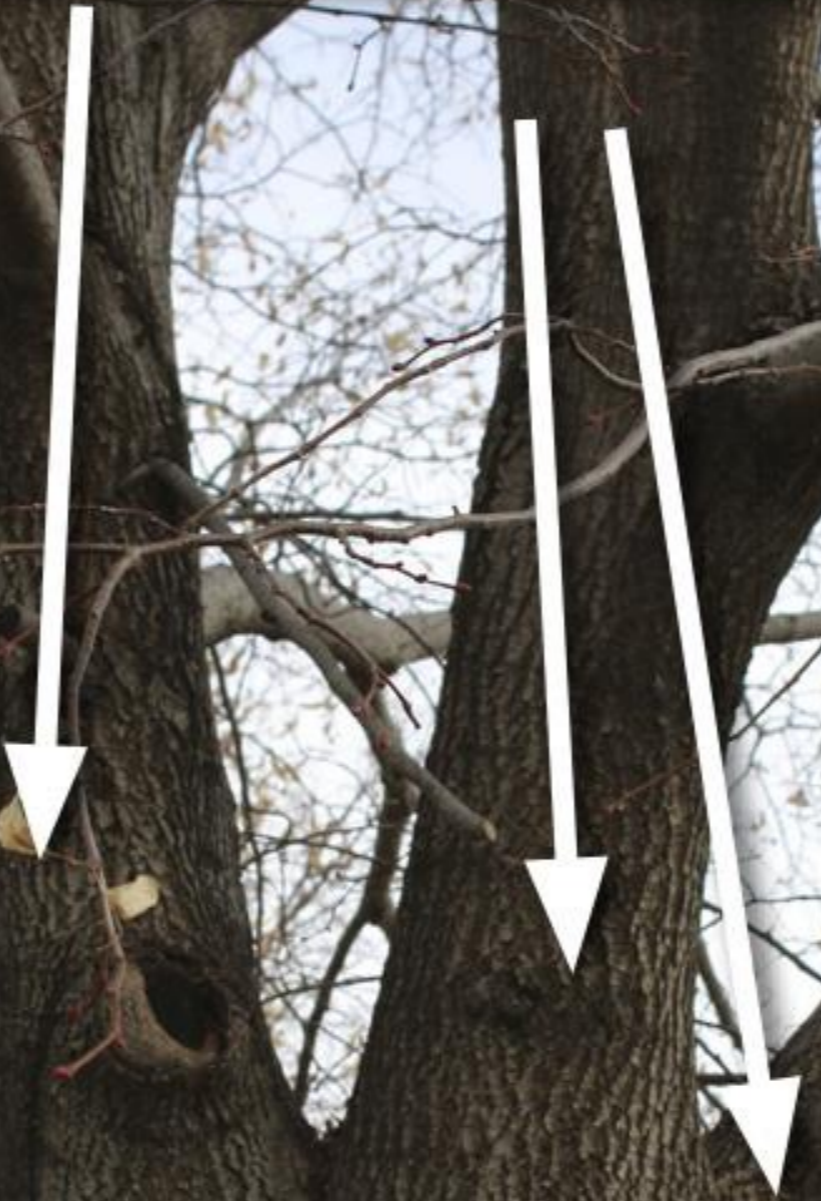






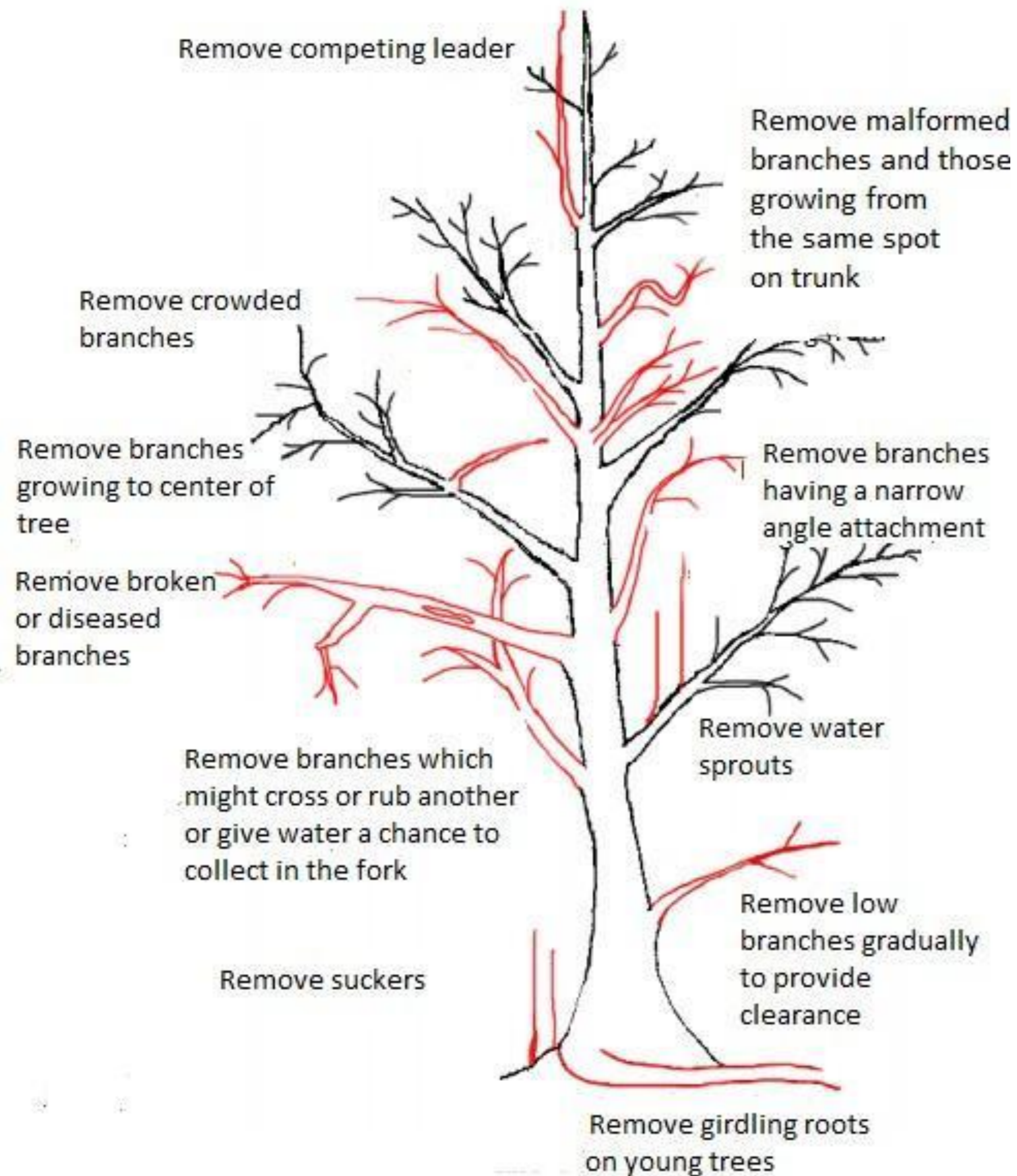


**Codominant branches**



**Included bark**





# Guidelines

## Remove

- Diseased, broken or dead branches
- Downward-growing branches
- Crossed/entangled/competing
- Suckers
- Vigorous vertical branches-water-sprouts



# Tools

Pruning Shears –  $\frac{1}{2}$  to  $\frac{3}{4}$ "

- Anvil and scissor cut

Lopping Shears –  $1 \frac{1}{2}$  to 2"

Hand saws – over 1"

- Fixed blade or folding

Bowsaw: 18" blade

Pole Pruner: cutter w/ hooked blade & saw

- Telescoping: wood, aluminum, fiberglass
- Beware of surroundings

Chainsaw





630 FELCO

TIRER  
ZIEHEN  
PULL ACTION

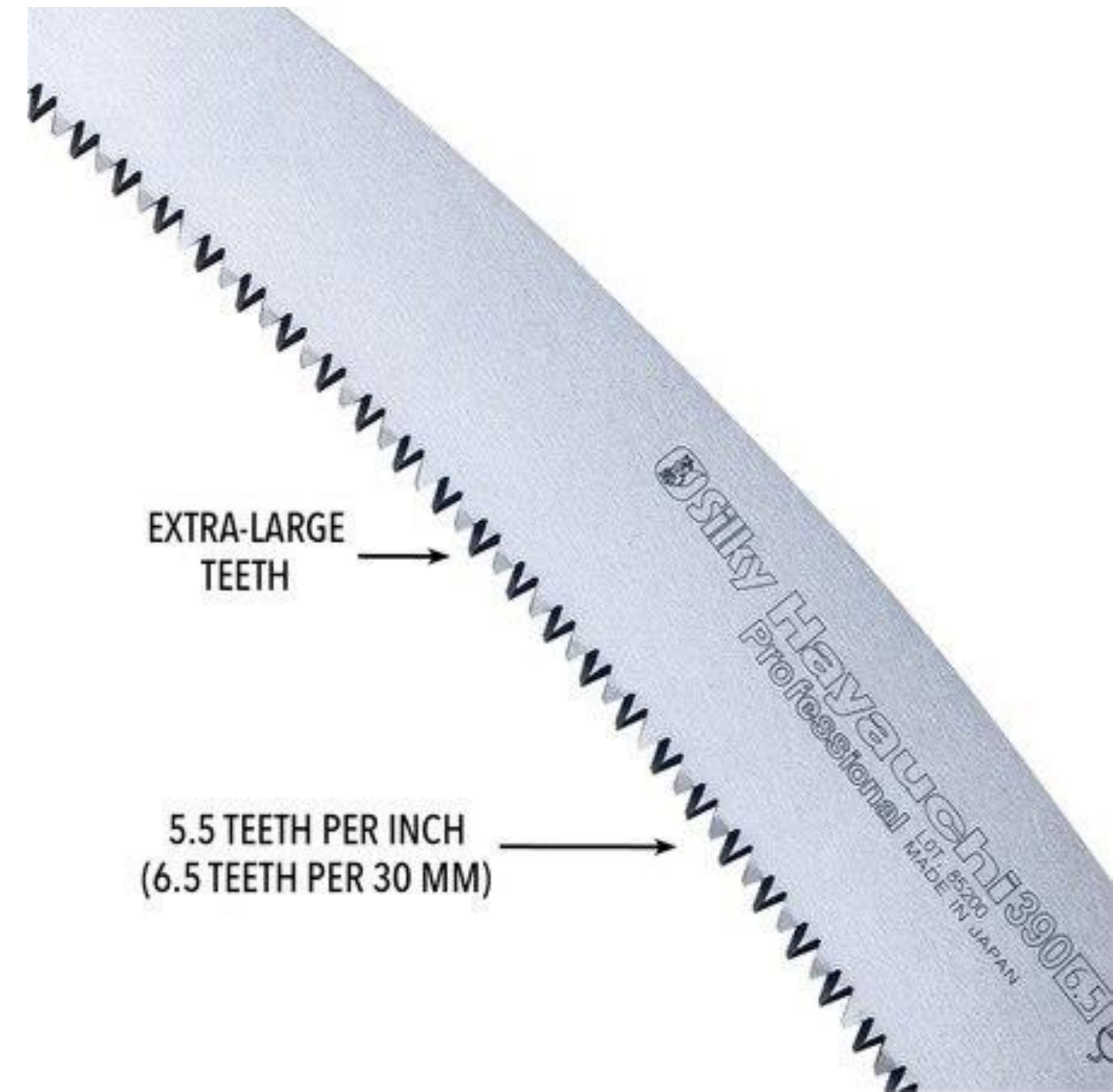


FELCO

FELCO

# PRUNING SAWS

- FINENESS OF CUTTING EDGE MEASURED IN POINTS (TEETH/INCH)
- 8-POINT DELICATE WORK ON SMALL SHRUBS & TREES
- 6-POINT MOST COMMON
- 4.5 POINT HEAVY LIMBS
- BLADE CAN BE STRAIGHT OR CURVED (CUTS WITH THE DRAW STROKE)
- RIGHT PLANT FOR THE RIGHT SPACE
- REGULAR PRUNING WILL MAINTAIN UNIFORM SIZE & SHAPE



# Treesaregood.org



The screenshot shows the homepage of TreesAreGood.org. At the top left are logos for ISA, TREES ARE GOOD, and a tree icon. The main header features the 'TREES ARE GOOD' logo with a red maple leaf and the website URL. A search bar is located in the top right. Below the header is a navigation menu with links: About, Tree Owner Information, Educational Activities, Find an Arborist, Get Involved, Newsroom, and Shop. The main content area has three featured sections: 'Verify a Credential' with a 'Use our free tool' button, 'Find an Arborist' with a 'Find a professional' button, and 'Tree Care Basics' with a 'Free downloads' button. The footer is divided into three columns: 'ABOUT TreesAreGood®' with text about tree benefits and care, 'QUICK LINKS' with a list of resources like 'National Tree Benefit Calculator' and 'Tree Hardiness Zone Map', and 'Thank You to our Patrons!' with a 'Thank You! Patrons!' graphic. A Facebook icon is in the top right of the footer.



# The ABCs of Pruning

<https://www.youtube.com/watch?v=IQhmIK-0HOc&t=12s>

<https://www.youtube.com/watch?v=YLYolsTjmKs>