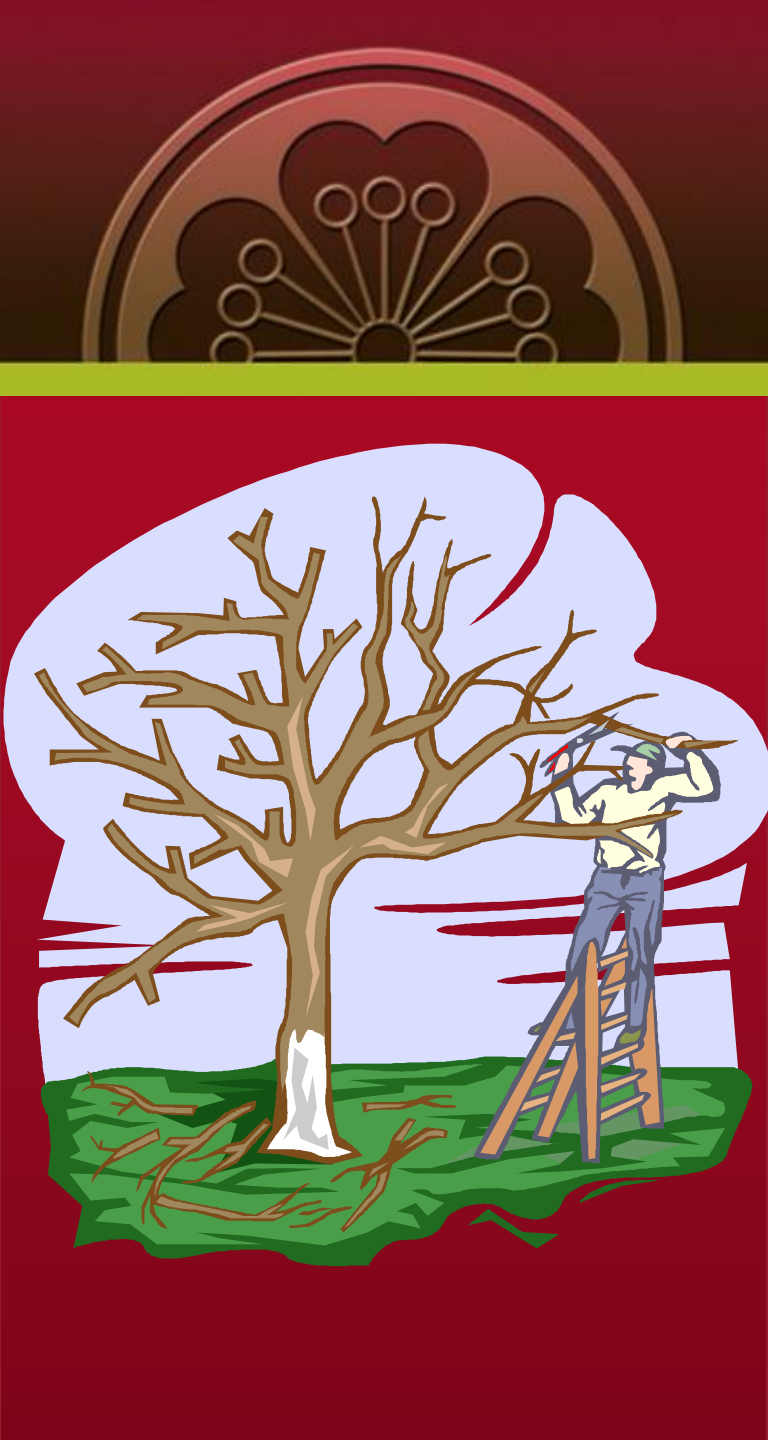


Summer Pruning

WSU Cowlitz County
Master Gardener

WASHINGTON STATE UNIVERSITY
 EXTENSION

Master Gardener Program



Please mute your microphones!

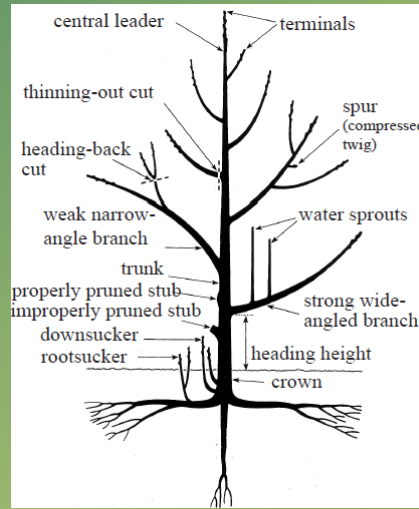
If you have a question during the slide presentation press and hold the space bar while you speak!

This will minimize feedback!



Why do you want to prune trees?

- Improve tree quality.
- Improve sunlight penetration.



- Increase air movement.
- Increase strength of branches.



Other Reasons to Prune:

- Prune to keep the tree in balance.
- Pruning provides access to fruit.
- Pruning can reduce insect and disease damage.
- Pruning improves the health of the tree.

Topics Covered:

- Basic Knowledge.
- When to Prune.
- What to Prune.
 - Equipment.
 - Objective.
 - Cuts.



Terminal bud

Leaf buds

Last year's growth ring

Fruiting bud on a spur

Learn to
recognize buds
and growth
rings.

Limb Angle Regulates Growth:

- Vertically positioned shoots strong vegetative growth but produce fewer fruit buds.
- Horizontally positioned shoots weaker growth at the tip but produce more fruit buds.

Tree Pruning:

- **WHEN:**
 - Dormant.
 - Summer.
 - Exceptions.



Tree Pruning:

- Dormant: Pruning done during the dormant season tends to have an invigorating effect on tree growth.
- **Summer: Pruning done during peak growth times tends to slow growth by removing leaves that manufacture nourishment. However, too much summer pruning can damage a tree.**
- Post/Pre-Dormancy periods: Pruning during the spring (post-dormancy) and fall (pre-dormancy) is generally the least desirable time as the plant is most vulnerable during those times.

Whenever there is a question or doubt of when and how to prune a bush or tree look it up in a reputable book or fact sheet (research backed).

The most type of trees that require pruning yearly are fruit trees.

4 Seasons of Pruning:

Winter (January - March):

- Pruning during dormancy (after leaves fall and before new growth appears) is the most common practice.
- It results in a vigorous burst of new growth in the spring. Some species, such as maples, walnuts, and birches may “bleed,” or drip large amounts of sap, in the spring. This is not harmful to the tree and will cease when the leaves emerge.

<https://s3.wp.wsu.edu/uploads/sites/2076/2015/07/C109-Keys-to-Good-Pruning-14.pdf>

4 Seasons of Pruning:

Spring (April - May):

- Pruning cuts will result in quick and often excessive regrowth.
- Spring flowering shrubs such as lilac, forsythia, and spirea should be pruned after blooming.
- Avoid pruning spring flowering shrubs in fall or late winter, which will result in decreased bloom.
- Pruning between the time when leaf buds start to swell and when leaves reach their mature size and color can disrupt growth hormones in the tree leading to more water sprouts and very vigorous regrowth.

<https://s3.wp.wsu.edu/uploads/sites/2076/2015/07/C109-Keys-to-Good-Pruning-14.pdf>

4 Seasons of Pruning:

Summer (June - August):

- To direct the growth by slowing the branches you don't want, or to "dwarf" the development of a tree or branch, prune soon after seasonal growth is complete.
- Another reason to prune in summer is for corrective purposes. Limbs that hang down too far under the weight of leaves can be reduced.
- Be aware that late summer pruning may stimulate new tip growth that will not have time to harden off before cold weather.

<https://s3.wp.wsu.edu/uploads/sites/2076/2015/07/C109-Keys-to-Good-Pruning-14.pdf>

4 Seasons of Pruning:

Fall (September - December):

- Pruning cuts made in September and early October may result in a flush of vegetative growth that will be too tender to survive the winter.
- Generally it is safe to prune after the leaves fall from a plant.
- **Note:**
- For flowering trees or shrubs that bloom in summer or fall on current year's growth, prune in winter.
- For trees and shrubs that bloom in spring from buds on one-year-old wood, prune when their flowers fade in late spring or early summer.

<https://s3.wp.wsu.edu/uploads/sites/2076/2015/07/C109-Keys-to-Good-Pruning-14.pdf>

Exceptions:

- Asian Pears.
- Cherries.



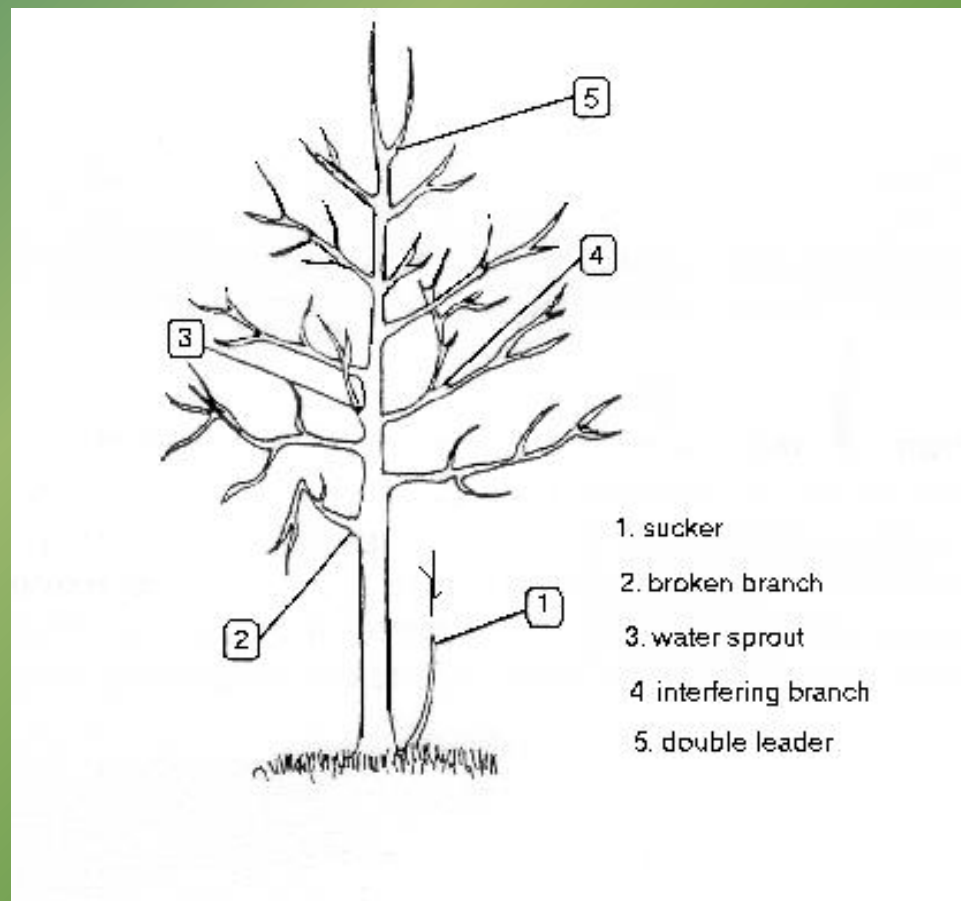
These are pruned in dry weather to prevent diseases from entering the cuts and spreading disease throughout the tree.

The big question is how do you see what to prune out while the tree is leafed out?

Fruit Tree Pruning:

4Ds of Pruning:

- Damaged:
Broken branch (2).
- Dead.
- Diseased.
- Dysfunctional:
Sucker (1).
Water sprout (3).
Interfering branch (4).
Upward or Downward.
Double leader (5).



Equipment:

- Pruners (bypass).
- Loppers (bypass).
- Saws (chain, bow and pole).
- Ladders (orchard).



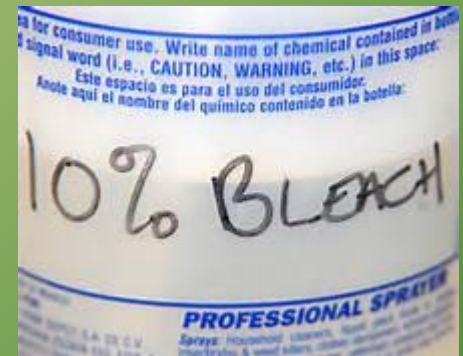
Equipment:

- Sharpening Tools:
 - Files.
 - Emery Paper.
- Safety Equipment:
 - Gloves.
 - Safety Glasses.
 - Hearing Protection.



Equipment:

- Disinfecting equipment:
 - Alcohol.
 - Lysol/PineSol.
 - 10% Bleach Solution (can be corrosive ensure you lubricate after use).



- Lubricating:
 - Chain saw bar oil.
 - Lubricating oil.



Equipment:

- Which type of pruners are better anvil or bypass style pruners?



The two main types of hand pruners, are bypass pruners, which have a scissors action; and anvil pruners, which pinch material between a cutting blade and a backstop.

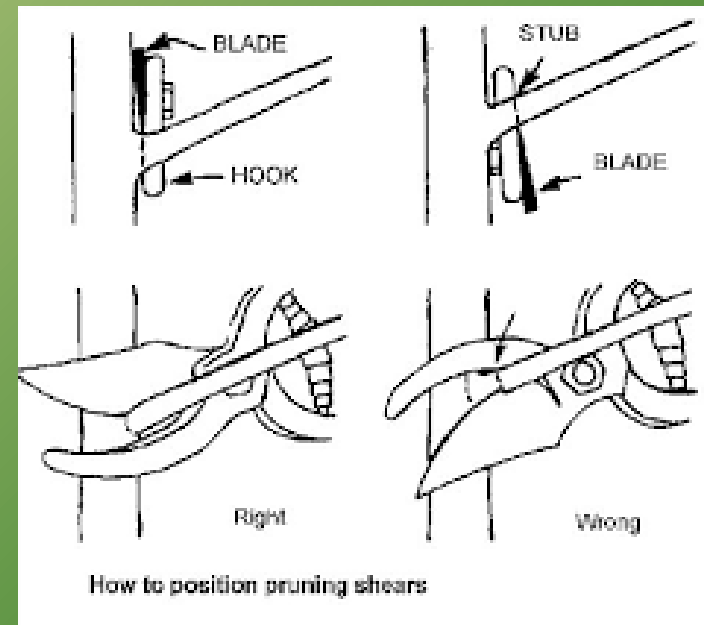
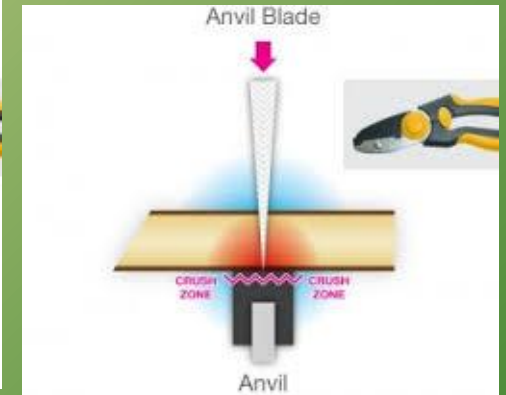
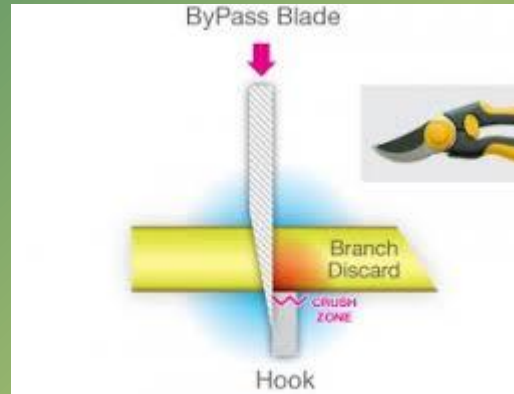
Bypass pruners are usually more expensive, and cut more cleanly than most anvil pruners; which often crush or tear branches on woody plants. Branches that have been crushed or torn in the pruning process do not seal well, leaving a plant open to disease.

For this reason, bypass style pruners are recommended.

<https://research.libraries.wsu.edu/xmlui/bitstream/handle/2376/4990/FS131E.pdf?...>

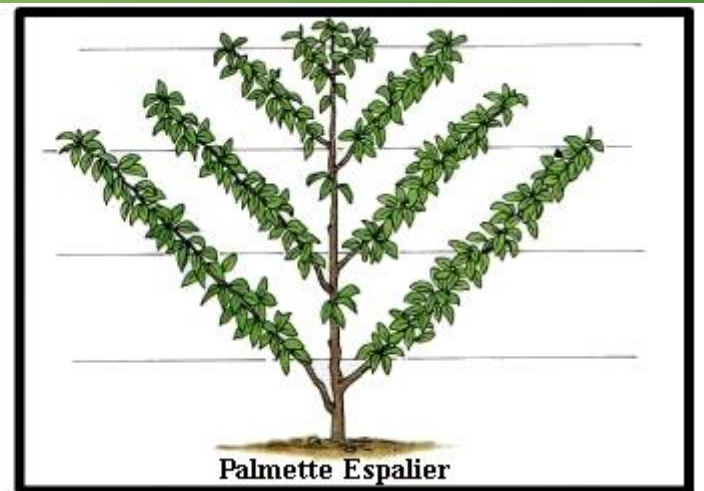
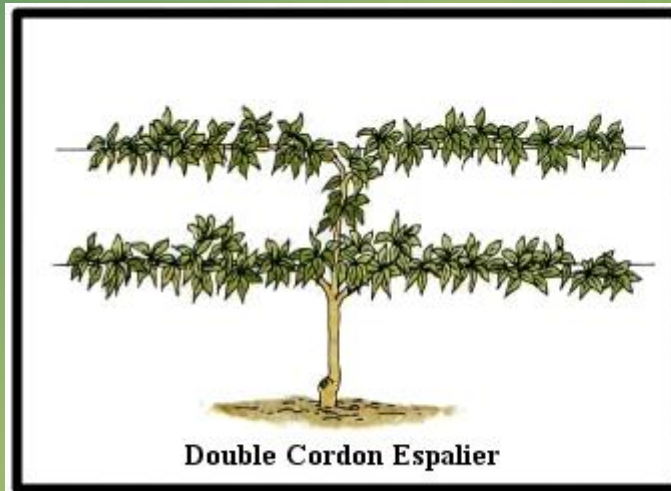
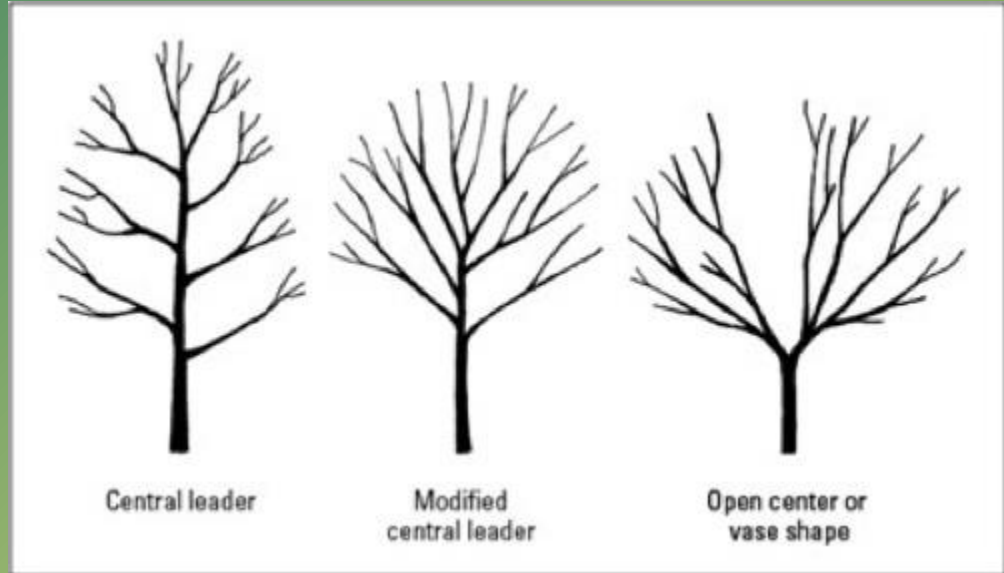
Tools:

- Pruners and Loppers:
 - Bypass.
 - Anvil.
- Cuts by each:
 - Bypass.
 - Anvil.



Objective:

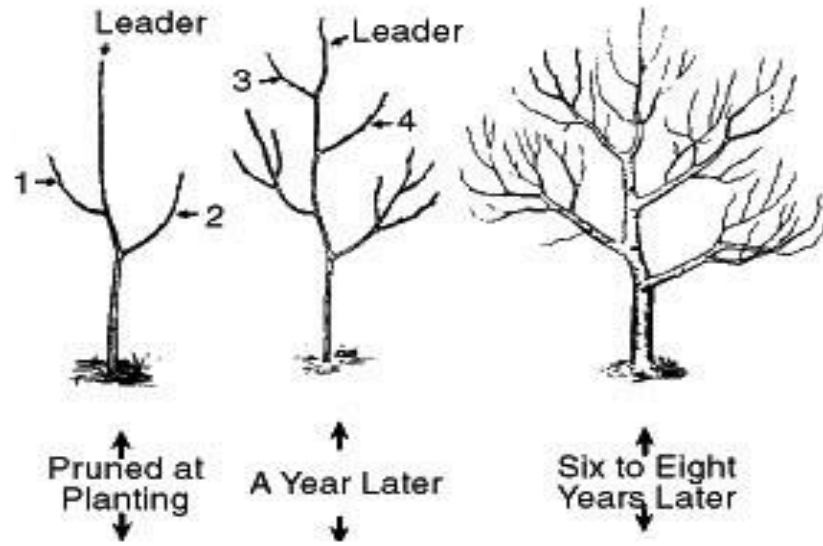
- Central leader.
- Open center (vase).
- Espalier.
- Palmette.



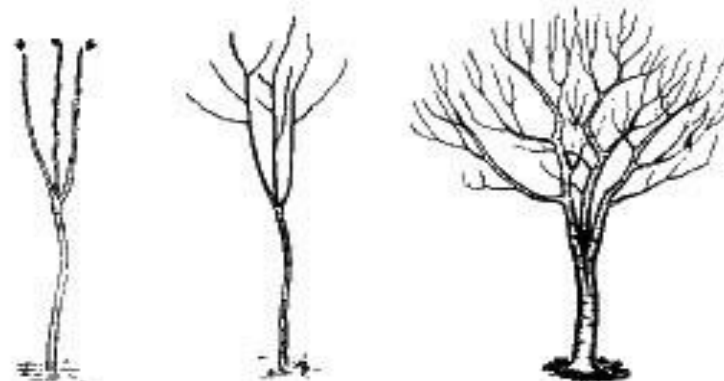
Tree Pruning:

Central Leader

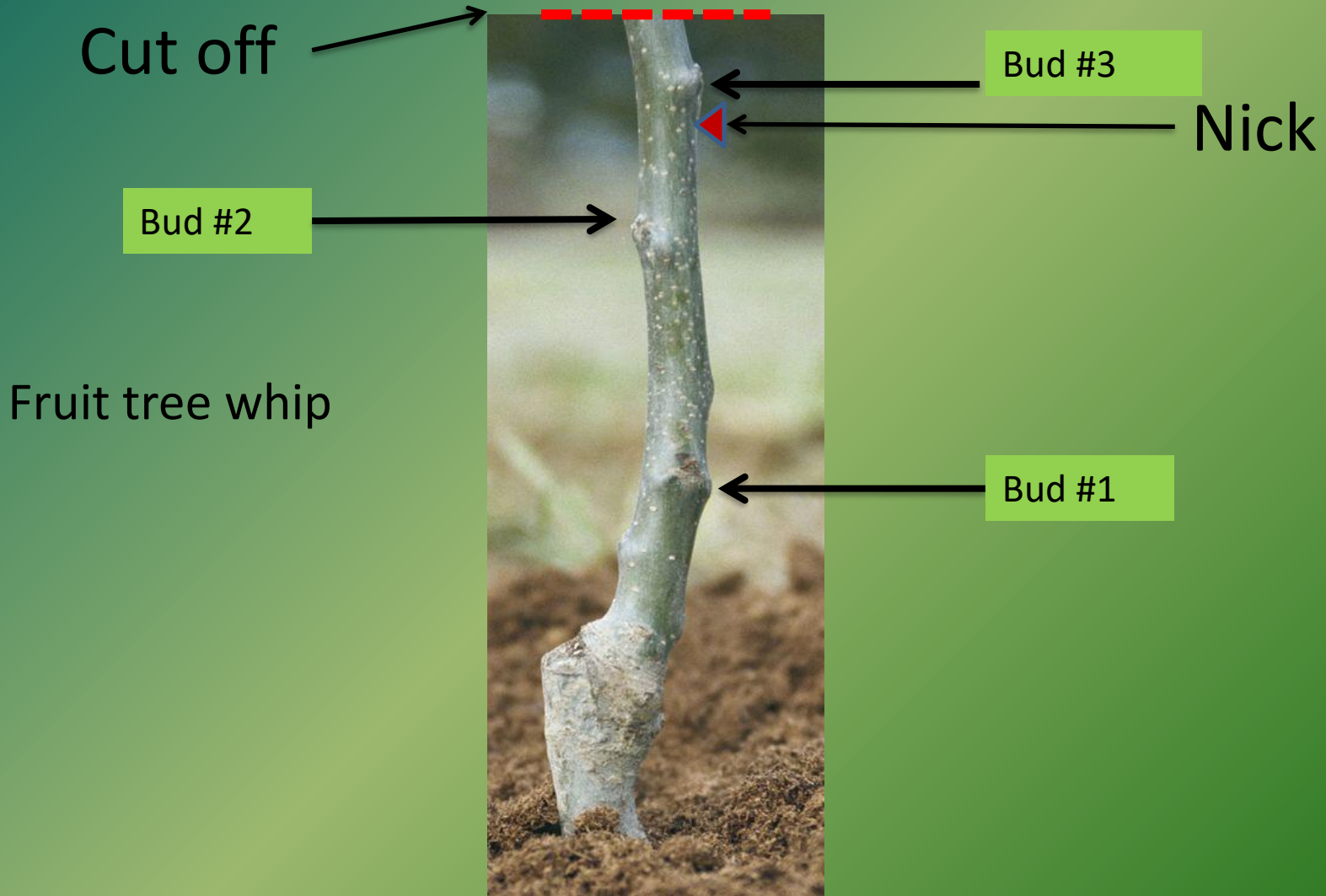
Correct



Incorrect



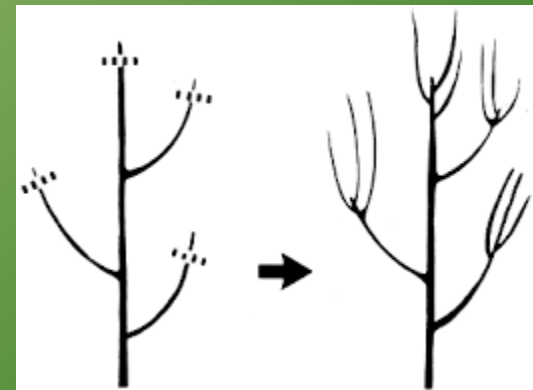
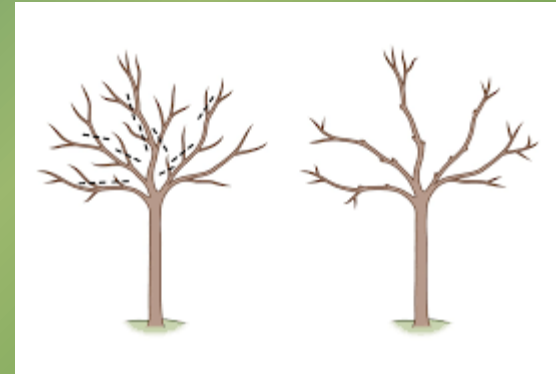
Fruit Tree Pruning:



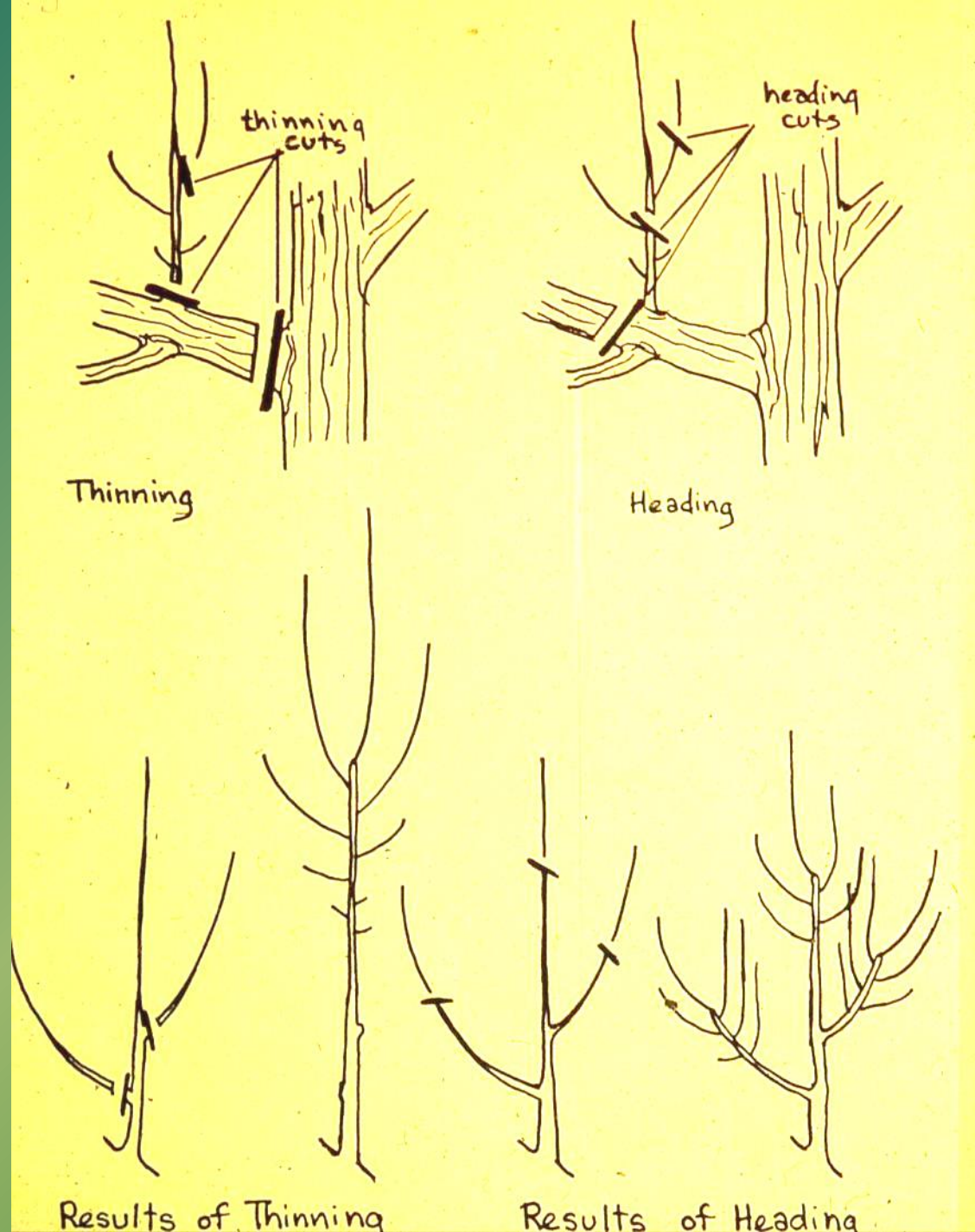
Cuts:

- Thinning cuts - cutting out a whole branch or shoot back to its origin.
 - Opens light channels.
 - Increases fruit production and quality.

- Heading cuts - cutting off part of a branch or shoot.
 - Tends to close off light channels.
 - Decreases fruit production.

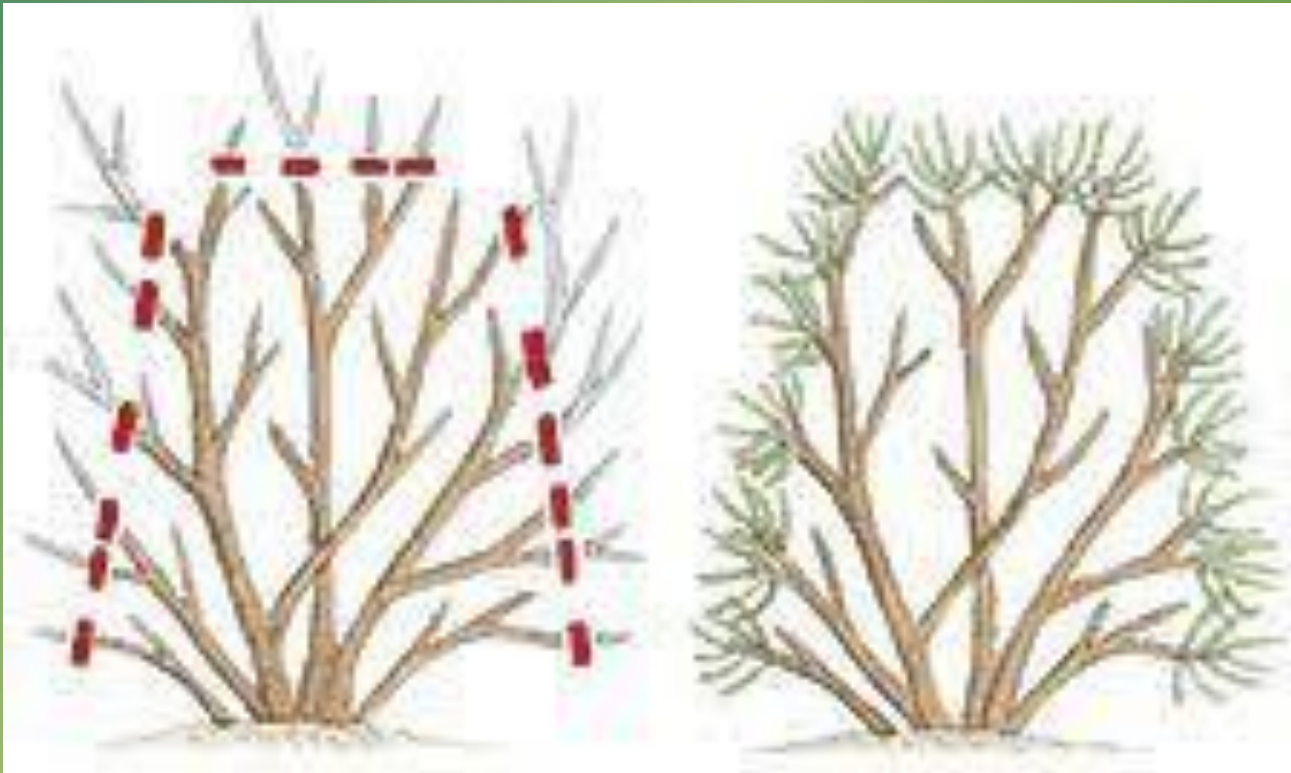


Results of thinning vs. heading cuts:



Why would you want to head cut at all?

- To stiffen or shorten a branch.
- To increase branching.
- To control height.



Heading Cuts:

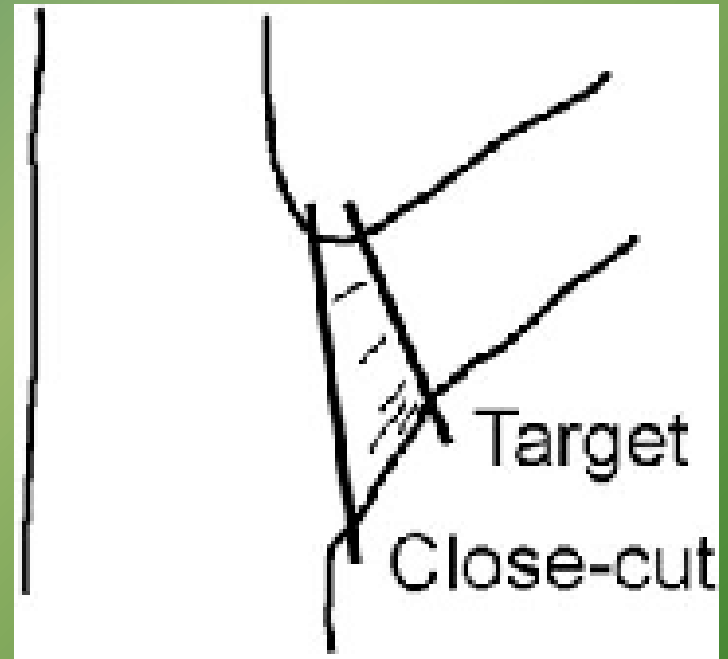


Chia Pets!

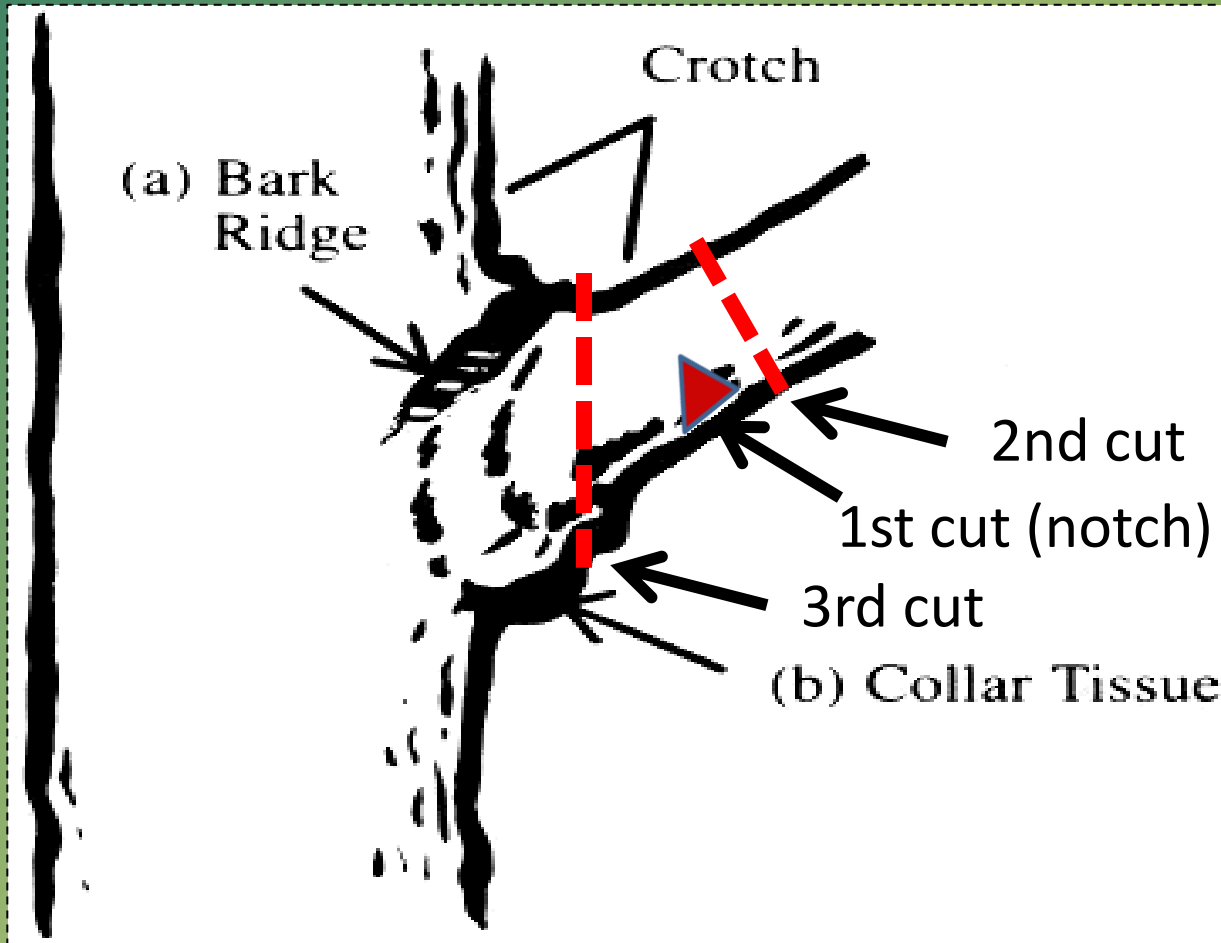


Techniques:

- Flush cuts leaving the collar - no stubs.
- Do not cut collar.
- Angle large cuts.
- No dressings.



Techniques:



In Summary:

- **Basic Knowledge.**
 - Why Prune.
 - Difference in vertical and horizontal shoots.
- **When to Prune.**
 - What seasons are the best to prune.
- **What to Prune.**
 - The 4 Ds. (Damaged, Dead, Diseased, Dysfunctional).
- **Equipment.**
 - Types of Equipment to Use.
- **Objective.**
 - Shape Desired.
- **Cuts.**
 - Thinning and Heading Cuts.

References:

- <https://extension.oregonstate.edu/crop-production/fruit-trees/tree-pruning-basics>
- <https://s3.wp.wsu.edu/uploads/sites/2076/2015/07/C109-Keys-to-Good-Pruning-14.pdf>
- <https://s3.wp.wsu.edu/uploads/sites/2076/2017/07/C111-Pruning-Evergreens-15.pdf>
- <https://research.libraries.wsu.edu/xmlui/bitstream/handle/2376/4990/FS131E.pdf?...>
- http://content.libraries.wsu.edu/index.php/utils/getfile/collection/cahnrs-arch/id/351/filename/60230182432004_PNW400.pdf
- Pruning & Training, The American Horticultural Society, Christopher Brickell & David Joyce.

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