

Helpful reminders of what's needed to grow healthy and productive trees and plants.

MARCH 24, 2019

## 2019 Healthy Growing Reminder #1 – Late Winter/Early Spring Pruning

In our first tip for this year, you'll need a sharp set of pruning shears, and possibly a loppers and branch saw. Be sure to clean your tools with Pine-Sol, alcohol, or 10% bleach solution between trees and after pruning any branch that looks sick or diseased.

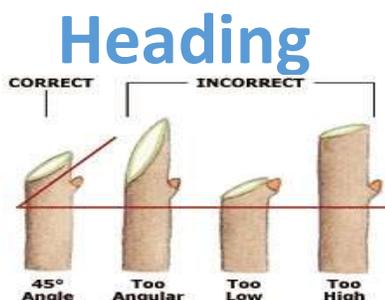
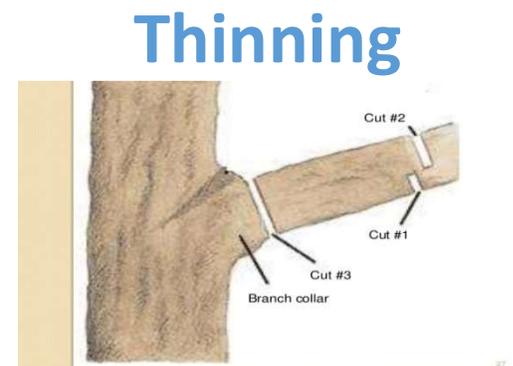
### Pruning Goals:

1. **Quickest Possible Fruit Production:** Horizontal branching encourages fruit set. However, many new branches want to grow vertically, so we need to prune and/or train to grow horizontally.
2. **Develop Strong Scaffold Branching:** We've all seen branches that have broken under fruit load; normally due to a narrow crotch angle. These breaks can leave gaping wounds that allow disease to enter and, when lost, remove a lot of the tree's energy.
3. **Disease and Insect Control:** Pests and disease thrive in a mass of dead and tangled internal branches. Direct sunlight and air circulation are your best and cheapest natural sanitizers.
4. **Promote Good Fruit Quality:** Fruit needs direct sunlight for the best growth. Fruit that grows in the depths of an unpruned tree is typically small and diseased, or malformed and is really just a waste of the tree's energy stores.

### Pruning Cuts:

There are two kinds of pruning cuts: 1) **Thinning Cuts** 2) **Heading cuts**

**THINNING CUTS** remove the entire branch. Thinning cuts can be used where the main or "scaffold" branches meet the trunk or secondary branching meet the scaffold branches. The cut should be made just outside the branch collar, so the cut will heal properly. On larger branches, the 3 cut method should be used to keep the bark from ripping down the tree as the branch falls. Cut #2 should continue until the branch breaks free. This will remove the weight of the branch for cut #3.

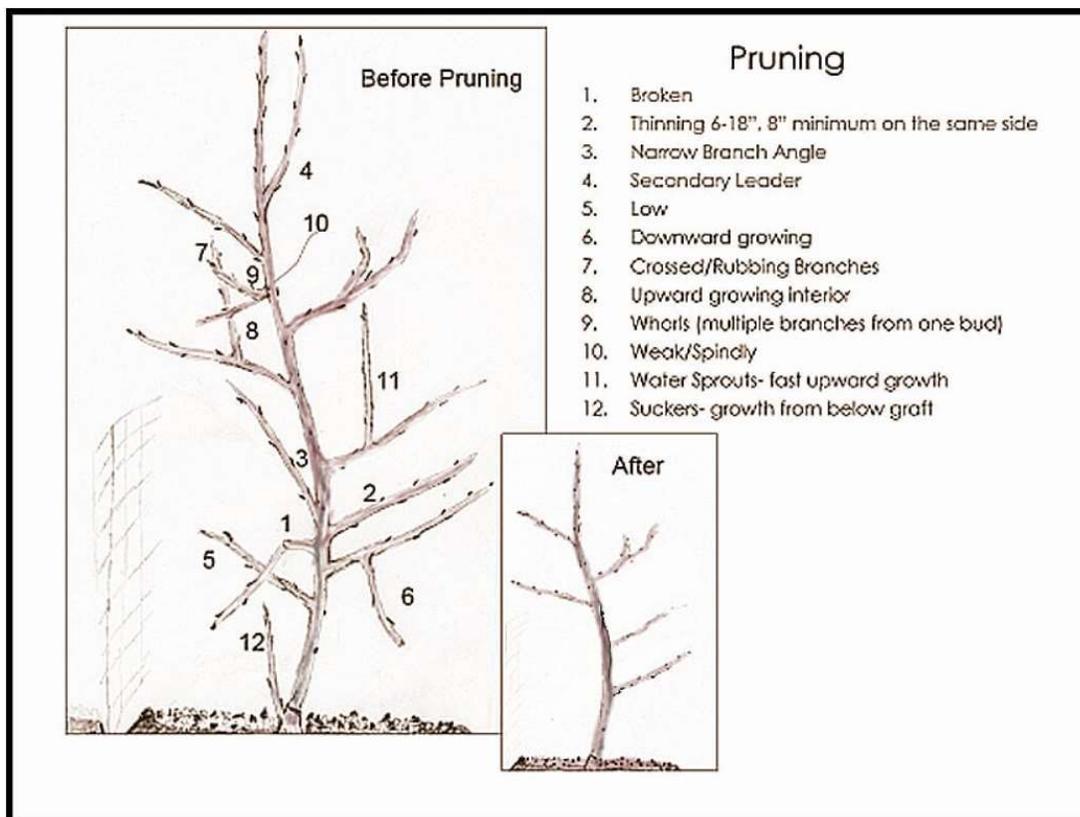


**HEADING CUTS** remove some length of the branch, but not the whole branch. The terminal bud or tip releases chemicals that retard side branching and fruit buds so it's especially important to remove it on the central leader and long skinny branches. Heading helps control branch growth (size and direction), which promotes fruit production, side branching and strengthens the branch. See the diagram to the left for the proper cut placement. The blade side of the pruner goes next to the bud. Always prune at a bud, facing the direction you want the branch to grow.

This bud will become the new growth on the tip of the branch.

## Pruning for Health:

- **Thin** broken, damaged, spindly, or diseased branches.
- **Thin** scaffold branches (less than  $\frac{1}{4}$  of the trunk's diameter- see Heading if greater than  $\frac{1}{4}$ ) that are too close together (especially if one is right above the other). Ideally there should be 8-12" between scaffold branches.
- **Thin** branches with narrow crotch angles (less than  $60^\circ$  or between 10:00 and 2:00 on the clock). These are the branches that are most likely to break when they get bigger and are full of fruit.
- **Thin** competing Leaders (branches near the top that are starting to grow more upward than outward).
- **Thin** branches growing too low, vertically, downward, in towards the trunk, crossing other branches, weak/spindly, or whorls (multiple branches from one bud). You want the branching horizontal and facing out.
- **Thin** suckers or small branches that start to grow below your first scaffold branch.
- **Head**  $\frac{1}{3}$  of last year's growth in the Central Leader- if there's a large stretch ( $\approx 24"$ ) without side branching.
- **Head**  $\frac{1}{3}$  of long branches with little side branching, this will encourage side branching and fruit set.
- **Head** up to  $\frac{1}{2}$  of a scaffold branch if it starts to get as big as the trunk's diameter at the base (to slow branch growth). Super big side branches are not ideal for the trees overall form.
- **Head** up to  $\frac{1}{2}$  of a scaffold branch if it's more than  $\frac{1}{4}$  of the trunk's diameter and you'd like to remove it eventually. Maybe it's too close to other branches or it's too low on the tree. These are called temporary branches and the idea is to slow the growth, so eventually they're less than  $\frac{1}{4}$  of the trunk's diameter and can be removed without leaving too large of a wound.

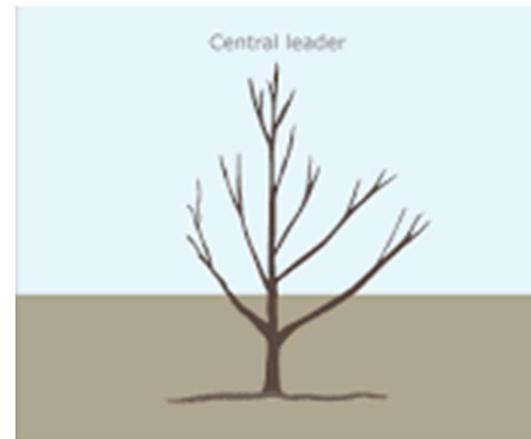


## Pruning for Form:

There are two main options for “form” that promote our pruning goals. Either can be used for any tree, but traditionally Apples and Pears have been pruned as **Central Leader** trees and Cherry’s and Plums (stone fruit) as an **Open Center**. Unless you have a strong preference, you should let the tree tell you which way to go. If there is already a strong, straight main trunk with smaller side branching that can become strong, scaffold branches, then prune as a **Central Leader**. If the tree has 3-4, long, strong side branches and no real dominant center then prune it as an **Open Center**. You can use a combination of the two or come up with your own form, as long as you keep the pruning goals in mind. As an example, one organic orchard we know prunes their trees to have 4 scaffold branches, at 4-ft up and 4 more at 8-ft and that’s it. This makes for an odd looking tree but maximizes sunlight and air circulation.

### Central Leader- Recommended for Apples & Pear but OK for all

Your target is a tree with a single, strong central leader with evenly spaced and balanced scaffold branches (starting at around 24” from the ground) every 6-18 inches in a spoke pattern all the way up the tree. The branches should get shorter as you move up the tree to let sunlight reach the lower branches. Each year, pick the next couple scaffold branches on last year’s growth and remove the rest.



### Open Center- Sometimes used on Cherry, Plum & Apricot

Your target is a vase shaped tree with several strong scaffold/lateral branches with **no** central trunk (starting at around 24” from the ground) every 6-12 inches in a spoke pattern. Each year, prune the vertical growth and head the secondary growth to strengthen the branches and encourage more side branching.

