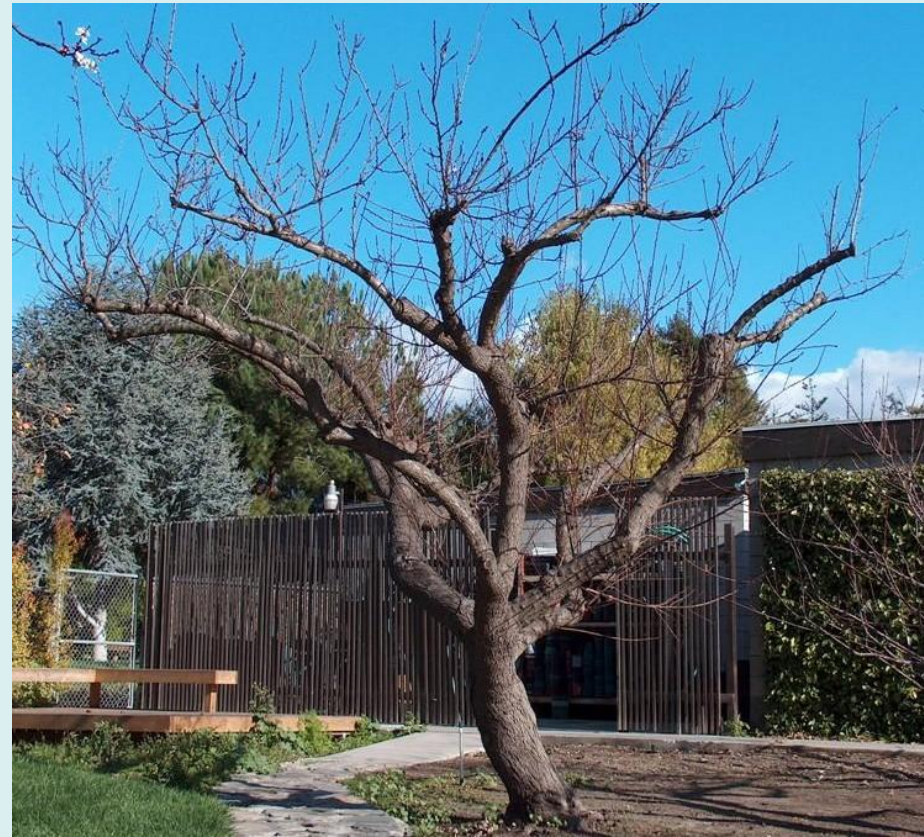


# Pruning Stone Fruit

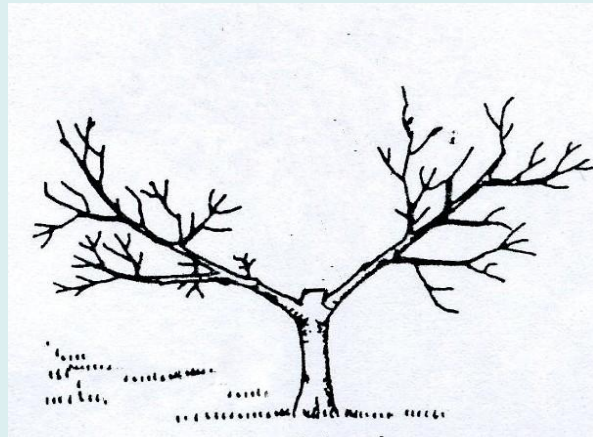
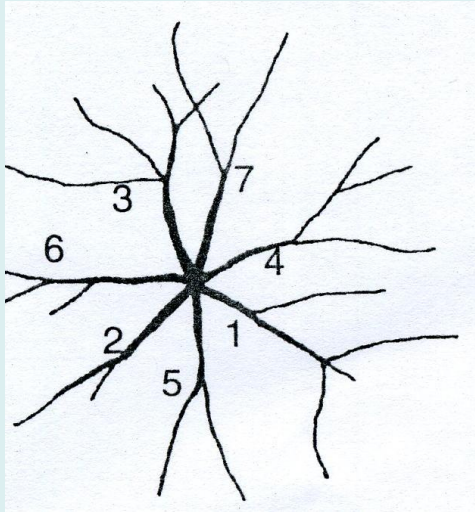
## Open Vase and Modified Open Vase Pruning



# PRUNING STYLES

## Open Vase and Modified Open Vase

- Open vase and modified open vase pruning styles are used to maximize fruit production and fruit quality for fruit trees in the genus Prunus (peach, nectarine, plum, apricot and their interspecific hybrids; also almond).
- The open vase style resembles a bowl. Scaffold branches and secondary scaffold branches make up the sides of the bowl. All branches that grow towards the center of the bowl are removed to allow light and air to reach the interior of the tree.

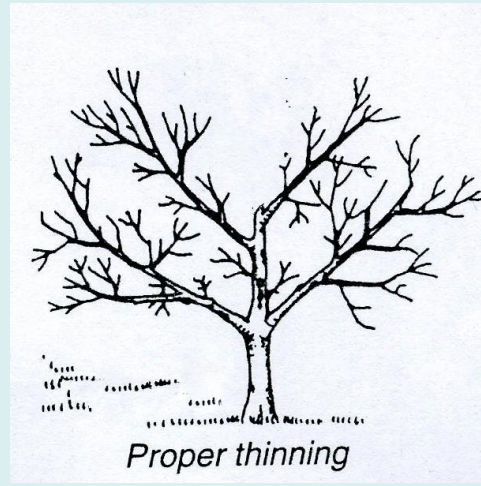
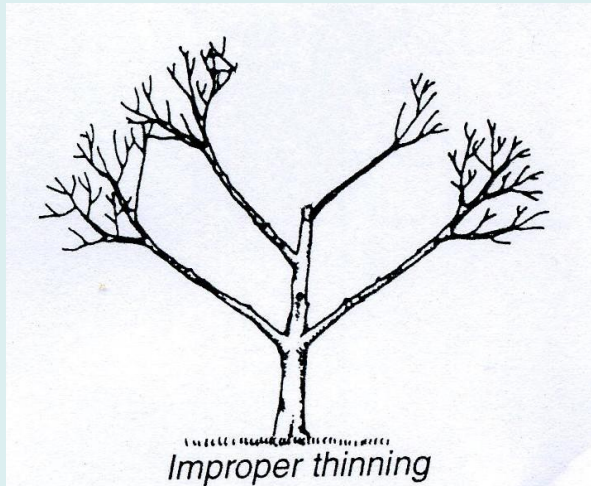




# PRUNING STYLES

## Open Vase and Modified Open Vase

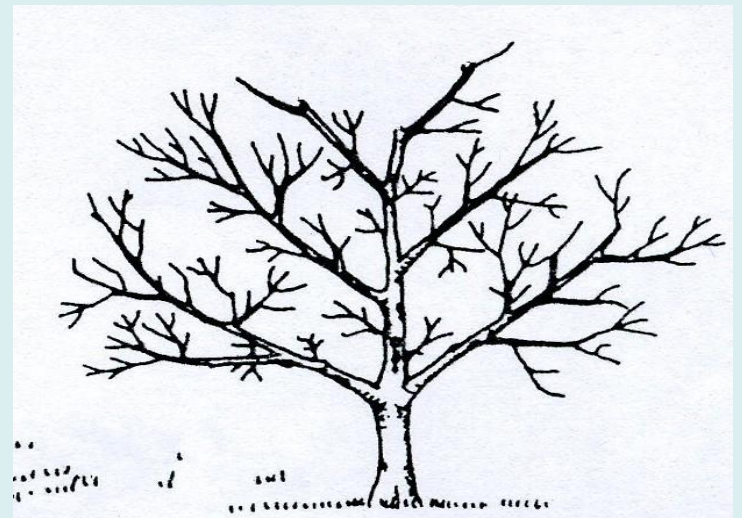
- Low growing or small branches should be left as long as they do not congest this open interior of the "bowl". These branches assist in increasing branch diameter (caliper) and strength as well as help to protect the bark from sunburn.
- If these branches are fruiting branches, leaving these branches will help bring fruit lower and therefore fruit will be easier to harvest.



# PRUNING STYLES

## Modified Open Vase

- The modified open vase pruning style differs from the open vase style by having more than one level or layer. Each level or layer is made up of a smaller "bowl" above and within the larger, lower bowl.
- Sufficient distance must be maintained between these layers to allow for good air circulation and good light penetration to the lower layer or layers.
- Large trees can have up to 3 layers, so that the overall appearance of the tree resembles candelabra. This results in a larger tree and greater fruit production than the open vase style.





# A Systematic Method to Prune Open Vase and Modified Open Vase Trees.

- Open vase shaped and modified open vase shaped trees will need to have an average of 40%=60% of growth removed on a yearly basis. Good pruning practices will help to reduce the amount of growth removed each year so that 20-40% branch removal is common.



## Step 1:

- Remove all suckers





# A Systematic Method to Prune Open Vase and Modified Open Vase Trees.

## Step 2:

- Look at the entire tree and determine which branches need to be removed or redirected to open the center "bowl" or vase.
- Use pruning or training techniques to open the center of the tree.



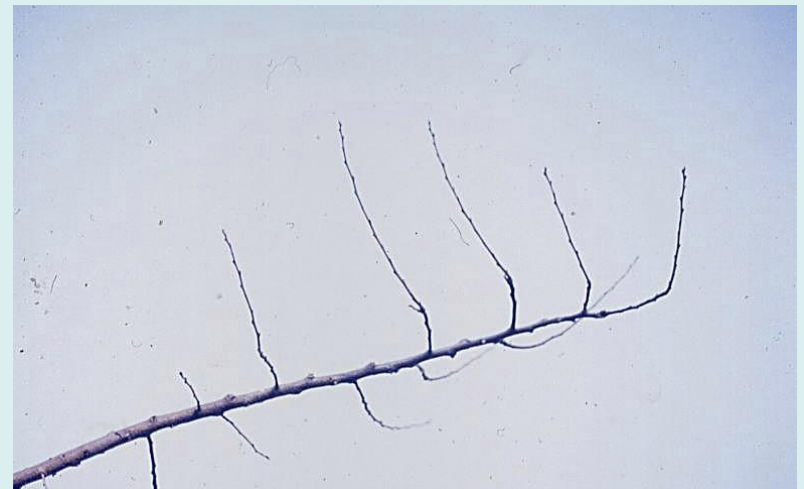


# A Systematic Method to Prune Open Vase and Modified Open Vase Trees.

## Step 3:

**After the center has been opened up, ignore the overall tree until the final steps of the pruning process!**

- Start pruning each scaffold limb one at a time, beginning with the lowest scaffold limb first.
- Start at the tree trunk and work your way towards the end of the branch.



# A Systematic Method to Prune Open Vase and Modified Open Vase Trees.

## Step 3:

- Prune each branch for health, structural strength, flower and fruit production and to thin out crowded branches.





# A Systematic Method to Prune Open Vase and Modified Open Vase Trees.

## Step 3:

- If branches are growing vertically and are crossing limbs which are growing above them, drop-crotch or remove the limb to prevent overcrowding and crossing branches.





# A Systematic Method to Prune Open Vase and Modified Open Vase Trees.

## Step 3:

- After being properly pruned, the overall appearance of the scaffold branch will often be feather-like, with side branches and fruiting wood mainly attached to the top and sides of this branch.





# A Systematic Method to Prune Open Vase and Modified Open Vase Trees.

## Step 3:

- Small branches and fruiting spurs may be attached to the bottom of the scaffold, provided they are not too crowded.



# A Systematic Method to Prune Open Vase and Modified Open Vase Trees.

## Step 3:

- As the scaffold branch matures, the ends of the branch will develop into a shape that resembles an outstretched arm and hand, with the “fingers” of the hand pointing upward and the “palm” of the hand directed towards the center of the tree.
- Branches should be spaced along the scaffold limb, alternating from side to side. The “fingers” and hand should form an open “cup” at the end of each limb.





# A Systematic Method to Prune Open Vase and Modified Open Vase Trees.

## Step 4:

- Move to the next scaffold branch and repeat the procedure outlined in step 3. Again start at the base of the branch and work outwards to the tip of the scaffold limb. Remember to focus on only the scaffold limb that you are currently pruning.



# A Systematic Method to Prune Open Vase and Modified Open Vase Trees.

## Step 5:

- Continue working your way around the tree, pruning one scaffold limb at a time.





# A Systematic Method to Prune Open Vase and Modified Open Vase Trees.

## Step 5:

- If there is more than one layer of branches, as in a tree pruned to a modified open vase shape, move up to the next layer and continue the procedure outlined in steps 3 and 4.





# A Systematic Method to Prune Open Vase and Modified Open Vase Trees.

## Step 5:

- Leave sufficient distance between each layer to allow for adequate light to reach the lower layer.
- Actual distance between layers is variable and will depend on location, exposure, tree age and size, branch density, and species. Experience will help in determining what is sufficient distance between layers.



# A Systematic Method to Prune Open Vase and Modified Open Vase Trees.

## Step 6:

- When you have finished pruning each scaffold limb, one at a time, stand back and examine the tree as a whole unit.
- Look for excessively crowded branches, crossing branches, or branches growing towards the center of the vase.
- Remove or redirect these branches if necessary.





# Peaches and Nectarines

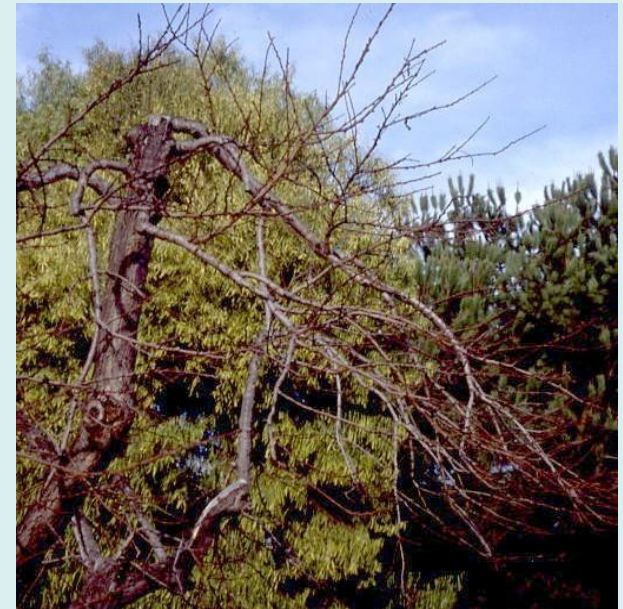
- These trees produce flowers and fruit on last year's growth, 1 year old wood. This fruiting wood is replaced each year. An average of 40-60% of the branches is removed each season.
- Fruiting wood is easily identified. Branches have smooth, shiny, green or green and brown bark. Branches have well developed buds but no side branches.





# Peaches and Nectarines

- Branches are frequently pulled downward by the weight of the fruit and develop into 'hangers' which are beneficial to picking the fruit.





# Pruning Peaches and Nectarines



# Pruning Peaches and Nectarines





# Pruning Peaches and Nectarines





# Pruning Peaches and Nectarines





# Pruning Peaches and Nectarines





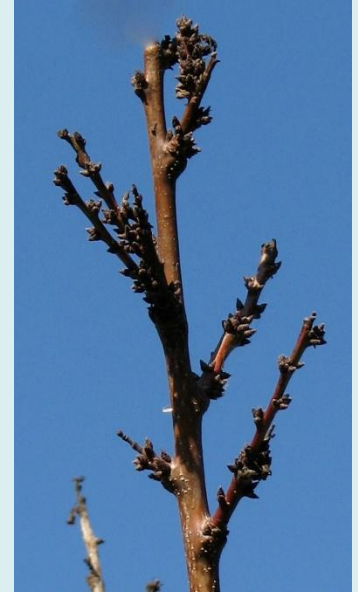
# Pruning Peaches and Nectarines





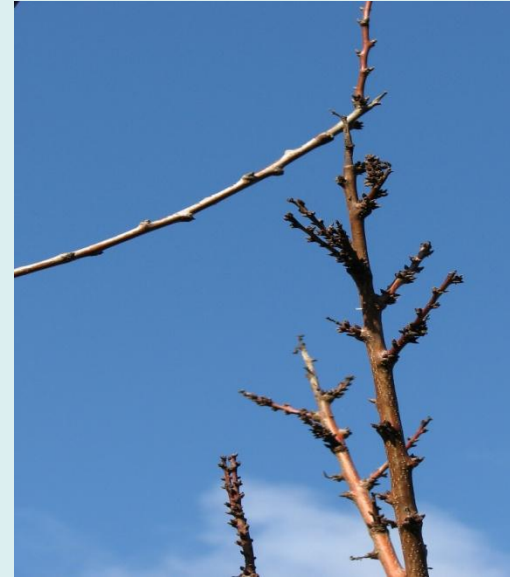
# Plums and Apricots

- These trees produce flowers and fruit on fruiting spurs. Fruiting spurs are long lived on plums (up to 10 years) but are short lived on apricots (3-5 years).
- Fruiting spurs develop on branches that are 2 years old and older. These older branches have brown, rough bark and smaller side branches.
- The side branches may be vegetative, which will produce leaves and more branches or they may be fruiting spurs which will produce flowers and fruit. Vegetative branches will produce fruiting spurs after they become 2 years old and older.



# Plums and Apricots

- Fruiting spurs can be identified as smaller branches with very short internode spacing between the buds (average 1/4"). Vegetative branches are usually larger and more vigorous, with more distance between the buds (usually 1/2-3/4" or more).



- As fruiting spurs age and get larger they may resemble "thorns" or become club-like in appearance.





# Plums and Apricots

- Apricot spurs usually die off after 3-5 years and need to be replaced. Prune to remove about  $\frac{1}{3}$  to  $\frac{1}{5}$  of the older fruiting spurs each year after the 4th-6th year.



# Plums and Apricots

- Spurs should be thinned as trees age to prevent excessive fruit development which results in smaller fruit and may cause branches to break.





# Pruning Plums and Apricots





# Pruning Plums and Apricots





# Pruning Plums and Apricots



# Pruning Plums and Apricots





# Pruning Plums and Apricots



# Pruning Plums and Apricots





# Pruning Plums and Apricots





# Pruning Plums and Apricots





# Pruning Plums and Apricots





# Pruning Plums and Apricots





# Pruning Plums and Apricots



# Pruning Plums and Apricots





# Pruning Plums and Apricots





# Pruning Plums and Apricots





# Pruning Plums and Apricots



# Pruning Plums and Apricots





# Pruning Plums and Apricots

## Drop Crotch Pruning for Size Control





# Pruning Stone Fruit

## Open Vase and Modified Open Vase Pruning



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