

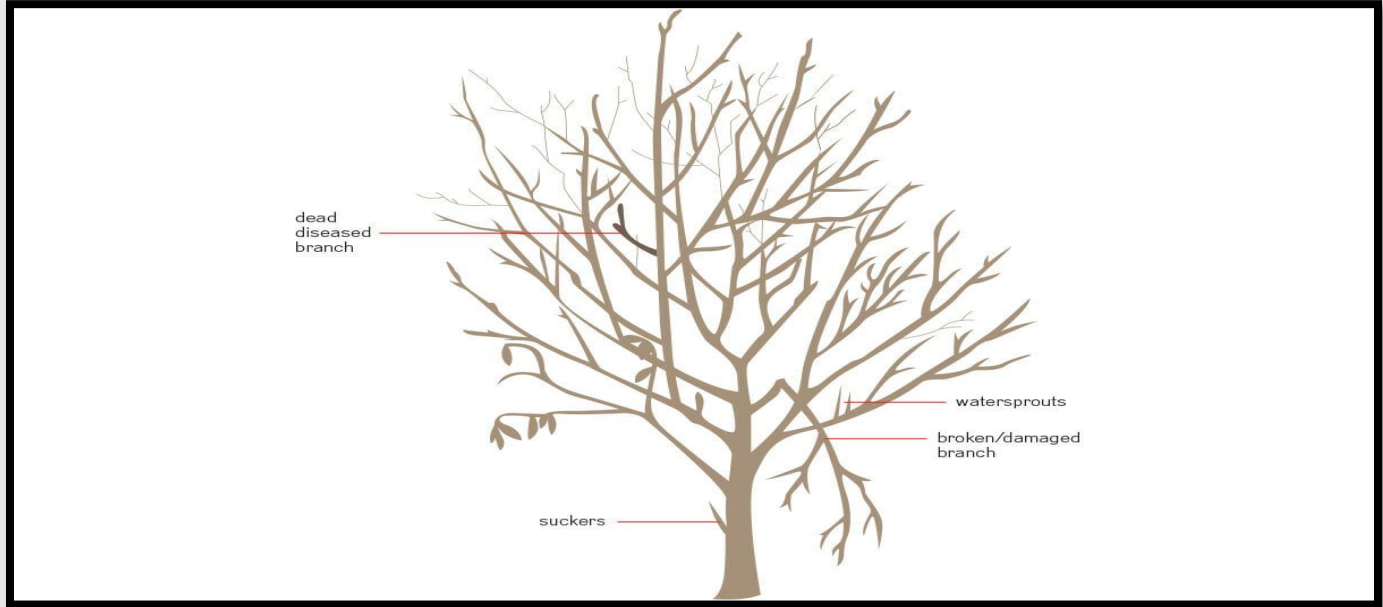


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# Center for Smart Agriculture

## Hi Tech Fruit Culture



### **Module 3: Canopy Management**

### **Session 3: Pruning and methods of pruning**



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- **Pruning**
- **Definition:**
- It refers to removal of plant part like bud, shoot, root etc.. to strike a balance between vegetative growth and production.
- This may also be done to adjust fruit load on the tree.

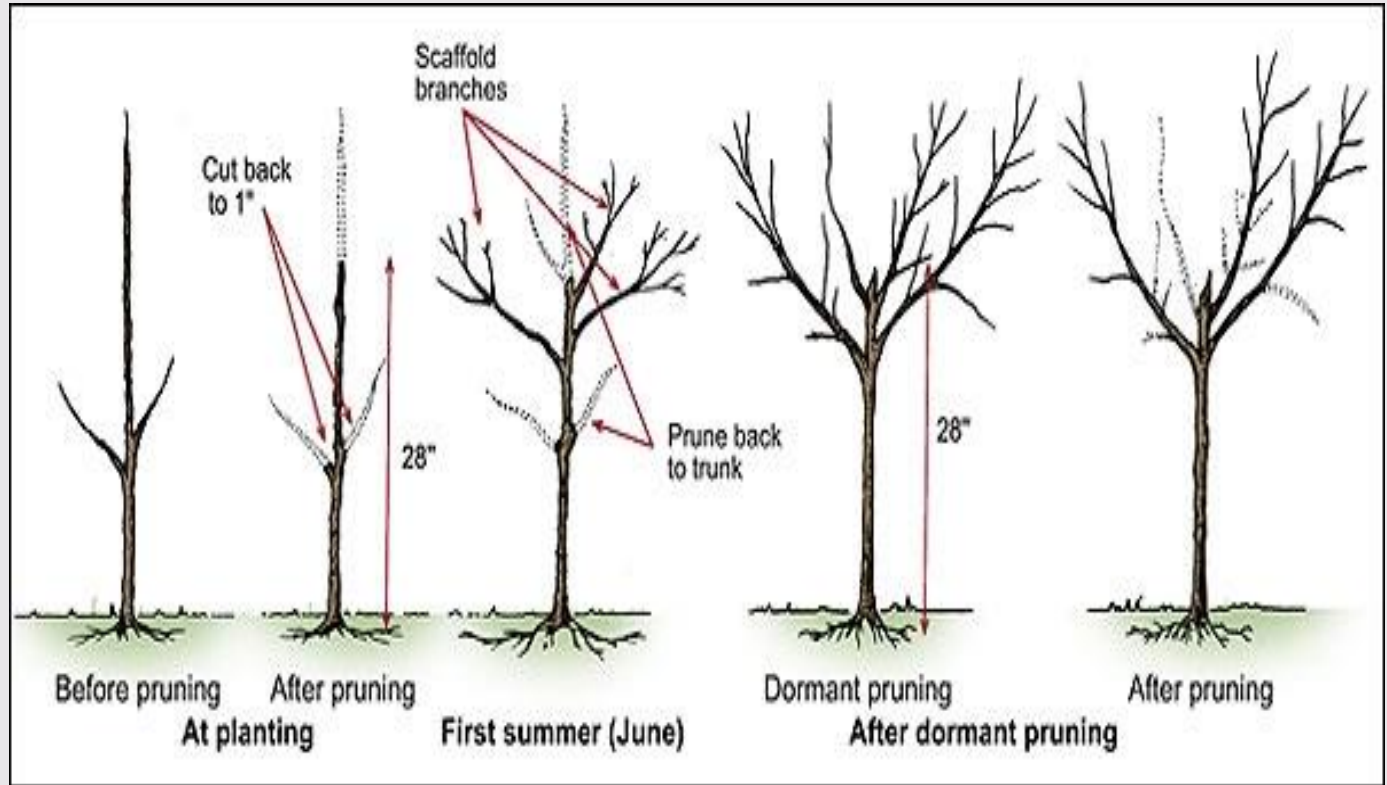


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- **Factors to be considered in pruning:**
- In some of the tree species pruning as a regular feature in bearing trees is done to strike a balance between vegetative growth and production so that farmers get sustained production uniformly with optimum quality of produce.
- To achieve this one should consider the following factors.
- (i) Time at which buds are differentiated in relation to blooming.
- (ii) The age of the wood that produces the most abundant and highest quality of fruit buds.



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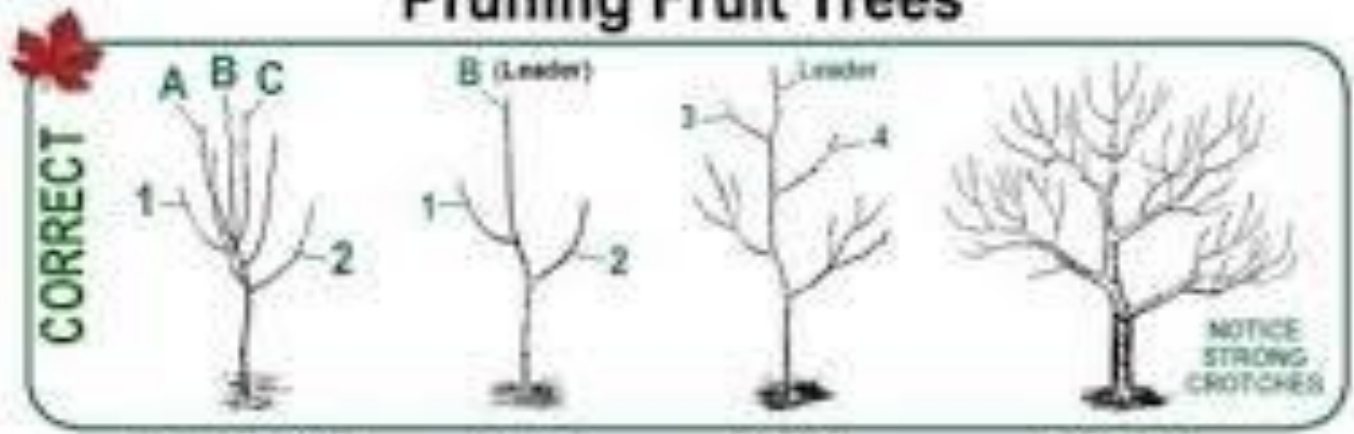


**Steps to be to be considered in pruning**



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# Pruning Fruit Trees

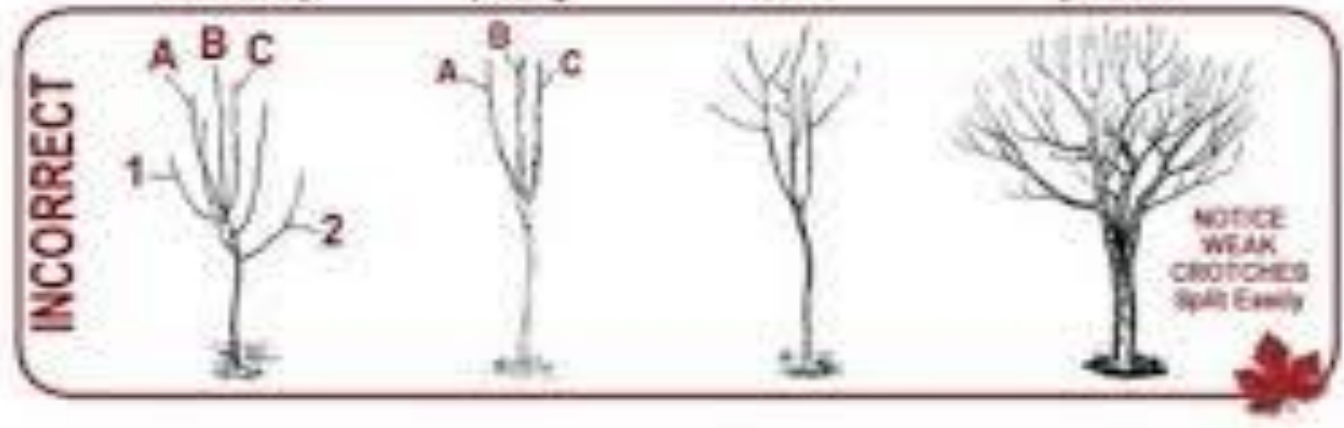


Tree as received from nursery

Pruned at planting

One year later

Six to eight years later



Tree as received from nursery

Pruned at planting

One year later

Six to eight years later



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- **Objectives:**
- (i) To control plant size and form.
- (ii) For plant performance like
- (a) Establishment of transplant where leaves/shoots are pruned to strike a balance between root and shoot so that plants lose less water against restricted root system lost during lifting of plants.



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- (b) Improvement in productivity and quality by regulating the load of the crop and extent of flowering.
- (c) For flower and fruit quality.
- (d) Elimination of non-productive vegetative growth like water sprouts, suckers, dead and diseased wood.
- (e) In case of forest trees production of knot free timber.



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- **Types of pruning:**
- Basically there are three types of pruning with definite purposes.
- **(i) Frame pruning**
- **(ii) Maintenance pruning**
- **(iii) Renewal pruning**





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- **Frame pruning:**
- This pruning is done to provide shape and form to a plant in its formative years so that tree develops strong framework and a shape for ease of operations.
- This process begins from nursery itself and continues up to fruiting stage.
- This is done continuously irrespective of the season.



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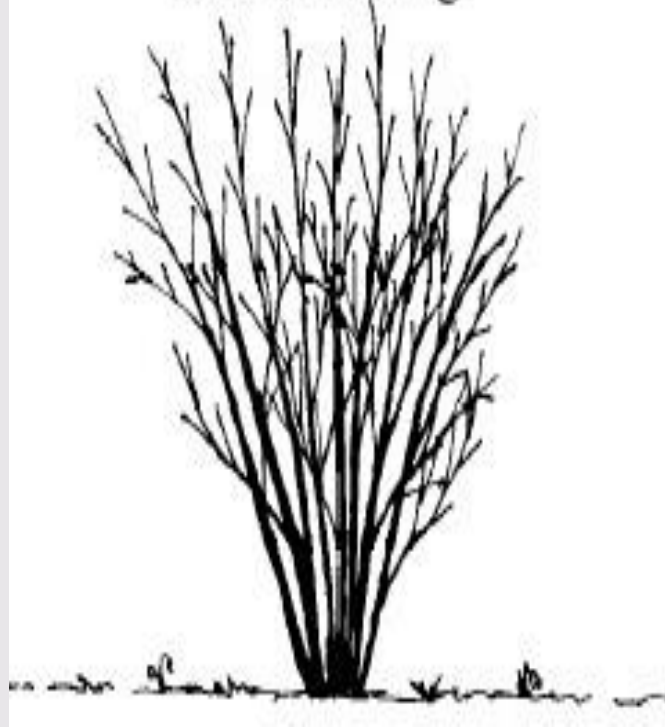
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- **Maintenance pruning:**
- To maintain status- in production level and for uniform performance this pruning is done.
- In some plants like grapes, apple, pear, peach etc. (deciduous trees) it is an annual feature and in others (evergreen like mango, sapota) it is rare confining to removal of water sprouts and unproductive growth and opening of the tree.



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Before Pruning



After Pruning



**Maintenance pruning**



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## **Renewal pruning:**

- This pruning is done in old trees like mangoes which shows decline .
- In this case severe pruning is required.



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**Renewal pruning**



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Thank  
you

