

Tree Fruit for the Home Gardener

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Growing tree fruit is highly rewarding, and involves a learning curve

Necessity of pruning & sanitation

Accepting the need for pest control

Sustaining an interest in fruit growing



Determining if Fruit Trees are a Good Fit

Is there sufficient available daylight?

Well drained soils?

How does fruit fit into the landscape design?

Is there willingness to control insects and
diseases?

Cost – would you rather grow fruit, or purchase
from a grower?

Is there enough free time to pursue it?

Can it be an endeavor for the whole family?

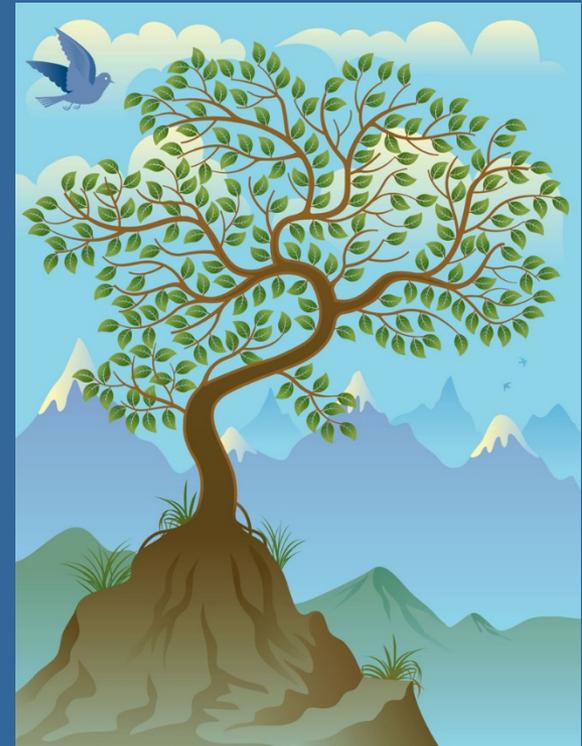
Backyard Fruit Tree Management

- Site considerations
- Tree cultivar selection
- Proper planting
- Training trunk and scaffold branches
- Pest Management



Site considerations

- Appropriate soils
- Air and water drainage
- Wind protection
- Water
- Sunlight



Soils for Tree Fruits

- Well-drained loamy soils
- High organic matter
 - Amend with compost, etc.
- pH between 6.0 and 7.0



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- **All fruit trees are grafted onto rootstocks**
 - **Tree size**
 - **Precocity**
 - Usually, the more dwarfing the rootstock, the earlier the tree will bear fruit.
 - **Stability**
 - Trees on M.9 rootstock are very small, but because of brittle roots must be provided some type of support.
 - The semi-dwarfing M.7 rootstock may require support for the first few years.
 - The more vigorous MM.111 rootstock does not require support and is thus like seedlings.

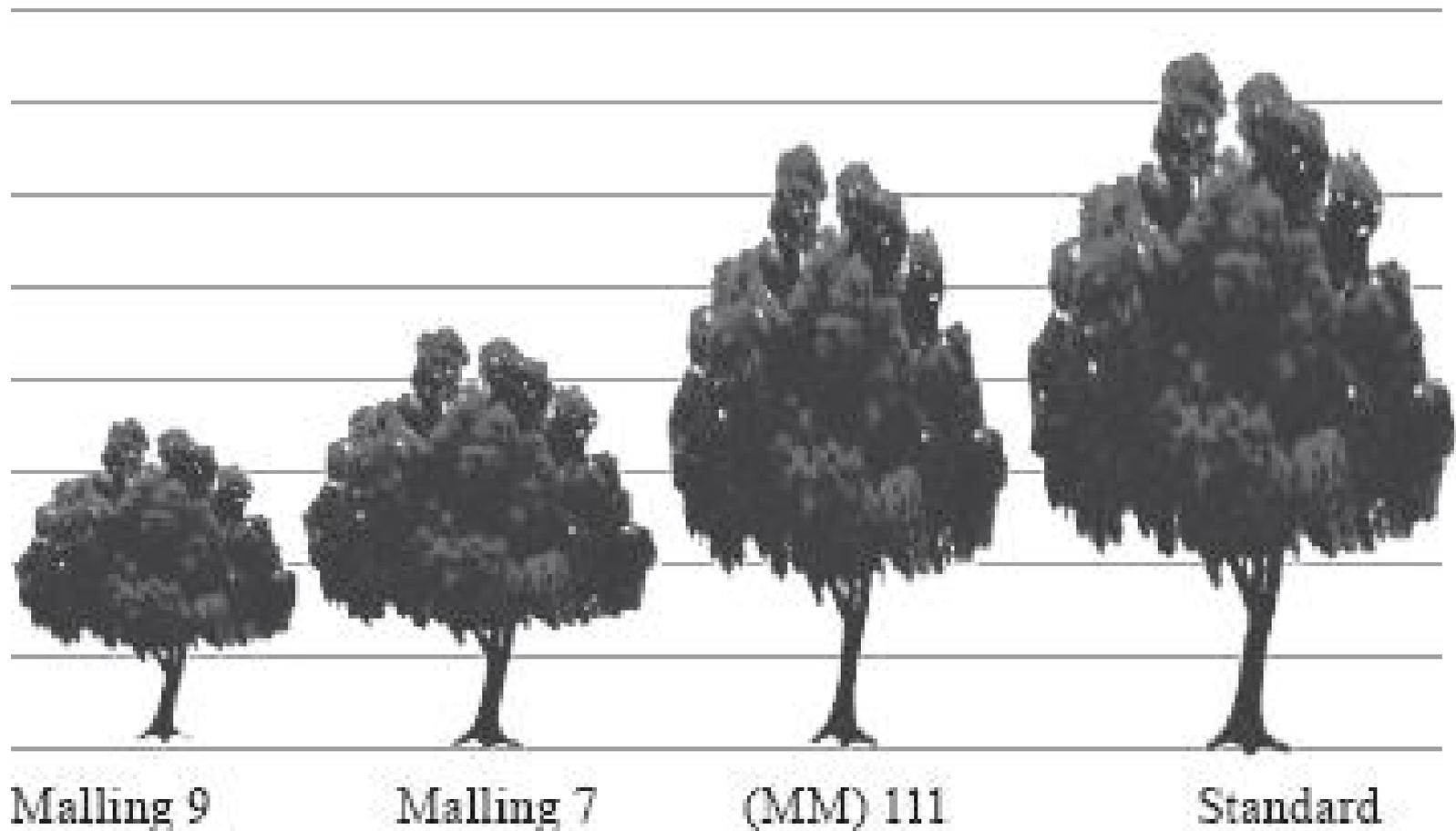
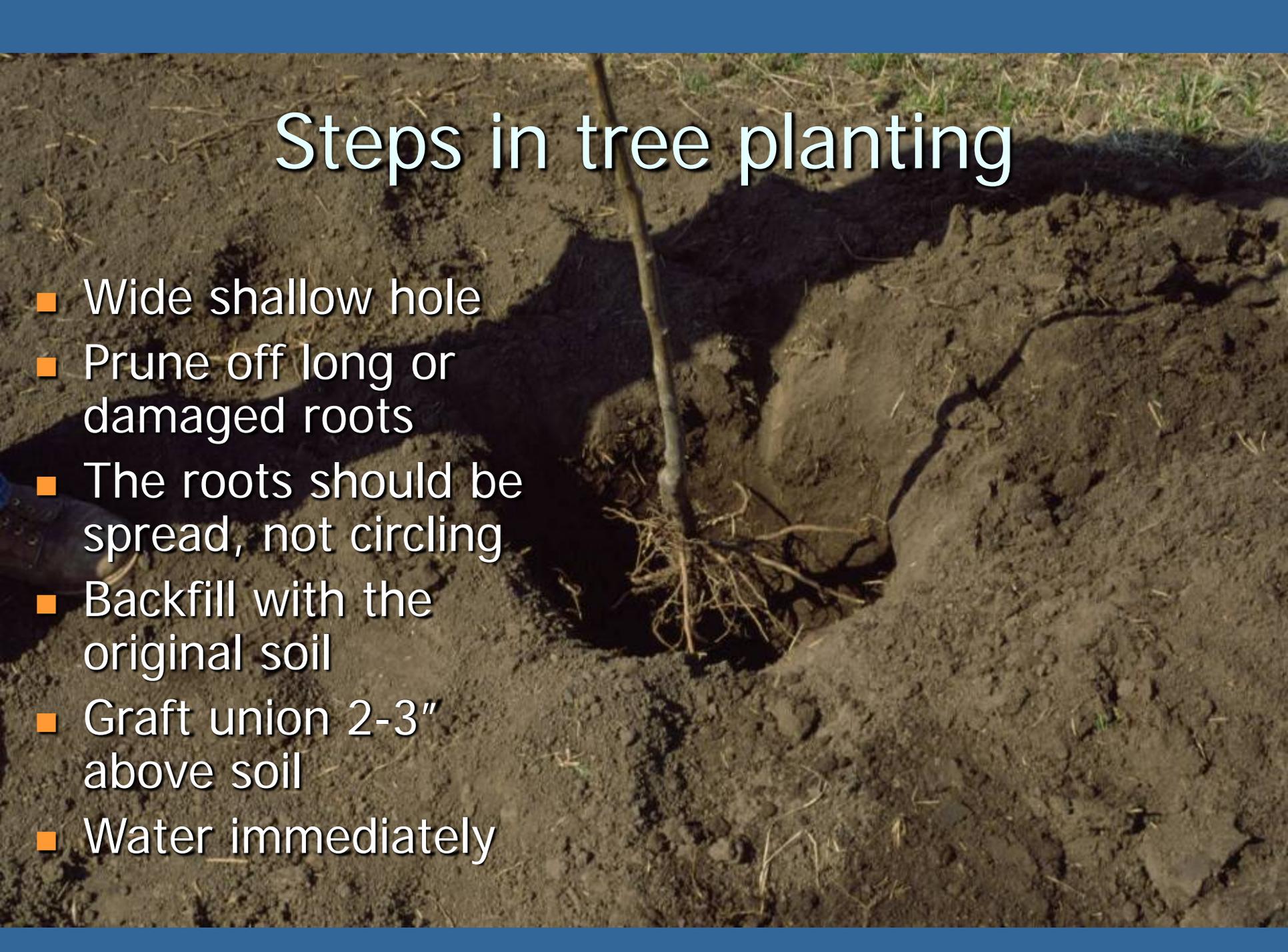


Figure 1. Effect of different dwarfing rootstock on the same apple variety.

Steps in tree planting



- Wide shallow hole
- Prune off long or damaged roots
- The roots should be spread, not circling
- Backfill with the original soil
- Graft union 2-3" above soil
- Water immediately

Choosing a What to Grow

- Taste, appearance, texture, season
- Intended use
- Hardiness
- Productivity
- Ease of culture
- Pollination requirements

Pollination

■ Self pollination

- Sour Cherries
- Apricots
- Peaches
- Grapes
- Blueberries (some)
- Raspberries
- Currants



■ Cross pollination

- Pollinating tree within 500 feet
- Must be different cultivar of same genus
 - Apples
 - Pears
 - Sweet Cherries
 - Plums
 - Kiwi
 - Many nut trees

Two broad categories of Fruit Trees

POME FRUITS

- Apples
- Pears



STONE FRUITS

- Peaches & Nectarines
- Plums & Cherries
- Apricots



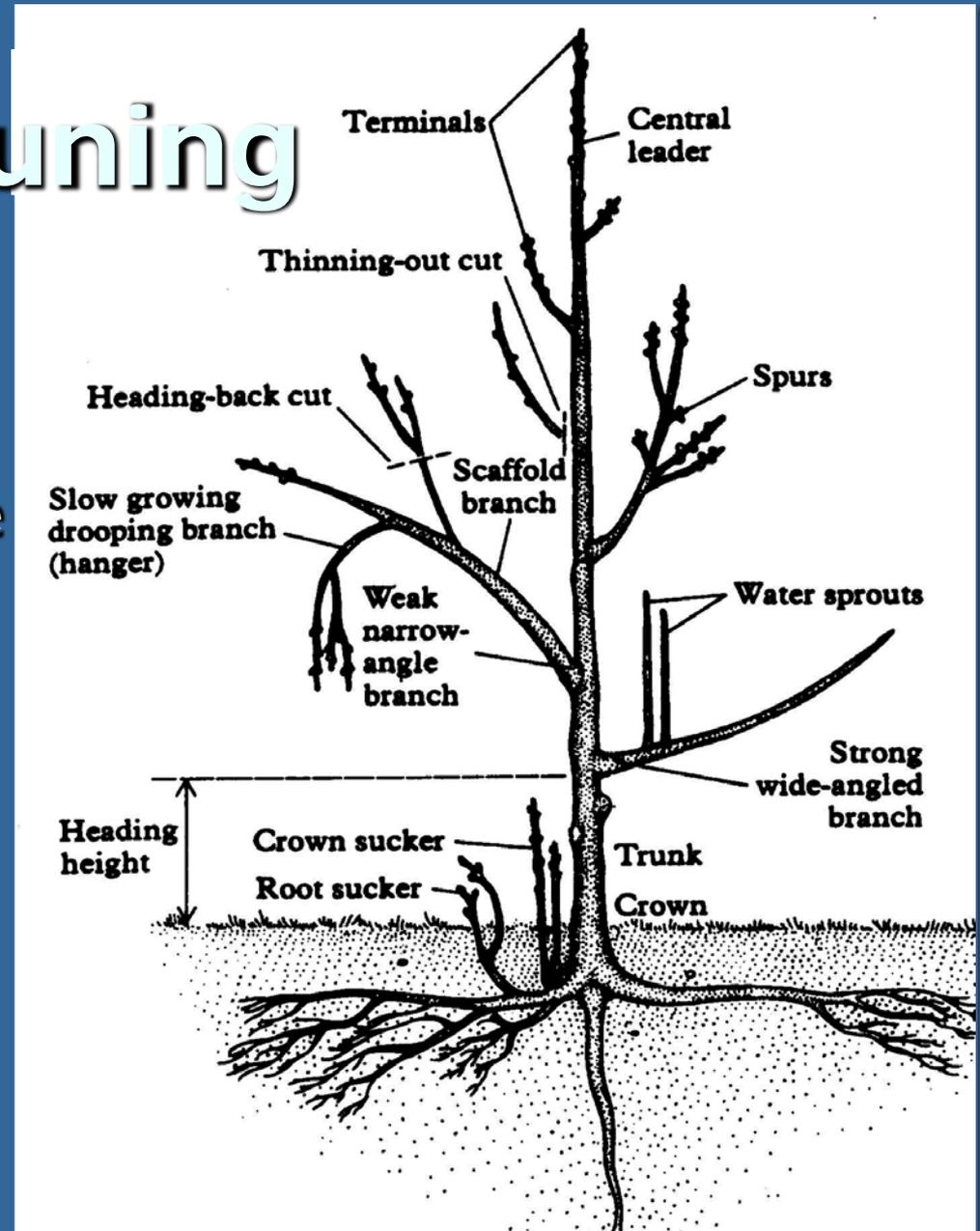
Training and Pruning

- Pruning is a part of the training program, with some required to:
 - 1) Eliminate potential structural problems
 - 2) Remove superfluous branches

Fruit Tree Pruning

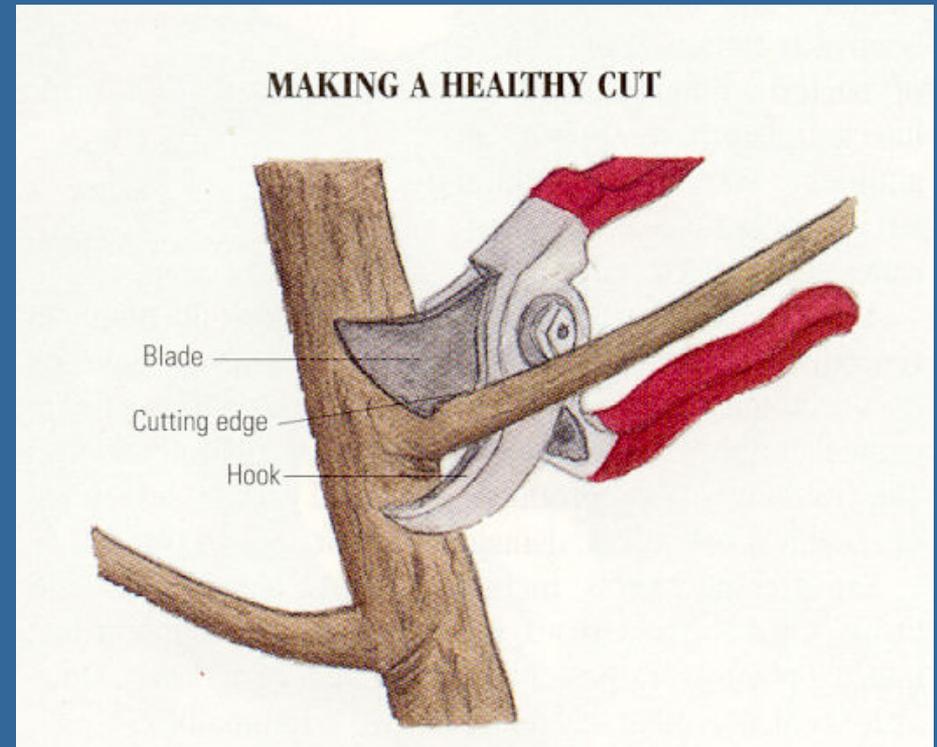
Training Systems

- Central Leader for Pome Fruit
- Open Center for Peaches and Nectarines

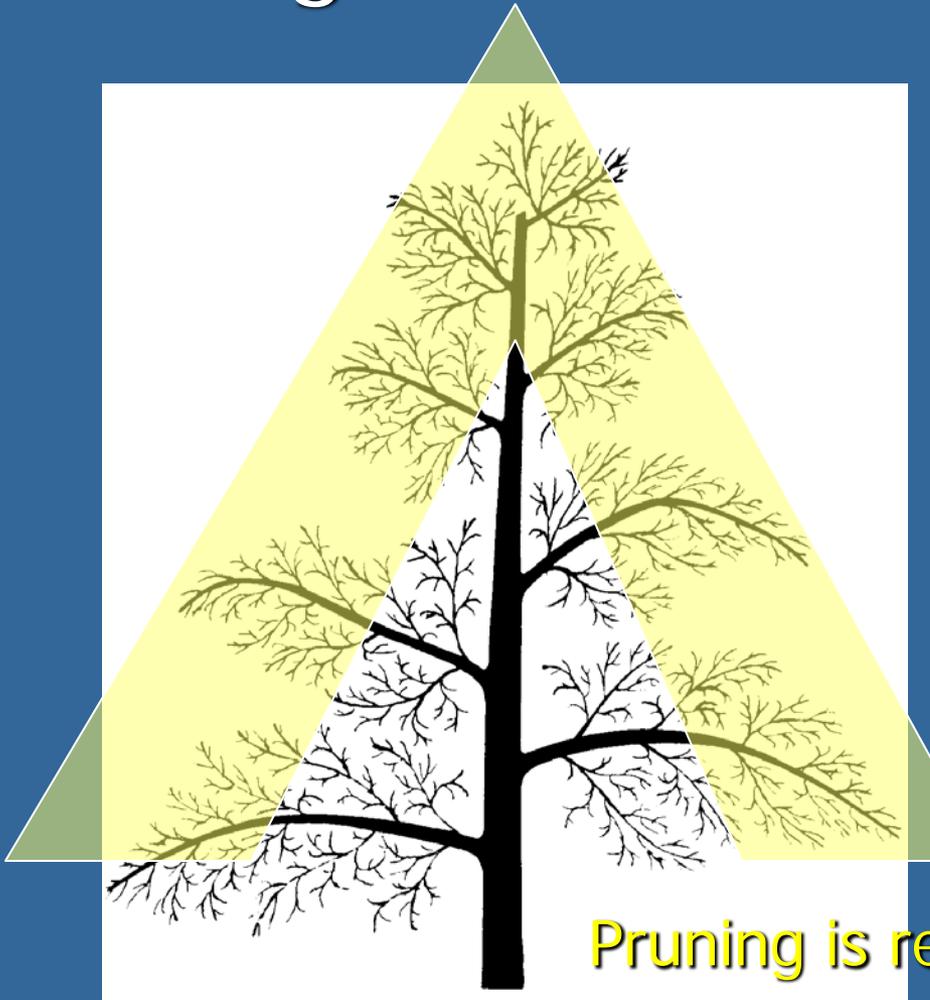
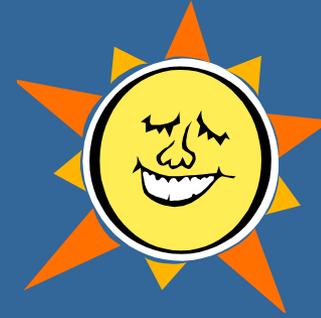


Fruit Tree Pruning

- Pruning Cuts
 - Thinning: taking growth back to point of origin
 - Heading: induces laterals to break



Tree Shape Influence on Light



Pruning is really light & air management

Before pruning

After pruning



FIRST YEAR



SECOND YEAR



THIRD YEAR



A

FOURTH YEAR

B

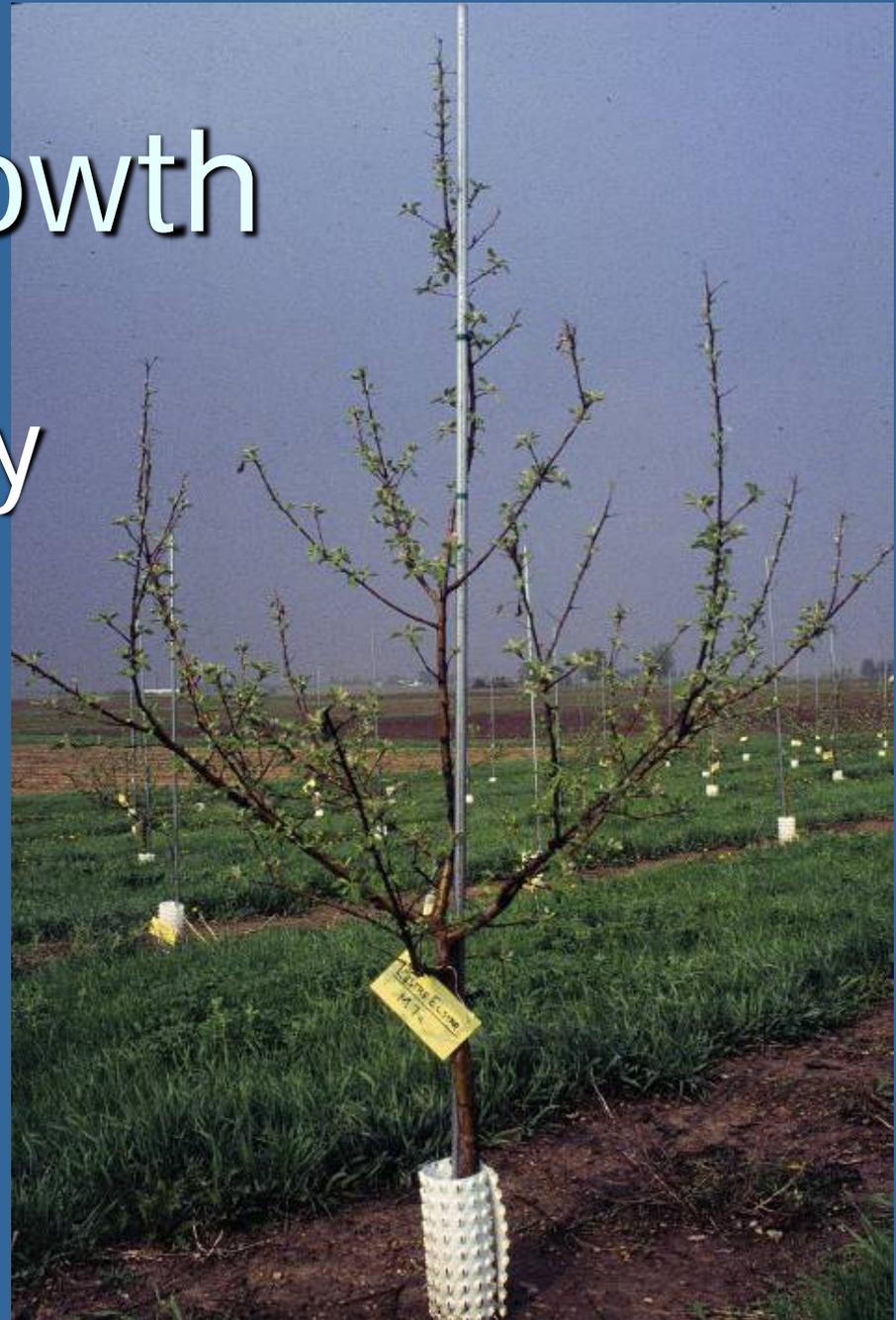
A young tree is shown in a field, positioned in front of a large white fabric backdrop that serves as a height scale. The scale is marked in centimeters from 20 to 270. The tree has a single vertical stem (the central leader) and several horizontal branches (the scaffold). A blue arrow points to the top of the central leader, and another blue arrow points to one of the scaffold branches. A small tag with the text '5sS/OAR' is attached to the central leader. The tree's trunk is wrapped in white material at the base. The background shows a clear blue sky and some distant structures.

Central Leader

Scaffold

Horizontal growth

- Not vegetatively vigorous
- Very fruitful



Vertical Growth

- Very vegetatively vigorous
- Not fruitful







Training Techniques

- Bending
- Spreading
- Tying
- Trellising



Bending



Spreading



Tying



Trellising

When to prune?

- **Dormant season**

- Late February to early April
(just before active growth begins)
- Usually not before January

Pruning

- Remove water sprouts and suckers
- Remove damaged & diseased branches
- Remove weaker of crossing branches
- Evaluate often (step back)

Types of wood removed during pruning



Suckers

Types of wood removed during pruning



Water sprouts

Staking

- Prevents wind whipping
- Supports graft union
- Helps maintain central leader
- Critical for dwarf trees

Staking



Managing Pests

- Home Grounds and Animals PMG
 - Diseases – mostly fungal
 - Some affect fruit appearance only
 - Some affect fruit quality
 - Fireblight bacteria will kill the tree(s)
 - Insects
 - Affect fruit quality
 - Wildlife
- Sanitation practices are critically important

Diseases – some affect fruit appearance

- Sooty Blotch
- Fly Speck
- are cosmetic problems

- Do not significantly affect
 - fruit quality
 - health of the tree



Diseases – some affect fruit quality



Apple Scab

Diseases – some affect fruit quality



Brown Rot

Fireblight

Fireblight bacteria can kill the tree

- Grow varieties that are not highly susceptible
- Can quickly kill young tissue and easily kills wood up to 3 years old but moves slowly in older wood
- Spread primarily via pollinators
- Can spread rapidly throughout the garden

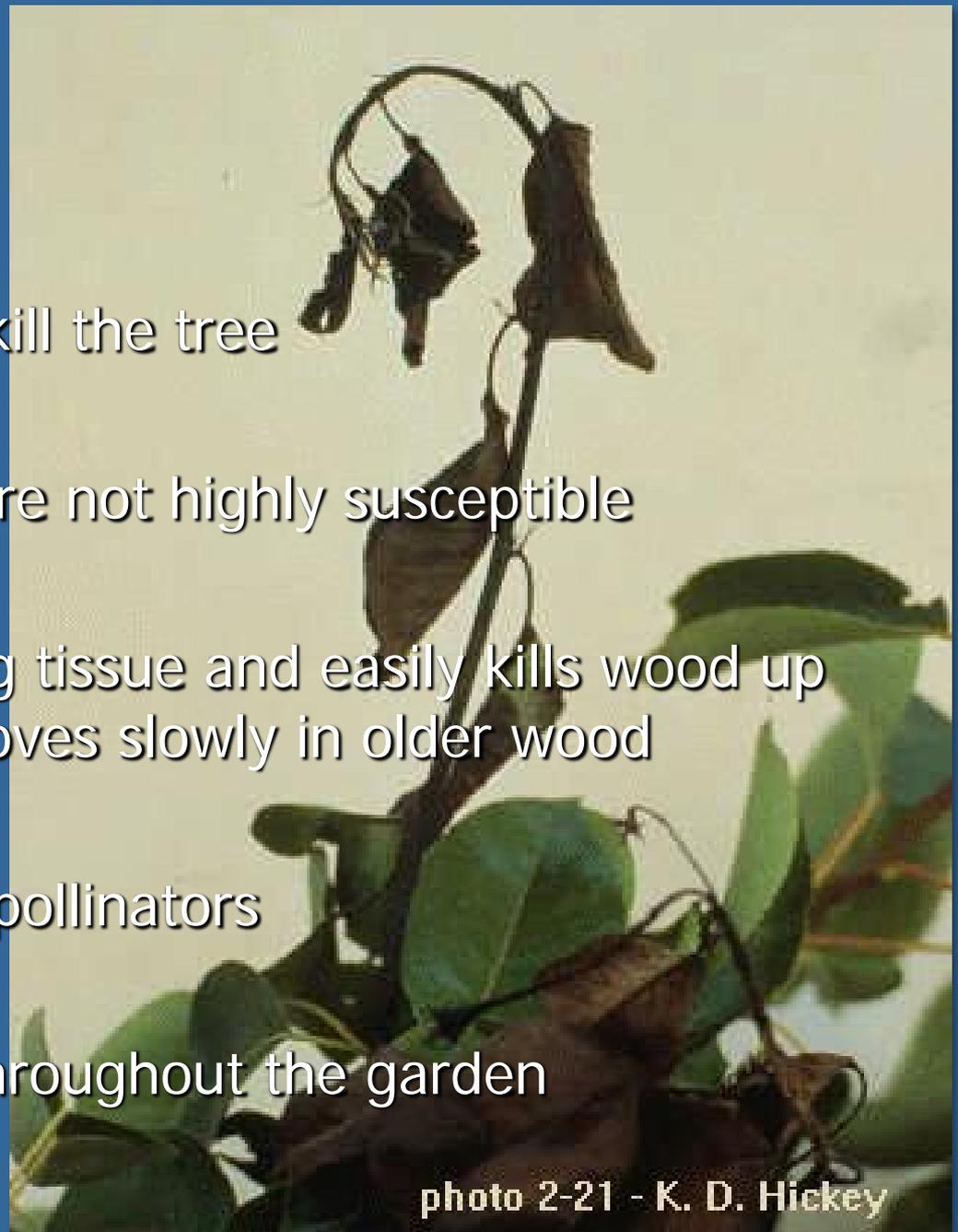
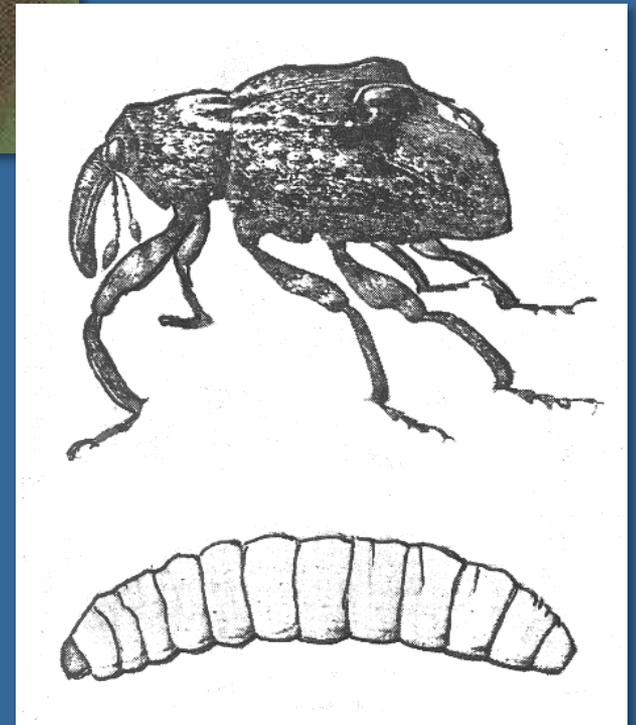


photo 2-21 - K. D. Hickey

Insects - affect fruit quality

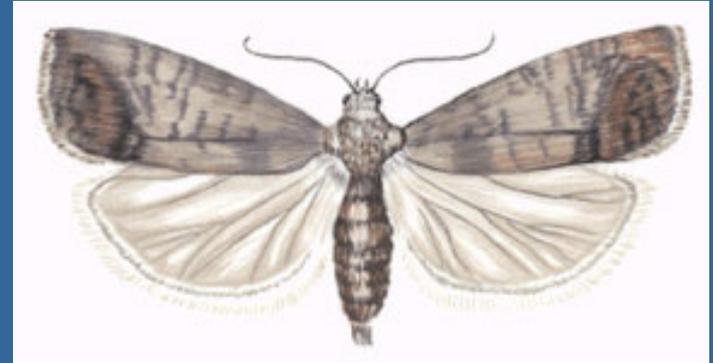


Plum Curculio



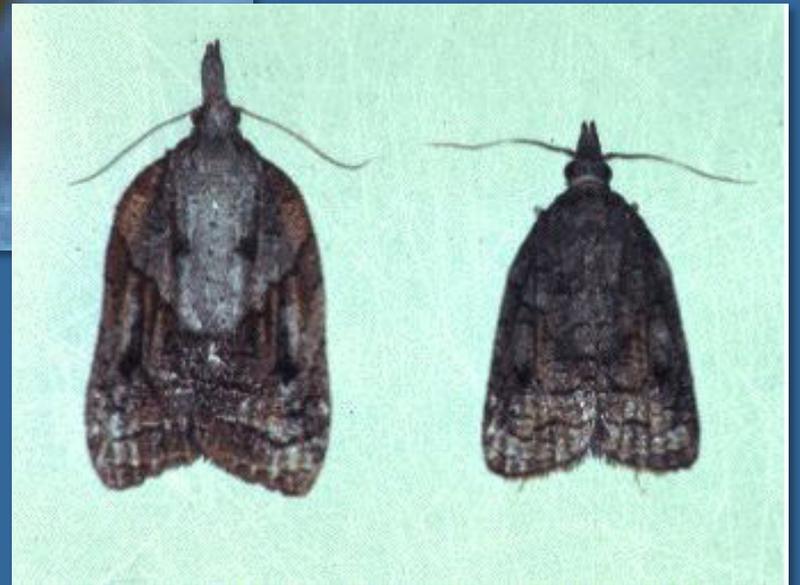
Codling Moth

Oriental Fruit Moth





Leafrollers



Sanitation



Leaves should be mowed or removed and composted

Other fruits

- Figs
- Pawpaws
- Asian Persimmons
- Pomegranates
- Nuts
 - Pecans
 - Walnuts
 - Chestnuts
 - Hazelnuts



Other fruits

- Figs



Other fruits

- Pawpaws



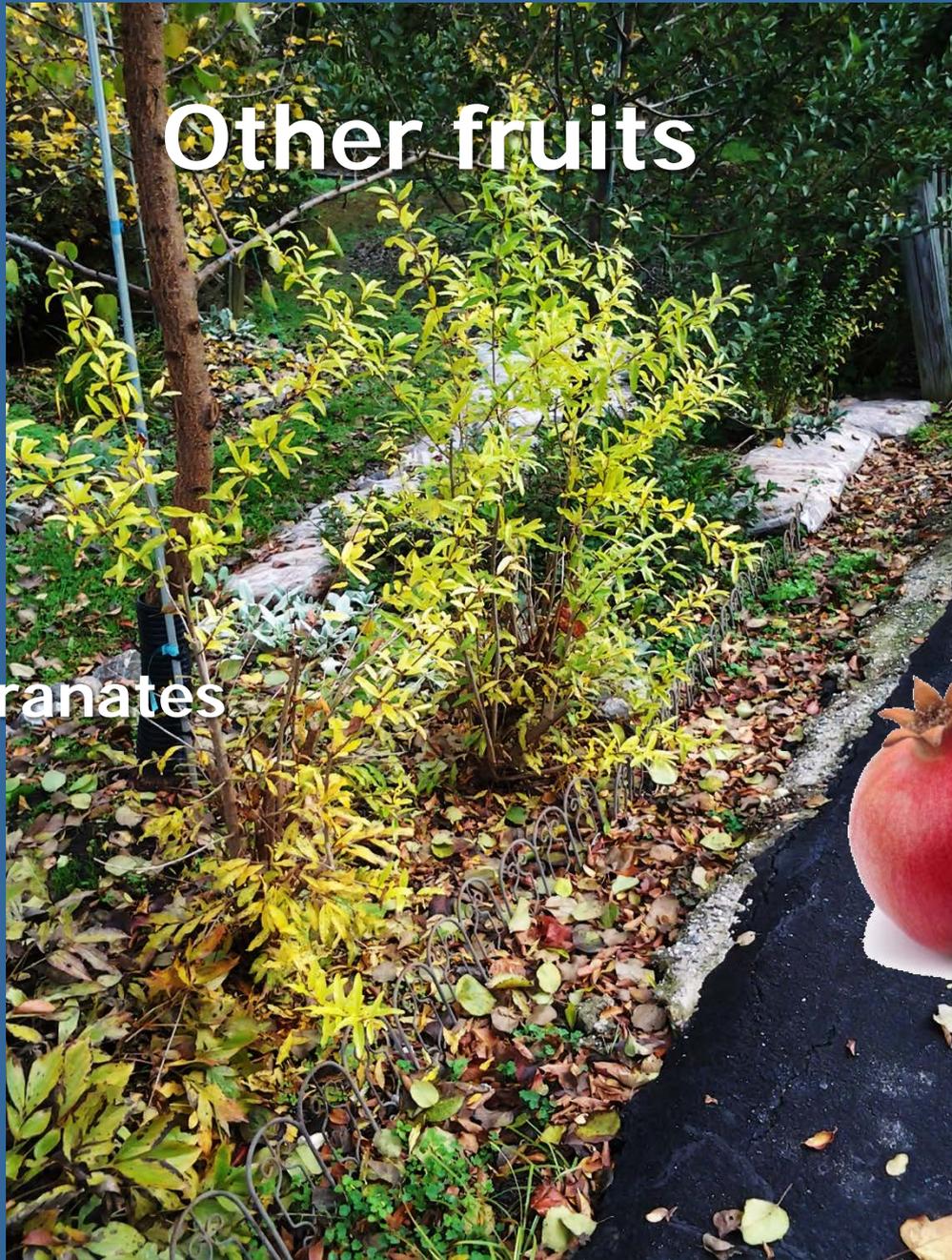
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Other fruits

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Other fruits

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The Virginia Fruit Page

Extension, Research and Teaching in Fruit Crops

Mid-Atlantic Regional Fruit Loop

<http://www.ento.vt.edu/Fruitfiles/VAFS.html>



Questions?

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