Tree Fruit
for the Home Gardener

Barry Hayes
Henrico County Master Gardener

Virginia Cooperative Extension
Lisa Sanderson
Michael Lachance
Rongcai Yuan
Diane Relf
Rich Marini

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

- **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.

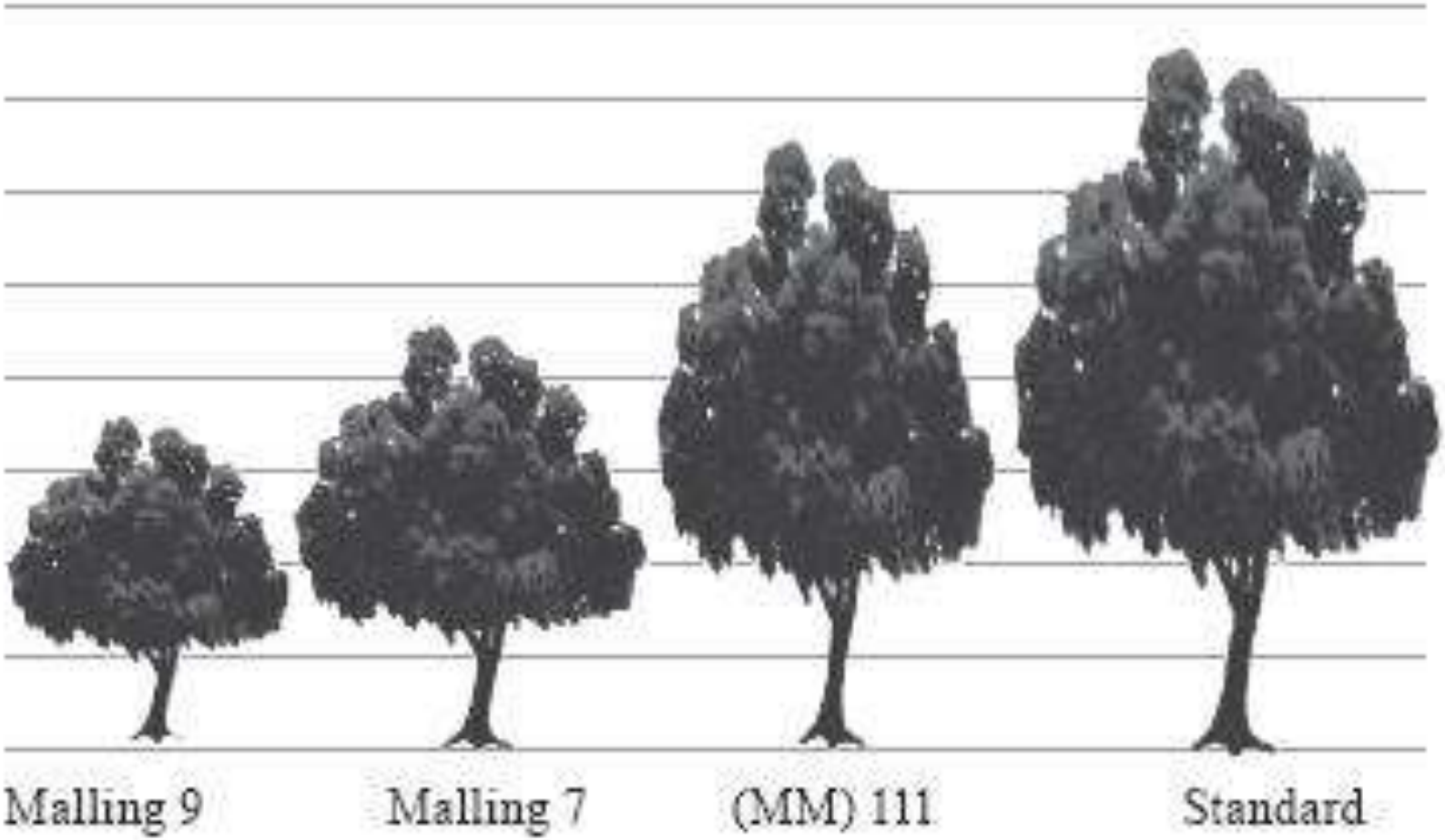


Figure 1. Effect of different dwarfing rootstock on the same apple variety.

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:

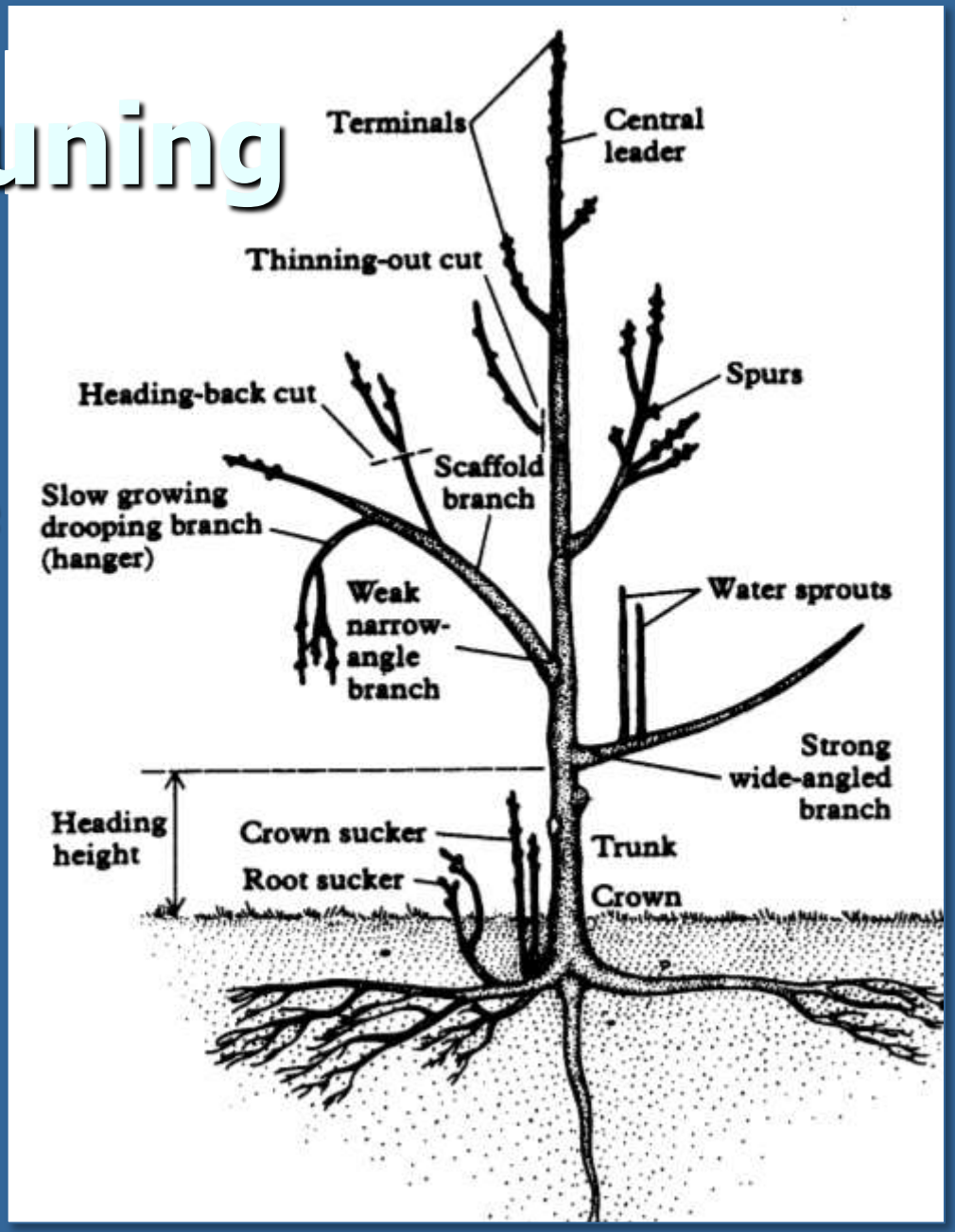
  1) Eliminate potential structural problems

  2) Remove superfluous branches

Fruit Tree Pruning

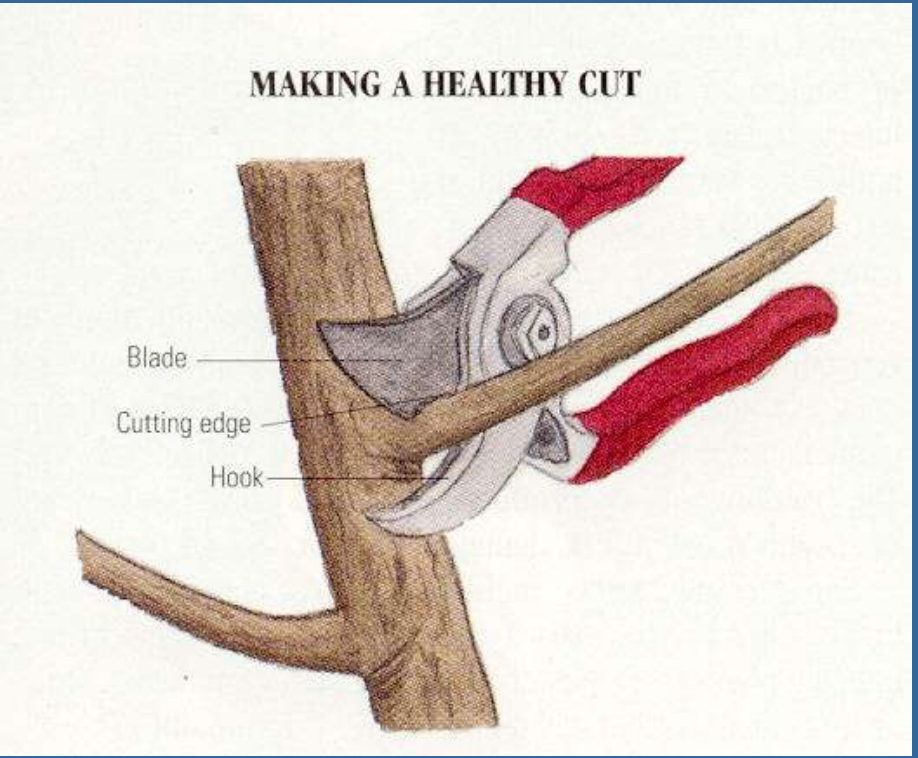
Training Systems

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

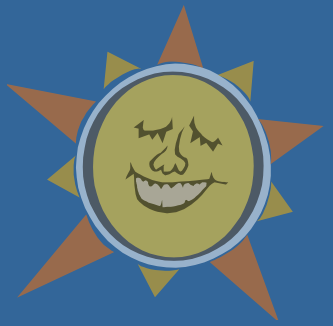


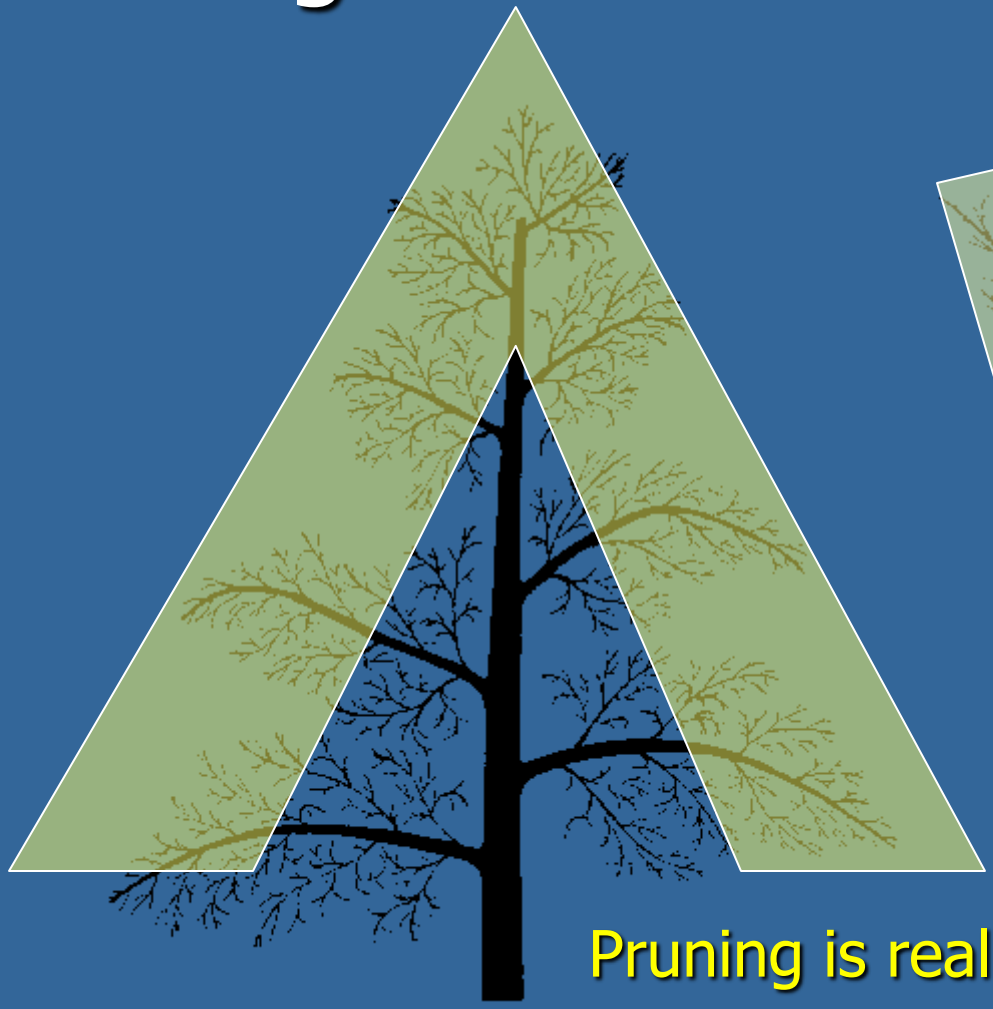
Fruit Tree Pruning

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

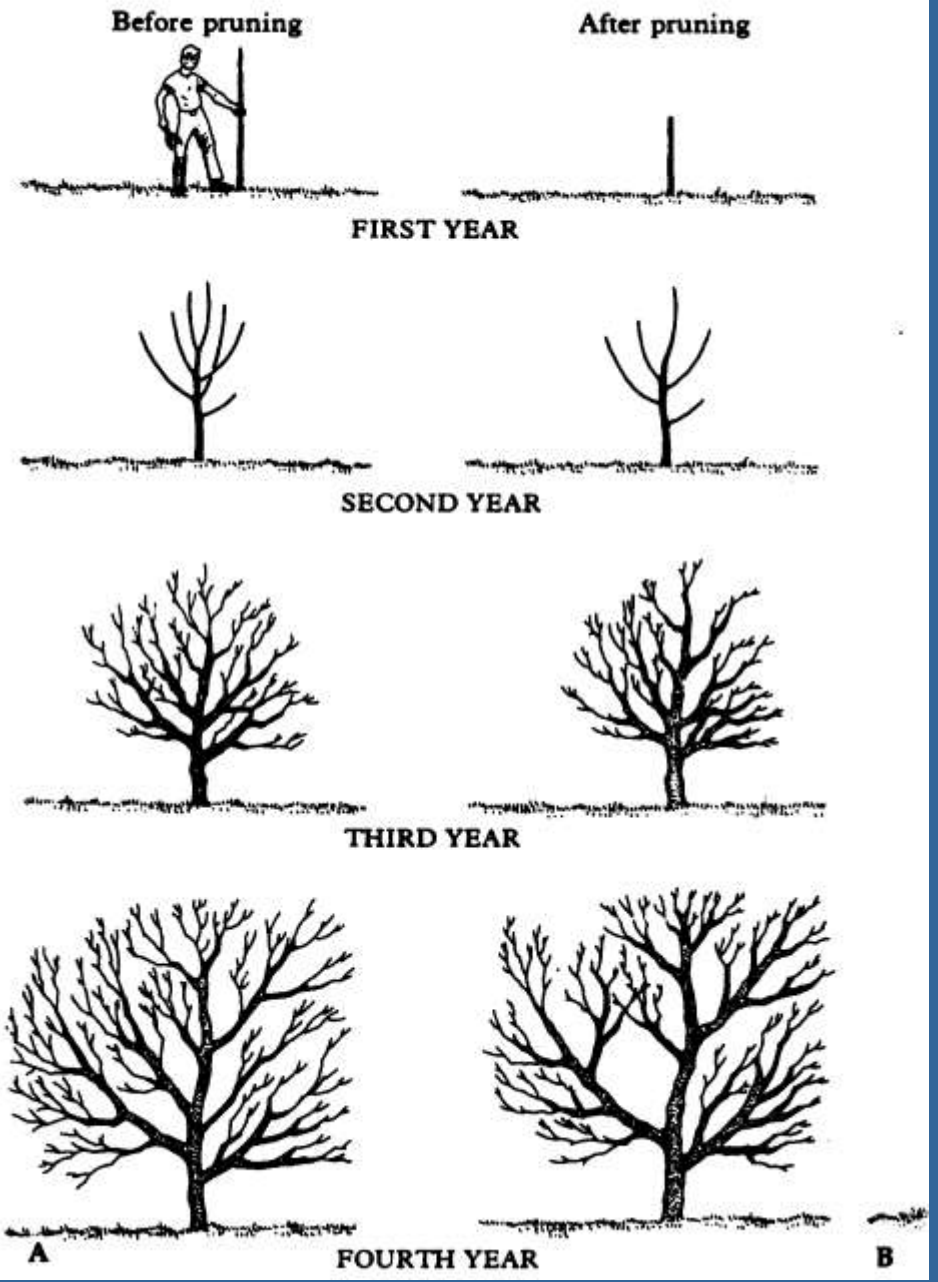


Tree Shape Influence on Light





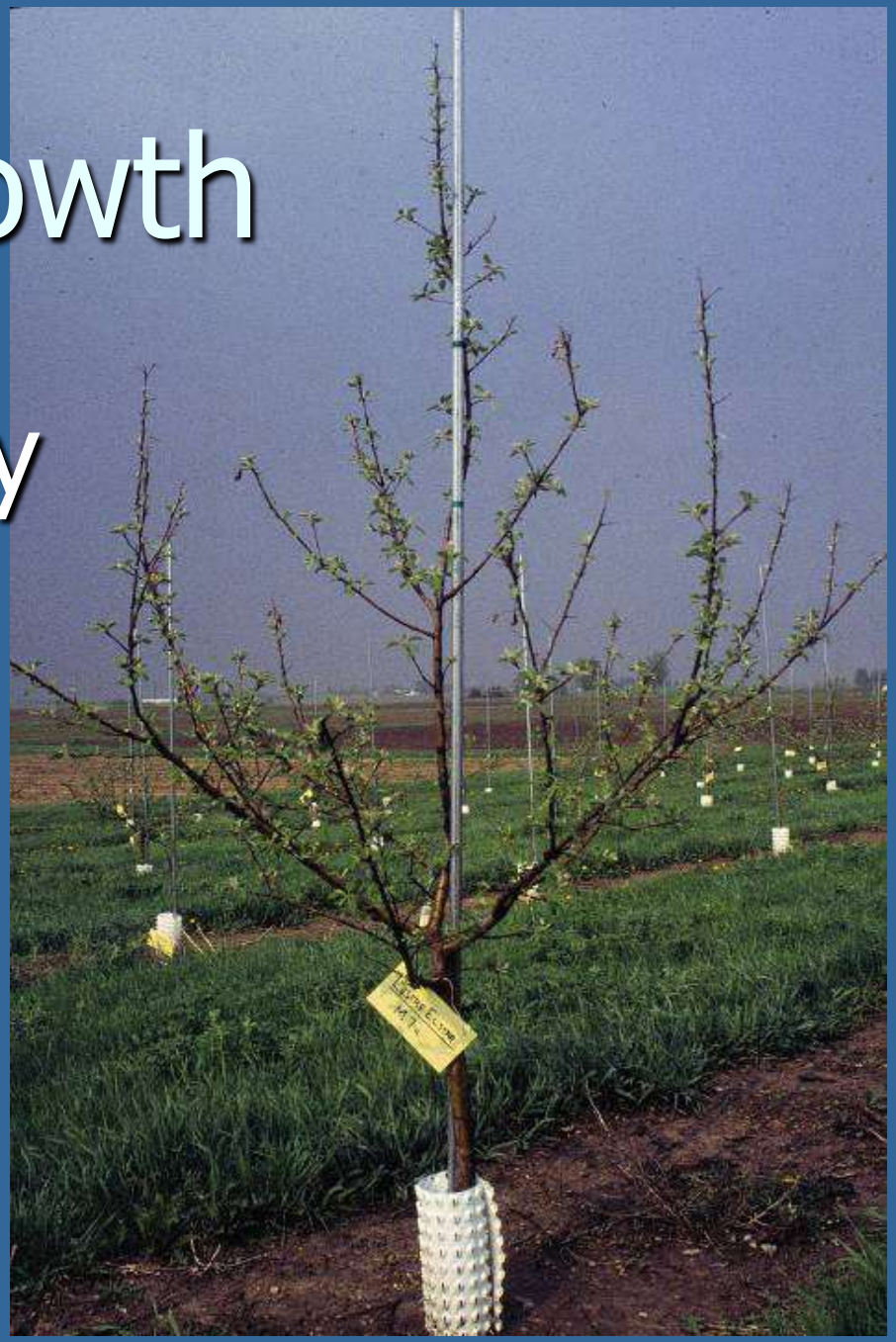
Pruning is really light & air management


Before pruning
After pruning
FIRST YEAR
SECOND YEAR
THIRD YEAR
A
FOURTH YEAR
B


Central Leader
Scaffold

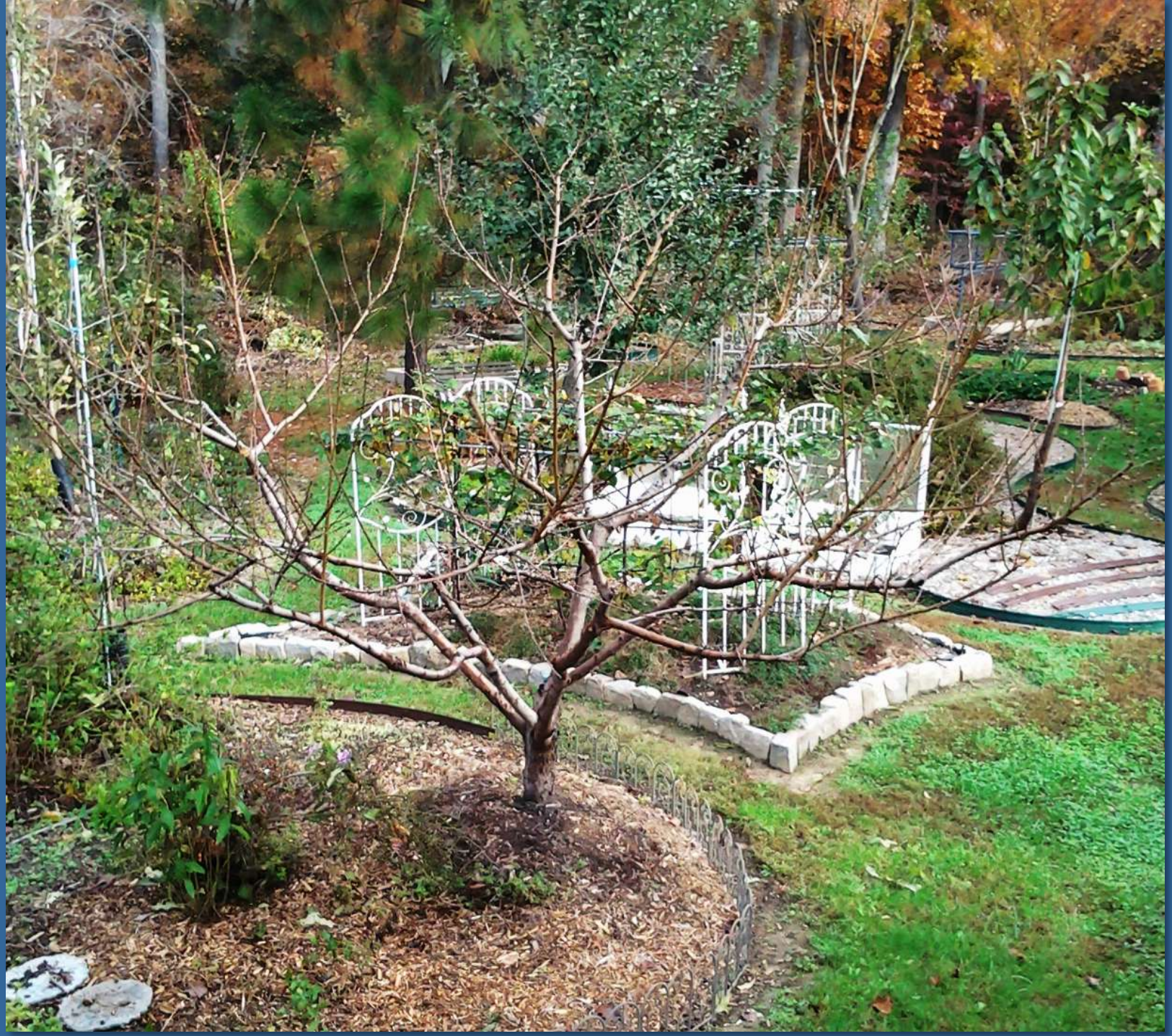
Horizontal growth

- 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

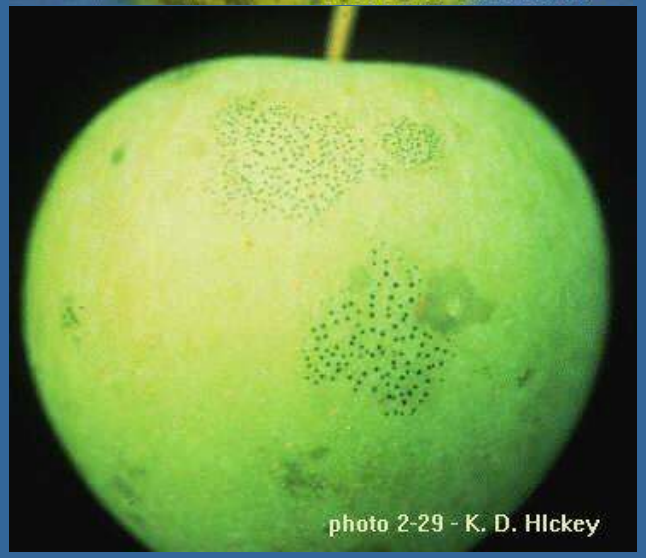
- Home Grounds and Animals PMG
  - Diseases – mostly fungal
    - Some affect fruit appearance only
    - Some affect fruit quality
    - Fireblight bacteria will kill the tree(s)
  - Insects
    - Affect fruit quality
  - Wildlife
- Sanitation practices are critically important

Diseases – some affect fruit appearance

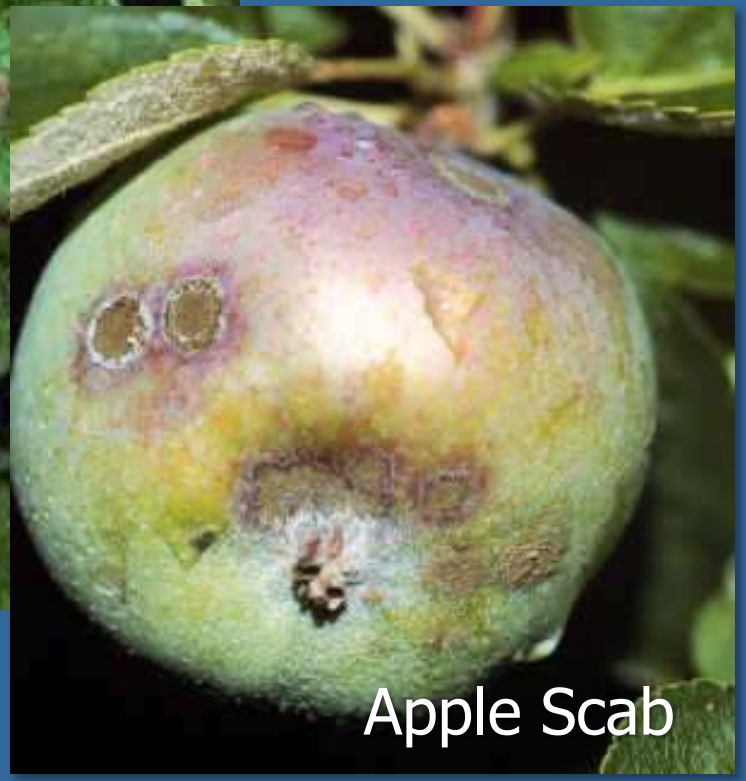
- Sooty Blotch
- Fly Speck

  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

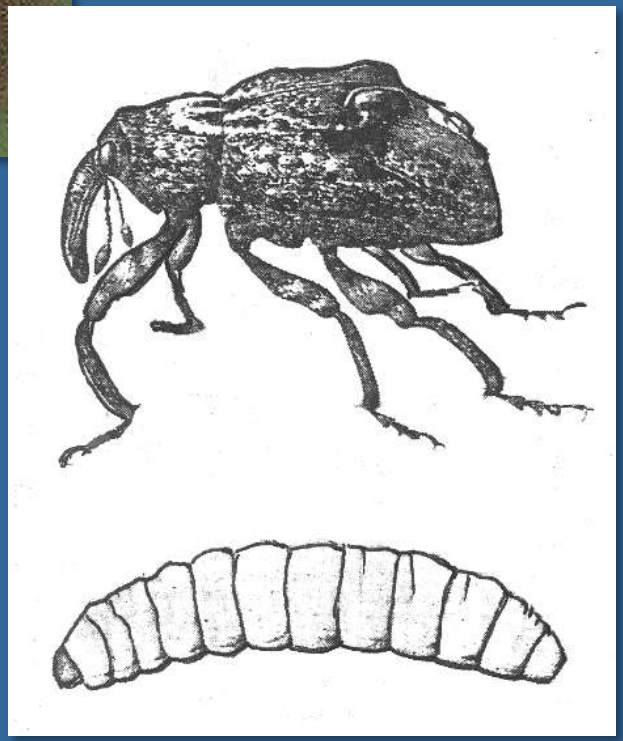
Fireblight

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

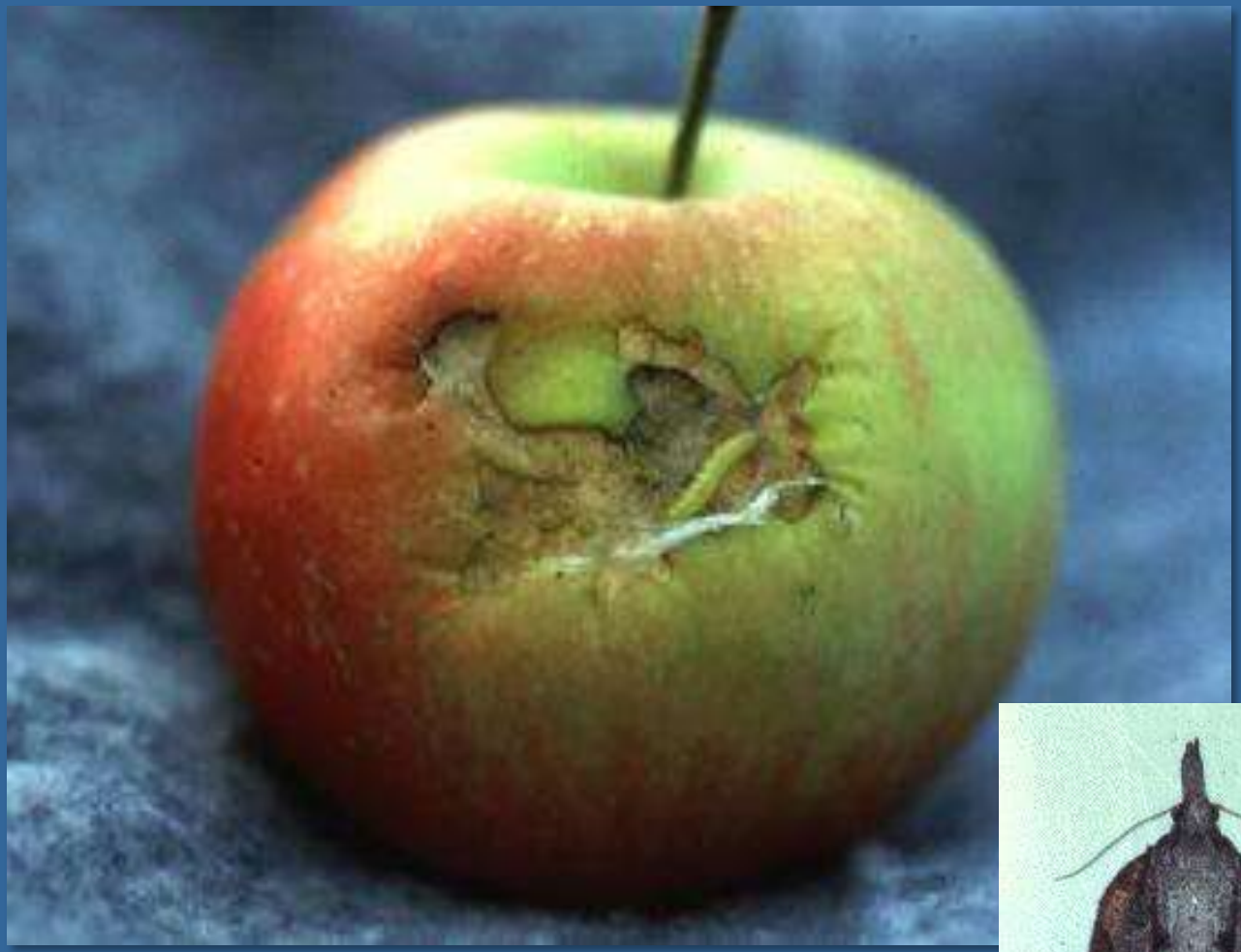
Insects - affect fruit quality

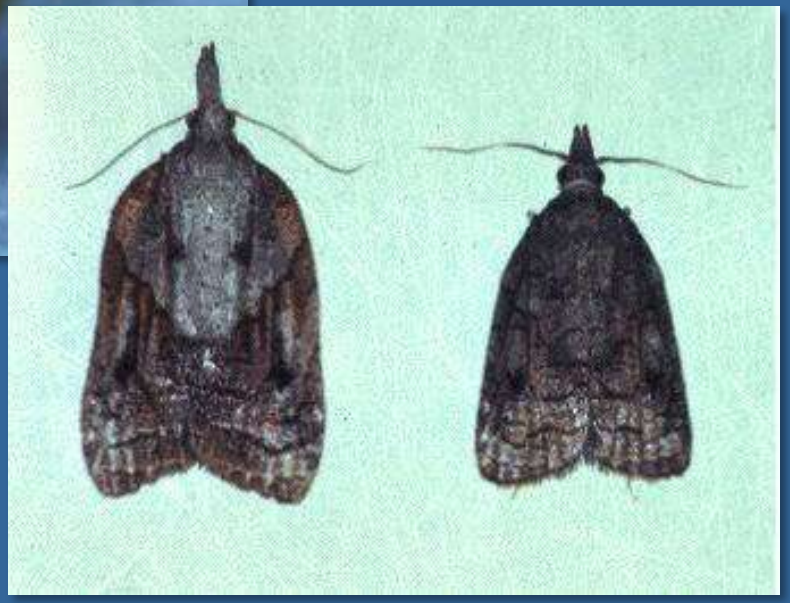
Plum Curculio



Codling Moth

Oriental Fruit Moth





Leafrollers

Sanitation

Leaves should be mowed or removed and composted

Other fruits

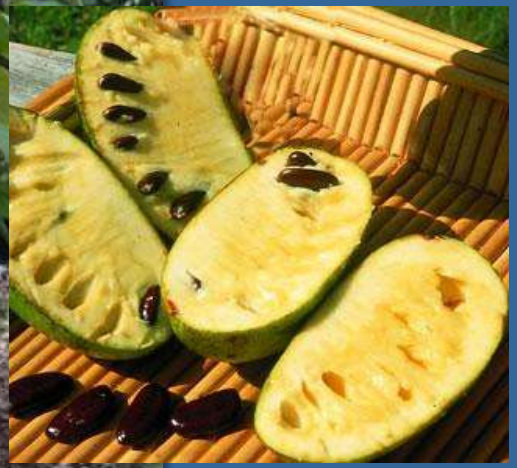
- Figs
- Pawpaws
- Asian Persimmons
- Pomegranates
- Nuts
  - Pecans
  - Walnuts
  - Chestnuts
  - Hazelnuts

Other fruits

- Figs

Other fruits

- Pawpaws



Other fruits

- **Asian Persimmons**

Other fruits

- **Pomegranates**

Other fruits

- Nuts
  - Pecans
  - Walnuts
  - Chestnuts
  - Hazelnuts

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?

barryjhayes@comcast.net