



**UC  
MASTER  
GARDENERS  
NAPA COUNTY**

# Fruit Tree Pruning and Grafting

**Napa**  **eners**

Presentec

ardeners

Napa County



# Who We Are

- Scientifically based research information
- Volunteers
- Part of the University of California Cooperative Extension system
- Receive 80 hours of initial training
- Train new Master Gardeners!



# What We Do

- Workshops
- Help Desks: UCCE, Mobile & Farmers Markets
- Website, Facebook, Blog
- Weekly Newspaper Column
- Soon, a new Demonstration Garden
- Monthly Guide to Gardening
- Trees in Napa Updated Book
- Tomato Sale: April
- UC Master Gardeners' Garden Tour: 2017 (Think ahead!)
- Train New Master Gardeners

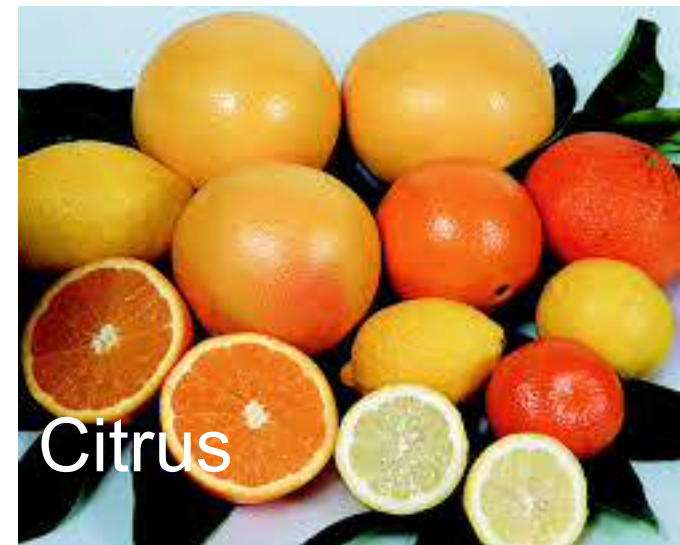
# Answer Your Questions!

- Mike Quinn: Selection, Planting, Care
- Cindy Pitcher: Pruning basic theory
- Gayle Nelson: Tree anatomy
- Helen Dake: Pruning vocabulary and guidelines
- Rich Bruhns: Tools
- Tom Kahl: Grafting demonstration

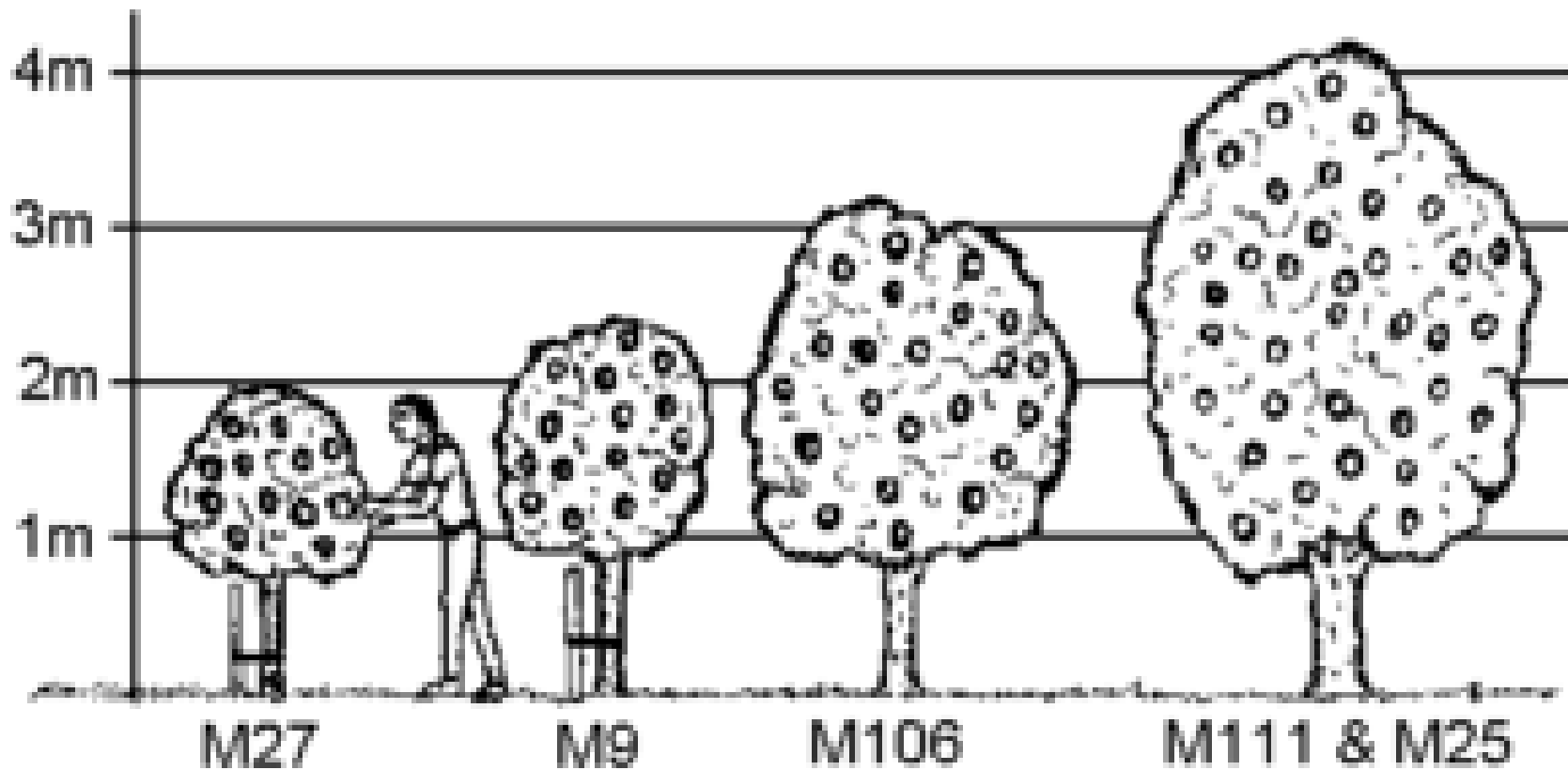
# Selecting Fruit Trees

- Selection considerations
- Planting requirements
- Care and cultivation
- YOUR questions
- Pruning

# What Do You Like?



# Rootstock: dwarf, semi-dwarf, standard





# Planting Requirements



Sun, shade, exposure

Wind

Soil requirements

Drainage

Space



# Specialties



Multi-graft



More-in-a-hole

More-in-a-hole Mature



# Care and Cultivation

Water

Soil

Amendments

Fertilizer:N-P-K

Mulch





# Pruning

- Shape
- Growth
- Fruit production
- Dormant
- Summer
- Height
- Thin fruit

# Why are fruit trees pruned?

- To be healthy and productive
- Remove hazards
- Control growth and development
- Stimulate formation of flowers and fruit buds
- Promote productivity and long-life
- Makes the gardener feel good!



# Low Height and Thin Fruit

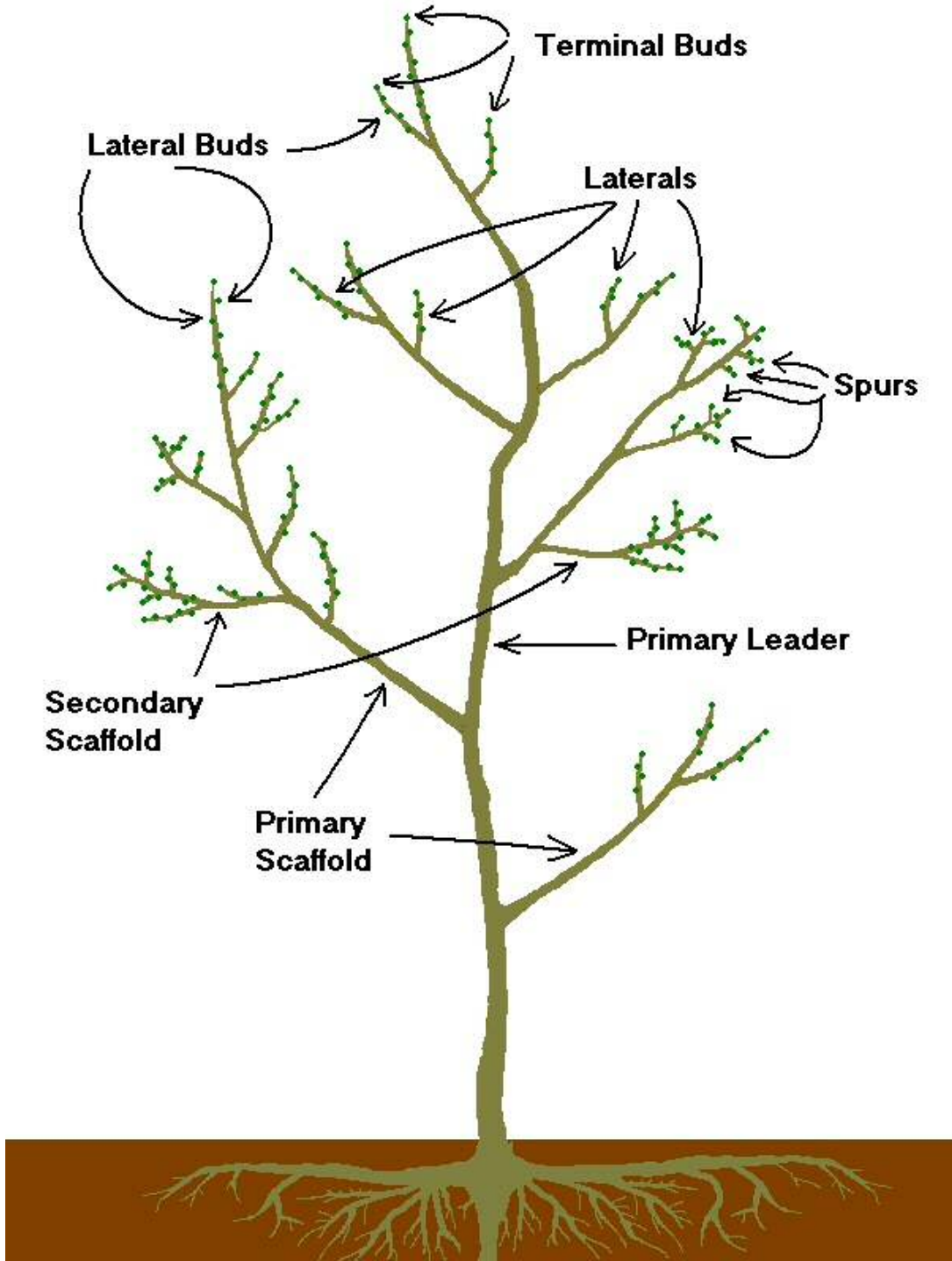


# When to prune

- It is never too late to prune. Trees (and shrubs) can be pruned any time of year. However, plants and trees respond differently to pruning at different times of year. There are certain seasons for pruning to get certain results.
- **Dormant pruning:** Manages fruit and tree structure
- **Summer pruning:** Manages tree size







# Tree Anatomy

- We'll stop often to examine real tree parts!

Trunk

Canopy

Collar

Scaffold branches

Lateral branches

Shoots

Leader/Central leader

Nodes

Fruitwood

Spur

Scion

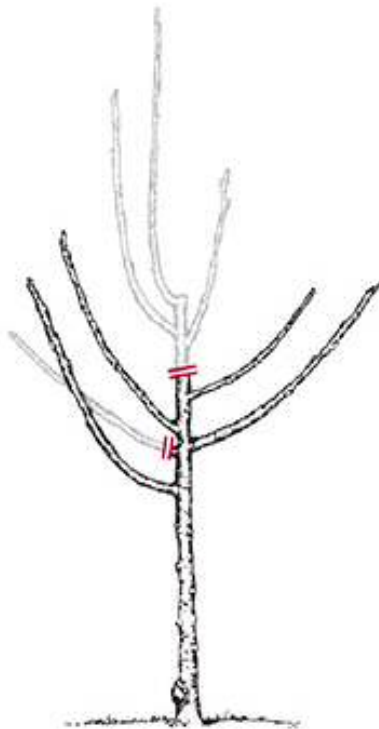
Rootstock

Graft union

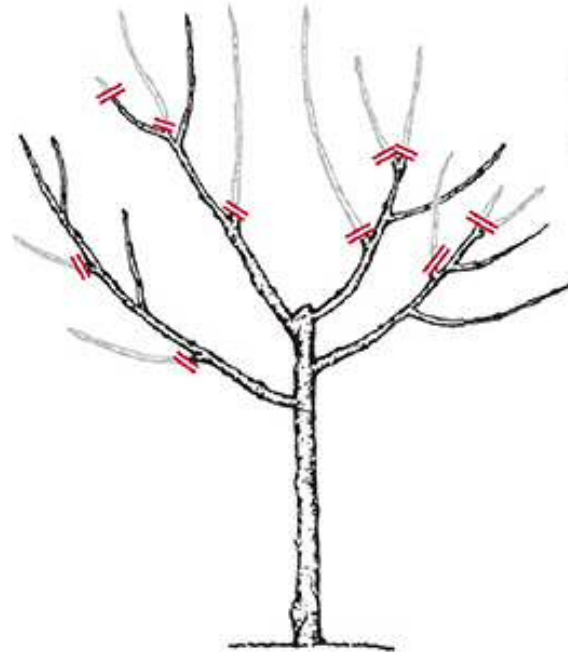
Watersprouts/suckers



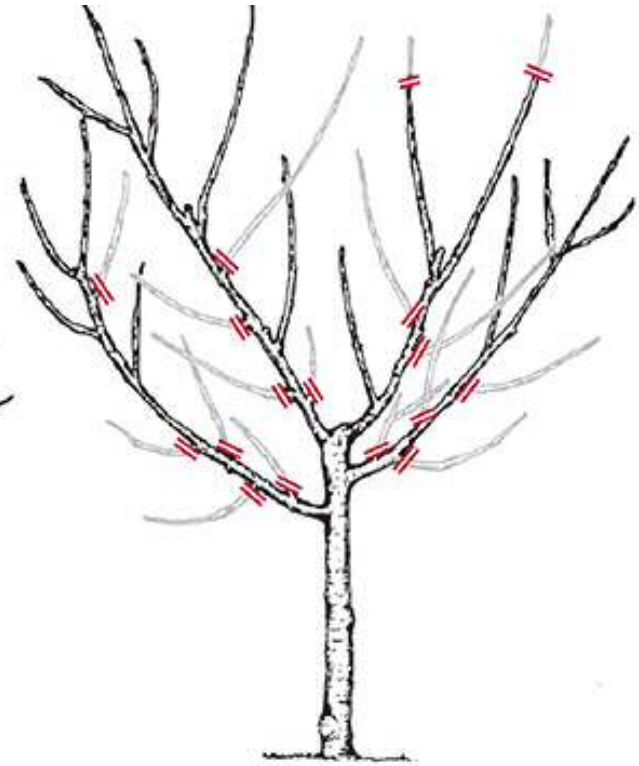
# Open Center Pruning



*First year  
spring*

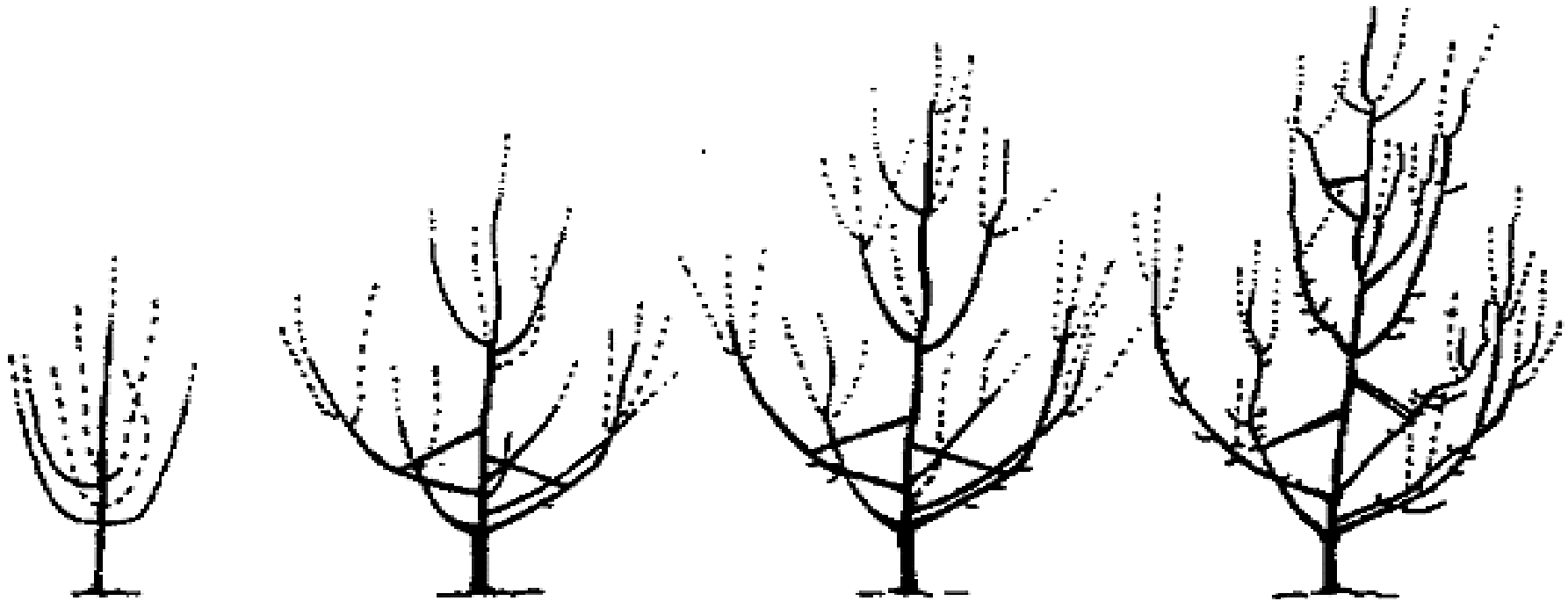


*Second year  
spring*



*Third year  
spring*

# Central Leader Pruning



# Two Basic Pruning Cuts

- **Thinning cut:** Remove branches at their point of origin, results in a reduced number of branches
- **Heading cut:** Remove a portion of a shoot or branch leaving only a bud, results in increased number of branches.





# Pruning Tools

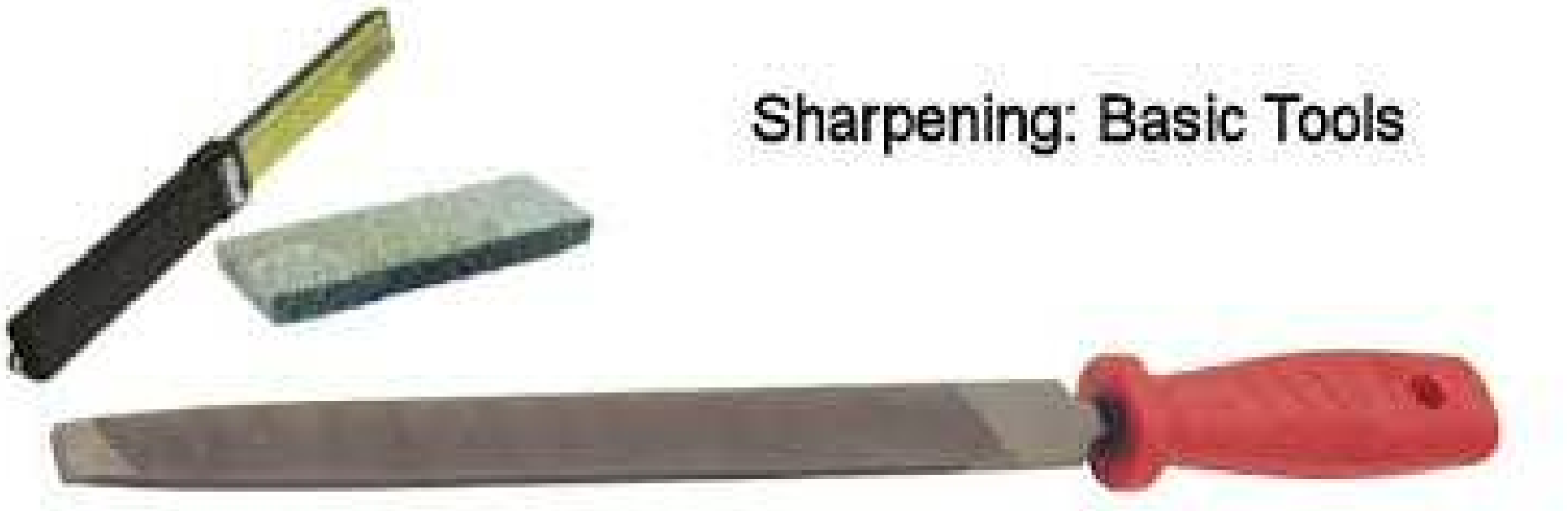


# Tools

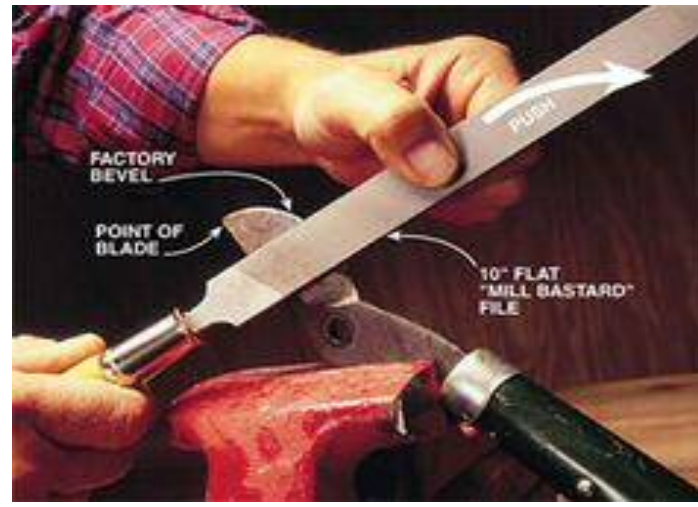
- Sharp
- Clean
- Ladder cautions
- Personal protection
- Lubricated
- Stored safely

# Sharp

## Sharpening: Basic Tools



# Sharpen and Restore





# Sterilize



1 Part bleach or vinegar to . . . . . 9 Parts water

# Ladder Safety



# Orchard Ladder



# Personal Protection





# Clean and Lubricate



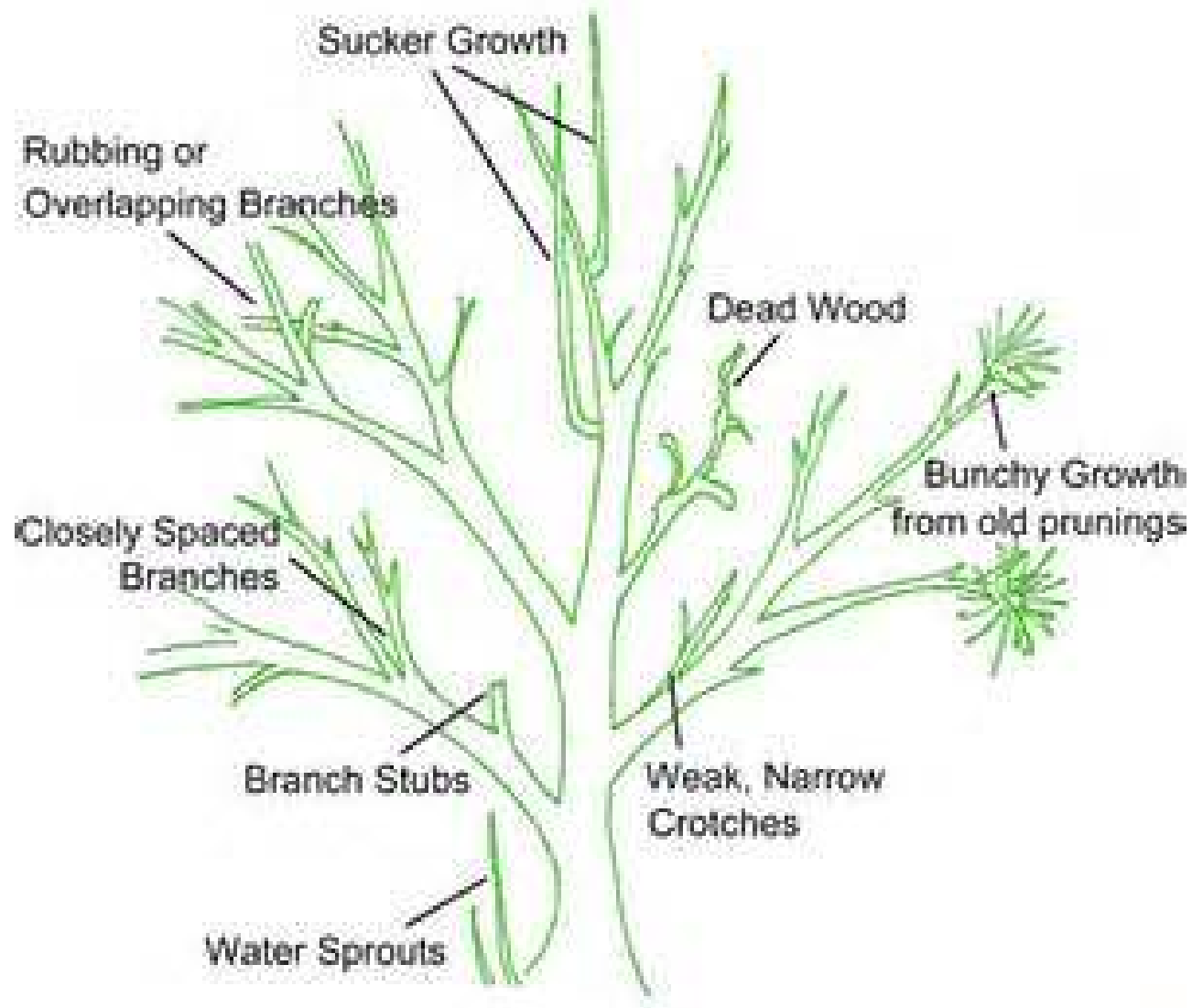




# Getting Started

- Allow yourself lots of time
- Assemble all your tools including disinfectants
- Know what you want to do
- Take your time. Make some cuts. Step back and look at the tree.

# Where to cut?



# Guidelines

- In general, thinning cuts, then heading cuts
- Start with removing dead, dying, broken, or diseased branches, and water sprouts, root suckers
- Move from large branches to smaller—can be scary
- Remove crossing and unwanted branches
- When heading consider where bud faces



# Grafting, by Tom Kahl

- Scion
- When
- Tools and materials
- Protective coatings
- Whip graft
- Cleft graft
- Side graft
- Budding



# The Almost End

- Sunlight
- Wrap up
- Review Parking Lot
- Field trip!
- Silverado MS
- 1133 Coombsville
- Noon to 1.30
- Bring your pruners!



# Need More Help?

- Resource list
- Computer search with UC first—
- UC apples, UC peach leaf curl, UC pruning
- UC has step-by-steps, videos, orchard help
- Find today's slides on our website
- Our Help Desk is open M-W-F, 9-12—in person, online, on the phone



*Solve your pest problems with UC's best science*

### What's New

- Retail Nursery & Garden Center IPM Newsletter: [November 2014](#)
- Pest Notes: [Lizards, Lawn Insects, Scales, and Drywood Termites](#) revised, [Leaffooted Bug](#) and [Brown Marmorated Stink Bug](#) added
- Ag Pest Management: [Olive, Pistachio, and Tomato](#) revised
- New videos in Spanish: [Common Garden Spiders and Snails and Slugs](#)
- Quick Tips: [Venados, Orugas Comehojas, Lady Beetles](#) added
- [More...](#)

### QUICK LINKS

- Newsletters
- Recursos en español
- Online training
- Weather, models, & degree-days

## Home, Garden, Turf & Landscape Pests



## Agricultural Pests



## Natural Environment Pests



## Exotic & Invasive Pests



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