

Winter Fruit Tree Care

Tips, Tools, and Technique

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UC Master Gardeners of Napa County
<http://napamg.ucanr.edu/>

Our mission: "To extend research-based knowledge and information on home horticulture, pest management, and sustainable landscape practices to the residents of California and be guided by our core values and strategic initiatives."



What We'll Cover Today

- Choosing fruit trees
 - Right conditions
 - Planting
 - Irrigation
 - Fertilizing
 - Pruning: year one and onward
 - Pests/Disease
- 

Question: how many of you would like a fruit tree that you could easily care for and harvest without ever getting on a ladder or seeking professional help for pest control, pruning and picking? We'll help you get started.

Choosing Fruit Trees

- Personal Preference
- Space Requirements
- Size: dwarf; semi-dwarf; standard



What fruits do you like? Grow what you like to eat!

How much space do you have? Fruit tree sizes are:

Dwarf 6-12 ft; Semi dwarf 12-20 ft; Standard 15-35 ft

Usually, Semi dwarf is best for home orchards. You can control the height with summer pruning.

Bare root or potted?

Often bare root is best...offers more choice, less expensive, adjusts better to native soil.

Right Conditions

- Full sun
- Healthy soil
- Good drainage
- Access to water

Fruit trees do best with 6 to 8 hours of full sun, healthy, well-draining soil with access to water.

8 Tips for Healthy Soil

1. Increase organic matter
2. Keep soil covered
3. Minimize disturbance
4. Avoid synthetic fertilizer/chemicals
5. Avoid compaction
6. Judicious water use
7. Maximize living roots
8. Increase plant diversity

1. Increasing organic matter in the soil attracts earthworms to it. Earthworms help to improve soil tilth by exponentially increasing soil microbes and by aerating the soil via their movements through it. There is an elegant symbiotic relationship between soil microbes and plant roots where the roots give microbes necessary sugary exudates and microbes feed the roots nutrients from the soil that they have converted into a plant-available form.
2. Keeping soil covered with compost or other organic mulch helps to protect the soil from erosion, keeps it warmer in the winter and cooler in the summer and helps to conserve water by reducing evaporation.
3. New research shows that soil disturbance damages life in the soil by killing microbes and earthworms and by breaking down fungal mycelium that carry messages, nutrients, and water among trees and plants. For these reasons, we no longer recommend tilling or double digging the soil.
4. Chemical fertilizers, herbicides and pesticides kill the life in the soil and can burn plants.
5. Healthy soil has lots of air pockets so try to avoid walking or using heavy equipment on it.
6. Drip systems use less water and put the water on the roots, helping to reduce weeds. Do not overwater-instead water seldom, but deep.
7. Keep your soil planted year-round to maximize living roots.
8. Increasing plant diversity also improves soil health. This practice can be implemented in spaces between trees.

Planting

- Soak bare root plants, but not potted
- Hole preparation
- Plant placement
- Prune to 24”
- Water in
- Paint trunk
- Nutrients/amendments



A new fruit tree can be planted in the ground or in a large pot.

Dig the hole the same depth as the roots but wider. If the hole is deeper than the roots, the tree will settle. You do not want this because it is important to keep the root flare just above the soil.

Build a cone and set the roots around it.

Fill the rest of the hole in with native soil. Only add amendments to the soil if it needs it; for example, if it is very compacted.

Build a basin and water generously to fill in pockets in the soil. Cover with compost, keeping it 2-3 inches away from the trunk.

Prune the whip to 20-24 inches tall and shorten or remove the lower branches.

Paint the trunk with half-strength (dilute with water) white latex paint to prevent sunburn.

What About Water?

- It depends on the type of tree you've chosen, but in general newly planted trees need an inch a week for the first year, during dry months.
- Check the irrigation requirements of the cultivar you planted, and water as needed.
- Remember: more trees die from overwatering than underwatering.

The amount of water is dependent on the type of soil (sand, loam, clay), the tree size and age and the temperature. Also keep in mind that generally 1 inch of water penetrates 1 foot.

You can check the soil for moisture either by manual observation or with a moisture meter and you can talk to neighbors with fruit trees about their irrigation practices.

More About Irrigation

- Why drip systems are the best choice
- Why you can't just "set it and forget it"...
- Rules of thumb for how much water
 - Year One: ¼ gal.-1 gal. per day (water at least once a week)
 - Year Two: ½ gal.-2 gal. per day (water at least every other week)
 - Year Three: 2 gal.-7 gal. per day (water every 2-3 weeks)
 - Year Four and onward: 6-18 gal per day (water every 4-6 weeks)

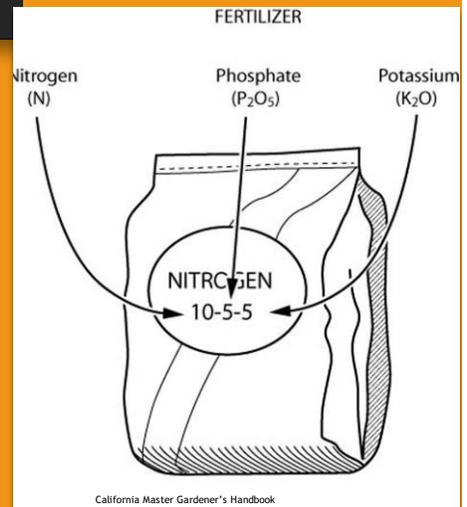
Drip irrigation uses less water, reduces evaporation, and puts the water in the root zone – where you want it! This also reduces weeds.

Watering deeply and less often encourages roots to grow downward. Start at the low end of the recommendations; trees can die from overwatering.

Move irrigation lines and emitters outward as the tree grows. Roots often extend beyond the canopy.

Tips for Fertilizing

- Do not fertilize in winter
- Feed in early spring or early summer
- Use 0-10-10 or 10-10-10 NPK
- Organic is best
- FOLLOW LABEL INSTRUCTIONS!



The key to strong, healthy fruit trees is healthy soil.

Do not fertilize in the winter when trees are dormant. If you choose to fertilize, use an organic fertilizer in early spring and/or early summer. Always follow the directions on the bag and remember, more is not better.

Compost can be used instead of fertilizer.

Pruning

Winter

- Light pruning for shape
- Thinning cuts
- Heading cuts

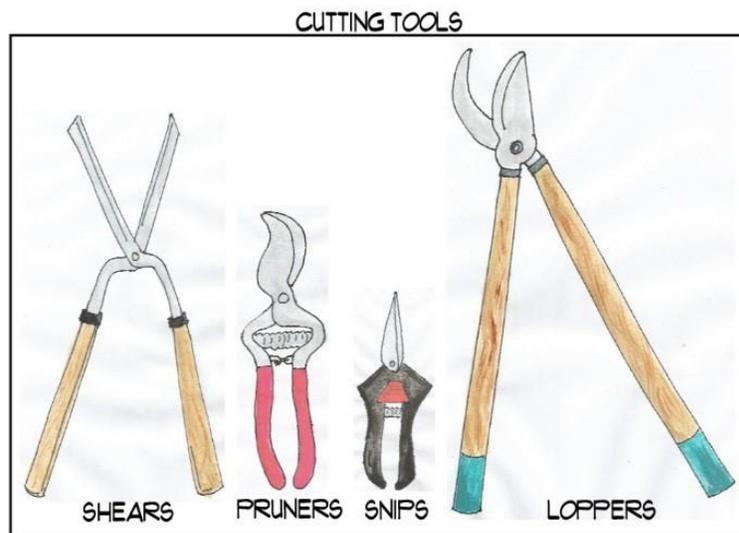
Summer

- To slow down growth and stimulate fruiting spurs
- Thinning and heading cuts
- Most important for fruit production, growth and tree health

Winter pruning increases tree vigor by opening up the center and allowing more sun to penetrate, resulting in less disease and better ripening of fruit.

Summer pruning decreases vigor, which enables you to control the height of your tree. Keeping the tree shorter allows for safer picking and other tasks.

Tools



Bypass Pruners are used on branches up to ½ inch diameter.

Loppers are used on branches up to 1-inch diameter.

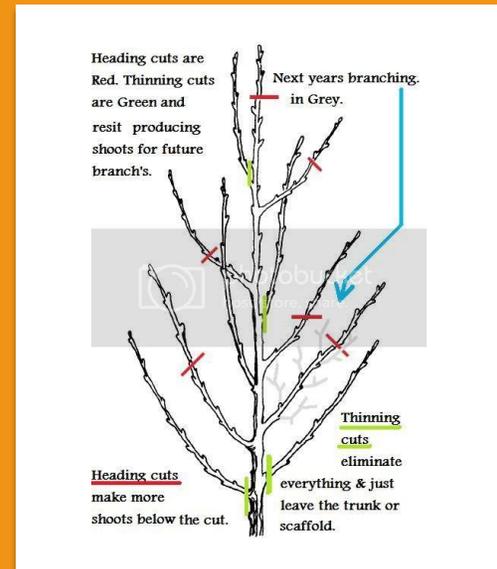
A Pruning Saw is used for branches over 1 inch.

Plus...

- Sharpening Tools
- Pruning Saw
- Soft ties
- Alcohol
- White Latex Paint

Pruning Cuts

- Heading Cut - only the end of the shoot or branch is removed
- Thinning Cut - the entire limb or shoot is removed



<http://www.thehuntingbeast.com/viewtopic.php?t=6365>

Pruning can be scary but don't worry – trees are resilient and you will learn to “see” what needs to be done as you practice.

Definitions:

Heading – Shortening of a branch by cutting 1/4 inch above a growth node heading in the direction you want the branch to grow.

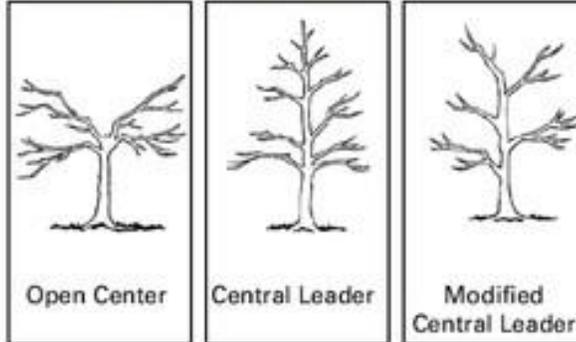
Thinning - Cutting out a whole branch or twig that is dead, diseased, crossing, growing inward or redundant. Cut just outside the branch collar.

Before starting to prune, and many times during the process, stand back and observe your tree. Assess the size, shape, and balance of the tree as you progress.

Assessing the Situation

- Inspect your tree from all sides before making cuts
- Consider how you want the tree to grow in the future

Pruning & Training Shapes for Fruit Trees



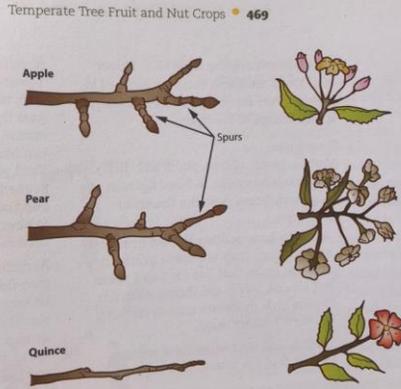
It is easier to control the height of the tree using the Open Center approach.

Bud Growth

Pome Fruits

Figure 16.4

Pome fruit flowering habits. Source: After Westwood 1993, p. 220.

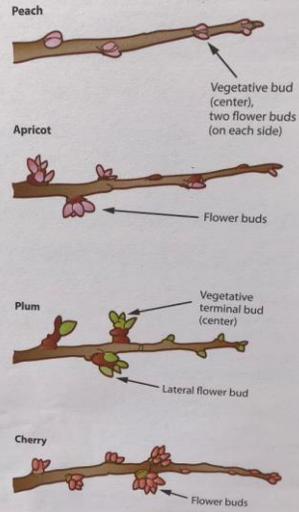


California Master Gardener Handbook, pp. 469-70.

Stone Fruits

Figure 16.5

Stone fruit flowering habits. Note that flowers are always borne on 1-year-old shoots. Source: After Westwood 1993, pp. 220-221.



Pome and Stone fruits differ on how they develop, and this affects how you prune them. You do not want to prune off all the fruiting wood.

Pome fruit (Apples, Pear, Quince) buds develop on spurs – small twigs on the branches.

Stone fruit (Peach, Apricot, Plum, Cherry) set buds flush against 1-year old branches.



Peach tree before winter pruning



Assessment



First cuts



Heading Cut



Thinning cut

Pruning dead wood





Lopping poorly attached branch

Clean up
debris



Do not skip this step! Helps to prevent disease and infestation by pests.

Peach tree after light winter pruning



In a tree like this one, which is both overgrown and unbalanced, it will take a few years to prune it into shape. It is better not to be too aggressive with your pruning to reduce stress to the tree as well as to allow you to observe the effects of your pruning from year to year. Patience is important.



Pests and Diseases

Prevention is easier than correction

Prevent sunburn by painting trunk with diluted white latex paint

Pick up fallen leaves and fruit

Prune to increase airflow and access to sunlight

Consult experts:

UC IPM

Master Gardeners' Help Desk

The best way to resist pests and diseases is to maintain a healthy tree in healthy soil.

Maintenance

- Visit your fruit tree frequently—pay attention to new growth
 - Rub off unwanted new growth buds
- Renew latex paint annually, i.e. paint new wood to prevent sunburn
- Add at least 2 inches of new compost/mulch at tree base annually (remember to keep mulch away from trunk bark)

References

Eierman, Colby. *Fruit Trees in Small Spaces*. Timber Press, 2012.

Pittinger, Denis (ed). *California Master Gardener Handbook*, 2nd edition. UCANR Publication 3382, 2015.

Ralph, Ann. *Grow a Little Fruit Tree: Simple Techniques for Small -space, Easy-harvest Fruit Trees*. Storey Publishing, 2014.

Enjoy Your Trees

“The best idea I have come across is to make fruit trees part of your life in the same way you would a good friend.”

-Colby Eierman, [Fruit Trees in Small Spaces](#)

