

**UC MASTER GARDENER PROGRAM
OF SAN LUIS OBISPO COUNTY**



The UC Master Gardener Program is a public service and outreach program under the University of California Division of Agriculture and Natural Resources (UC ANR), administered locally by participating UC Cooperative Extension offices (UCCE). Our mission is to extend research based knowledge and information on home horticulture, pest management, and sustainable landscape practices to the residents of California.

FRUIT TREES: CARE AND MAINTENANCE ~ SUMMER PRUNING

Charles Davis, Master Gardener

Success with deciduous fruit trees is a function of:

1. Finding varieties which are climatically suited to the environment, the key element is insuring they get the right number of winter chill hours
2. Ensuring they get the right amount of sunlight and irrigation
3. Providing pollinizer varieties where needed
4. Protecting the trees when young from predation from gophers
5. Ensuring that proper pruning is done in both winter and summer
6. Proper thinning of developing fruit
7. Disease protection

WINTER CHILL HOURS:

1. Many fruit varieties require sufficient chilling hours before dormancy is broken
2. Cumulative Chill hours (between 32 and 45 degrees; November 1-February 28)
3. UC Fruits and Nuts website:
http://fruitsandnuts.ucdavis.edu/Weather_Services/
4. Chill hours from CIMIS Stations: Atascadero—1210; Nipomo—299; SLO—309; SLO West—444
5. Impacts of too few or too many chill hours: flower, leaf and fruit development
6. List of coastal and inland varieties of trees: See *Suggested Fruit and Nut Varieties* in reference section at end of document

ENVIRONMENT – THINGS TO CONSIDER:

1. At least 6-8 hours of sunlight daily—more is better
2. Right size tree for space: dwarf—up to 10'; semi-dwarf—12-18'; standard—25-30'
3. Trees are either self-fruitful; self-sterile; partially self-fruitful
4. Self fruitful: peaches, nectarines, persimmons, pomegranates, quince, sour cherries, most apples, apricots and figs. Self-Sterile: Sweet cherries, pluots

and apricots, most pears, some plums and apples. Partially self-fruitful: many apples

5. Use of gopher baskets; location near water/drip irrigation; grafted rootstocks and bud union
6. Use of soil amendments in planting hole discouraged; mulching against weeds, evaporation encouraged; slope soil away from trunk; whitewashing young trees (with 1:1 diluted inexpensive white indoor latex paint) encouraged
7. Single—10' centers; multiple plantings in same hole—18" spacing. Look for trees with rootstock identification; varied water requirements

WINTER AND SUMMER PRUNING:

1. Both winter and summer pruning are needed, and serve several key functions: Winter—build scaffolding structure, eliminate dead, broken, crossing weak, or poorly spaced branches. Summer—maintain shape and open up to air and sunlight. Both seasons—maintain size and shape
2. Types of pruning: modified central leader; open center; espalier; fruit bush. At planting, determine which you want to do. Training is done to create scaffold branches, angled 45-60 degrees from trunk (for strength), evenly spaced
3. Modified Central Leader: 2-3 tiers of branches, separated by 18-24" of trunk height
4. Open Center: 3-4 scaffold branches re-branch and grow upward in a vase shape
5. Espalier: fairly small number of branches spaced in ornamental configuration against a flat surface—fan shaped, U-shaped, in straight cordons, etc.
6. Fruit Bush: Multiple trees planted in the same hole, each pruned to a single canopy
7. Care must be taken especially in winter pruning NOT to cut away branches that will bear fruit in the spring and summer. Here are the points you need to keep in mind for each type of tree and how it bears fruit:
 - Almonds---on 1 year old wood
 - Apples---borne terminally on 2 year old wood; spurs may be fruitful for 8-10 years
 - Apricots---on 1 year old wood
 - Cherries--- borne laterally on 2 year old wood; spurs may be fruitful for 10-12 years
 - Citrus---on this year's shoots, needs little pruning other than dead branches, water sprouts and to maintain size/form
 - Figs---on last year's wood (early summer) and on this year's wood (late summer/fall)
 - Nectarines---on 1 year old wood
 - Olives---on 1 year old wood

- Peaches---on 1 year old wood
- Pears (European)---borne terminally on 2 year old wood; spurs may be fruitful for 8-10 years
- Pears (Asian)--- borne terminally on 2 year old wood; spurs may be fruitful for 6-8 years
- Persimmons---on the end 3-4 buds on year old wood
- Pomegranates---on current year's wood
- Plums (European and Japanese)--- borne laterally on 2 year old wood; spurs may be fruitful for 6-8 years
- Quince---on current year's wood

FRUIT THINNING:

How to properly thin fruit:

1. Citrus, cherries, olives, quince, figs, almonds, pomegranates---none needed
2. Apricots---3-4" apart
3. Plums---4-6" apart
4. Peaches and Nectarines---5-7" apart
5. Apples---leave 1-2 per spur
6. Pears---leave 1-2 per spur

Fruits 2-4 can be hand thinned

Fruits 5-6, having thicker stems, should be thinned with clippers

DISEASE PROTECTION:

1. Peach Leaf Curl (*Taphrina deformans*): attacks peaches and nectarines

Our Peach leaf curl spray schedule:

- 1st spray: First week of December
 - 2nd spray: First week of January
 - 3rd spray: This is the most important spray, to be done just as the flowers show the first blush of pink, but before they open. You are looking for the pink color only. Spray will not be effective if the bud is open, and may damage the bud.
3. Apricot Dieback (*Eutypa lata*): fungal disease; DO NOT prune apricot or aprium trees in winter
 4. Do not prune persimmons or figs in summer, only in winter
 5. Sanitize pruning tools with a 10% mixture of Clorox and water.

FRUIT TREE IRRIGATION IN THE DEMONSTRATION GARDEN

1. The orchard is planted on a moderately deep clay loam soil with high water holding capacity.
2. Each tree has one 2 gallon/hour emitter
3. Irrigation starts in April/March for one hour twice a week, in July through September for 2 hours twice a week. Irrigation is turned off Oct through March.
4. This schedule can be altered depending on how many emitters you have per tree and your soil type. Basically you don't want to water unless top 4 inches of soil is dry. We have currently cut this schedule by one third due to drought and have seen no problems.

FRUIT TREE FERTILIZATION IN THE DEMONSTRATION GARDEN

In response to the drought, in our Demonstration Garden we do not currently fertilize the fruit trees at all. Fertilization can increase vegetative growth, which increases evapotranspiration – something we do not want to see in the middle of a drought.

When we did fertilize, it was at the end of January, to get the tree ready for spring growth, and at the end of May, using a balanced ammonium based fertilizer 10-10-10, in granule or liquid form, applied to top 4-8" on soil from canopy line inward. We do not fertilize the deciduous fruit trees after September.

References:

- Bianchi, Mary. 2002. *Suggested Fruit And Nut Varieties: For San Luis Obispo And Santa Barbara Counties Backyard Orchardists*. Ebook. 1st ed. San Luis Obispo: UC Agriculture and Natural Resources. <http://cesanluisobispo.ucanr.edu/files/61216.pdf>.
- Ingels, Chuck A, Pamela M Geisel, and Norton V Maxwell. 2007. *The Home Orchard*. Oakland, Calif.: University of California, Agriculture and Natural Resources.
- Pittenger, Dennis R. 2015. *California Master Gardener Handbook*. 2nd ed. Oakland, CA: University of California, Agriculture and Natural Resources Communication Services.

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GARDENING QUESTIONS? ASK THE MASTER GARDENERS AT HELPLINE: 805-781-5939



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