Regular use of Humic Acid provides the following benefits:

-improved physical properties of the soil

-increased energy for plants and soil

-stronger, more vigorous roots

-increased base exchange capacity

-added mineral chelation

-reduced herbicide usage between 25 - 50%

-increased rate of seed germination

-stronger seedlings

-removal of toxins

-buffered salts

-pH balance

-added oxygen in soil

-improved soil conditions

-building and **feeding** of positive microorganism populations

-increased yields and plant quality

Companion Planting Guide

Anise - Plant anise and coriander seeds together. They will both germinate more quickly. Keep soil moist and separate when seedlings have grown a little.

Apple - If planted with chives there is less chance of apple scab disease.

Asparagus - Becomes more vigorous if planted with parsley.

Basil - Basil repels white fly and makes a good companion to tomatoes, in the garden & the kitchen. Use 3 basil plants to each tomato plant. Basil also repels flies and mosquitoes, so useful in kitchen, outdoor barbecues. Don't plant near rue. Deters tomato hornworm, aphids, flies and mosquitoes. Slows growth of milkweed bugs and acts as a fungicide.

Beans - Less likely to suffer from beetles if petunias also planted alongside. Grow more strongly if planted with summer savory.

Beans (**Bush**) - Plant with sunflowers, they like partial shade and the sunflowers attract birds and bees. All bean types are beneficial if planted with cucumbers, potatoes, corn, celery, savory because these plants are heavy feeders. Beans create their own nitrogen and are light feeders.

Bee/Lemon Balm - Plant with tomatoes, it improves growth and flavor.

Beetroot - Grow better if planted with onions, kohl rabi, basil, beans, lettuce, cabbage and tomatoes. Planting with onions helps deter some insects and deters weeds.

Bergamot - Attracts beneficial honey bees.

Borage - Plant with strawberries to increase crop. Also good with tomatoes and squash. Attracts bees to the garden. Deters tomato worms, attracts bees, helps growth and flavor.

Broccoli - Planted with dill or mint grows better.

Cabbage family - Cabbage butterfly is repelled by planting rosemary or sage with cabbages. Any member of the cabbage family should also be planted with potatoes, tomatoes, celery, dill, chamomile, sage, thyme, mint, rosemary, lavender, beetroot or onions. All the above are aromatic plants, and therefore deter cabbage worms. Thyme and tomatoes also help control flea beetles.

Calendula (Pot Marigold) - If planted with tomatoes, this repels asparagus beetles, tomato worms and other pests.

Caraway - Long roots help break down and condition heavy soils, can plant near shallow rooted plants. Dislikes fennel. Attracts parasitic beneficial wasps. Caraway dislikes being planted near fennel. Sown with peas, caraway seeds germinate more easily.

Carrots - Carrot fly is repelled if carrots are planted with sage or onions. Also plant with peas, lettuce, chives, leeks, rosemary or tomatoes.

Catnip - Planted on the vegetable garden border, catnip will deter cats from venturing further. Protects against flea beetles, and attracts bees.

Celery - Planted with bush beans, they help each other to grow better. Also good companion with leeks, tomatoes, cabbage and cauliflower.

Chamomile - Compatible with onions and cabbages but don't plant too much. Chamomile tea, made by soaking blossoms in cold water for 1 to 2 days, is excellent spray for damping off. Improves both growth and flavor of onions and cabbages.

Chervil - Chervil improves flavor of carrots if grown with them. Radishes planted near chervil has hotter taste, and improved growth.

Chives - Carrots grow larger planted near chives. Helps prevent apple scab if grown underneath apple trees. Also helps control aphids and black spot on roses. Cooled chive tea made from chopped chives in boiling water helps combat downy and powdery mildew.

Comfrey - Comfrey keeps surrounding soil rich and moist. Rotted leaves and roots mixed with water makes good fertilizer. Improves size and flavor of strawberries if planted nearby.

Coriander - Sown with anise seeds aids germination in both. Coriander repels aphids. Don't grow near fennel as it hinders its seed formation.

Corn - Sowing with beans or peas provides an increased nitrogen supply to the corn (if corn and peas/beans are planted in alternate rows). If sunflowers are planted with corn, the incidence of armyworm decreases. Also plant with potatoes, cucumbers, pumpkin, squash. Vining things like this shade the ground, keeping weeds down, and use the corn stalks to trail up on.

Cucumbers - Plant with beans, corn, peas, radishes, and sunflowers.

Dandelion - Plant along garden border to produce pollen for lady beetles, lacewings, and other predators and parasites. Repels Colorado Potato Beetles.

Dill - Cabbage grows well planted near dill. So does lettuce, corn & cucumber. If dill is allowed to flower it suppresses the carrot crop, if not allowed to flower it is fine. Don't plant near fennel as they may cross fertilize.

Eggplant - If planted with aramanthus, there is less likelihood of insects on the eggplant. Also, beans planted with eggplants repel beetles which would otherwise attack the eggplant.

Elderberry - Plant near your compost heap as it assists in breakdown. Humus from base of elderberries make excellent topsoil.

Fennel - Don't grow fennel in the vegetable garden. It is hated by tomatoes, kohlrabi, caraway and wormwood. If planted near dill may cross fertilise. Repels fleas, so grow it around dog kennel.

Garlic - Planted near roses keeps aphids away. If grown around fruit trees effective against borers. Protects peach tree from leaf curl and apple trees from apple scab. Grown near tomatoes deters red spider mites. However peas, beans, cabbages and strawberries hate it. Garlic spray may be made by crushing 4 cloves and steeping in a liter of water for several days as an insecticide for vegetables and flowers.

Geranium - Plant near roses, grapes and corn. Repels cabbage worm. Oil of geranium prevents red spider mite.

Grapes - Planting clover increases the soil fertility for grapes. Hyssop likewise increases the vine crop.

Horseradish - Helps deter potato bug if planted near potatoes. Can take over so keep restricted.

Hyssop - Good for cabbages and grapes. Helps deter white butterflies. Good insect repellent if planted in vegetable or flower garden. Keep away from radishes.

Lavender - Attracts butterflies. Lavender bags repel mice, ticks and moths.

Leeks - Leeks grow better if planted with carrots, celery or onions.

Lemon Balm - Attracts bees. Improves growth and flavor of tomatoes.

Lettuce - Plant with carrots, radishes, strawberries or peas.

Lovage - All round garden helper. Improves health and flavor of most plants near it.

Marigolds - Plant everywhere! Deter many insects and slugs.

Marjoram - Beneficial on most vegetables planted near it.

Mint - Repels cabbage butterfly, grow near cabbage family or tomatoes. Repels fleas, ants and mice. Keep mint and parsley away from each other.

Nasturtium - Useful insect repellent. Plant around broccoli, cauliflower, cabbage family, radishes, tomatoes, cucumbers and fruit trees. Deters white flies, squash bugs, and are a trap crop for aphids. Limits wooly aphid damage to apple trees if planted in a circle around them.

Onion - Planting chamomile with onions improves the flavor of the onions.

Oregano - Plant near broccoli, cabbage and cauliflower to repel cabbage butterfly and near cucumbers to repel cucumber beetle. Also benefits grapes.

Parsley - Grow near chives, but away from mint. Aids growth of roses, tomatoes, asparagus and carrots.

Peaches - Growing garlic around peach trees reduces the chance of peach leaf curl disease.

Peas - Grow them almost everywhere, peas add nitrogen to soil. Growing interplanted with corn enhances growth of the corn.

Peanuts - If grown with squash or corn will increase the yield.

Potatoes - Plant horseradishes with potatoes to make them more disease resistant.

Pumpkins - Plant with datura to increase the vigor and health of the pumpkins. Also plant with corn.

Radish - Plant with climbing beans, and both grow better. Plant with lettuces, and the radishes become more succulent in summer time. Also plant with peas, nasturtiums and cucumbers. Deters cucumber beetle and other insects.

Rose - Planting chives or garlic with roses protects them from black spot and some pests, including aphids. Parsley protects roses from beetles.

Rosemary - Grows well with sage, improves growth of carrots, cabbage and beans. Don't grow near potatoes.

Rue - Hates basil. Plant near roses, strawberries and fig trees. Effective fly repellent and it repels dogs and cats which hate it.

Sage - Plant near rosemary. Good grown with cabbage and carrots, peas and beans. Keep away from cucumbers. Sage tea can be sprayed on mature plants not seedlings.

Salad Burnet - Good with thyme and mint.

Savory (**Summer**) - Grow near onions and beans. Deters bean beetles.

Savory (Winter) - Useful insect repellent.

Spinach - Plant with strawberries, and base of trellised peas. Spinach benefits from shading of peas and wind protection.

Squash - Plant with corn or nasturtiums.

Strawberries - Planted with borage improves the soil nutrition for the strawberries. Also plant with bush beans, spinach and lettuce.

Tansy - Repels ants, flies and moths. Rub leaves onto fur of dogs and cats to repel fleas. Plant near fruit trees and roses. It concentrates potassium in the soil so good for compost heap.

Tarragon - All purpose garden helper.

Thyme - Attracts bees and deters cabbage worm so plant near members of cabbage family. Beneficial effect on plants near it.

Tomatoes - Tomatoes grow and produce better when planted with marigolds; the same rule applies to basil planted with tomatoes.

Valerian - Excellent addition to compost heap as stimulates phosphorous activity in soil. Earthworms love it.

Wormwood - Grow by itself edge of garden as inhibits growth of other plants. Spray discourages slugs and snails.

Yarrow - Increases essential oil content enhancing aromatic quality and making more resistant to insect attack.



Fertilize "Using it as a tool"

All fertilizers have 3 numbers on their packaging X-X-X. This represents the percentage of 100%

The FIRST number represents: Nitrogen = "N" = Up

This makes Leaves, Twigs, Branches, and Trunks... Grow... Green.

The SECOND number represents: Phosphorus = "P" = Down

This makes Roots grow...gives them... "Flower Power"

(Bare Root Trees) It's best to have NO fruit the first year, so the roots can grow big and strong.
"We learn the alphabet in kindergarten (first year) ...so...we can write term papers in high school" (for years to come).

For established trees: Phosphorus "Charges the Batteries (roots) with Flower Power".

The THIRD number represents: Potassium = K = All Around

A little UP. A little DOWN. Mostly "All around Health" It helps to fight off: Diseases, Bugs, Environmental stuff...heat, water...

And don't forget the "Ten Little Indians" Trace elements

In order of secondary importance

Calcium: Stimulates root growth.

Magnesium: Essential for chlorophyll production. *Sulfur*: Stimulates plant growth and seed formation.

Iron: Promotes GREEN color.

Manganese: Promotes plant maturity.

Zinc: Regulates plant growth, consumption of sugar.

Copper: Helps sweeten Citrus, Important for reproductive growth.

Boron: Essential for, root and fruit development.

Molybdenum: Helps with reduction of nitrates for protein synthesis.

Chlorine: Aids plant metabolism



How to use your new fertilizer "TOOL"

- You should feed a minimum of 4 times a year: February, May, August, October or November (per your micro-climate) *and* just after harvest, "When you eat, the tree should eat too", with a deep watering with ALL feedings.
- Feed at the "Drip Line" the Circumference of the leaf head or just on the inside of the "Basin".
- For Gro-Power products Use approximately 1 to 1.5 cups, per inch of diameter of the trunk, [at 2" above soil line]. If you run out before you finish the drip line / circumference, scoop out some more to finish.
- For Lemons and Limes, who are *Everbearing*, I recommend feeding every month to every other month, as they are *Ever Growing* and *Every Eating*.

Please use up all of your fertilizer each feeding..."no left-overs"..."It will not grow in the bag"...or..."Get better with age"! "If you use it, the trees will grow and you will eat"

Who should get what:

All Stone Fruit trees: Peach, Nectarine, Plum. Apricot... things that lose their leaves in Fall/Winter. They should be fed with a fertilizer with Low "N", High "P" and High "K".

Evergreens: Citrus, Avocados and most Tropical... They should be fed with a fertilizer with High "N", Medium "P" and Medium "K".

There are always exceptions...but this will give you a good start!



The 11 Links to Harvest

- 1. **Chill Hours**: To High? To Low? Just right for your micro-climate.
- 2. **Location**: At least 6 hours of sun and light. Good Drainage.
- 3. **Feeding:** When, Where, How and Why
- 4. **Watering**: When, Where, How and Why
- 5. **Pruning:** Be sure you know who needs what kind of "Hair cut" when...or you may cut **SHORT** or even cut **Off** your Harvest.
- 6. **Weather at Blooming**: Huffing and Puffing...will blow your Blooms away! Rain = less pollinators
- 7. <u>Pollination</u>: Plant flowers & herbs everywhere, this will attract pollinators. ALSO, Check to see if your Girl tree needs a Boy friend "To do their thing"
- 8. Weather after Blooming / Pollination: Last minute Chill can Kill
- 9. <u>Culling of Fruit</u>: Measure one hand-width between fruit...Too much fruit left on trees equals Small, Poor Tasting fruit, Broken limbs and Broken Hearts
- 10. <u>Harvest</u>: Eat, don't let the fruit go bad, on the ground, on the limb or counter...Preserve...Share... Be Merry...giving is always a good thing to do, to family, friends, and even "The Boss"
- 11. <u>Feeding after Harvest</u>: Remember after you eat, the tree needs to

 Eat & Drink. This starts next year's bud development. This may even be the

 "Floating Fifth Feeding"

Remember:

"if a link in the chain is broken, so is the chance of a Good Harvest"



Mother Nature's Secret Weapon

Worm Castings have 5 to 11 times more nitrogen, potassium, calcium, phosphorus, potash, and magnesium then topsoil. They can be used anywhere you want healthier plants and soil.

Some quick things to know

Increases vegetables and fruit tree yields

Will not burn plant roots

Improve root and shoot development

Enhances seed germination

Reduces irrigation costs by up to 50%

Increases drought resistance

Has a wide array of insect repellency properties

Suppresses fungal diseases (phythium, fusarium, dollar spot, etc)

No ground water contamination from pesticide use

Not toxic – reduces your chance of getting sick from pesticides

May be applied to phosphate sensitive areas

Odor free/ Eliminates odors

You can use Worm Castings on Everything: Trees & Shrubs, Lawns, Potted plants, House plants, Orchids, Flower Gardens and Rose Bushes, ... Even your own... "Edible Eden".



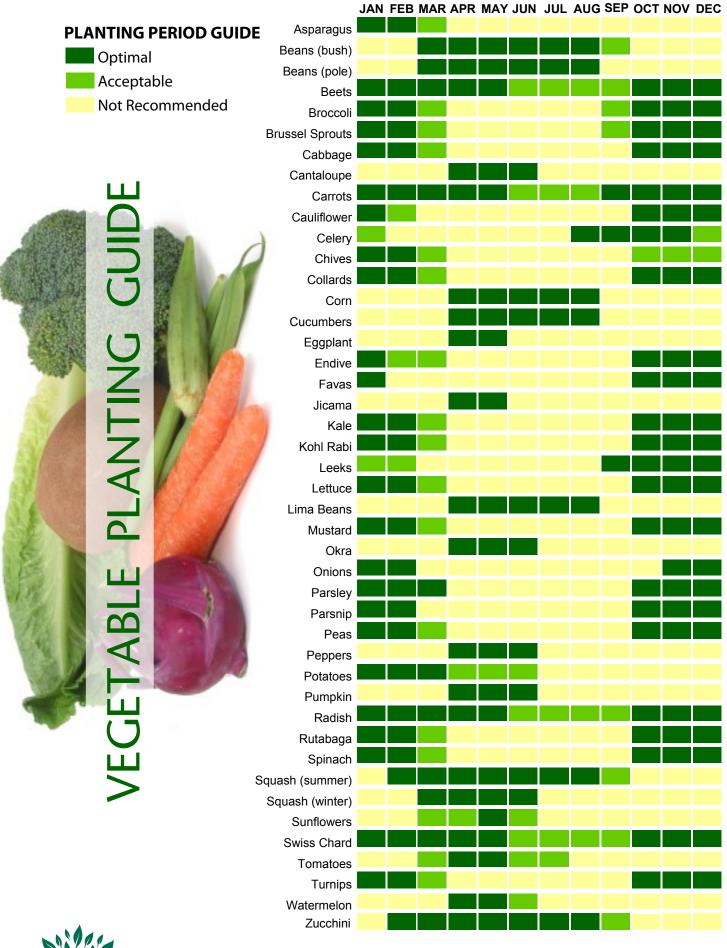
How to Use Worm Castings

As a Fertilizer: Sprinkle Worm Castings around the base of plants and/or lightly dig it in, and then add water. They can also be sprinkled on a large scale with a spreader. Remember: you cannot use too much Worm Castings – it cannot damage your plants.

As a TEA (Liquid Fertilizer): Worm Castings can easily be mixed with water. Use 1 cup Worm Castings for every gallon of water and soak for 48 hours. This liquid mixture can be used as an excellent fertilizer or leaf foliate spray. I also helps to control insects. Many people prefer this method of application.

As a Soil Conditioner: If you hoe a layer of barren soil, add a layer of Worm Castings and give it some water, you will be surprised at the growth of your first season's plants.

For Germination: Use 20 to 30% Worm Castings with sand as an excellent germination mixture. It will also ensure continuous and lush growth for about three months, without you having to add any other plant food.





This table lists the recommended times to sow vegetable seeds for the typical Southern California climate. When buying transplants, remember to adjust for the age of the plant (about 1-2 months).

Source: Digital Seed

BARE ROOT TREES PLANTING

BEFORE PLANTING:

We recommend soaking the rootball in a container of water overnight.
(Never soak longer than 24 hours.)
For an added boost – soak in a solution of SUPERthrive or DYNA GRO Liquid GRO Plant Food – both available in our store.
Follow label directions. After soaking, use the container of solution to water in the plant.

IF YOUR TREE IS GRAFTED:

Plant the tree with graft above soil level.

PLEASE NOTE:

YOU SHOULD PLANT BARE ROOT TREES WITHIN 24 HRS. KEEP THE ROOTS COVERED AND DO NOT LET THEM DRY OUT.

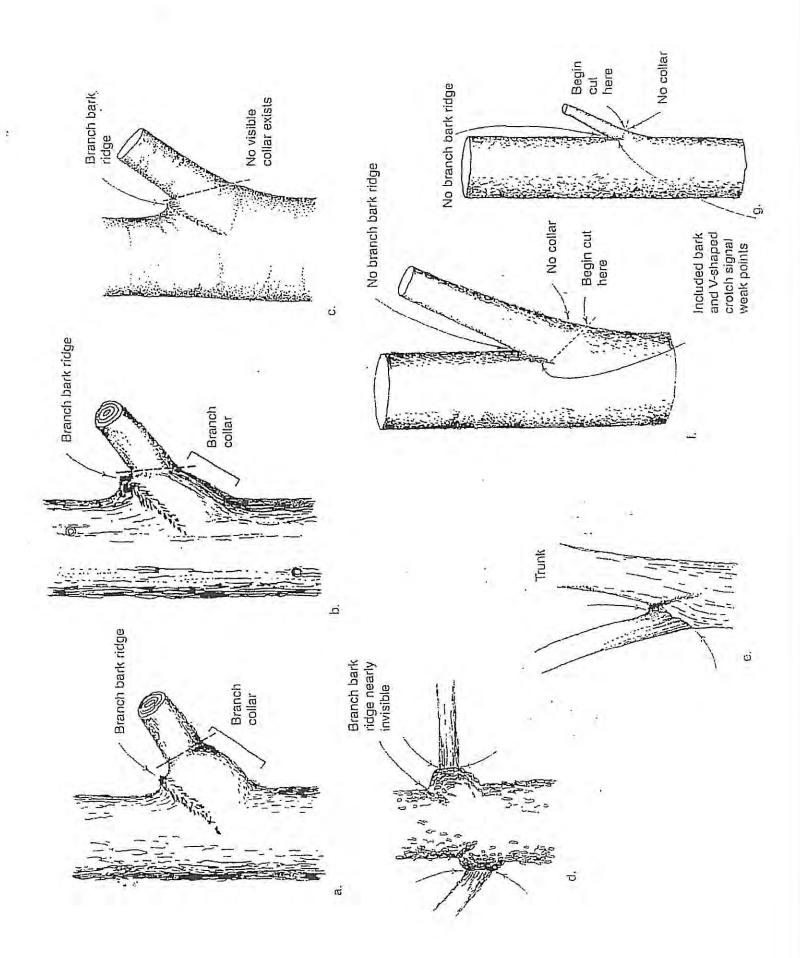
PREPARE THE HOLE:

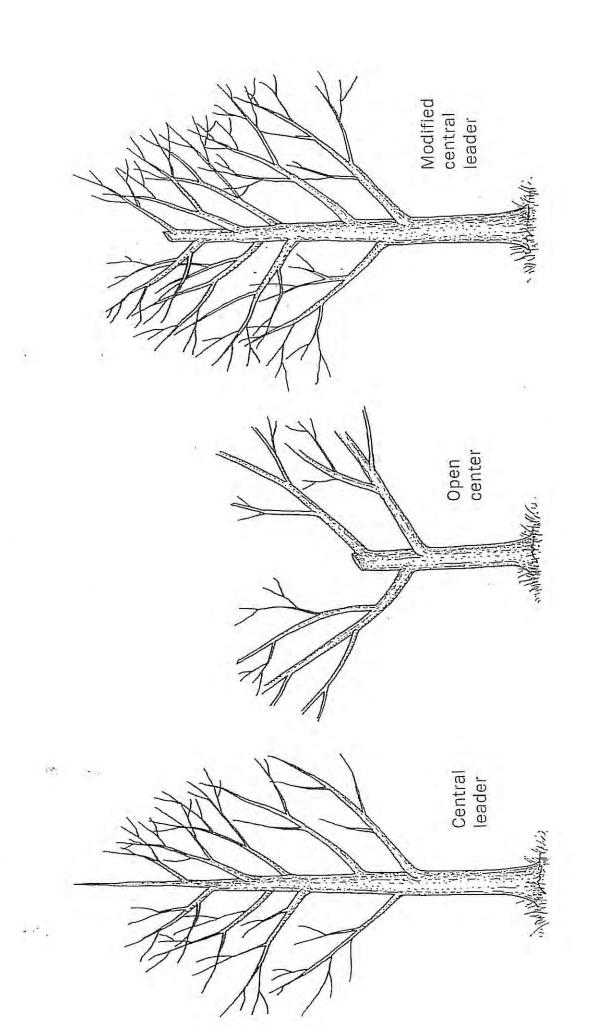
Dig hole large enough to accommodate root system. <u>DO NOT PRUNE ROOTS</u> unless they are broken.

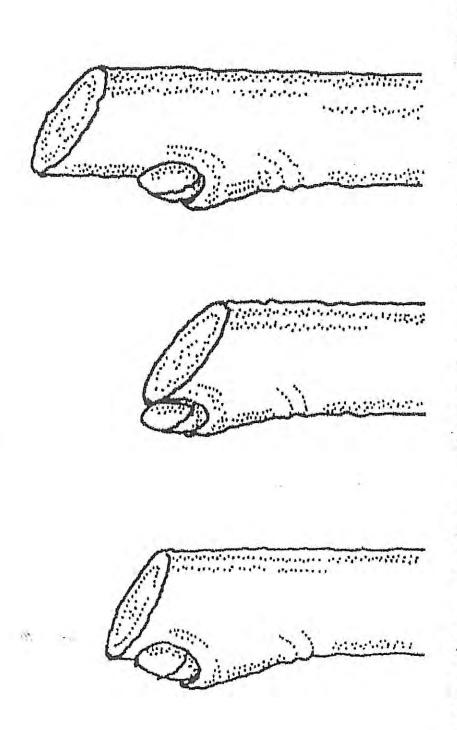
Backfill with a 50/50 mix of native soil and compost or planting mix such as GARDNER & BLOOME

ORGANIC SOIL BUILDING COMPOST

available in our store.





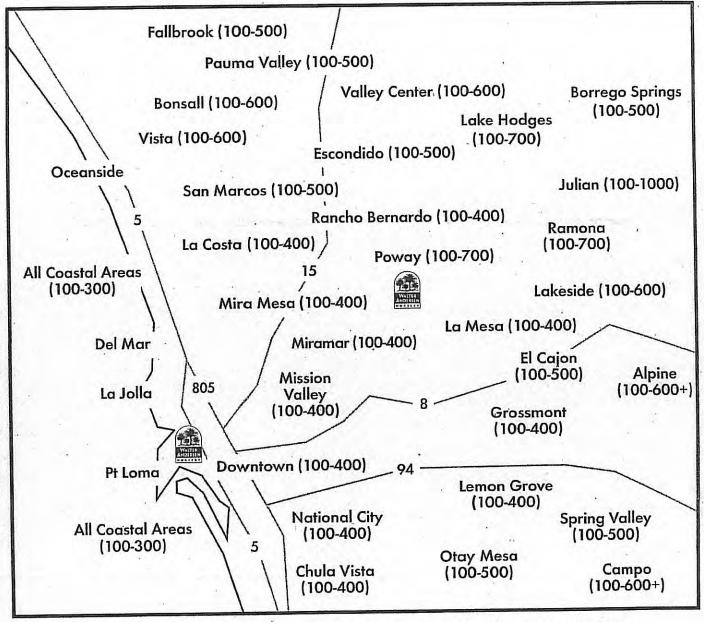


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When pruning, make a sloped cut just above a bud (left) Avoid cutting too close (center) or leaving a stub (right).

Flowers and fruit on new growl **Flowers** ondary scaffold limb second-year grou e, strong crotch imary scaffold limb Flowers third-year older grow

CHILLING HOURS FOR STONE AND POME FRUIT



Chilling – the number of hours the temperature reaches between 32-46°F, from November 1 through February 15, is important for bud break and fruit set.

The numbers above represent ranges of chill hours in local areas.

Please note that within some areas colder or warmer microclimates exist, such as canyons or hilltops. The milder your area, the lower the chill hour you can use.

For example, if you live in an area with 100-300 chill hours, you may choose a variety requiring only 150 chill hours. You would not have success with a variety requiring 500 hours. In a 100-600 area however, you could choose a variety requiring only 150 hours as well as those up to 600 hours and expect success.

