

# Deciduous Fruit Trees

## for Orange County Laguna Hills Nursery

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Success depends upon knowing:

### What is the **MINIMUM CHILL REQUIREMENT?**

The majority of deciduous fruit trees evolved in temperate climates and require a period of winter cold in order to produce flowers and fruit. We call this period the **minimum chill requirement (MCR)**. Temperate climate trees evolved the MCR to avoid leafing out prematurely during a warm spell in the middle of winter. Trees that evolved in the colder winter climates have a longer MCR than trees that evolved in mild winter climates. The growth buds do not complete development until they experience an entire typical winter. As soon as the MCR is reached the bud will begin growth with the next warm spell. It is the bud itself, not the trunk or roots, that must experience the chill.

Researchers have determined that *Chill* involves the number of hours of exposure to temperatures below 55°F and above 33°F. (Apparently there is no chill value for time spent below 34°F.) The MCR is the minimum number of chill hours (accumulative) that the tree must be exposed to during the fall-winter season for proper flower bud development and subsequent fruiting. Hours spent above 60°F are subtracted. The value of chill varies with the temperature. Maximum chill is received between 36°F and 48°F. Maximum negative chill occurs above 65°F.

Many authorities will explain that the year's chill value is determined by summing up all the winter's additions and subtractions; however that total is normally quite low. In my opinion the MCR is like slowly adding water to a cup with a small hole in the bottom. The water is the chill hours accumulating and the size of the hole that water leaks out is the negative chill. The height of the cup represents the variety's MCR. During periods of intense cold the water adds up very quickly. Once the water spills over the top all bloom and growth systems have been switched on. Growth begins during the next warm spell. By the end of winter the cup's hole enlarges and the water is no longer near the top.

In the orchards of California's Central Valley most commercial fruit trees have MCR's between 500 and 800 hours. Generally we don't grow many of the same fruit varieties.

In Orange County the lowest chill is found on coastal hilltops (about 200 hours). Most of the flat neighborhoods of central OC get about 350 hours. Riverbeds and canyon floors can easily accumulate 500 hours. Cold air flows like water and accumulates wherever water will.

Cold air has a natural tendency to flow downhill. It is true that the air is cooler at higher elevations (1°F for every 200+ feet) due to reduced atmospheric density, but cold air is heavier and still flows downhill.

Lack of winter heat is more important than the intensity of the cold and we find that coastal locations often get 400 hours. In hilly cities like Mission Viejo, Laguna Niguel, Orange, Tustin, etc. the hilltops may receive only 250 hours but the low spots in these same neighborhoods can average over 400 hours. The bigger the canyon the colder it is at the bottom. Extremely cold air can be found along the Trabuco and San Juan creek beds, as well as at the bottom of Laguna Canyon, in the winter. In 1990 temperatures in San Juan Capistrano fell below 20°F!

The typical residential yard has several microclimates. A tree on the exposed south wall of a home may receive only half the chill hours compared to a tree on the shaded north side. House walls can radiate heat to a nearby tree while a grass lawn can cool a tree. Cold air collects behind walls and fences.

When growing varieties with marginally high MCRs plant the tree several feet off the north wall of a house or on the north side of a large evergreen tree. In that location the tree will be shaded in winter and still receive sunlight (for best fruit quality) in summer. White-washing the stems will reduce the temperature during the day. Keeping the tree as short as possible also helps. (The air is noticeably warmer 10 feet off the ground on a still winter night.)

To be consistently successful in the benign winter climate of Orange County a deciduous fruit tree must have a relatively low MCR (a.k.a. *low chill*). Truthfully, the MCR's of fruit tree varieties have not been scientifically determined and almost all are just educated guesses.

Some deciduous fruit trees (Figs, Jujubes, Mulberries, Persimmons, some Apples) may not have a MCR. We believe these trees are set to grow when spring days exceed a certain temperature and there are no leaves on the branches.

When we list the MCR as a range (for example MCR 300-500) we are listing the range of MCR's listed for that variety from various references.

## Controlling Production

Most mature full size fruit trees can produce more than 400 pieces of fruit at harvest time that typically lasts 2-4 weeks. Few families can consume fruit that quickly. There are several strategies to make production more useful.

1. **Control tree size with summer pruning.** Although most fruit trees can grow larger than 15 feet high and wide we prefer to keep each tree about 7-8 feet tall and 4-5 feet wide. Since fruit does not form on current growth (figs and jujubes are the exception) most of this growth can be trimmed off all summer without affecting next year's crop. A tree this size will produce 50-70 fruit per year.
2. **Control size by grouping different varieties.** If 4 apple trees are planted within 2 feet of each other, this group is not capable of growing significantly larger than a single tree. This group will still produce a huge amount of fruit, but now has 4 different ripening periods. Much more of that fruit can now be consumed by one family.
3. **Do both.** In my own garden we planted 12 apple varieties in 3 groups. Each group is only allowed to grow 8 feet tall and wide. We can pick apples nearly any day between early summer and early winter.
4. **Make a hedge.** Fruit trees can also be planted 3-4 feet apart and maintained as a hedge.

Consult the brochure **Backyard Orchard Culture**, found on **Dave Wilson Nursery** website for details. An important detail is that summer is the best time to prune for size control. Heavy pruning in winter can eliminate most of the flower buds critical for the next crop.

Generally, we do not recommend genetic dwarf fruit trees. Of the few available varieties none produce superior quality fruit. Semidwarf trees are generally still too large unless pruned.

**Apples** are surprisingly reliable in our area. Most of the popular commercial apples produce regularly in OC (*Honeycrisp* is an exception). Many apples seem to either have a very low MCR or have a back way to get around the system. Most apples bloom in April no matter what the winter was like. A few bloom in February. Most apples are at least partially self-fertile, but most orchards plant 2 varieties (with the same bloom period) just in case. To create a heavier bloom, strip off all the leaves grown the previous year by March. (Occasionally we'll have a winter cool enough to cause all the foliage to drop.) Apples begin production by the 4<sup>th</sup> year, but most start much sooner. Apples require hand thinning after fruit set to 1 per cluster or less. We offer semidwarf trees (M111 rootstock) that can grow trees 15-20 feet tall, but can be maintained as low as 4 feet. Many varieties can be espaliered along a fence. Apples require ample water and grow well in lawns. Apples can live over 100 years.

**Notable Pests:** The disease *Fireblight* is occasionally a problem with all cultivars with Gala being most susceptible. Prevent by

spraying prior to bloom time with **Agri-fos**. **Codling Moth** larvae (apple worms) can be prevented with proper thinning, choosing early or late ripening varieties, using pheromone lures, or by applying **Spinosad** (organic pesticide).

**Anna** Blooms February. Large, cylindrical, mostly red fruit with creamy, sweet, tender, crispy white flesh. Harvest July, but often produces significant fruit at other times. Best eaten fresh (poor shelf life). Quality ranges from good to excellent. Often grows fruit the first year. From Israel.

**Arkansas Black Spur** Blooms April. Medium size, dark red fruit with crisp, firm white flesh with some tang. Harvest November.

**Braeburn** Blooms April. Medium to large green fruit with burgundy stripes. The crisp flesh is slightly tart. Excellent fresh or cooked and stores well. Harvest September-October. From New Zealand.

**Dorsett Golden** Blooms February. Large, pink blushed, light yellow-green fruit is crisp, tender and slightly tart. Best fresh. Harvest June-July. Often has 2<sup>nd</sup> crop in fall. From the Bahamas.

**Fuji** Blooms April. Medium to large, slightly flattened fruit with yellowish green skin covered with grayish red stripes. Very crisp, very juicy flesh that is honey sweet. Thin heavily for best quality fruit. Best eaten fresh, but stores very well. Ripens in October. From Japan.

**Gala** Blooms April. Small to medium size fruit with yellow skin and scarlet stripes. The finely textured flesh is crisp, aromatic and spicy sweet. Best eaten fresh. Harvest August-September. Highly susceptible to fireblight. From New Zealand.

**Granny Smith** Blooms April. Medium to large round fruit with yellow-green skin. The flesh is firm, crisp, juicy and tart. Eaten fresh or cooked and stores very well. Harvest November-January. If the fruit left on the tree until mid-winter it becomes a fabulous sweet yellow apple. From Australia. Can get mildew near coast, but is essentially immune to fireblight and worms.

**Jonagold** Blooms April. Large rounded fruit with yellow skin and red stripes. The cream colored flesh is firm, crisp and juicy. Harvest September. Outstanding fresh or cooked. Pollinator is recommended.

**Pink Lady** Blooms April. Small to medium (old trees make large fruit), cylindrical fruit with yellow green skin heavily blushed with rose. The white flesh is crisp, very sweet and highly flavored. Harvest October-December. From Australia where it is known as Cripp's Pink.

**Pink Pearl** Blooms April with pink flowers. Medium size fruit with pale green skin with slight rose blush. The pink flesh is highly aromatic with a sweet tart flavor. Harvest in September. Pollinator is recommended. NOVEL.

**Sundowner** Blooms April. Large, round fruit with mostly red skin and crispy white flesh. Slightly sweeter than Pink Lady and slightly more crispy than Fuji. Outstanding quality. Harvest between October-December. From Australia where it is known as Cripp's Red (sibling of Pink Lady). OUR BEST APPLE

**Winesap** (Stayman Double Red Winesap) Blooms April. Large, round fruit with red and green skin. The smooth, juicy flesh has a spicy, wine-like, flavor. Stores and cooks well. Pollinator is recommended.

**Other Apples for OC:** **Beverly Hills** has decent production and good flavor but ripens quickly. **Ein Shemer** is somewhat like *Dorsett Golden*, a sweet yellow apple. **Golden Delicious** performs decently. **Gordon** is a very large, round, sweet-tart, mostly green apple discovered in Whittier. **Mollie's Delicious** is a large, Red Delicious type apple (red and yellow skin) than performs well locally. **Mutsu** is a huge yellow green apple with excellent flavor, but a bit too firm for eating without prior storage. Almost too vigorous. **Pettingill** is a large red/green fruit with decent flavor. Discovered near Long Beach. **Pippin** produces a light crop of small apples with excellent flavor. **Spitzenberg** produces of light crop of small fruit with outstanding flavor. **Honeycrisp**, unfortunately, will only produce decent fruit following an unusually cool winter.

**Apricots** are reliable producers in the flat areas of Orange County, in canyons and along creek beds where cold winter air settles. Apricot trees grow 20 feet tall, but can be maintained as low as 4 feet tall. Production begins the second or third year. All varieties we offer are self-fertile.

**Floragold** MCR 300 Medium to large fruit with yellow-orange skin and orange flesh. Very good quality. Ripens June.

**Goldkist** MCR 300 Large all-purpose fruit with red blushed gold skin and very good quality firm, mildly flavored orange flesh. Ripens June. Tends to develop harmless crack lines on fruit exposed to sun. Super vigorous grower.

**Royal (Blenheim)** MCR 400-500 Medium to large fruit with yellow-orange skin and flesh. Very sweet and juicy. Ripens early summer. Old-time favorite, but not reliable in most areas.

**Tropic Gold** MCR 275 Medium to large fruit, yellow skin with orange blush. The orange flesh is firm with excellent flavor. Ripens early summer. It seems to have a slight lower MCR than others.

**Other Apricots for OC:** **Katy** has shown spotty performance. **Early Newcastle** has done well, but needs more testing. **Autumn Royal** has produced decent crops in late summer.

**Apriums** are relatively new Zaiger hybrids between apricots and plums. Genetically they are 75% apricot and 25% plum. They resemble apricots but have a slightly more aromatic flavor.

**Cot-N-Candy** MCR 300. New. The medium size fruit resembles an apricot with white flesh. Sweet and juicy with superb flavor. Ripens early July. Self-fertile, but needs more testing to determine reliability.

**Flavor Delight** MCR 300. The small fruit resembles a typical apricot. Ripens late spring. Excellent quality. Self-fertile, but production is unpredictable.

**Leah-Cot** MCR 280. Large orange fruit with orange flesh. Good flavor, firm texture. Ripens June. Self-fertile. New, but may turn out to be our most reliable aprium.

**Cherries** generally require more evaluation for local gardens. The varieties listed below are promising. The MCR for most cherries is 700 hours.

**Lapins** MCR 250 Large firm, dark red fruit has good flavor. Developed in Canada, but seems to bloom very well locally. Promoted as self-fertile, but we believe it will produce better if *Royal Lee* is present. It blooms just after *Royal Lee*.

**Minie Royal** MCR 200-300 Medium size red fruit has firm flesh with good flavor. Ripens early May. Requires pollination by *Royal Crimson*.

**Royal Crimson** MCR 250 Large crimson red fruit. Blooms between *Minnie Royal* and *Royal Lee* so can pollinate either. Royal Crimson is promoted as being self-fertile.

**Royal Lee** MCR 250-350 Medium size red fruit has firm flesh with excellent flavor. Ripens mid May. Requires pollination by *Minnie Royal*.

**Other Cherries we've tried:** **Stella** MCR 600 is less reliable but has superior fruit quality. **Bing** and **Black Tartarian** will rarely fruit.

**Figs** are reliable producers locally. All of the varieties we offer are self-fertile. The MCR is nonexistent. Fig trees can grow 20 feet tall but are easy to maintain at 8 feet with heavy annual pruning in winter. Many produce a few large fruit in June (Breba crop) with a second heavy crop of smaller fruit from Aug.-Oct. Production begins the first year. This is an abbreviated list. Next spring we will offer over 30 cultivars.

**Black Mission** Medium size teardrop-shaped fruit with purple-black skin and strawberry flesh. Very rich flavor. Excellent fresh, good dried. Fruit won't split open when ripe. OLD FAVORITE

**Flanders** Large, long teardrop-shaped fruit with green and bronze skin with sweet, unusually firm flesh. Extremely crack resistant. Excellent eaten fresh. Top variety from Fresno breeding program.

**Gary's Strawberry** Large, bell-shaped fruit with green and bronze skin with sweet, brilliant red flesh. Extremely crack resistant. Excellent eaten fresh. Best volunteer from Gary's backyard.

**Italian Everbearing** Large bell-shaped fruit with purple-brown skin and very juicy, sweet, light strawberry flesh. Best eaten fresh. Natural dwarf tree to about 8 feet tall. Excellent in containers. (may be identical to Brown Turkey and Black Jack)

**Janice Seedless Kadota** Large, greenish-yellow fruit with practically seedless light flesh. Very good eaten fresh. Long harvest season.

**Panache (Tiger)** Medium size fruit with cream and green striped skin and bright red flesh that tastes like strawberry jam. Fruit tends to split.

**Sierra** Medium to large fruit with yellow-green skin and amber flesh. This NEW fig is of very good quality and can be eaten fresh or dried.

**Violette de Bordeaux** Similar to Black Mission except the tree grows very slowly and may not reach 8'.

**Jujubes (Chinese Date)** are reliably productive throughout OC, but best size, sweetness, and flavor need inland heat. The fruit ranges from marble to chicken egg in size and shape with reddish-brown skin and crisp, apple-flavored, extremely sweet flesh. The fruit can be dried. The highly ornamental, weeping trees can grow 20 feet tall but can be pruned heavily in winter limiting height to under 8 feet. Juvenile growth is quite thorny. The thorns can be cut off for safety. Loves heat and inland conditions. Trees leaf out late and go dormant early. Trees are somewhat self-fertile. Young trees produce better when pollinated with a different variety. Production begins the first year. The fruit ripens in fall. This fruit is

highly popular in southern Asia from China to the Middle East. The processed fruit was originally used to produce candy.

**Chico** (GI 7-62) Medium size fruit is shaped like a pippin apple. Sweet, crisp flesh is quite good. Ripens early fall.

**GA-866** medium to large size egg-shaped fruit is very sweet. The tree is relatively small. Selected in California.

**Honey Jar** Small round fruit with mahogany-brown skin. Very sweet honey flavor, perhaps the sweetest. Ripens early. NEW.

**Li** Large egg-shaped fruit with mahogany-brown skin. Mature green fruit will ripen off the tree. Tree is somewhat short and spreading. From China. MOST WIDELY GROWN

**Shanxi Li** Very large fruit (over 2" long) is similar to *Li* but larger. Ripens late.

**Sugarcane** The fruit is similar to *Li*, but smaller. The tree seems to be much more vigorous and highly precocious.

**Mulberries** are reliable in all areas of OC. The fruit resembles blackberries and is very sweet when fully ripe. Excellent fresh, dried, cooked or for preserves. Ripens summer. Many varieties will produce additional crops if the foliage on some branches is stripped bare a few weeks following the main harvest. The fast growing trees are easy-to-grow. Established trees tolerate poor conditions including drought. Wildlife can make a mess with the black-fruited varieties.

**Black Beauty (Persian)** Large black fruit with sweet, flavorful flesh. Unripe fruit is quite tart. This semidwarf variety should stay under 15 feet, but can be trained as a bush under 5 feet. Persian mulberry trees leaf out in mid-spring.

**Pakistan Red** Very long, maroon fruit up to 4 inches in length with very sweet flesh. Fruit can be eaten well before fully ripe. The juice doesn't stain. Ripens late spring-early summer. The tree can grow 20-30 feet. Heavy summer pruning will control size.

**Pakistan White** Essentially the same as Pakistan Red but the fruit is ripe when pale yellow.

**Teas Weeping** Small sweet black fruit of excellent quality. Heavy production. This small tree will weep to the ground. It is a novelty and popular in children's gardens.

**Nectarines** include just a few varieties that perform reliably in OC. Fortunately 2 of the varieties are among the best eating of all Nectarines. Although nectarines are genetically identical to peaches, in addition to their smooth skin they have a different texture. All listed varieties are self-fertile. Standard trees grow 15 feet tall. All can be maintained as low as 4 feet tall. The fruit must be thinned within a month after the bloom to get better quality and decent size. **Notable Pests:** Nectarines should be sprayed every winter for *Peach Leaf Curl* disease with **copper** spray and may require *Thrips* and *Oriental Fruit Moth* worm control with **Spinosad**. These organic products are quite effective. Excess nitrogen fertilizer can cause the fruit to rot (*Brown Rot*) just as it ripens.

**Arctic Star** MCR 300. Fruit has dark red skin and white semi-freestone flesh. Super sweet mild flavor. Outstanding. Ripens mid June. Best away from coast.

**Desert Delight** MCR 150. Large fruit has dark red skin and yellow flesh. Rich and sweet flavor. Harvest in mid June. Our most reliable nectarine.

**Double Delight** MCR 300. Large fruit has dark red skin and yellow freestone flesh. Very sweet and rich flavor. Excellent spring show of double pink flowers. Harvest in mid July.

**Panamint** MCR 300. Small to medium size fruit with red skin and golden flesh. Freestone. Good, but mediocre, flavor. Ripens July.

**Snow Queen** MCR 300. White freestone flesh with excellent sweet, juicy flavor. Outstanding. Harvest late June.

**Other Nectarines for OC:** **Goldmine** MCR 400, is an excellent, white-fleshed variety that ripens in August but requires a cooler than normal winter.

**Nectaplum** is a new hybrid between nectarine and plum. The fruit is essentially a very good white nectarine and the leaves are plum colored. The flavor is both spicy and sweet.

**Spice Zee** MCR275 The large fruit has deep burgundy skin and the white flesh is sweet with excellent flavor. The large deep pink flowers put on a spectacular show. New leaves are red mature to burgundy and gradually turn green in summer. No pollinator needed. Culture is the same as for nectarines. OUR BEST 'NECTARINE'

**Peaches** include a number of reliable producers of excellent quality. The majority of peaches that are promoted for our climate, in reference books, are bland in flavor due to the fact that most *low chill* peaches ripen in the late spring which is often overcast. These

peaches are better suited for Florida or Arizona where it is hot in spring. Our best tasting peaches ripen in mid summer when warm sunny days are guaranteed.

Production begins 2<sup>nd</sup> or 3<sup>rd</sup> year. All listed varieties are self fertile. Standard trees grow 15 feet tall. All can be maintained as low as 4 feet tall. The fruit must be thinned within a month after the bloom to get better quality and decent size. **Notable Pests:** Peaches should be sprayed every winter for *Peach Leaf Curl* disease with **copper** spray and may require *Oriental Fruit Moth* worm control with **Spinosad**. These organic products are quite effective.

**August Pride** MCR 275 Large round fruit with yellow skin and yellow flesh. Good to excellent quality. Freestone, all-purpose fruit ripens late July to early August. Perhaps our best overall peach.

**Bonita** MCR 350. Huge, round fruit with red-blushed yellow skin and yellow flesh. Firm freestone with excellent flavor. Ripens late July. The flowers are homely.

**Donut** MCR 300. Unique flat, bagel-shaped, small to medium size fruit with sunken center. White flesh with mild sweet flavor with a hint of almond. Ripens early July.

**Eva's Pride** MCR 200. Medium size fruit with red blushed skin and yellow flesh. Good flavor for an early peach. Harvest in June.

**Mid Pride** MCR 250. Medium to large fruit with red blushed yellow skin and yellow flesh. Excellent quality. Harvest early summer.

**Peachy Keen** MCR 250. Medium to large fruit with red blushed yellow skin and yellow flesh, red near pit. Very good quality. Harvest early to mid July. Young trees are highly precocious some second year trees producing over 100 quality fruit. Discovered on a beach on the Central California coast.

**Red Baron** MCR 300. Large fruit with yellow skin and flesh. The fruit has a small "beak". Excellent quality freestone flesh. Ripens mid to late July. Spectacular spring show of carnation-like double rose-red flowers.

**Sauzee Swirl** MCR 200. Medium size saucer (donut) style fruit with pinkish red skin and white flesh swirled red. Mild and sweet flavor. Harvest May. Our most reliable "donut" peach.

**Tropic Snow** MCR 200. Large fruit with red-blushed pale skin and white flesh. The sweet freestone flesh is very good to excellent. Ripens mid-June. From Florida.

**Other peaches for OC:** **Desertgold**, **Earligrand**, **Floridaprince** and **Ventura** produce heavily with lower quality fruit.

**Pears** include a few reliable producers of good quality. There are 3 types of pears. The most familiar are the European pears such as Bartlett, Bosc, d Anjou, and Comice. European pears rarely produce in OC. Asian pears include Hosui, Shinseiki and Twentieth Century. These tender, but crispy pears perform well in a few colder winter locations. Many Hybrid pears have performed well in OC but most are not very tasty. Pears make take 4 years to start production. Standard pear trees can reach 20 feet tall but can be maintained as low as 4 feet tall. Most pears should be harvested while still firm and ripened indoors. Pear trees tolerate heavy wet soils quite well.

**Notable Pests:** The disease *Fireblight* is occasionally a problem. Prevent by spraying at bloom time with **Agri-fos**. *Coddling Moth* larve (apple worms) can be prevented with proper thinning or by applying **Spinosad** (organic pesticide).

**Floridahome** MCR 350. This hybrid has medium size fruit with greenish yellow skin and sweet, juicy, white flesh. Good to very good quality. Ripens mid-July. From Florida. Normally planted as a pollinator for Hood.

**Hood** MCR 100-200. This hybrid has large pear-shaped fruit with greenish-yellow skin and juicy, tender white flesh. Good to very good quality. Ripens late July. Hood is partially self-fertile and will produce fruit without a pollinator. With a pollinator the fruit is smaller, more evenly shaped, and more numerous.

**Hosui** MCR 350. This Asian pear has very large, round fruit with a brownish-orange, russeted skin. The white flesh is crisp, but tender, very very juicy and sweet. Outstanding flavor. Pollination by 20<sup>th</sup> Century is recommended.

**Keiffer** MCR 250. This hybrid pear has large fruit with yellow skin. Coarse white flesh has a spicy, sweet flavor. Harvest in early fall.

**Southern King** MCR 300. This hybrid pear may be a cross between Hosui (Asian) with a European pear. It looks and eats like a European pear. It seems to produce well locally but details are yet to come. MAY BECOME OUR BEST PEAR

**Twentieth Century** MCR 375. This Asian pear has large flat, round greenish yellow fruit with tender, crisp, very juicy white flesh. Sweet and mild. Harvest mid summer. Self-fertile.

**Other pears for OC:** **Comice** is supposed to do well but I've only seen 1 crop in 25 years. **Fan-Stil**, **Monterrey**, **Moonglow**, and **Orient**, all hybrids, have produced decently with fair quality fruit.

**Persimmons** are reliable producers throughout OC.

The main concern is that they all require soil with a high oxygen content (superb drainage). Most varieties are self-fertile. Persimmon trees can grow 30 feet tall but can be maintained as low as 4 feet tall. Production begins within 4 years.

Many persimmons are astringent until fully (jelly) ripe. This is a very unpleasant sensation. Your mouth feels like it's full of dry flour even though it is juicy. The Fuyu-types are non-astringent and can be eaten while still hard.

*There are 2 methods to alleviate the astringency besides just waiting. One method is to place the ripe fruit in a freezer for one day. When you thaw the flesh it is edible. The other method is to place the ripe fruit in an airtight container (zip-lock bag is fine) after pouring a few drops of an alcoholic beverage (sake is traditional) on the stem end. The fruit is edible after being enclosed a day or two.*

**Chocolate** Small to medium size oblong orange-red fruit. When pollinated the orange flesh becomes seedy and brown. The soft flesh has a chocolate-cinnamon flavor and is astringent until ripe.

**Coffeecake** (Nishimura Wase) Medium size, slightly flattened, round fruit with orange skin and orange flesh flecked with brown. The flesh is non-astringent if the flowers are pollinated. (*Chocolate* is a good pollinator.) Unpollinated fruit is virtually inedible. Ripens early fall.

**Hachiya** Very large, oblong-conical fruit with orange red skin and flesh. It is astringent until jelly ripe. The excellent flavor is rich and sweet. Ripens mid to late fall. Eaten fresh, dried or for baking. This is the persimmon sold at most supermarkets. Properly dried Hachiya fruit is heavenly.

**Imoto Fuyu** Large flattened, slightly quartered, fruit with dark orange skin and flesh. The non-astringent seedless flesh is sweet and mellow with a slight cinnamon flavor. Can be eaten while crispy or allowed to ripen until soft. Harvest early to mid fall. This variant of Jiro appears to be quite precocious.

**Izu Fuyu** Medium size flattened round fruit with orange skin and flesh. The non-astringent flesh is sweet and mellow. Ripens late summer, much earlier than other Fuyus.

**Jiro Fuyu** Identical to Imoto in appearance and flavor. The fruit ripens about 2 weeks later and the tree is more vigorous, but seems to take a few more years to start production. This is the most common commercially sold Fuyu.

**Saijo** Small to medium, elongated fruit with light orange skin and flesh. It is astringent until jelly ripe. It is considered to be the very sweetest persimmon. Harvest mid to late fall.

**Pluerries** may become our top selling stone fruit if its reliability is confirmed. So far the MCR seems to be less than 100 hours and the only question is pollination. Typically they bloom before other stonefruit and pollination may require 2 or more types of pluerries. Pluerry is a hybrid between plum and cherry with the fruit being larger than a cherry, smaller than a plum with the taste somewhere in between.

**Candy Heart** MCR very low. The small round fruit is speckled red with amber red flesh and a flavor similar to cherry. Harvest is August. Long hang time. Pollinate with *Sweet Treat*.

**Flavor Punch NEW!** MCR ??? Small to medium fruit with orange red skin and amber flesh. Supposed to have a strong, delightful flavor. Harvest in late August. Pollinator requirements not yet determined.

**Sweet Treat** MCR very low. Small to medium reddish purple fruit with amber flesh. Flavor is closer to plum. Best quality when pick in late July. Pollinate with *Candy Heart*.

**Plums** tend to be unpredictable producers and only a few varieties are reasonably reliable in OC. Production begins within 4 years. Standard plum trees can reach 30 feet tall but can be maintained as low as 4 feet tall. There are no genetic dwarf varieties that perform well locally.

**Beauty** MCR 250. Small to medium size fruit with red and greenish yellow skin. The red flesh is sweet and flavorful. The fruit ripens quickly. Harvest May-June. Self-fertile.

**Burgundy** MCR 300. Medium to large fruit with dark burgundy skin and firm dark red flesh. Sweet and mellow with a small pit. It has an extended harvest in July. Self-fertile and the best pollinator for other plums and pluots. OUR MOST VALUABLE PLUM AND POLLINATOR

**Inca** MCR 300. Medium size, heart-shaped fruit with red blushed, golden skin and flesh. Good to very good sweetness and flavor. Harvest in August. OUR BEST YELLOW PLUM

**Santa Rosa** MCR 375. Medium to large fruit with purplish skin and amber flesh tinted red. Juicy and sweet with a tart skin. Ripens June. Self-fertile. MOST POPULAR, BUT NOT RELIABLY PRODUCTIVE IN MOST LOCATIONS.

**Satsuma** MCR 275. Small to medium round fruit with maroon blushed greenish skin and deep red flesh. The sweet flesh has a mild flavor. Harvest July. Supposedly requires a pollinator, but seems to be self-fertile. This is the original "blood" plum and is quite reliable.

**Weeping Santa Rosa** MCR 300. Large oval fruit with purple skin and yellow flesh. Superb flavor. The weeping tree only grows 8-10 feet tall. So far, this sport of Santa Rosa seems to have a lower MCR.

**Other plums for OC:** **Methley** is similar to Beauty with red fruit. **Elephant Heart, Golden Nectar, Howard Miracle** and **Mariposa** are all wonderful plums with MCR 400+ that produce well about once in 5 years.

**Pluots** are relatively new hybrids that are winning most fruit tasting tests. Pluots genetically are 75% plum and 25% apricot. They taste like plums but are sweeter and have firmer flesh with a shelf life that approaches 1 month! Pluots require pollination by another pluot variety or plum. *Burgundy* plum and *Flavor Grenade* pluot are the most reliable pollinators. (*Flavor Grenade* may not pollinate *Flavor King*. *Flavor King* is best pollinated by *Dapple Dandy* or *Burgundy* plum.) (*Flavor Grenade* can be pollinated by *Dapple Dandy*, *Emerald Drop* or *Flavor King*.) We recommend planting at least 3 pluots or combine any with a *Burgundy* plum. The best 3 are *Dapple Supreme*, *Flavor Grenade* and *Flavor King*.

**Dapple Supreme** MCR 280. Medium to large dappled red fruit with red flesh. The is rich and sweet and improves if the fruit is left on the tree till early July. Harvest mid June to mid July. OUR MOST RELIABLE PLUOT

**Emerald Drop** MCR 400. Medium to large greenish yellow fruit with orange flesh. The firm and juicy flesh is honey sweet with outstanding flavor. Harvest mid-July through August. *Flavor Grenade* should pollinate. NEW!

**Flavor Grenade** MCR 300. Elongated greenish yellow fruit with red stripes and blush. The flesh is crisp with incredibly powerful flavor. Excellent hang time on tree.

**Flavor King** MCR 350. Large fruit with maroon skin and deep red flesh. Outstanding flavor. Harvest August.

**Splash** MCR 350. Small, round red-orange fruit with orange flesh. Very sweet fresh or dried with outstanding cherry flavor. Harvest early to late July. *Flavor Grenade* should pollinate. NEW!

**Other pluots:** **Dapple Dandy, Geo Pride** are fair producers. **Flavor Queen** rarely produces. *Dapple Dandy* and *Flavor Queen* both have superb flavor. **Flavorosa** produces heavily with mildly sweet fruit with little flavor.

**Pomegranates** are easy to grow in OC. Flavor and sweetness are best in warmer inland areas. All are partially self-fertile, producing a bit heavier with pollination by a different cultivar. Heavy production begins the 4<sup>th</sup> year. Ripens fall. Pomegranate trees can grow 15 feet tall but can be maintained as low as 4 feet tall. Pomegranate trees are highly ornamental and the attractive orange red flowers bloom for several months. Water consistently or fruit will split before ripening. Beware of the sharp spines that form at branch tips. Be forewarned: We have seen young trees producing fruit that did not resemble fruit of mature trees. Thrips (insects) cause new growth to twist in late summer-fall.

**Ariana** Large round fruit with bold red skin. Red arils have tiny soft edible seeds and the flavor is a great balance of sweet and tart (slightly more tart than *Parfianka*). Harvest October-November.

**Austin** Very large round red/pink fruit brought from Syria to Austin, Texas. Dark red arils are very juicy and sweet with just a hint of tartness. Hard seeds...ideal for juicing. Harvest in October. POSSIBLY THE BEST POMEGRANATE FOR JUICING.

**Desertnyi** Large, round, light orange fruit with firm, dark red flesh. Small soft, edible seeds. Excellent sweet-tart balance with orange-like, citrus flavor.

**Erin** Large round salmon to light red fruit. The red arils are sweet and juicy and the seeds are soft. This is a tropical pomegranate capable of flowering and fruiting all year! Very precocious; production usually within a year. This is a chance seedling from a fruit eaten in Singapore. Named in memory of Leah's best friend. PERFECT ORNAMENTAL EDIBLE

**Eversweet** Medium size fruit with pale pink skin and pale red, non-staining flesh. Very sweet and mellow. Soft seeds are large, but edible. Ripens mid September. Semi dwarf tree to 8-10 feet tall. Good near coast.

**Gissarskii Rozovyi** Large salmon pink fruit with light red arils with tiny soft seeds. Sweet, mellow flavor, but with a finishing kick (similar to lemonade). Ripens early fall.

**Parfianka** Large, round, red fruit with firm red flesh. Small, soft edible seeds. Sweet with a hint of acidity. Outstanding flavor like red wine. Usually ranked #1. Vigorous upright plant produces heavy crops. Harvest early to mid fall. THE TOP RATED POMEGRANATE FOR FRESH EATING.

**Pink Satin** Medium to large salmon to red fruit with light pink arils with soft edible seeds. Light, non-staining juice has a sweet, punch flavor. Harvest in October.

**Sweet** Large fruit with pinkish green skin and light red flesh. Sweet and mellow flavor with soft seeds. Ripens early fall.

**Wonderful** Large round fruit with red skin and ruby flesh. Excellent sweet-tart flavor. Hard seeds. Ripens late fall. THE COMMERCIAL POMEGRANATE.

**Quinces** do well in OC. The large pear-shaped fruit has fuzzy skin and extremely firm flesh. It is usually cooked and made into pies, jams and jellies. Production begins by the 2<sup>nd</sup> or 3<sup>rd</sup> year. Quince trees can grow 15 feet tall but can be maintained as low as 4 feet tall. Quince trees tolerate poor conditions. *Fireblight* is a preventable disease that can cause major damage to the tree.

**Smyrna** Very large fruit with yellow skin and tender light yellow flesh. Ripens fall. Good to very good quality. From Turkey.