

Plums, Nectarines, Apricots, Cherries, Almonds & *Prunus* hybrids

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Plums

The stone fruits collectively known as plums are varieties derived from numerous separate species indigenous to various parts of the world. Plum is another member of the Rose family and is characterized by white flowers in groups of one to five on short stems or perennial fruiting sites known as spurs with the fruit

having a groove running down one side of the fruit with a smooth seed. Like peaches, they also set fruit on buds from previous season's growth. Usually the fruit has a dusty white coating or wax bloom that is easily rubbed off the fruit. Plums can be sweet to tart with typically the skin being quite tart. The two primary species utilized in the United States are

Prunus domestica, the European plum and *Prunus salicina*, the Japanese plum. The European plum is responsible for varieties such as 'Stanley',

which is grown fresh and frequently dried and used as prunes. These varieties have poor production records in Texas because of a relatively high chilling requirement and high susceptibility to fungal diseases such as brown rot. The varieties adapted to Texas climatic conditions are usually hybrids between *P. domestica* and *P. salicina* and are known as Japanese or Japanese hybrid varieties.



Plum orchard in full bloom

The soil adaptation, site preparation and planting as well as the cultivation of plums is very similar to that of peaches with some exceptions. Most plum varieties are not self-fruitful. For consistent production, two varieties with similar blooming periods (chilling requirements) are needed for pollination and fruit set to take place.

Bacterial and fungal pathogens along with the

insect and vertebrate pest are generally the same as for peaches.

Plum Varieties

'Methley' ripens in late May to early June. It is small to medium size with a mottled purple peel and juicy red flesh with sweet and excellent flavor. It is adapted across the state, but is soft and does not store well. It is self fruitful and is an excellent pollinator for other plums.



'Methley'

'Santa Rosa' (no photo) is a large purplish plum with amber colored flesh. It is a popular variety for home and market use across the state and ripens in late June.

'Bruce' is a large red plum which requires a pollinator; usually Methley. It ripens about the first of June.



'Bruce'

'Morris' is only adapted to the higher chilling regions (800 plus hours) of the state and performs best when it is planted with a pollinator. It ripens in early June and is a large red to purple firm fleshed plum.



'Morris'

Ozark Premiere is a cross between Methley and Burbank. It is a large plum with yellow flesh and reddish skin. It is self fruitful and ripens in late June.



'Ozark Premiere'

Nectarines

The nectarine is a fuzzless mutation of a peach, and not a cross between a peach and plum as some mistakenly believe. As such, nectarines are not particularly well adapted to Texas because the smooth-skinned fruit is especially vulnerable to wind scarring and diseases, espe-

cially brown rot. Fruit splitting and bacterial leaf spot can be big issues as well. Since they are indeed a peach, culture is like a peach, but more intense because of the increased disease and insect issues.



Nectarines; pretty, but very hard to grow.

Nectarine Varieties

These and other varieties are suggested as for trial only due to the issues described above.

'Karla Rose' requires 600 hours of chill and is a freestone variety with white flesh, but a deep red skin color.

'Redgold' is a large glossy red fruit, but the tree requires 850 hours of chill to break dormancy. It ripens in late July and is a freestone.

'Rose Princess' ripens in mid July and is a freestone that has firm white flesh.

'ArmKing' has a medium to large fruit with cling flesh that ripens in late May.

Apricots

Apricot, *Prunus armeniaca*, is closely related to plum botanically and in production habits. The native range is somewhat uncertain due to its extensive prehistoric cultivation, though it is thought to have originated in Armenia.

Apricots are actually small trees with a spreading canopy. It is not uncommon to find trees which are 25 to 30 feet in height and width. The fruit is a drupe similar to a small peach, from yellow to orange, often tinged red on the side most exposed to the sun with a smooth fruit surface though it can be covered with very short hairs.

Contrary to popular belief, apricots are self-fruitful and do not require a pollinizer. Unfortunately, fruiting is inconsistent on all varieties. The greatest consistency in fruiting tends to be on trees near a building structure, or those growing on their own roots in a specific

micro-climate. Frost damage sometimes causes the crop loss, but often fruit fail to set when there is no frost damage. Fruit buds may lose cold hardiness when wide temperature swings occur in late winter. Regardless, one should not count on annual crops.

Apricot Varieties

Numerous varieties have been tried across the state; some produce well one year only to produce nothing for the next 5 years. Some of the varieties that could be tried include the following:

‘Blenheim’ is a medium size fruit with orange peel and yellow flesh. It has been the most consistent variety across the state and ripens in late June.



‘Blenheim’

‘Moorpark’ has medium to large fruit with orange flesh that ripens in mid-June.

‘Bryan’ ripens in late May to early June with orange fleshed medium size fruit.

‘Chinese’ (or ‘Mormon’) seems to be more cold hardy in some locations as it has an extended bloom. Fruit are small to medium in size.

Rootstocks for Apricots

Apricots are generally grafted on peach rootstocks. On soils with a pH about 7.5, it is generally better to use an apricot root system because apricots are much better adapted to alkaline soils than peaches. Apricots are not readily available on apricot roots so the only practical way is to start them from seed.

It is best to start with seed from an apricot tree known to have good fruit and consistent production. Plant the seed outdoors in containers with well drained potting soil in October or November. The seed will be stratified over the winter and should germinate the next spring. The trees can either be grown as seedlings, al-

though the fruit quality will be variable, or the best bet is to bud them to a known variety. This does not guarantee better or more consistent production, but it will result in a much greener, healthier tree on sites with highly alkaline soil.

Sweet Cherries

Sweet cherries have performed poorly in Texas historically, because most commercial varieties are of northern origin with high chilling requirements and tend to be highly susceptible to brown rot. Birds are also very damaging to the developing fruit. However, numerous new, low chill sweet cherries are appearing in the market place. To date, few have been tested thoroughly in Texas. Trees planted recently in some locations have produced crops in two years, but the low-chill requirement of these varieties will likely cause them to break dormancy very early in Texas and be subject to frost injury of the flower crop.

To protect the ripening fruit from birds, some have built a tall framework of plastic pipe around the trees and covered them with netting when the fruit started to ripen. The low-chill cherries are propagated by commercial wholesale nurseries in California and are sold through retail nurseries. Numerous varieties with a chill requirement of 500 to 700 hours are available. These should be tried with the precaution that performance may not meet results found in California. Two varieties which have fruited in some areas are described below.

Sweet Cherry Varieties

‘Royal Lee’ is a very firm, heart-shaped, red cherry with excellent flavor. It is very productive when planted with another variety for pollination. It needs about 200 hours of winter chill to break dormancy and flower.

‘Minnie Royal’ is used as a pollinizer for ‘Royal Lee’. ‘Minnie Royal’ is a medium-sized, red cherry with good flavor. It too only needs about 200 hours of winter temperatures below 45 degrees F, compared with at least 700 hours for standard cherries.

Sweet Cherry Rootstocks

Cherries have an upright growth habit and can grow to more than 40 feet tall, but stay much smaller when grafted onto a dwarfing rootstock. 'Colt' is a dwarfing rootstock that is largely untested in Texas, but available for those desiring smaller-statured trees. It is hopeful that with the use of a plum interstem, that 'Lovell' or 'Halford' peach rootstocks could be used successfully as a cherry rootstock in Texas.

Almonds

Almond fruit are similar in appearance to peaches, with the pit eaten as a nut. The cultural practices and tree appearance are also essentially the same as peaches. Almonds are generally poorly adapted to Texas because they bloom too early in the spring and sustain frost/freezing injury to the developing flowers. Most varieties also appear to be very susceptible to brown rot and bacterial leaf spot. No varieties are highly recommended because of general failure to set crops. 'All-In-One' is the most common variety being sold in nurseries and tried today.



Mature almonds

Prunus Hybrids

Numerous selections of interspecific hybrids in the *Prunus* genus exist today, namely plum by apricot and vice versa; commonly known as



One of the many interspecific *Prunus* hybrids.

“plumcots”, “pluots”, or “apriums”, depending on the cross and breeding program that released them. Their performance in Texas has been largely disappointing and unpredictable. All have thus far shown poor winter hardiness and survival, and exhibit bacterial canker infestation. Few have been adequately productive, so more breeding and development is needed before recommendations can be made for Texas.

For More Information

<http://aggie-horticulture.tamu.edu/fruit-nut>