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TEXAS A&M AGRILIFE EXTENSION

Texas Fruit and Nut Production

Plums, Nectarines, Apricots

Cherries, Almonds and Prunus hybrids

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As closely related members of the rose family, plums and apricots typically require similar management. Both fruits have performed much better in Texas than nectarines, almonds, sweet cherries, and *Prunus* hybrids because they are less susceptible to disease, varmints, and crop loss due to premature blooming.

Figure 1. A plum orchard in full bloom.

Plums

The plum tree has white flowers and sets fruit on buds from previous season's growth (Fig. 1). Usually the fruit has a dusty white coating or wax bloom that is easily rubbed off (Fig. 2). Plums can be sweet to tart; the skin is typically quite tart.

The two main species used in the United States are the European plum, *Prunus domestica*, and the Japanese plum, *Prunus salycina*. The European plum includes varieties such as 'Stanley', which is grown for fresh fruit and often dried for use as prunes. These varieties have produced poorly in Texas because they require cold climates and are susceptible to fungal diseases such as brown rot.

The varieties adapted to Texas are usually hybrids between *P. domestica* and *P. salycina* and are known

Figure 2. The dusty white coating associated with plums is known as wax bloom.

Figure 3. A 'Methley' plum tree with upright growth and a heavy fruit load in various stages of development.

Figure 4. Eating a ripe, juicy 'Methley' plum right off the tree.

Figure 5. 'Bruce' plums.

as Japanese or Japanese hybrid varieties. Most plum varieties are not self-fruitful. You will need to plant two varieties with similar blooming periods for pollination and for fruit to set.

The soil type, site preparation, planting and cultivation of plums is very similar to that of peaches.

Bacterial and fungal pathogens along with the insect and vertebrate pest are also generally the same as for peaches, i.e., brown rot, bacterial leaf spot, plum curculio, and stink bugs.

Plum Varieties

- **'Methley'** ripens from late May to early June. The fruit is small to medium size with a mottled purple peel and juicy red flesh that is sweet and flavorful (Figs. 3 and 4). It is adapted across Texas but is soft and does not store well. It is self-fruitful and readily pollinates other plums.
- **'Santa Rosa'** is a large purplish plum with amber colored flesh. It ripens in late June and is a popular home and market variety across the state.
- **'Bruce'** is a large red plum that must be pollinated to bear fruit; 'Methley' is typically used as the pollinator. It ripens about the first of June (Fig. 5).
- **'Morris'** is adapted only to regions with 800 or more hours below 45°F and performs best when it is planted with another variety that will pollinate it. It ripens in early June and is a large plum with firm red to purple flesh (Fig. 6).

Figure 6. 'Morris' plums.

Figure 7. 'Ozark Premiere'.

- **'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 (Fig. 7).

Nectarines

The nectarine is a mutation of a peach and has no fuzz. It is not a cross between a peach and plum (Fig. 8).

Nectarines are not particularly well adapted to Texas because their smooth skin is especially vulnerable to wind scarring and brown rot. They are also susceptible to fruit splitting and bacterial leaf spot. Nectarine culture is essentially the same as for peaches, only more intensive because of the increased disease and insect issues.

Figure 8. The nectarine is merely a peach without fuzz.

Nectarine varieties

The following varieties are suggested for trial only, given the problems described above.

- **'Karla Rose'** requires 600 hours below 45°F and is a freestone (easily removable pit) variety with deep red skin and white flesh.
- **'Redgold'** is a large, glossy red fruit; the tree requires 850 hours of chill to break dormancy. The fruit is a freestone and ripens in late July.
- **'Rose Princess'** ripens in mid-July and is a freestone that has firm white flesh.
- **'ArmKing'** has medium to large fruit with cling pits and flesh that ripens in late May.

Apricots

The apricot, *Prunus armeniaca*, is closely related to plum botanically and culturally, and is thought to have originated in Armenia.

Apricots are small trees with a spreading canopy. It is not uncommon to find trees that are 25 to 30 feet in height and width. The fruit is similar to a small peach, ranging from yellow to orange and often tinged red on the side most exposed to the sun (Fig. 9). Its skin is smooth but can be covered with very short hairs.

Apricots are self-fruitful; they do not require a pollinator.

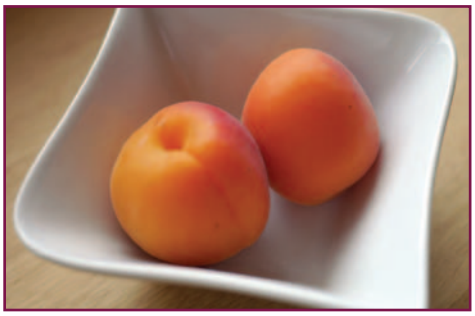

Figure 9. Apricots range in color from yellow to orange.

Unfortunately, fruiting is inconsistent on all varieties. Frost damage can cause crop loss, but fruit often fails to set regardless of temperature. Fruit buds can lose cold hardiness if there are wide temperature swings in late winter. Do not expect annual crops.

Rootstocks for apricots

Apricots are generally grafted on peach rootstocks. However, in soils with a pH of about 7.5, it is better to use an apricot root system because they are better adapted to alkaline soils than are peaches. Since apricots are not readily available on native roots, the only practical way is to start them from seed. Use seeds from apricot trees known to produce good fruit consistently.

In October or November, plant the seed outdoors in containers with well-drained potting soil. The seed will be stratified over the winter and should germinate the following spring. The trees can be grown as seedlings, although the fruit quality will be variable. A better alternative is to bud them to a known variety. This does not guarantee better or more consistent production, but will produce greener, healthier trees in areas with highly alkaline soil.

Apricot varieties

Many varieties are grown across the state; some produce well 1 year, only to produce nothing for the next 5. The following varieties are adapted to Texas.

Figure 10. 'Blenheim' apricot.

- **'Blenheim'** is a medium-sized fruit with an orange peel and yellow flesh. This variety has been the most consistent performer across the state and ripens in late June (Fig. 10).
- **'Moorpark'** has medium-sized to large fruit with orange flesh that ripens in mid-June.
- **'Bryan'** produces medium-sized fruit that has orange flesh and ripens from late May to early June.
- **'Chinese'** (**or 'Mormon'**) seems to be more cold hardy in some locations as it has an extended bloom. Fruit is small to medium.

Sweet cherries

Sweet cherries have performed poorly in Texas, because most commercial varieties require extensive chilling and are susceptible to brown rot. Developing fruit is also very prone to bird damage. To protect the ripening fruit from birds, some have built plastic pipe frameworks around the trees and covered them with netting.

New, low-chill sweet cherries are appearing in the market place, though few have been tested thoroughly in Texas. Recently, trees planted in some Texas locations have produced crops in 2 years. However, these varieties' low-chill requirements will likely cause them to break dormancy very early and expose the flower crop to frost injury.

The low-chill cherries are propagated by wholesale nurseries in California and are sold through retailers. Some of these varieties have a chill requirement of 500 to 700 hours. In Texas, they may not perform as well as they do in California. The following are two varieties that have fruited in some areas.

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 pollinator for 'Royal Lee'. 'Minnie Royal' is a medium-sized, red cherry with good flavor. It only needs about 200 hours of winter temperatures below 45 degrees F, compared with the 700 that standard cherries need.

Sweet cherry rootstocks

Cherries grow upright to over 40 feet tall. However, they can be kept shorter by grafting them onto a dwarfing rootstock. Though largely untested in Texas, 'Colt' is a dwarfing rootstock that can produce shorter trees. 'Lovell' or 'Halford' peach rootstocks with a plum interstem can be used as a cherry rootstock in Texas.

Almonds

Almond fruit looks similar to peaches (Fig. 11). The pit is eaten as a nut. The tree looks similar also and is grown essentially the same as peaches; plant only on well drained soils, and maintain a weed free area around the tree. Almonds generally do not produce well in Texas because they bloom too early in the spring and cold weather injures the developing flowers. Most varieties are susceptible to brown rot and bacterial leaf spot. No variety is highly recommended because they generally fail to set crops. 'All-In-One' is the most common variety being tried today.

Figure 11. Mature almonds.

Figure 12. One of the interspecific *Prunus* hybrids.

Prunus Hybrids

Many *Prunus* hybrids are available, namely plum by apricot and vice versa; commonly known as "plumcots," "pluots," or "apriums," depending on the breeding program that released them (Fig. 12).

In Texas they have been disappointing. So far none are winter hardy, all suffer from bacterial canker infestation, and few have produced adequately. More breeding and development are needed before they can be recommended for cultivation in Texas.

For more information

Fruit and Nut Resources, Aggie Horticulture®:
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