

Fruit Gardening in Texas

The type of fruit or nut that you choose to grow may depend on several factors, such as the climate in your region of the state, the amount of care the plants require or simply your personal preferences. For each type of fruit or nut, you should choose the variety that is best suited to your needs and your area. The types of fruits that grow well in Texas, the varieties of each that are best adapted for different regions of the state and the management required are discussed below.

Apples

Apples are a popular fruit in much of Texas and, with proper variety selection, can be grown in all areas. Most varieties require cross-pollination, so, for maximum production, plant two varieties.

Fire blight can be a limiting factor for apples in East Texas; prune out any evidence of this disease as soon as it is spotted. In South, Central, North and West Texas, cotton root rot is the major cause of tree loss. Do not plant apples in spots where this disease has killed other plants.

When selecting trees, you can choose from three size categories: standard, semi-dwarf and dwarf. This refers to the rootstock used. [Table 1](#), which presents a summary of management information for fruit crops, also lists apple rootstocks recommended in Texas. Spur-type varieties are naturally small and probably should not be planted on full dwarf rootstocks.

Standard and semi-dwarf trees are best pruned to a central leader, while dwarf trees do well when trained along a fence or trellis.

Apples usually produce too many fruits per tree and require thinning. Thin to only one fruit (the largest) per cluster before the fruit reaches golf-ball size.

Blackberries

Blackberries are among the easiest of all small fruit crops to grow in Texas. They produce well on a wide variety of soils as long as drainage is good. Soils with a pH near or above 8.0 can cause serious problems with iron chlorosis. The yellowing and poor growth resulting from iron chlorosis is difficult to correct economically.

Plantings of Brazos blackberries have produced up to 1 gallon of berries per foot of row when properly managed. Realistically, plan for about 1 to 2 quarts per foot of row and plant accordingly.

Set either root cuttings or young plants 2 to 3 feet apart in a row. If you plant more than one row, space the rows 10 to 12 feet apart. The most productive varieties are erect and do not require a trellis or support.

Frequent watering is beneficial, especially to young plants. Water first-year plantings at least weekly through harvest. After harvest, some moisture stress is not harmful to a healthy planting.

Blackberries can usually be grown without an extensive pesticide program. Disease problems can be severe in portions of East and Southeast Texas. Plant blackberries far away from wild blackberries to minimize disease problems.

Blueberries

Proper soil, water and care are essential for successful blueberry growing. Blueberries require acid, sandy soils with a pH of 4.5 to 5.5. These soils occur extensively in East and Southeast Texas and in localized pockets in North, Central and South Texas. Blueberries also require good-quality water with low sodium and bicarbonates.

Blueberries thrive best in soils enriched with composted organic matter. Ideally, mix about 1/2 bushel of peat moss with the topsoil in the planting hole of each plant. If you are attempting to grow blueberries in soils with insufficient acidity, dig a hole at least 36 inches in diameter and 18 inches deep and mix at least 50 percent composted organic matter with the top soil. Blueberries thrive in 100 percent peat moss, so there is no limit to the amount you can use.

Calcareous or clay soils are almost impossible to modify sufficiently for blueberries. Blueberry enthusiasts with unsuitable soils should grow plants in tubs using a potting soil high in peat moss.

Plant at least two blueberry varieties to ensure adequate cross-pollination. The listed varieties are all of the rabbiteye type. Other types of blueberries are not well adapted to Texas.

Mulch plants heavily with organic material such as pine bark, sawdust, leaves, grass clippings, wood chips or hay. This aids in moisture conservation and weed control.

Blueberries are sensitive to over-fertilization. Spread fertilizer uniformly over the root area beneath and out from the plant. Use several small applications (1/8 to 1/4 cup per plant) during the spring and summer rather than a single large application. Avoid nitrate forms of nitrogen. Fertilizers formulated for azaleas work well.

Chestnuts

The Chinese chestnut is the only chestnut that is reasonably adapted to portions of Texas. This tree is tolerant to the chestnut blight that has killed most native American chestnuts throughout the eastern and central United States.

Chinese chestnuts grow best in the acid soils of East Texas and are poorly adapted to the extremely alkaline soils of portions of South, Central and West Texas.

Many of the Chinese chestnut trees purchased through nursery sources are seedling trees. Several grafted varieties, including Nanking, are also available. Plant Chinese chestnuts at least 30 feet apart. Care of chestnut trees is much the same as that of pecan trees. In the early years, prune the trees only enough to develop a single trunk and basic scaffolds. Excessive pruning delays the onset of bearing.

Figs

Figs are well adapted in most of Texas, but freeze damage often kills

trees back partially. Because fruit are borne on new growth as well as 1-year-old wood, freeze-damaged trees usually are able to bear at least a partial crop.

To prevent the entry of insects and premature spoilage of the fruit, grow only closed-eye fig varieties.

Figs may be trained as trees or bushes. In colder portions of Texas where freeze injury is common, bush-training works best. Pruning is done basically to shape the plant, thin crowded branches and remove freeze-damaged wood.

Grapes

Grapes have long been popular in gardens and arbors throughout Texas. About half of all native species of grapes can be found in the state. Although grapes can make a great addition to a landscape, you must carefully consider several factors to choose a variety that will grow well in your area. These factors include:

- Freeze.
- Pierce's Disease (PD).
- Black rot.
- Cotton root rot.

Pierce's Disease is a vine killer that is a threat in East and South Texas. Black rot affects both the foliage and the fruit and must be controlled with fungicide sprays when weather conditions are warm and humid. Cotton root rot is a soil fungal disease that kills vines very quickly. It is abundant in the alkaline soils of Central and Southwest Texas. Rootstocks resistant to cotton root rot, such as Dogridge, Champanel or 5 BB, should be used on these soils.

Varieties differ greatly in disease resistance, and your selection will be determined by your location in the state and your management program. The higher the quality of the grapes, the more intense your management program must be. Vinifera grapes are the highest quality, followed by French-American hybrids and then American types.

Muscadine grapes prefer acidic soils and have few limitations. American-type grapes such as Champanel, Black Spanish and Favorite are resistant to Pierce's Disease. A few French-American hybrids have some resistance to black rot and mildew. Vinifera grapes are seriously affected by Pierce's Disease, black rot, mildew and grape berry moth and are limited to West and North Texas. Vinifera grapes also require precise vine training and pruning for top-quality yield.

Jujubes

Jujubes are not well known but will thrive throughout Texas. Common names such as "Chinese date," "date," "Chinese apple" and "Chinese olive" are sometimes used. They bear their date-like fruits more consistently and abundantly in the arid West Texas climate.

Most jujube trees are upright and slender, often reaching 30 feet, with glossy, attractive leaves. Many of the trees found in Texas are seedlings. The trees are often thorny, although the most commonly available improved varieties, such as Li and Lang, are not thorny.

Trees can be planted as close as 15 feet apart. Root suckers can be a problem, so remove them as they appear. The trees are hardy and drought- and pest-tolerant.

The fruit ripen in late summer to early fall. The fruits of the larger varieties, such as Lang, are as large as 2 inches in length and 1 1/2 inches in diameter. The fruit can be eaten fresh while the peel is still slightly green. Mature fruit can be left on the tree to turn brown and dry naturally. The dried fruit are used in much the same way as the true date.

Loquats

The loquat is an attractive evergreen tree that is adapted to much of Central, East West and South Texas. Winter tree damage is a problem in the northern portions of Texas that experience winter temperatures below 10⁰F. Fruit are set in the fall and mature in the

spring. Winter temperatures below 25^oF usually destroy the fruit, so consistent fruit production is limited to the extreme southern portions of the state.

Peaches, Nectarines And Plums (Stone Fruits)

Because of the many insects and diseases that attack stone fruit trees, they are relatively short-lived and should not be planted as specimen trees in an attractive part of the landscape. With care, however, these trees can produce bountiful crops of delicious fruit.

Adapted varieties usually set good crops, but early bloom makes all stone fruits highly subject to crop damage from spring freezes. Insect and disease problems on the fruit usually require control measures to produce edible fruit.

Careful variety selection is necessary. Non-adapted varieties lead to poor production and disappointment. See [Figure 2](#) for information on the varieties best adapted to your area.

Pruning and thinning are required for healthy trees and for the consistent production of large fruit. Pruning encourages the vigorous growth required for annual production and keeps trees manageable. Prune stone fruit trees to an open center (see the [Training and Pruning](#) section). Thin by hand about the time small fruits are the diameter of a dime. After thinning, the fruits should be at least 6 inches apart on peaches and nectarines and 3 inches apart on smaller plum varieties.

Pears

Fire blight, a bacterial disease that kills leaves, branches and sometimes whole trees, is the chief limiting factor to growing pears in Texas. Pears are also readily killed by cotton root rot. Other disease and insect problems are usually not severe enough to require a regular pest control program.

Do not attempt to grow popular varieties such as Bartlett because of their extreme vulnerability to fire blight. Plant only blight-resistant

varieties in Texas. Plant at least two pear varieties to ensure good fruit set.

Asian pears are attracting considerable attention because of their high-quality fruit. They are characterized by apple-like shapes on certain varieties and an apple-like texture with a pear flavor. These varieties are reasonably well-adapted in Texas.

Follow the central leader system in training and pruning pear trees. (See the [Training and Pruning](#) section).

Pecans

The pecan, which is the state tree, is native to some 150 counties. It is popular for its aesthetic value in the landscape as well as for the tasty nuts it yields in the fall. But, despite their appeal, pecans are not "carefree" trees.

Even with the limitations of soil requirements, the need for regular zinc spraying and their numerous insect and disease pests, pecans are universally adapted to the home landscape. Pecans grow best in deep, well-drained soil. They do not tolerate "wet feet," or poor drainage. All pecan varieties require cross pollination; however, in most cases, sufficient pollen is available. If your trees will be isolated, check on pollination before selecting varieties.

There are hundreds of named varieties and literally millions of unnamed varieties, since pecans do not "come true" from seed. Every native or seedling pecan tree is a separate and distinct variety. Seedling (ungrafted, grown from seed) trees make very good landscape trees. The nut quality for seedling trees is variable but often good. If grown under minimal landscape management, seedling trees do better than improved varieties. To maintain healthy trees, improved varieties usually require zinc, nitrogen, water and pest management.

Plant pecan trees at least 35 feet apart in the home landscape and at least 20 feet from major buildings and property lines. Cut the trees back by half at planting. Train them to a "central leader" with a

single central trunk and wide-angle branches. (See the [Training and Pruning](#) section).

Persimmons

Native persimmons are common in most of Texas, but gardeners usually prefer to grow varieties of the large-fruited, attractive Japanese persimmons. Available Japanese persimmon varieties have fruit ranging from red to orange in color and from flat to conical in shape. Most are astringent (sharp and puckering) if eaten before they are soft-ripe, but the Fuyu (Fuyugaki) and several other varieties become non-astringent and can be eaten while the fruit are still firm. Fuyu is more sensitive to cold temperatures than other varieties.

Most Japanese persimmon varieties are compact and upright, and trees can be planted as close as 10 feet apart. Train persimmon trees to a central leader (see the [Training and Pruning](#) section). Very little pruning is needed.

Insect and disease pests are not usually a serious problem. Premature fruit drops often occur on trees that are experiencing severe soil moisture fluctuations, so provide regular deep irrigations if fruit drop is a problem.

Fertilize moderately with a balanced fertilizer in February and June.

Pistachios

The nut-bearing pistachio is best adapted to the more arid portions of West and Central Texas. Disease pressures make success difficult in East Texas and in coastal areas. Pistillate (female) and staminate (male) flowers are produced on separate trees. Plant at least one male for every 10 female trees.

The Kerman (female) and Peters (male) varieties are by far the most common. Pistachio trees are difficult to obtain in Texas because most propagating nurseries are in California, and the trees are generally started in containers, making them more expensive to ship. Nurseries can order trees if they don't already carry them.

Pistachio trees are relatively small at maturity and can be planted as close as 15 to 20 feet apart. They usually begin to bear 4 to 5 years after planting. The nuts mature in the fall.

Pomegranates

Pomegranates, attractive as bushy shrubs or small trees, are reasonably well-adapted. Fruit quality varies widely among those grown ornamentally.

Wonderful is the only variety with good fruit quality that is commonly available from nurseries in Texas. This variety has large, glossy, deep purple-red fruit. The kernels and juice are crimson with good flavor; the seeds are small and tender; and the rind is of medium thickness. The fruit is eaten fresh or processed.

Raspberries

Raspberries are not well adapted to Texas conditions. However, with effort and care, you can produce sufficient quantities from a few feet of row to satisfy your taste for this fruit.

Avoid calcareous and heavy clay soils when planting raspberries because they do poorly on these sites. The best-adapted raspberries are trailing and require support for the vines, so plant them beside a fence or a trellis.

Frequent watering and mulch are necessary to attain any degree of success. Mulch with 4 to 6 inches of sawdust, hay, leaves, bark or other organic media. This keeps the plants' roots and crowns cool and moist for longer periods.

Strawberries

While strawberries can be grown for several years, they perform best in Texas when grown as an annual plant. This production system eliminates the need to carry plants through the ravages of summer.

Spring-bearing varieties are the best adapted for most regions of Texas. Ever-bearing strawberry varieties do not fruit well under hot

summer conditions.

Fall Planting System. In South Texas, plant annual strawberries from late September to the first week of October. They require a great deal of care; do not allow them to dry out. In this system, set plants in double rows 12 inches apart and 42 inches wide. After harvest the following spring, plants are usually destroyed. In North and West Texas, annual planting is done in late winter or spring. Production is greatest the next spring, 1 full year after planting.

In areas where the soil is saline or contains too much clay, construct a raised bed about 10 inches deep. Fill with loose, pliable, well-drained soil.

Spring Planting System. Set plants 18 inches apart in a single row. Runners set through the summer develop a matted row. The primary crop is harvested in the spring, 1 year after planting.

Tropical And Subtropical Fruits

Tropical and subtropical fruits, such as citrus, avocado, mango, banana, and papaya, are extremely sensitive to cold weather, which limits their planting to mostly coastal and deep South Texas, unless you take special precautions for freeze protection. Of these fruits, citrus has a greater range of cold-hardiness, with some types capable of surviving temperatures in the high teens. Some seedling Mexican-race avocados have survived in colder areas of South Texas, but the quality of those types is not particularly good.

Because mango and papaya are extremely cold-sensitive, with extensive damage occurring at freezing temperatures, they are limited mostly to the Lower Rio Grande Valley. Even without freezing, mango fails to flower or set fruit at temperatures under 40^oF during bloom formation.

Bananas freeze readily, but the underground portions survive most South Texas winters and regenerate plants the following spring. To bear fruit, though, bananas require a frost-free winter.

Except for citrus, few varieties of the different tropical fruits are available in Texas nurseries.

Papaya can be severely debilitated by virus diseases, but there are no major insect or disease problems with most of the tropical fruits in South Texas. The major disease of citrus is foot rot, which can kill the tree.

For further information about these fruits and their varieties, refer to Texas Agricultural Extension Service publication B-1629, "Home Fruit Production-Citrus."

Walnuts

Black walnuts and carpathian (English) walnuts are climatically adapted to essentially all parts of Texas. Several species of black walnuts thrive as natives in Texas. They are of little value as nuts because of their thick, hard shells. Improved black walnut varieties such as Thomas are commonly propagated and sold through nursery sources.

The acid and neutral-pH soils of East and North Texas are suitable for carpathian walnuts, but common rootstocks used for carpathians do poorly in the extremely alkaline soils of South, Central and West Texas. Carpathians thrive in western portions of Texas if they are grafted onto the native Central and West black walnuts *Juglans microcarpa* (Texas black walnut) or *Juglans major* (Arizona black walnut). Very few nurseries propagate these native black walnuts as rootstocks, so this is usually a "do-it-yourself" project.

Carpathian walnut trees are smaller than pecans and can be planted as close as 30 feet apart. Care of walnut trees is much the same as that of pecan trees.

Walnut blight is the most serious problem with carpathian walnuts. Disease pressures are greatest in East Texas and coastal areas. Walnut blight can infect young nutlets during the bloom period and as the nuts approach maturity. Plant blight-resistant varieties (Reda or Hansen) in more humid areas. Sprays may be needed in wet years

to reduce disease problems.

Problem Types

Catalogs paint pretty pictures that tempt us to try at least one of everything, but not all fruits and nuts are adapted to all parts of Texas, and some are not adapted at all. Reasons for poor adaptation vary from temperature-related problems to humidity and disease limitations. Some of the more notable fruit and nut crops that have problems in some areas are discussed below.

Almonds. The trees are well adapted, but they do not fruit in most of the state. Bacterial leaf spot also causes early leaf drop.

Apricots. The trees are well adapted to all areas except extreme South Texas; however, fruiting is inconsistent in much of the state. Poor fruit set is often blamed on freeze damage from early bloom and on self-unfruitfulness of varieties, but apricots usually bloom no earlier than peaches and essentially all varieties are self-fruitful. Fruit set is more consistent in arid West Texas than in central and eastern portions of the state.

Cherries. Most of Texas lacks sufficient winter chilling needed to produce a normal bloom. Sour cherry varieties, such as Montmorency, bear with fair consistency in North Texas. Sweet cherry varieties are winter-killed because of fluctuating temperatures and are unadapted to all of Texas.

Filberts. The filbert (hazelnut) tree will grow in Texas, but nut production is generally poor. The tree does well on a wide variety of soils, ranging from acidic to highly calcareous.

Gooseberries and Currants. These berries will not tolerate our hot Texas summers and are seldom fruited here.

Kiwifruits. Kiwifruit has proven to be difficult to grow in Texas. The major limitations include susceptibility to freeze injury, only fair heat tolerance and poor wind tolerance. A separate species of kiwifruit with much greater cold tolerance is being promoted in garden catalogs. It has a smaller, less-desirable fruit than

commercially available kiwifruit and is poorly adapted to hot Texas summers.

Macadamias. Macadamia nut trees are tropical, and most types cannot withstand temperatures below 25^oF. Hardiness varies according to species, and certain types are reported to tolerate much colder temperatures. Test results of macadamias in Texas are not known.

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