If you have retired recently or changed jobs and moved to one of the favored regions where warm-climate plants can be grown, then a new world of gardening excitement is literally at your doorstep. If, however, you’ve spent much of your life in such an area you may already be aware of the rich store of benefits that come from amateur fruit growing, and chances are that you haven’t tired of such pursuits.

Origins of many warm-region crops such as the mango are lost in antiquity. But others are comparatively new to cultivation and systematic research on most is still in its youth. This means you can engage in home garden experimentation to the degree that your pocketbook and inclination will permit. At the same time, enough knowledge is now on tap to allow you to plant a good many subtropical species outdoors in much of the Southern and Western States with confidence of being successful.

Most subtropical fruit plants make excellent landscape items that lend a characteristic “tropical” flavor to your surroundings. For this reason you can include many in your home planting as dual-purpose ornamentals or shade trees that regularly add vitamin-rich delicious fresh fruit to the family’s menu.

Guava jelly and paste, mango chutney, calamondin marmalade, loquat pie, and passionfruit jelly and wine join a nearly endless list of gourmet foods that become practical possibilities once you grow the most important raw materials in your own yard.

An effort to place each warm-climate fruit crop into a “tropical,” “subtropical,” or “warm-temperate” pigeon-hole over-simplifies matters. This is because our cultivated fruits, collected from many parts of the world, come from a variety of climates.

An important group that requires near-equatorial growing conditions and grows outdoors in the United States only in Hawaii and Puerto Rico includes the mangosteen (Garcinia mangostana), the durian (Durio zibethinus), rambutan (Nephelium lappaceum), and pili nut (Canarium ovatum).

A group that requires warm subtropical conditions includes the mango, Antillean (West Indian) avocado cultivars, the guava, and the most tender citrus fruits such as the Key or Mexican lime. More than half a million homeowners now live in parts of southern Florida where these fruits can be grown. This group occupies the first section of the accompanying table as “Fruits Suited to the Warmest Parts of the United States.”

Zones of cultural adaptation are important because you spend your money for plants that you expect to survive the normal extremes of winter cold and summer heat, and to yield satisfactory crops in your area.

Individual plant species (and groups within some species) vary widely in their range of climatic suitability. The USDA Plant Hardiness Zone Map, Misc. Pub. No. 814, affords the most practical means for you to determine beforehand whether a given fruit is likely to succeed in a particular locality.

Several cities in the zones covered by this chapter are listed at the bottom of the table. In addition, zones where a species is expected to grow well are included under “cultural information.”

This means that a mango or Key lime, which you’d normally expect to grow and fruit well only in zone 10b, may occasionally fruit in sheltered spots within zone 10a through a combination of good luck and special protective measures taken during cold spells. So
10a is placed on the table, but in parenthesis. Of course your chances of success in zone 10a will be greater if instead of the mango you plant hardier fruits such as the loquat and Mexican and Mexican-Guatemalan hybrid avocados (listed in the second section of the table, under "Moderately Hardy Fruits").

A select group of warm-temperate plants that withstand more winter cold than those listed includes the carob (Ceratonia siliqua), fig (Ficus carica), Japan persimmon (Diospyros kaki), kiwi (Actinidia chinensis), olive (Olea europaea), and pomegranate (Punica granatum). None of these thrive in the warmest parts of zone 10, but you may want to try them if you live in cooler parts of the area we are discussing and if locally experienced gardeners have succeeded with them.

One plant adapted to warmest conditions but omitted from the list is the papaya (Carica papaya) which is difficult to grow because of its susceptibility to diseases and the papaya fruit fly. Another excellent tree for zone 10b is the tamarind (Tamarindus indica), but it grows too large for any except king-sized yards.

Special information is included in the table where appropriate. For example, many fruiting plants are admirably suited to pot or tub culture in patios or on porches in the Northeast and Midwest where summer weather suits them (and they can be sheltered inside during winter), and this is noted under "Cultural information."

Guavas and loquats produce well in zone 10 but in common with other soft fruits they can be ruined by infestation with Caribbean fruitfly (Anastrepha suspensa) larvae. Therefore where this pest is abundant, as it is at present in much of peninsular Florida, you may want to defer planting susceptible fruits until adequate control measures are developed. For your information, particularly susceptible species are identified by the letters "CF."

Trees and shrubs of outstanding value as landscape plants are marked by "LDSCP." Avocado cultivars more successful in California's Mediterranean climate than in the Gulf States are identified by a "W", and others more successful in the East are marked by an "E". All the fruits listed in the table are evergreen in growth habit.

If you are moving into a new home and your landscape architect is sympathetic to the idea, you can start from scratch with outstanding ornamental plants that double as fruit-producers: loquat, carissa, cattley guava, sea grape, lychee, longan, and many citrus species are examples. If on the other hand your basic planting has already been made, you can add or delete as conditions and your inspiration dictate.

Many subtropical plants are container-grown for sale. These offer advantages over bare-root stock, since from containers the shock of transplanting is minimized and your planting season is not confined to those times when plant growth is at low ebb.

Sizes of container plants will seem small if you are used to growth rates of trees and shrubs in the Northeast and Midwestern States. But unless immediate effect is important, you may find that a small but vigorous lime or avocado tree is a better investment for a congenial site than a larger, more expensive specimen.

Where to get the young trees and vines for your home planting is a question whose answer depends on your own

![Carambola fruit.](image)
FRUITS FOR HOME PLANTING IN WARM CLIMATES
Fruits Suited to the Warmest Parts of the United States

Fruit: cultivars

Acerola (Malpighia glabra): Florida Sweet, B 17, others
Avocado (Persea americana) West Indian and hybrid: Ruehle, Simmonds, Fairchild, others
Banana (Musa spp.): Apple, Cavendish, Orinoco, many others
Black sapote (Diospyros digyna): Seedlings
Carambola (Averrhoa carambola): Golden Star, Robert Newcomb, Mih Tao, Tean Ma, others.
Coconut (Cocos nucifera): Malay Golden
Grumichama (Eugenia domheyi): seedlings
Guava (Psidium guajava): Indian Red, many others
Jaboticaba (Myrciaria cauliflora): Sabara, others, seedlings
Limes (Citrus aurantifolia): Key (Mexican), C. latifolia: Tahiti (Bearss)
Longan (Dimocarpus longan): Kohala, Shek Kip, Chom Poo, others
Lychee (Litchi chinensis): Brewster, Mauritius, Sweetcliff, Bengal, others.

Uses of fruit

Acerola: Bright red ade drinks and ices of sprightly flavor. Rich in Vitamin C.
Avocado: Salads, guacamole spread, sandwiches, puree to add to soup; a rich pie filling, milk shakes.
Banana: Fresh and in puddings, cakes and custards, and ice cream. Fruit is delicious fried or baked.
Black sapote: Blend pulp with cream or brandy and spices to substitute for chocolate pudding, mousse or pie filling. Richer in Vitamin C than Citrus.
Carambola: Float star-shaped slices on punch or add to salads. Juice is rich in Vitamin C and has a tea-rose scent.
Coconut: Milk and pulp used in cakes, pies, beverages and puddings. Eat fresh; similar to northern cherry, black with a single stone.
Guava: Jelly, paste, preserved shells, punch. Rich in Vitamin C.
Jaboticaba: Used as grapes are: fresh, or for juice, jelly, or wine.
Limes: Essential component of many drinks, sherbet, and one of the world's great pies, a gourmet dessert.

Cultural Information

Acerola: Zone 10b (10a). Shrub or small tree with glossy dark foliage. CF.
Avocado: Zone 10b. Medium-sized to large tree. A rich soil is very desirable, and perfect drainage is absolutely essential.
Banana: Patios, large tubs (Cavendish); Zone 10b (10a). Giant herb which gives a tropical "jungle" effect. LDSCP.
Black sapote: Zone 10b, Handsome medium-sized tree with glossy deep-green leaves and dark-colored bark. LDSCP.
Carambola: Zone 10b (10a). Small or medium-sized tree that bears waxy orange or yellow fruit at least twice a year.
Coconut: Zone 10b. Malay Golden resists lethal yellows disease. LDSCP.
Guava: Tub for patios. 10b (10a). Large shrub with glossy leaves and white flowers like pear blossoms. CF. LDSCP.
Jaboticaba: Zone 10. Medium-sized tree with ribbed leaves. CF.
Limes: Tub for patios. 10b (10a). Large shrub or small tree bearing white flowers and black grape-like fruit on trunk. Grows slowly. CF. LDSCP.

Puree to add to soup; a rich pie filling, milk shakes.
Fresh and in puddings, cakes and custards, and ice cream. Fruit is delicious fried or baked.
Blend pulp with cream or brandy and spices to substitute for chocolate pudding, mousse or pie filling. Richer in Vitamin C than Citrus.
Float star-shaped slices on punch or add to salads. Juice is rich in Vitamin C and has a tea-rose scent.
Milk and pulp used in cakes, pies, beverages and puddings. Eat fresh; similar to northern cherry, black with a single stone.
Jelly, paste, preserved shells, punch. Rich in Vitamin C.
Used as grapes are: fresh, or for juice, jelly, or wine.
Essential component of many drinks, sherbet, and one of the world's great pies, a gourmet dessert.
Eat fresh; peel, pit and can like cherries. Stew for an ice cream topping, quick-freeze whole or dry in the traditional way.
A superior fruit to eat fresh, canned, frozen, or dried (the traditional method). Fresh fruit resembles a strawberry with a thin, rigid skin and a grapelike flavor.

Eat fresh; similar to northern cherry, black with a single stone.
Fruits Suited to the Warmest Parts of the United States

<table>
<thead>
<tr>
<th>Fruit: cultivars</th>
<th>Uses of fruit</th>
<th>Cultural Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mango (<em>Mangifera indica</em>): Florigo, Irwin, Keitt, many others</td>
<td>Popular everywhere. Eat fresh, juiced, and in or on ice cream. Immature fruit, an essential ingredient of chutney recipes, makes an excellent pie.</td>
<td>10b (10a). Medium to large tree of graceful habit, it thrives on most soils. Don't plant near air conditioner inlet or bedroom windows because flowers are allergenic. CF (occasional). Zone 10a (purple), 10b (yellow). Vigorous vines that need support and late-winter pruning to remove old wood. Plant more than one yellow seedling for pollination. 10b (10a). Patios, planters. Large leafy perennial, a favorite house plant. Cut-off tops of fruit from stores often root to make healthy plants that may fruit after two years. Zone 10b. Medium-sized to large shade tree, resistant to high winds. LDSCP. CF. 10b (10a). Highly ornamental tree resists salt. LDSCP.</td>
</tr>
<tr>
<td>Passionfruit (<em>Passiflora edulis</em>, purple; <em>P. edulis f. flavicarpa</em>, yellow): seedlings of purple and yellow forms</td>
<td>Fresh in salads, as a richly aromatic juice in ades and sherbets, or a fine-flavored jelly, also pie and cake fillings. Makes an aromatic wine suggestive of sherry.</td>
<td></td>
</tr>
<tr>
<td>Pineapple (<em>Ananas comosus</em>): Abachi, Red Spanish, Cayenne, others</td>
<td>Eat fresh, candied, in pies, sherbets and as juice. Fruit ripened on your own plant is superior to shipped. Harvest when it &quot;smells ripe&quot;.</td>
<td></td>
</tr>
<tr>
<td>Sapodilla (<em>Manilkara zapota</em>): Prolific, Brown Sugar, others Seagrape (<em>Coccolobis uvifera</em>): seedlings, selected cuttings.</td>
<td>Eat fresh; latex from trunk, chicle, was formerly the chief ingredient of chewing gum. Large-seeded fruit makes a mild-flavored jelly.</td>
<td></td>
</tr>
</tbody>
</table>

Moderately Hardy Fruits for Warm Regions

<table>
<thead>
<tr>
<th>Fruit: cultivars</th>
<th>Uses of fruit</th>
<th>Cultural Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avocado (<em>Persea americana</em>) Guatemalan and hybrid: Choquette (E), Fuerte (W), Hass (W), Winter Mexican (E), Yon (E) Mexican race: Bacon (E-W), Brogden (E), Duke (E-W), Gainesville (E), Mexicola (E-W), others</td>
<td>Fresh in salads, guacamole spread; pureed in soups, as pie filling and in milk shakes. Eaten alone with salt and/or lime juice as a vegetable. Halves of 'Mexicola', unpeeled, make excellent canape containers for shrimp spread and such foods.</td>
<td>Guatemalan and hybrid cultivars, Zone 10 (9b); Mexicans, 9b (9a). Attractive spreading or tall trees that prefer rich soil and demand perfect drainage. Patios, pot culture, Zone 9b (9a). An upright tree which bears colorful mini-oranges. LDSCP. CF. Zone 9b-10, Patios. Fancy is upright, Alles low and spreading, Atlas moderately upright and nearly thornless. CF. LDSCP. Thorny. Zones 9b-10. Shrub or small tree of outstanding ornamental value with smooth, vari-colored trunk. CF. LDSCP.</td>
</tr>
<tr>
<td>Calamondin (<em>Citrus blancoi</em>)</td>
<td>Aromatic juice is excellent in drinks. Fruit makes a superb marmalade.</td>
<td></td>
</tr>
<tr>
<td>Carissa (<em>Carissa grandiflora</em>): Fancy, Alles, Atlas</td>
<td>Makes a beautiful jelly resembling red currant jelly; also jam; eat fresh when fully ripe.</td>
<td></td>
</tr>
<tr>
<td>Cattley guava (<em>Psidium cattleianum</em>): seedlings of red and yellow-fruited forms.</td>
<td>Eat fresh; makes an excellent jelly and a good &quot;butter&quot; or marmalade.</td>
<td></td>
</tr>
</tbody>
</table>
### FRUITS FOR HOME PLANTING IN WARM CLIMATES (Cont.)

**Moderately Hardy Fruits for Warm Regions**

<table>
<thead>
<tr>
<th>Fruit: cultivars</th>
<th>Uses of fruit</th>
<th>Cultural Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Feijoa</strong> (Feijoa sellowiana): Coolidge, Pineapple Gem, others.</td>
<td>Eat fresh; juice jells easily because it is high in pectin. Flowers are edible.</td>
<td>Zones 8b–10. Attractive shrubs with dark, glaucous foliage. CF. LDSCP.</td>
</tr>
<tr>
<td><strong>Kumquat</strong> (Fortunella japonica): Nagami, Marumi, Meiwa</td>
<td>Fresh fruit is unique with sweet peel, tart flesh. Whole spiced preserved kumquats are a gourmet treat, as is kumquat marmalade.</td>
<td>Patios, pots. Zones 9–10. Small citrus tree of unsurpassed ornamental value. CF. LDSCP.</td>
</tr>
<tr>
<td><strong>Limequat</strong> (Citrus auranti-folia x Fortunella japonica): Eustis, Lakeland Loquat (Eriobotrya japonica): Champagne, Thales (Gold Nugget), Wolfe, others Macadamia nut (Macadamia integrifolia and hybrids): Keauhou, Beaumont, others Rose-apple (Syzygium jambos): seedlings Surinam-cherry (Eugenia uniflora) Tangelo (Citrus reticulata x C. paradisi): Minneola, others</td>
<td>Hybrid for same uses as lime; acid juice for drinks; used as condiment and in confectionery. Eat fresh; can, preserve; use in pies.</td>
<td>Fine quality nut, usually borne in a very hard shell, is roasted and salted or used in confectionery. Children like the crisp fresh fruit which can be brandied like peaches. Eat ribbed red or black fruit fresh, drink juice, or use in ices. Fresh dessert fruit, easily peeled; juice is comparable to orange juice but brighter colored.</td>
</tr>
</tbody>
</table>

*Cities in Zone 9a: Charleston, Savannah, Jacksonville, Baton Rouge, San Antonio, Corpus Christi and San Bernardino; in Zone 9b: Daytona Beach, Orlando, McAllen, Sacramento; in Zone 10a: Melbourne, Tampa-St. Petersburg, Brownsville, San Diego to Santa Barbara (S. Calif. Coast), San Francisco Bay cities; in Zone 10b: Palm Beach, Ft. Lauderdale, Miami, Naples and Key West. CF: this designates soft fruits prone to infestation by Caribbean fruitfly larvae. LDSCP: indicates trees or shrubs outstandingly attractive and useful for landscape planting.*
numbers listed under the county heading in the white pages of your local telephone directory.

Nursery items are frequently advertised in garden magazines and other agricultural publications. Regional mail-order nursery catalogs are interesting and fun to absorb at leisure but they are not as prominent in the warmest parts of the country as elsewhere, so you are not likely to find them a rich source of subtropical material.

Garden clubs and organizations of people interested in fruit growing can be enormously helpful as sources of cultural information and sometimes of the plants themselves, when both are scarce.

You may find it rewarding to join one or more of these groups, depending on their geographic accessibility and your interests. Most of them welcome new members, and the more knowledgeable of the older members can often supply practical information that you can't readily find elsewhere.

ORGANIZATIONS OF INTEREST:

Rare Fruit Council International, Inc., P.O. Box 601, Miami, Fla. 33143 (one branch meets in Miami, another in West Palm Beach.)

Rio Grande Valley Horticultural Society, P.O. Box 107, Weslaco, Tex. 78596.

California Rare Fruit Growers, Northern Section, 3370 Princeton Ct., Santa Clara, Cal. 95051, or Southern Section, Star Route P, Bonsall, Cal. 95051.

Florida Mango Forum, 18710 S.W. 288 St., Homestead, Fla. 33030.

FOR FURTHER READING:


The Why and How Of Garden Design

When we think of a garden we imagine many things... A place for flowers... or where we can sit and look at greenery and sky... perhaps a place perfectly situated so one can watch the sunrise or sunset... or a spot where just vegetables grow.

No matter how each of us interprets a garden, we almost invariably associate it with a restful, serene area—maybe even mysterious and secluded—or where we can go to be warm or cool.

Gardens do touch our deeper senses. They represent privacy and shelter, comfort and relaxation. Simultaneously, we can witness nature's brilliant mixture of colors and textures emerge into full glory during many seasons. It could be said that a garden is truly where variety is the spice of life... and that is why good garden design becomes such a challenge.

But how do these wonderful gardens grow? And is your garden exactly what you've always thought it should be? Gardens begin with a pen and paper, a tape measure and time, and above all, interest and imagination. Because a garden is a very personal, individual expression, designing your own garden, with help and consultation, is one of the most rewarding experiences.

There are basic steps in planning and/or planting a garden. If you are successful with them, the goals which you can achieve will be order, unity, beauty and creativity.

- Examine your site carefully. Write down interesting spots, clumps of trees, things you may not be able to identify, how your house is situated, and what you would like to put where.

- Determine the ecological idiosyncrasies of your environment, its advantages and disadvantages. You must be aware of the basic ecology: soil, vegetation,