

THE WONDERFUL WORLD OF CITRUS FRUITS

by Frederick B. Essig

Who doesn't love at least one of the many forms of leathery berries known as citrus fruits? Whether it's a ruby-red grapefruit, a navel orange, an exotic pommelo or a juicy tangerine, citrus fruits are among the most popular fruits in the world. Even when sour, citrus fruits are essential in the kitchen, even lending their fragrance to dish detergent!

And what would Florida be without citrus fruits? They make up Florida's most famous agricultural industry and are found in almost every backyard. They grow from one end of the state to the other, with tender varieties like the key lime best grown in the south, and hardier varieties like the kumquat growing well into the Panhandle.

Any variety can be grown in your backyard, however, if you can protect it from freezes. Hundreds of methods - from covering with a blanket (sometimes with a light bulb under it), to spraying with warm ground water (watch out for power outages if you're on a pump), lighting grove heaters, or burning old tires (not recommended!) - have been used to get the trees through cold nights. Aside from these bouts with the cold, citrus trees are among the easiest plants to grow

in Florida.

Most varieties are grafted onto rootstock that is resistant to nematodes or other soil-borne diseases, and which provide optimal adaptation to particular soil types or climatic conditions. For example, citrus growing on



The calamondin tree produces an abundance of fruits nearly year round.

heavier soil in colder parts of the state will do better on *Poncirus* (trifoliate orange) rootstock, while those growing on light sandy soil in the warmer parts of the state will do better on a rough lemon rootstock. Ask an expert for the best rootstock for your conditions.

The top part of the graft (the scion) is usually taken from another tree that has desirable

fruit. Although many acid-fruited citrus and pommelos can be grown satisfactorily from seed, seedlings of hybrids and selected varieties, especially the sweet ones, tend to be quite variable, and the fruits are generally of substantially poorer quality than those of the parent tree.

Insect pests are rarely serious, and once established, citrus trees require little care. One can even find them in the woods, persisting at old homesites long after those who planted them are gone. With a little water during droughts, and an occasional handful of special citrus fertilizer, a mature tree will provide so much fruit that you'll be begging your neighbors and co-workers to take it off your hands!

But what are these fruits? Where did they come from? Botanically, citrus fruits belong to the family Rutaceae, and are derived from three genera: *Citrus*, *Poncirus* and *Fortunella*.

All came originally from Asia, but have been cultivated for so long that the wild ancestors of most varieties are unknown. Most citrus fruits come from the genus *Citrus*, but kumquats belong to the genus *Fortunella*. The genus *Poncirus* contains no desirable fruits, but is important in hybridization and as a source of hardy rootstock.

There is a lot to selecting

the right varieties for your yard. Here is some basic information on the most important species and hybrids from which the myriad varieties of citrus have been derived.

C. aurantiifolia - the various forms of sour (acid) citrus known as limes. Originally from southern Asia, several varieties, including the Mexican, Key, and West Indian limes originated through selective breeding in the New World. Limes tend to be rather cold-sensitive.

C. aurantium - the sour orange, native to Vietnam. Its use as a rootstock accounts for some orange trees "going sour" after a severe freeze by sprouting new shoots from below the graft!

C. limon - the various forms of lemon. There are many forms including the familiar Eureka and Lisbon varieties grown primarily in California, and the Meyer, Ponderosa, Rough, and Villafranca varieties more familiar in Florida.

C. maxima - the pummelo (and a number of spelling variations), also known as shad-

dock. This tropical species emanates from the Malay Peninsula or Polynesia. Large, thick-skinned, sweet fruits, they resemble grapefruits, but with a milder flavor. Some can weigh as much as 20 pounds. Pommelos are widely grown and esteemed in China and southeast Asia.

C. medica - the citron, a large, thorny shrub with oblong fruits up to 10 inches long. The flesh is acid and rather meager, but the extremely thick rind is candied and used in cooking.

C. reticulata - the mandarin oranges, satsumas and tangerines. These sweet citrus fruits separate easily from the skin and break apart readily into their segments.

C. sinensis - the sweet oranges, including Valencias, Navels, Hamlins, Pineapples and many others.

C. x paradisi - the grapefruits, hybrids between a sweet orange and a pummelo. Pink and red varieties are the most popular today, but old-timers will swear by the yellow-fruited 'Duncan'. It is rather seedy, but very sweet and flavorful.

C. x nobilis - hybrids between a mandarin orange or tangerine and a sweet orange known as tangors; this group includes the popular Temple orange.

C. x tangelo - tangelos, 3-way hybrids from a mandarin orange and a grapefruit, which is



photo by Frederick B. Essig

Pommelos are some of the largest fruits in the citrus family.

itself a hybrid.

Citrofortunella mitis - the calamondin. As the name implies, this is a hybrid between a *Citrus* (*C. reticulata*) and a species of *Fortunella* (probably *F. marginata*). They are used like limes or lemons for marmalades and lemonade-like beverages. Calamondins are among the hardier citrus fruits, and tend to produce fruit year-round.

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SUGGESTED READING

***Citrus Growing in Florida*, 4th Edition**

Larry K. Jackson and Frederick S. Davies

Hardcover, \$29.95

University Press of Florida
Orders: (800)226-3822



photo by Frederick B. Essig

Wonderfully fragrant citrus blossoms are an added bonus in early spring.