



Citrus – Tangelo

Citrus × tangelo J. Ingram & H. Moore

Rutaceae

Species description

Tangelos are a specific hybrid of mandarin orange and grapefruit or pummelo. Tangelo trees are large, vigorous, and more cold tolerant than the grapefruit, but not quite as hardy as the mandarin. The trees need heat to produce sweet fruit, but they can tolerate relatively low temperatures in winter. Evergreen leaves are long-pointed. The fruits are medium large, roughly spherical with a prominent neck and deep red-orange skin. They produce seedless fruits when planted in isolation, or have very few, small seeds. The peel may be loose to firm. The flesh is colorful, sweet, with a touch of acidity, flavorful and juicy. Most cultivars will produce a similar tree from seed. Minneola blossoms are self-incompatible and must be cross-pollinated by a suitable pollinator to assure good fruit set. Fruits mature late in the season, from February to April.



Natural and cultural history

Tangelos are hybrids (deliberate or accidental) of mandarin orange and grapefruit or pummelo. The first deliberate hybrids were made by Dr. Walter Swingle in 1897 at Eustis, Florida, and Dr. Herbert Webber at Riverside, California in 1898. Minneola is a tangelo variety developed by the U.S. Department of Agriculture and released in 1931. Tangelos are now produced commercially and in home gardens across the U.S.

Planting considerations and propagation techniques

Tangelo trees grow 20-30 feet in height with a 15-20 foot canopy diameter, and can live for 50+ years. Citrus are hardy to 23°F to 26°F, though this may depend on the cultivar. A warm location in full sun with air circulation and drainage provides the best growing conditions for citrus trees. Citrus trees are very spiny so care should be taken in their placement, especially in public spaces. Most tangelo cultivars have self-sterile flowers; they may be cross-pollinated. Cross-pollination will improve fruit set, but fruit will be seedy. Minneola blossoms are self-incompatible and must be cross-pollinated by a suitable pollinator to assure good fruit set. Suitable pollinators include most mandarin trees except Satsuma, Orlando and Seminole. Honeybees are effective pollinators. Citrus can grow on a wide range of soil types from sand to loam to heavy clay as long as they are well drained. Citrus trees do best with a soil pH of 6-6.5, though different rootstocks prefer different soil types. Tangelos produce best on very fertile soil. Most tangelos will produce true to seed, but grafting is the preferred method of propagation.

Water needs

Citrus need about 4-6 inches of water per month in the summer; they are generally not drought tolerant and need careful attention to produce well-developed fruit.

Care

Citrus trees should be trained to a suitable shape with an open center. In general, there are three primary pruning objectives: increase total leaf area, improve airflow through the canopy, and increase light to the branches. Proper training keeps trees the correct size for ease of care and harvest. Sour orange trees are largely self-forming and need minimal shaping. Remove water sprouts from young and older trees and any dead or diseased branches. Cut surfaces over 1 in (2.5 cm) in diameter should be sealed with pruning compound.

Citrus are prone to many diseases and pests. We recommend consulting a Cooperative Extension citrus specialist.

(See Yuma Cooperative Extension, <https://extension.arizona.edu/yuma>; and <http://extension.arizona.edu/sites/extension.arizona.edu/files/pubs/az1492.pdf>).

Harvesting and processing

Citrus is best harvested when it has full color or flavor and when it can be eaten immediately. Minneola tangelo fruits should be harvested late in the season to ensure the fruit reaches a desirable sugar to acid ratio, however if tangelo fruits are left too long, the next crop will be light. The fruit matures from February to April.

References and resources

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