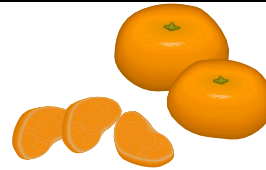


A MANDARIN BY ANY OTHER NAME



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A mandarin by any other name would taste as sweet, but what is it? In Japanese, mandarin is *mikan*; in India, it is the *suntara*. In French and German, it is *mandarine*; in Italian, *mandarino*, Spanish, Portuguese, Romanian, and Bulgarian all use *mandarina*; but to many Americans, mandarin is an unfamiliar term.

There is a lot of confusion about mandarins and tangerines. Some people say that if the skin is reddish-orange and it has seeds, it is a tangerine, and that only Satsumas are mandarins. Others think all of them are tangerines. Part of the confusion is because mandarins make up the largest and most varied group of citrus.

THE MANDARIN

According to most of the world's citrus experts, all of the loose skinned, cold-hardy citrus are mandarins, botanically known as *Citrus reticulata*. Properly speaking, they are not mandarin oranges, but simply mandarins. However, since many Americans' only acquaintance with mandarins is from a can labeled "mandarin oranges", it may be helpful to call them mandarin oranges, even if it is not



technically correct. Interestingly, DNA technology has revealed that the common or sweet orange is probably a hybrid of a pummelo, a large, thick-skinned citrus, and a mandarin. So, even your orange is part mandarin!

Where did tangerine come from? Mandarins were first imported from China into the Mediterranean region through the port of Tangiers, hence the name tangerine. However, to quote one citrus expert, Lance Walheim, "The name tangerine has no botanical standing; rather it appears to have developed as a marketing term for bright colored (reddish-orange) varieties of common mandarin, such as Dancy".

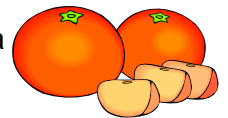
Use of the term tangerine is not consistent, as some pale yellow-orange fruit are also called tangerines. Outside the US, the term is rarely used. To put it succinctly, a mandarin is a mandarin and so is a tangerine.

MANDARIN TYPES

Most horticulturalists divide mandarins into four groups:

1. **Satsuma mandarins** primarily developed in Japan. These are the most cold hardy mandarins.

2. **Mediterranean mandarins**, called "Willowleaf" mandarin because of its small narrow leaves
3. **King mandarins**, a small group of mandarins of Indo-China, important primarily as parents of commercial varieties such as Kinnow and Encore
4. **Common mandarins**, a diverse group that includes numerous hybrids and many of what some would call tangerines; the Clementines, Dancy, Kinnow, and Fairchild



Satsuma and common mandarins are the two commercially important groups. While some varieties fit easily into these four categories, one of the properties of mandarins (and other citrus) is that they mutate spontaneously. Many of the wide range of Satsuma and Clementine varieties are the result of such mutations.

HISTORY OF THE MANDARIN

Mandarins probably originated in China and were taken to India by traders. Later they spread to Japan, where Satsuma



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mandarins developed about three hundred years ago.

Although citrus has been grown in Europe and the Mediterranean since Greek and Roman times, mandarins arrived in Europe much later than other citrus. What traveled to Europe was willowleaf and common mandarin. Our California mandarins trace back to the European and Japanese introductions.

SATSUMA MANDARINS

Our Satsuma varieties came to us from Japan. Most of the commercial production in the foothills is 'Owari' Satsuma mandarins. They are orange-colored 2 to 3 inch fruit, with a slightly flattened shape. Other Satsuma varieties include Okitsu Wase, Kuno Wase, and Dobashi Beni. Satsuma varieties are popular because they are sweet, seedless, and easy to peel and separate.

Satsuma mandarin trees are very cold hardy, but the fruit is considerably less so. Trees have been known to survive down to 16 degrees, but fruit will be damaged if temperatures fall below 28°F for just a few hours.



Our Clementines, also known as "Algerian tangerines" came to California from the Mediterranean and via Florida. Clementines are

frequently called tangerines because of their reddish orange color.

The original 'Clementine' mandarin was selected in Oran, Algeria in the early 20th century by a French missionary, Father Clement Rodier. Although some sources have described it as an accidental hybrid of sour (Seville) orange and Mediterranean mandarin, it is now thought to be identical to the Canton mandarin of China. There have been so many selections of the original Clementine that Clementine is now used as a term for a group of varieties, which include Clemenules, Fina, Marisol, and Oroval.

Clementine fruit are usually seedless, unless there is a pollenizer nearby. They are a deeper orange than Satsumas, with a more rounded shape. The skin is loose enough to peel easily, but not as loose as the Satsuma.

Clementine fruit is sweet, juicy, and has a wonderful, spicy aroma. In fact, they are so aromatic that in West Africa a traditional adage says that there are no mandarin thieves, because you can smell them coming!

Clementines are not as cold hardy as Satsumas, but do well in warmer locations of the lower foothills between 400 and 800 feet. The leaves are usually smaller and narrower than Satsumas, resembling willowleaf mandarins. The foliage is also aromatic.

Regardless of what you call them, mandarins make great

trees for yards, with a wonderful fragrance and beautiful fruit to brighten dreary winter days. And the fruit is sure to be enjoyed by all! There are many mandarin varieties produced in the foothills, with harvest periods ranging from November through February. So sit down, peel a mandarin, and enjoy the citrus taste of the foothills!



REFERENCES

- Citrus.** 1994. F.S. Davies and L.G. Albrigo. CAB International.
- Citrus.** 1996. Lance Walheim. Ironwood Press.
- Citrus: How to Select, Grow and Enjoy.** 1980. Richard Ray & Lance Walheim. HP Books.
- Citrus Varieties of the World.** 1990. James Saunt. Sinclair International.
- Horticultural Varieties of Citrus.** 1967. Robert W. Hodgson. University of California Division of Agricultural Sciences.