



Camellia Sinensis • The Tea Plant

By Debbie Odom

The History of Tea

Tea has enticed us for thousands of years with its aroma, color and taste. Tea is made from the leaves of *Camellia sinensis*, an evergreen shrub that is a species of camellia that is more known for its bountiful winter blooms. Its cousins, *Camellia japonica* and *Camellia sasanqua* and many hybrids are found in countless southern gardens today.

Tea was first cultivated in China over two thousand years ago. Legend has it that the mythical Chinese Emperor Shen Nung was tired from work and made a fire below a tree to heat water. Some leaves from the tree fell into his pot which he tasted. It was at once bitter and sweet and he drank the entire pot full. Feeling refreshed and more awake, he realized that he had discovered a very useful herb and decided to research it more fully. He called the brew "ch'a" which is the Chinese word for "to check or investigate." This was thought to be symbolic of how tea can help bring humankind into balance.

The first processed tea in America was recorded as being imported by the Dutch in 1650. *Camellia sinensis* was the first in the genus *Camellia* to enter the country in 1744. Seeds sent to the Trust Gardens in Savannah Georgia did not survive but according to the U.S. Patent Office Report in 1805, Tea was growing, and quite well, on Skidaway Island near Savannah. Sadly, this effort was a failure because of insufficient capital and a dev-

astating malaria outbreak in the Savannah region. In 1813, another effort was made in Charleston, South Carolina, but as in the Savannah region, it did not flourish.

Commercially Grown Tea

The southern regions of the U.S. have excellent conditions for growing tea, but today, the only tea grown in America is at Charleston Tea Plantation near Charleston, South Carolina. Today China remains a major producer of tea, but it is grown in significant quantities in Japan, India, Sri Lanka and several parts of Africa. There are countless varieties of tea. As with coffee or wine, the soil, climate and altitude at which the leaves are grown, and the methods of processing account for the many differences in flavor and aroma.



Types of Tea

There are three main principal methods of processing tea from the leaves of *Camellia sinensis*. All methods start the same way. Fresh leaves are picked from the new growth of *Camellia sinensis*. They are bruised and allowed to wilt in sunlight or in warm air. They are then rolled, twisted and bruised.

- Firing or heating the leaves at this point results in **Green Tea**.

- Leaves allowed to sit for longer periods of time after being rolled, twisted and bruised will turn black due to oxidation. Oxidation darkens the color of the leaves but also allows them to develop new flavor compounds commonly known as tannins. Firing stops the process and **Black Tea** results.

- The third method is to allow tea to oxidize only partially so that some of the fresh green tea and some of the deeper flavors of black tea are combined. Firing at this point results in **Oolong Tea**.

Blended Teas

Most tea sold commercially is blended, most of it black. The names of these blends can be confusing. For example, the terms "Pekoe" and "Orange Pekoe" originally were grading terms but today are used by individual tea packers to describe house blends. There is English Breakfast Tea, Irish Breakfast Tea, Darjeeling Tea, just to name a few. English breakfast teas, for example, contain a measure of the aromatic Keemun, the best known of the black teas produced in Northern China. The black teas of Assam, in northeastern India forms the basis of Irish breakfast tea which is known for its hearty character. Darjeeling is India's most highly prized tea but the term is sometimes used to describe a blend of less expensive black teas in the Darjeeling style.

Health Benefits

Tea is rich in two key minerals, manganese which is essential for bone growth and body development, and potassium which helps to keep the heart beating and maintaining the fluid levels of the body. Tea is also rich in antioxidants which is known to help prevent many common human ailments.

Studies have shown that tea may provide various health benefits:

- May improve overall oral health by preventing tooth decay
- May help fight cancer in the pancreas, prostate, colon, esophagus and mouth
- Tea has the ability to combat heart disease and reduce the risk of strokes
- Tea reduces blood cholesterol, blood clotting and lowers blood pressure

- Tea contains much lower levels of caffeine than coffee which is likely to reduce blood pressure and so reduce the risk of heart attack or stroke.

Growing Tea

Growing tea is very easy! *Camellia sinensis* is an evergreen shrub. It is rounded with textured leaves that can reach heights of 4-6 feet and widths of near the same. It responds well to sunny or shady locations having a slightly acid soil. It is hardy in zones 6-9 and is more cold hardy than other species of *Camellia*. *Camellia sinensis* flowers in the fall to early winter with small flowers with bright yellow stamens. It is heat and drought tolerant and an excellent choice for screening or hedges, container plants or specimen garden plants. The flowers do attract bees which might be a problem for the allergy prone. Seeds from *Camellia sinensis* can be planted and germinate readily.

Green Tea

Tender young growth is picked by hand from *Camellia sinensis*. Young shoots with 2 - 3 leaves are recommended. Any surface water on the leaves and shoots is allowed to dry in the shade for up to a few hours.

In preparing green tea, the oxidizing enzymes are killed by steaming the freshly plucked leaf in a vegetable steamer on your stove for less than one minute, or by roasting in a hot pan (cast-iron skillet) for a few minutes. This process is

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Cheerful blossoms decorate the tea plant during the fall.

called "sha qing" (killing out) in Chinese.

The leaves are dried in an oven set at 250° Fahrenheit for 20 minutes. This step is necessary to remove any moisture in the leaf so it will not mold and it stops any fermentation.

You may add dried Jasmine, dried blackberry leaf or other fine tasting leaf teas to this tea to give it a fruity flavor.

Black Tea

Tender young growth is picked by hand from *Camellia sinensis*. Young shoots with 2 - 3 leaves are recommended. Any surface water on the leaves and shoots is allowed to dry on racks for 10 to 20 hours to bring down the internal moisture of the leaf to somewhere between 60% and 70% of the original moisture.

The leaves are bruised to allow the fermentation process to begin. Several shoots are rolled between your hands or crushed until the leaves darken and become crinkled. This process is repeated until all the leaves are bruised and turn a bright copper penny color.

The leaves are allowed to ferment by placing thin layers of leaves on a tray in a shady location. After 2-3 days the leaves are ready for drying.

The leaves are dried for 20 minutes in an oven set at 250° Fahrenheit. This step is necessary to remove all the water in the leaves and to stop the fermentation process. It also seals in the flavor. Now the tea is ready to use or store in an air-tight container.

Oolong Tea

Freshly plucked shoots from *Camellia sinensis* are spread out thinly over a table on a mat or a towel. The shoots are wilted under the sun for 30 minutes to one hour, depending on the temperature.

The leaves are then taken indoors, where they are left to wither at room temperature for 4-5 hours. During this period the leaves are gently agitated by hand every hour. This process causes the edge of the leaf to turn red, and the moisture content drops about 20%. These controlled actions cause the biochemical reactions and enzymatic processes in the leaf, which in turn produce the unique aroma and colors found in oolong teas.

After withering, the leaves are then dried in an oven set at 250 ° Fahrenheit for 15 - 20 minutes. This stops the enzymatic process.

In Conclusion

C. sinensis, the prime reason for camellias being introduced to the western world in years gone by, is truly a plant to treasure. Its versatility as a landscape plant, coupled with its importance as a provider of our irreplaceable tea beverage, makes it a camellia par excellence.

All photos courtesy of Gene Phillips