The Development of the Tea Industry in Sri Lanka

A presentation by Roderick de Sylva on 27 February 2022

Tea is the second most consumed beverage in the world next to water.

The most popular legend of the beginnings of tea, is that the leaves of a nearby Camellia Sinensis tree fell into the pot of water being boiled by an ancient Chinese Emperor and he liked it.

When the English name of the country changed to Sri Lanka in 1972, it was decided to refer to the tea as Ceylon Tea on account of the name being synonymous with high quality tea - a reputation that had been established, much like Champagne. The tea plant botanical name is Camellia Sinensis, and is a species of the Camellia plant that in its natural form can grow to about 15m, but is pruned down to about 1.2m to allow for ease of hand plucking the tender top two leaves and the bud which maximises quality.

In 1824, the British brought a tea plant from China and planted it in the Peradeniya Botanical Gardens, as an experiment. More experimental planting was carried out from plants from India thereafter. Tea was commercially introduced into Sri Lanka by a Scotsman, James Taylor who arrived in Sri Lanka in 1852 and settled down at Loolecondera near Kandy. He was only 17 at the time and sadly died in 1892 at 57 years, from dysentery. The young hard working Scots who came to Sri Lanka at that time were not attracted by a life of luxury but by a spirit of adventure. They had to clear the forests teeming with wild animals with the help of the local Sinhalese and Tamils and often lived in huts until they established their houses and lines for the workers. There was of course plenty of hunting. Many of the early pioneers were distraught when their coffee plantations were devastated by the fungal blight known as coffee rust. They went back home, but others stayed and persevered, re-planting the coffee estates and opening new estates with tea. Taylor visited India to learn tea planting and in 1867, established a small 19 acre tea estate in Loolecondera. Soon neighbouring lands were converted into tea plantations. In 1872, Taylor built a tea factory in Loolecondera and in 1875 the first shipment of Ceylon tea was sent to the London Tea Auctions. Sir Thomas Lipton was amongst the earlier pioneers who made tea more affordable and popular.

As the tea industry grew in Sri Lanka, the need for a local auction centre became apparent. The first public tea auction in Sri Lanka was held on 30 July 1883 by Sommerville & Co. The Colombo Tea Auction is the oldest and biggest tea auction centre in the world. Most of the tea sold in Sri Lanka is sold at the Colombo Tea auctions, with private sales accounting for a small portion.

In 1925 the Tea Research Institute was established with the aim of conducting research into maximising yields and methods of production. In 1955 the first commercial vegetative propagation of tea plants commenced from clonal varieties. (Hitherto tea was planted from seedlings). In the 1960s, total tea production and exports exceeded 200m kgs. In 1965 Sri Lanka became the world's largest exporter of tea. This position is now challenged by Kenya. (Although India is the largest producer of black tea, much of it is consumed domestically).

In the 1970s the government nationalised the tea estates. Three bodies were set up to manage the tea estates – the JEDB, SLSPC and TSHDA. In the early 1990s, many of the tea estates were again privatised. By 2013 tea production was in excess of 340m kgs. (2021 –app 300m kgs) Ceylon tea has a unique flavour and is sought after. Tea exports were around 320m kgs in 2013 with an export value of around US$1.5 billion. (2021-US$1.3b from 288m kgs exported -approximately).

Sri Lanka mostly employs the Orthodox method of manufacturing tea, where the withered tea leaves are crushed and rolled simulating the ancient hand rolling process, rather than the more recent method of CTC (Cut Tear and Curl) which is a harsher method yielding a quicker brewing tea that became popular with the advent of tea bags – convenience being the factor. It was considered that CTC manufacture had a detrimental effect on quality and Sri Lanka resisted efforts to convert to this manufacture on account of this. However in 1983, CTC manufactured teas were introduced to cater to the growing demand for this, but mostly with the poorer quality estates. Tea in Sri Lanka is grown in six principal regions: Dimbula, Nuwara Eliya, Kandy, Uda Pussellawa, Uva and the Southern Province. It is categorised by elevation as High, Medium and Low Grown depending on the elevation at which the tea is grown; High Grown being above 4000ft, Medium Grown 2000 – 4000ft and Low Grown below 2000ft. Each district and elevation imparts its own distinct characteristics, in conjunction with geological, soil, climate, wind and rain patterns and manufacturing processes.

From leaf to cup

Picking: the tender top 2 leaves and the bud are carefully hand picked, as this yields the highest quality.

This is why it is a labour intensive industry and is not produced in the high labour cost countries. In Australia there are a few tea estates in the Atherton Tablelands, North Queensland where the tea is mechanically harvested. Although not getting the best quality, the tea is relatively fresh with a low moisture content and is therefore of reasonable if not good quality, but not sufficiently grown.

Withering: The picked leaves are spread on large troughs with mesh at the bottom through which air is circulated, to evaporate the moisture in the leaf. Rolling/Crushing: This is the next stage, where the withered leaf is either crushed and rolled by machine simulating the hand rolling process of ancient times (Orthodox manufacture) or Cut Torn and Curled (CTC Manufacture) – a more modern method yielding a quicker brewing tea in the end.

Fermentation: The crushed or torn leaves are laid on tables to ferment. This is really an oxidation process, not fermentation in the true sense. The Oxygen in the air reacts with the enzymes in the crushed tea leaves, making them a coppery colour, very similar to the process that occurs when you cut an apple and it goes brown. The duration time for fermentation depends on what you want to accomplish in the end product - less time if you want more flavour and more time if you want more colour. The tea maker carefully monitors this process. Depending on the season, during the drier quality months December, January for the Dimbula district (western side of the mountain range) and August/September for the Uva District, (eastern side of the mountain range) the tea maker may allow for shorter fermentation, carefully balancing this against the tea being too 'green/raw' in character. During the monsoon months, May/June for the Western (Dimbula) regions and November for the Eastern side of the mountains (Uva district), the tea maker will allow for a longer fermentation as high quality is not achievable but colour and strength are more important and vast quantities are harvested and produced because of the rain. The fermentation or oxidation process is the difference between green tea and black tea - that is historically grown in Sri Lanka. In green tea manufacture, this oxidation process is not allowed to happen (or to a much lesser extent) before the next stage of drying/firing is conducted to stop the oxidation. Consequently the flavonoids in Green tea are different to those in Black Tea.

Drying/Firing: The fermented (oxidised leaf) is transferred to large ovens, where the leaf is dried and results in its blackish appearance. Any leaks in the furnaces/pipes supplying the heat to the ovens can result in the tea having a smoky taste, which is a manufacturing fault. (Except for China black tea which has an inherent smoky character, sometimes desired). Some brands use a percentage of this, which is why their English Breakfast blends have a smoky character.

Sorting: The final stage of manufacture is sorting the mixed particle sizes and offgrades (bits of stem). The dried leaf is sifted over a series of different mesh sizes. The particles or grades that do not pass through the largest holes in the mesh, is termed Orange Pekoe (OP) The next sizes down are Pekoe, Broken Orange Pekoe (BOP), Broken Orange Pekoe Fannings/ Pekoe Fannings (BOPF/PF) and Dust. Although some marketing people try to confuse the names of these grades with quality, the names have nothing to do with quality per-se. The off-grades which are remnants of the stems, mixed with some leaf are also separated at this stage through sifting and electrostatic means. Off grades which can be of any size, could initially be of reasonable quality but have a higher moisture content and therefore deteriorate quicker. This is where the perception of tea bags being of poor quality comes from. Not necessarily so, as you can tea-bag a high quality tea or a poor quality grade, the tea bag paper hiding the poor quality. You can visually verify this by tearing open your tea bag and seeing if it has a lot of brown pieces or is mostly black. The larger grades (OP, BOP) will give you a lighter brew, while the smaller BOPF/PF and dust grades will give you a quicker brewing strong tea as a result of a greater surface area being exposed to the boiling water. This is why these smaller grades are favoured for tea bags. With the demand for tea bags, tea estates try to produce more of these grades. (The Dust grade too can be a primary grade or secondary off-grade, based on the above, The misnomer that all dust is sweepings is false.

Once the tea is packed, in the old days into plywood tea chests, but now into paper sacks, it is sampled to the tea brokers who in turn distribute small samples to prospective buyers in Colombo, who then taste and grade them and mark their comments/standards in the accompanying catalogues.

Every week in Colombo there is a Tea Auction at which the teas are mostly sold, except for a few sold by private treaty. The buyers in Colombo, have about 2 weeks to taste and evaluate the thousands of teas coming up for auction, sometimes express mailing the samples to overseas buyers. Orders are then placed by overseas buyers for different standards/ blends that have been established. The local buyers then buy the teas at the Tea Auctions generally held over 2 days. There can be around 5000 – 10000 lots of tea up for auction each week, so you can imagine the amount of tasting and evaluation that the tea tasters have to get through before the auction. During the quality drier months, the quantity on auction is obviously smaller compared to the rush cropping monsoonal months. The auctions progress at an average speed of about 5 lots per minute, so you have to be on your highest alert in case you miss a lot that an overseas buyer particularly wants, and you get reprimanded by 'the boss' back at the office! (recently the auctions have moved to being electronic, so you can bid from your desk!)

The higher quality teas are held on the tea estates where humidity is lower (Ex-estate teas), until the buyer buys them and requests delivery to Colombo where it is quickly shipped before too much moisture absorbed can deteriorate the tea. The other teas are held in warehouses in Colombo pending sale.
The teas bought are either blended to established standards/brands in Colombo or shipped as 'Originals' and blended and packed at packing plants overseas.