

TEA.

COMMERCIAL CLASSIFICATION OF TEA.*

PREPARATION AND CHARACTERISTICS.

Generally speaking, teas may be divided into three classes,—1, fermented or black; 2, unfermented or green; 3, the semi-fermented or oolong teas. The tea plant is practically the same plant in all countries, the differences in the various classes mentioned being due to methods of manufacture and local climatic soil and cultivation conditions. There are 1,300 specimens and over 2,000 possible blends.

The fermented or black teas include the China congou or "English breakfast" teas, subdivided into North China congou (black leaf) from Hankow and the South China congou (red leaf) from Foochow; India, Ceylon, and Java blacks.

The unfermented or green teas include two main varieties,—Chinas and Japans,—also such green teas as may be manufactured in India, Ceylon and Java.

The semi-fermented (oolong, meaning literally "black dragon") teas are obtained from Formosa and Foochow.

There may be uninformed people who still believe that black and green teas are grown on different varieties of tea bushes, but tea buyers do not have to be told that the two classes result from different manufacturing processes applied to the same leaf.

HOW BLACK TEA IS MADE.

After plucking, if black tea is desired, the leaves are first withered on wire or cloth "tats" and then rolled by either hand or machine. The object of the rolling process is to break open the leaf cells in order to liberate the tea juices.

Oxidation (fermentation) starts as soon as the juices exposed by rolling come in contact with the air. The leaf is fermented on tile or cement floors or on zinc, glass, cement or tiled withering tables. In this process the tea assumes a bright copper colour. Fermentation is said to reduce the astringency of the leaf, thereby developing the colour and flavour of the liquor. The firing process follows. This may be done in baskets over charcoal fires or in tea-firing machines. The final process is sifting and sorting.

HOW GREEN TEA IS MADE.

If green tea is desired, fermentation is forestalled by panning or steaming soon after plucking. There is no withering or fermenting in the process of green tea manufacture. In Ceylon and India, the steaming is accomplished in revolving perforated cylinders, while in China, Japan and

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Formosa, where hand manufacture is more common; the leaves are tossed about by hand in a big iron basin built into a charcoal stove, then taken out steaming hot and rolled by hand, only to be returned to the pan in a few minutes. The steaming and rolling are alternated until the leaves begin to "crisp," when they are put upon trays and thoroughly dried over charcoal fires. In Japan much of this work is also done by machinery. The final process is sifting and sorting.

SEMI-FERMENTED TEAS.

Semi-fermented or oolong teas have some of the characteristics of both black and green teas. They are allowed to wither in the process of manufacture and partly ferment.

SCENTED TEAS.

Chinese tea growers have an adage that "only common teas require scenting." Nevertheless, there are many scented teas, highly esteemed in China, that are far from being inferior or inexpensive. Tea that is to be scented is taken hot from the final firing, and poured into a chest, so as to form a layer of two inches from the bottom. A handful, or so, of freshly plucked gardenia, or jasmine flowers are then strewn over the tea. In this way the tea and the flowers are spread in alternate layers until the chest is filled. It is then covered and allowed to stand for twenty-four hours. The correct proportion is three catties (a catty is one and one-third pounds) of flowers to 100 catties of tea. On the succeeding day the tea and flowers, mixed together, are roasted in sieves, about three catties at a time, for a period of one to two hours. The flowers are then sifted out and the tea is ready for packing.

SEASONS AND QUALITIES.

The teas that grow and are plucked the year round are those of Southern India, Ceylon, Java and Sumatra. The best qualities in Southern India are the fermented teas produced in December and January. In Ceylon the finest-quality fermented teas are produced in February, March, April, July, August and September. The fermented teas of Java and Sumatra are at their best in July, August and September.

The seasonal teas are those of Northern India, China, Japan and Formosa. Northern India's fermented teas are best when made from the second flushes of July, August and September. In Assam and the Dooars, however, the finest teas are made in November and December. The first pickings from April to October of the North and South China blacks are the best. The best China greens are made in June and July, although they are obtainable from June to December. In Japan the season is from May to October. There are several crops, but the first and the second (May and June) are best. In Formosa there are five recognized crops; *viz.* (1), spring summer (2), autumn and winter. The season extends from April to November. The first and second summer-crop teas (June and July) are the finest.

BLACK TEA CHARACTERISTICS.

In a brief discussion of trade characteristics, it is to be observed that in Class I (fermented teas) the North China congous (the "English breakfast" teas) are strong, full bodied, fragrant, and sweet-liquoring, particularly

those from the Moning, Ningchow, and Keemun districts. The dry leaves are hard black, and aromatic. These teas are the "burgundies" of China teas. The South China red leaf congous are light in the cup, with small, reddish, and tippy leaf. The best-known districts are Pakling, Paklum, and Panyong. These are the "clarets" of China teas.

Fermented Indias, Ceylons, and Javas are graded according to leaf styles, as follows: Broken Orange Pekoe, Orange Pekoe, Flowery Orange Pekoe, Pekoe-one and two, Broken Pekoe, Pekoe Souchong.

INDIAN TEAS.

India teas are named after certain districts, the best known being Darjeeling, the finest and the most delicately flavoured; Assam, a hard, flinty, well-made leaf with plenty of golden tip and a strong, pungent, colourful liquor; Travancore, resembling Ceylon tea; and Doors, a tea much used for blending because of its soft mellow liquor.

Ceylon teas are known chiefly by their garden marks. They are also divided into high-grown and low-grown. Generally speaking, the former are of fine flavour and aroma, while the latter have a common rough liquor and are lacking in flavour. The Ceylon dry leaf is soft, brown and tippy.

Java and Sumatra teas are also known by the names of the gardens or estates producing them. In cup quality they grade very well, being soft and of medium strength. The leaf is black, well made, and tippy.

GREEN TEA CHARACTERISTICS.

In Class II (unfermented or green teas), those coming from Japan are prepared in several styles of leaf,—sun-dried, pan-fired (short leaf), basket-fired (longer spider-leg leaf), and porcelain fired (an arbitrary term of no particular significance except to distinguish the leaf which is not rolled or manipulated like pan-fired). Japans are graded in district types as well as for style and cup quality. These are generally recognised in the trade: Extra choicest, choicest, choice, finest, fine, good medium, medium, good common, common. There are also nibs, dust and fannings. Japans are the "white wines" of teas.

China greens are divided into country greens (Moyunes, Teenkais, Fychows, Soeyans, Wenchows, and local packs), Hoochows, and ping-sueys. All are prepared in the following styles or makes: Gunpowder (extra, first, second, third), rolled round, "fine shotty" to medium, pea leaf (first and second), a bold, round-rolled leaf; Imperial (first, second, third), large size, round rolled; young hyson (long, rough, bold, and twisted leaf); and hyson (small, well made curly leaf).

The China country greens have rich, clear, and fragrant cup qualities. The Hoochows are flavourless and neutral. The ping-sueys are light coloured and rank in the cup.

The India, Ceylon, and Java greens produce a pungent light liquor and are usually made up into young hyson and hyson styles.

OOLONG TEA CHARACTERISTICS.

In Class III (semi-fermented teas) the Formosa oolongs are of fine flavour and very fragrant. They are known by district names, such as Chap Ko Hoon, Paichie, Sinteam, and Chuitngka, and are graded as fancy,

choicest, choice, finest, fine, fully superior, superior, fully good, good, good cargo, fair cargo, common. The leaf is greenish brown and tippy. Sometimes Formosas are blended with gunpowders or Japans to make a mixed (green and black) tea.

The Foochow oolong have thin medium flavour and toasty cup qualities. The leaf is long, rough, coarse appearing, and blackish.—Planters' Journal and Agriculturist, Vol. II, No. 19.

BLACK ROT DISEASE OF TEA.

DR. W. S. SHAW,

Tea Specialist (now under training at Tocklai) to the Scientific Department of the U.P.A.S.I., India.

Introductory.—Before commencing a detailed account of the fungus causing Black Rot of Tea, it would be advisable to have some small grasp of the relation of the organisms causing fungal diseases to other living beings. It is usual to divide living beings into the large kingdoms, two, animal and vegetable, the differentiation between the two being sharp except in the case of the lower representatives. We are concerned with the vegetable kingdom, which is divided into two divisions :—

The flowering plants, and those such as Algae, Mosses, Ferns, etc., which do not flower.

A further division is necessary based upon the reproductive characteristics of the individuals of the non-flowering division, the two classes being—

1. those whose organs have no characteristic distinctions in form, e.g., Algae.
2. those which show a marked distinction in the form of their various organs, e.g., Mosses and Ferns.

The former class is represented by 14 sub-divisions, which include all the lower forms of vegetable life. Four of these sub-divisions, the algae, fungi, slime, moulds and bacteria are responsible for most of the diseases of plants.

The Fungi, Slime, Moulds, and Bacteria, differ from other vegetable organisms in possessing none of the green colouring matter (chlorophyll) of green plants and hence though most of their natural functions are the same as those of green plants, they are incapable of forming starch material. As a consequence of this inability to obtain organic food material the fungi are forced to thrive on the organic reserves, elaborated by green plants, either in the form of decaying tissue after death or on the living individual itself. Fungi are therefore classed as Parasitic, if growing on living organisms as hosts, and Saprophytic, if living on dead tissue. Another type of fungus frequently met with in the diseases of plants is one, which, after living on dead organic matter, can adapt itself to a living plant as host. An example of this type we have in the Red Rust disease of Tea. The methods of reproduction and dissemination amongst the fungi group is of vital importance for it is by a study of these processes that we are enabled to deal