Sem III CC6 — Bot. Hons
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(1)

Tea

Non alcoholic Beverages

Systematic position:—

Division — Angiosperms
class — Dicotyledons
order —
family — Theaceae
Genus — Camellia
species — sinensis (L.) Kuntze.

morphology
Botanical
Survey

Varnacular name —
~~Hing~~ Hindi, Beng — Cha, chai
Eng — Tea

Origine & distribution

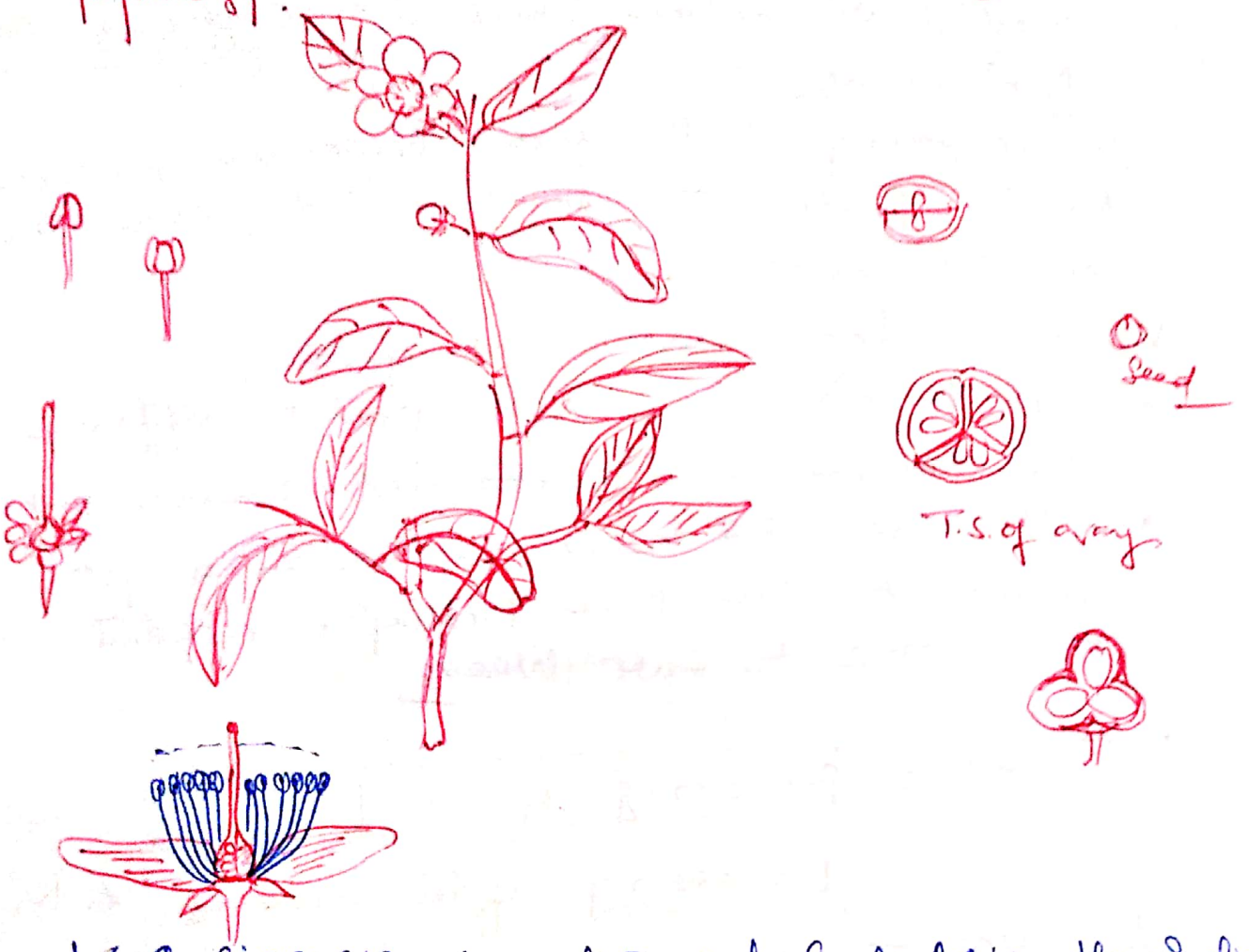
It is most popular non-alcoholic beverage all over the world. India & China are the native homes of the tea. It was grown in China in 2737 BC

Tea assamica Mast, from the mountain region of Assam, Manipur & adjoining areas in (1823)

Tea drinking was adopted as social custom in china in 5th Century AD Buddhist monks brought tea from china to Japan.

On 14th November (659), Mencius Politicus given a wide coverage of popularity of tea underlining that the tea was sold almost in every street of London. Today, England is the greatest tea drinking nation & Largest tea importer.

Morphology.



I/ C. sinensis is native to East Asia, the Indian Sub-continent & South-east Asia. II/ Today, it is cultivated through out tropical & Sub tropical regions.

III/ It is evergreen ~~forest~~ shrub or small tree upto 2 meters (6.6 feets) when cultivated for its leaves.

IV/ It has strong tap root.

V/ The flowes are yellow-white, 2.5 — 4 cm in diameter with 7-8 petels.

VI/ The seeds of C. sinensis & C. oleifera can be pressed to yield tea oil, a sweetish seasoning & cooking oil & should not be confused with tea tree oil (essential oil)

VII/ Tea oil is used for medicel & cosmetic purposes & originates from the leaves of different plant.

VII) The leaves are 4-15 cm long, 2-5 cm broad

VII) Fresh leaves Contain about 4% Caffeine and theobromine.

VIII) The young, light-green leaves are harvested for tea production, they have short white hairs on the underside.

IX) older leaves are deeper green.

X) to Different leaf ages produce differing tea qualities due to their chemical composition

XII) 1st two or 3 leaves are harvested for Processing. This hand picking is repeated every one to two weeks

Curing & Processing of Tea

Processing of tea involves 4 in 4 steps —

1. withering
2. Rolling
3. Fermentation
4. Drying.

1. Withering —

I) Plucked tea shoot Contain 75-80% moisture.

II) Fresh tea shoot are spread on tray, jute-hessian or nylon nets: to wilt.

III) wilting is accomplished either in open sheds or sheds equipped with regulated heating & ventilation facilities.

IV) The Entire Process is done for 10-12 hours at 30°C.

2. Rolling

I) The withered leaves are Passed through rolling under a Pressure for liberating sap

and enzymes. which participates in the fermentation in Late Course.

3 – Fermentation

i/ The process of fermentation is done in a special designed chambers having required facilities of temperature, humidity & air circulation maintained

ii/ A temperature between 24-27°C, 90% humidity.

iii/ The rolled mass of leaves is piled into trays & covered, is kept in the chamber for about 3 hours.

iv/ During fermentation, the mass of leaves develops characteristics flavours (Emit) & aroma & turns a bright red in colour.

v/ less fermented tea is more pungent & light in colour while more fermented tea is soft & deeper in colour.

4 – Drying

i/ To reduce the amount of moisture & stop the fermentation, the fermented leaves are exposed to a current of hot dry air at 90–100°C for 20-25 minutes.

ii/ the process of drying is done in specially constructed ovens with temperature.

iii/ The processed tea is passed through a series of meshes, thus sorting out leaf grades & dust.

iv/ The leaves of different size are separated through oscillated sieves.

v) Different tea grades are ~~prepared~~ formed as -
Broken orange Pekoe (BOP)
Flowery Broken orange Pekoe (F.
Broken Pekoe (B.P)
orange Pekoe (O.P)
Flowery Pekoe (F P. etc. &

vi) Various brands of tea available in are made by blending different

vii) Various tea grades are packed in chests lined with tin or aluminium Shipped to different centres & So auctions at centres like Kolkata

Instant tea, Soluble in cof
well, tea bags & ready mix tea
talent development

[Uses] — ~~green shoot~~ leaf } Contains 77% moisture & 23% solid matter.

(i) 50% solid matter consists of water insoluble materials like crude fibre, cellulose, starch, Proteins.

(ii) The remaining soluble half consists of 20- amino acids, 50 -Polyphenols, 12- Sugar & 6- organic acids.

(iv) Thein- alkaloid (similar to Caffein), 2.5-4.5% & very little amount of theophyllin in combination with tanning brings about the stimulatory & refreshing qualities of tea.