

UNIT-3

AMLA ⇒

Syn. ⇒ Hindi ⇒ Amla engl. ⇒ Indian gooseberry.

Sanskrit ⇒ Amlaki

B.S ⇒ Dried as well as fresh fruits of the plant Phyllanthus emblica or Emblica officinalis family Euphorbiaceae.

Part used ⇒ Dried fruit, the nut or seed, leaf, root, Bark and flowers.

Morphology ⇒ Amla is a small to medium sized deciduous tree, found throughout India, Pakistan, Sri Lanka, South East Asia, China and Malaysia.

• It grows about 8 to 18 m height with thin light gray bark, the leaves are simple, light green, subsessile, closely set along the branchlets looks like pinnate leaves.

• flowers are greenish yellow.

• fruits are globose, fleshy, pale yellow.

C.C ⇒ Amla is a highly nutritious is one of the richest sources of vitamin (ascorbic acid), amino acids and minerals.

• It contains several chemical constituents like Tannins, Alkaloid and Phenols.

Type

C.C

Hydrolysable Tannins.

Emblicanin A & B, Punigluconin, Chebulinic acid, Chebulagic acid, Ellagic acid.

Alkaloids.

Phyllanthine, Phyllembetin, Phyllantidine.

Phenolic compound.

Galic acid, methyl gallate, Ellagic acid, Trigalloyl glucose.

Amino acids

Glutamic acid, Proline, Aspartic acid, Alanine, cystine, lysine.

Carbohydrate.

Protein.

Vitamin

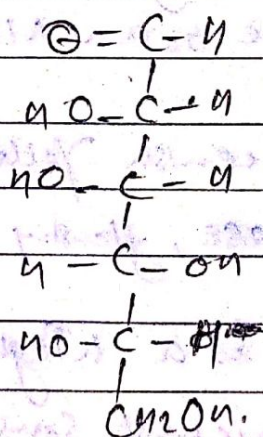
Ascorbic acid.

Flavonoids

Quercetin, Kaempferol.

organic acid

Citric acid.



Vit. C (ascorbic acid)

Pharmacological Activity & Mechanisms

Amla is one of the richest source of Vit. C and low molecular wt hydrolysable tannins and makes amla a good antioxidant.

• The Tannins of Amla like emblicanin-A (37%), emblicanin-B (33%), Punigluconin & Pedunculagin are reported to provide protection against oxygen radical and induced haemolysis of Rat peripheral Blood erythrocytes.

• The mechanism behind Antioxidant activity is due to the recycling of sugar moiety and conversion of the polyphenol into medium and high mwt tannin.

• The powerful antioxidant ellagic acid, present in Amla, can inhibit mutation in genes and repairs the chromosomal abnormality.

• Amla inhibit the growth and spread of various cancers like breast, uterus, Pancreas and Liver Cancer.

• It can prevent and/or to reduce the side effect of Chemotherapy and Radiotherapy.

• More than 18 Compounds were identified in Amla fruits which can exert Anti-proliferative activity on gastric and colorectal cell.

• Emblicanin A & B of Amla fruits are reported to possess strong antioxidant and anticancer property.

uses, Epidymal as a jabri jage

- for haemorrhage diarrhoea, Dysentery,
- for Anemia, Jaundice and Dyspepsia
- To stop Nausea & vomiting.
- It helps in Regulating blood sugar.
- Anula is also stated to have, hepato, Cardio, Neuroprotective effect.
- Antioxidant, Analgesic, Anti-inflammatory, Antipyretic.

Category, vitamin.

marketed formulation product →

- Trifalchurna, Charanpras, Anula Capsule, hair oil, mentet tablet, Abana tablet.

VACH →

Hindi →

Godavacham

Engli - sweat plaq.

Sanskrit - vach.

B's → Rhizomes of Acorus, Cotamus
aracene

geographical source →

The plant widely occurs in Europe and North America. It is found through Sri Lanka and India.

Macroscopical character → Pale yellowish
to pinkish brown. Size upto 2 cm long &
2 cm thick, odour. aromatic, taste.
aromatic, bitter, saccharine.

Fracture - short, granular and porous.
shape - Subcylindrical split longitudinally.

C.C → Volatile oil - α asarone and β -
asarone, Calamine, glucoside, acosine, Calamine
oil - methyl Eugenol, Eugenol and Camphene.
small amount of Palmitic and Butyric
acid.

• Sesquiterpene ketone - Acosine, Calamine,
Calcosine.

Pharmacological activities → α asarone
in small dose potentiates the effect of
reserpine. while β asarone does not.

• Asarone gives tri effect without changing
the level of adrenaline content of whole
brain in rat.

• Sedative effect is due to depression of
sympathetic division of hypothalamus.

Category → Volatile oil.

uses → Stomachic and antispasmodic
Carminative Sedative expectorant
Stimulant Antibacterial Antifungal and
Insecticide.

Marketed Product →

• Megamin, Megali Gutti.

SATAVARI →

• It is an immunomodulators.

SYN → Satavali, Aspalagus, Shabnamli

B.S →

A.N →

Aspalagus racemosus family
Liliaceae.

Part use → Dried Root and leaves.

Geographical source →

It is found
in Himalayan region, Australia and
Asia (Maharashtra region).

Morphology →

Color - white to buff.

Odor - well marked odour.

Taste - bitter

Size - 5 to 10 cm in length and 1-2
cm in diameter.

Shape - cylindrical, slightly curved

C.C →

It contains steroidal
saponin glycoside (0.2%) K/a

Satavarine i and shatavarine

Shatavine I $\xrightarrow{\text{hydrolysis}}$ Sarsapogenin +
glucose (3 molecules)
+ Rhamnose

Shatavine II $\xrightarrow{\text{hydrolysis}}$ Sarsapogenin
+ glucose (2 molecules)
+ Rhamnose.

- It contains carbohydrates like glucose and Rhamnose.
- It also contains enzyme

use

- The Alcoholic extract of Satavary having diuretic property.
- Antidysentery (Treatment of dysentery which drug used)
- ~~Galactagogue~~ Galactagogue, → which chemical that increase lactation or milk production (penc lactation or milk)
- Aphrodisiac → Drug which are responsible to increase sexual desire.
- Antioxytocic → uterine stimulant. (ever pain)
- The Bark of satavary is Posinus in Nature.
- The leaves of Satavary is used for the treatment of Small Pox. and other skin disease.
- Antispasmodic. → (Smooth muscles Relaxation)
- Bitter tonic.
- Satavari have made one Active constituent of Ayurvedic chayantra

Marketed formulation of Satavari

- Abana tablet → Himalaya drug company.
- Evacore syz - manufactured by Himalaya drug company.

herbal preparation, come company

Charak.

- Hamdard.
- Baidyanath.
- Dabur.

Hindustan Antibiotic.

Pharmacology

It is regulates hormonal secretion. Its galactagogue property is attributed to the action of released corticosteroid or an increase in prolactin. It has been shown to inhibit ADH and act as Diuretics.

Bhilwa

Syn → Bhella, Marking nut tree.

Biological source → Bhilwa obtained from the plant
Semicalpus anacardium
Family, Anacardiaceae.

Plant → Fruit, seed and oil.

~~Morphological characteristics~~

Geographical source → It is found in Himalayan region and Assam.

Morphological characteristics →

Colour - Brownish Black (fruit) and oil - Black.

odour - odourless.

Taste - Acrid and sweet.

Chemical constituents → The Pericarp of Bhilwa.

fruit contains the chief chemical constituent
k/a Anacardic acid.

* It contains volatile oil k/a Cardol and this
volatile oil ^(cardol) is responsible for ^(Cyanoprotein) Astringent Property
of Bhilwa.

* Bhilwa also contain anacardiol and semicalpol.

uses → The oil of Bhilwa used as substitute of

gink.

* Astringent.

* Anti-inflammatory.

* Antiseptic.

* used in Bronchial Asthama.

- Anticancer.
- Cardiotoxic
- Syphilis.
- It is used as respiratory stimulant.
- ~~useful~~ Treatment of epilepsy.

Kantkari ⇒

Sanskrit Name ⇒ Nidigandhika.

English Name - Yellow warried light shade

Hindi Name - Kanthkari, Bhutkatiya

B.S ⇒ Entire Plant of Solanum xanthocarpum

Carpum family - solanaceae.

Morphology ⇒ It is very prickly Perennial herb stems are branched and younger ones with dense hairs, spines are compressed straight glabrous and shining after 1 to 3 cm long.

- leaf are ovate hairy, Petiole is long hairy and prickly, flowers are densely hairy, Corolla purple, acute outer filament is long, glabrous, ovary is ovoid and glabrous berry yellow surrounded by enlarged calyx.

C.C ⇒ Contains steroidal glucosalkaloids

Solasodine is the principle constituents

- Alcoholic extract of the plant contain gummy resinous substance Solasonine and it is present in the fruit.

• The presence of diosgenin in the plant recently reported seeds yield 19.3% of green yellow semidrying oil with a characteristic odour.
Category: Glucosalkaloid, Expectorants.

Pharmacology: Pharmacological studies on this herb have shown that aqueous and alcoholic extract of the plant possess hypotensive effect which is partially inhibited by Atropine.

• The more persistent 2° fall in the blood pressure and Bronchoconstriction are inhibited by the antihistaminic drug.

• Both glucosalkaloid and fatty acid fraction of the extract causes liberation of histamine from Lung tissue.

uses: Stem, flowers, and fruits are bitter and Carminative.

• It is used in cough, asthma and pain also used in relief in burning sensation.

• The plant is also called as Diuretics.

RASNA

Hindi Name - Galangaal

English - Rasna.

Sanskrit - Sugandhvakha.

B.S: Dried Rhizomes of Alpinia officinalis
family: Zingiberaceae.

Morphology: The drug consists of cylindrical copper colored pieces of rhizomes which are 5 to 10cm long and 2cm thick at the regular

- distance whitish rings are observed, which are due to lower leaf remain.

- Test is similar to Zinger and is sharp and pungent. Rhizomes are reddish brown external and light orange brown internally. Rhizomes are tough and have fibrous fracture.

C.C Essential oil - Eugenol and cineol and pinene.

Others Apinot, galatgol, Tannins, flavanoids, galagin, Heptacosane, octacosanol.

- Apinot is responsible for the pungent test.
Category Flavanoid and Antirheumatic

Pharmacology Heptacosane and octacosanol show anti-inflammatory activity. I.V injection of small dosage of a tincture or an infusion of Galanga produced a sharp fall in Blood pressure in experimental animals.

- Respiration in experimental animals are stimulated in small doses but depressed with large one, the respiratory center being paralysed.

- Aromatic stimulant and bitter, stomatic and carminative. The Tubers and seeds are said to possess carminative properties.

The drug has a slight irritant action on the mucous membrane of the stomach and these may be used in producing a reflex increase in the bronchial secretion.

• As the oil is excreted through the lungs, it acts as an expectorant.

uses → Stomachic, Aromatic, Stimulant, Bitter tonic, Carminatives.

Marketed formulation → Rasnadi, Kawach, Chem, Aromat tablet, Galic tablet

PUNARNAVA →

Hindi - Punainava.

Sanskrit - Rakta Punarnava.

English - Boerhavia, hogweed.

B.S → Entire plants of Boerhavia diffusa.
family - Nyctaginaceae.

Morphology →

Color - leaf → Green on upper surface and whitish on lower surface.

Stems → Greenish purple.

Flowers upper part pink.

odour - odourless.

Taste - bitter.

• Stem are cylindrical, stiff and thick at nodes. They are branched and about 1cm in length, stems are light reddish brown above and pale greenish below.

• flowers are internally sessile in small umbell about tend to ..

• Fruits are one sided glandular and about 0.5 cm in size.

C.C → Punarnava contains about 0.04% to 0.1% of alkaloid k/a Punarnavine (M.P. 235°C) and Punarnavoside.

• It also contains about 6% of KNO_3 an oily substance and ursolic acid.
Category → Diuretic, Alkaloid.

Pharmacology → Punarnavoside is an antifibrinolytic agent (Blood clotting related) Plant extract also exhibit diuretic and Hepatoprotective activity. It shows Ca-channel antagonist activity.

Uses → diuretics, antihypertensive, hepatoprotective, laxative, expectorant, stomachic.

Marketed formulations Neri sys. abana tablet, liofit Dashmularitha.

TYLOPHORA

Sanskrit name - Arthapachaka.

Hindi name - Jangali Pitkua.

English - Tylophora.

B.S → Root & stem of Tylophora arthnatica family → Asclepiadaceae

Morphology → leaves are 5 to 10 cm long, 1.5 to 5.7 cm wide, ovate or elliptic oblong.

- acute, base usually cordate, petioles 6 to 12 cm long. The whole plant is of a pale yellowish color and has no marked odour but has a sweetish and subsequent acrid taste.

C-C → Tylophorine, Tylophoridine, Phenanthrene alkaloid, Tyrodine, alcohol.

Category → Alkaloid and Antispasmodic.

Pharmacology → Powder of the root is reported useful in dysentery and diarrhoea.

• It is also used as an expectorant in respiratory affection by local irritation.

uses → Alternative, febrifuge, blood purifier and antirheumatic. Locally it is applied to relieve joint pain with quinine. It is used for intermittent type of malaria.

• It is also used as expectorant, stimulant and bacteriostatic.

Marketed formulations →

- Aneuritic Tablet.
- Fizzle capsule.
- Powell Capsule.
- Flexibility Capsule.

KALIJIRI →

Hindi - Kaljiri, Barkhi.

English - Purple fleaban.

Sanskrit - Samaras.

B-S → Dried seed of Vernonia anthelmintica family - Compositae.

Morphology → fruit is 0.5 cm long.

Brown to black, cylindrical, oblong, tapered towards the base, surface hairy, marked with about 10 longitudinal ridges.

Taste - bitter

Odour - Nil.

C.C) Seeds contains resin, an alkaloid k/a veronine, and oil and ash about 7% of the drug. It also contains

sterols k/a vernosterols and contains fixed oils i.e. vernolic acid and stearic acid.

Category Anthelmintic, Resin.

Pharmacology → ^(Viperous) A viscised green oil obtain from the seed is diuretic and powerful anthelmintic.

• The anthelmintic action is due to the acid paralysis of the worm.

uses → seeds are anthelmintic, Stomachic, tonic and diuretic.

Marketed formulation →

- Samraj Tail.
- Sunarin Tablet.
- Puline Tablet.
- Kodna Tablet.

CHITRAK →

Hindi - Chitra.

English - Plumbago.

Sanskrit - Sa Chitrak.

B.S → Roots of Plumbago Zeylanicum
family → Plumbaginaceae.

Morphology → Perineal sheath leaves all ovate
glabrous Reticulate venation flowers white
with spice, Roots uniform and smooth light
yellow reddish brown colour and stem
is olive green in colour.

C.C →

Roots contains an acide crystalline
Principle in the form of yellow needle.
The main constituent is Plumbagin, Naphtho
quinone, Chitranone, Plumbagic acid.

Category → Alkaloid & Digestive.

Pharmacology Plumbagin stimulate C.N.S in
small dosage ~~as~~ in large dosage Paralysis
shade in leading ultimately to death.

- The large dosage cause death from
the respiratory failure. The action is
probably due to the direct effect on
the muscles. Plumbagin Inhibit cell
Mitosis. It is also recorded that 50%
of ethanolic extract at a dose of
100 mg/kg body wt. prevents the implantation

- and act as antifertility active drug, but the petroleum ether and aqueous extract does not have such activity.

Marketed formulations

Sofy syrup, Dushmala vata, gasea Capsule
uses \rightarrow leprosy, stimulant, Antiseptic and lowers the B.P., local irritant

BRAHMI

Hindi \rightarrow

B.S \rightarrow Fresh leaves and the stems of *Bacopa moniera* family - Scrophulariaceae

morphology \rightarrow The leaves are short Petiole, ovate. The capsule are ovoid. It is a small creatin herb.

C.C \rightarrow It contains the alkaloid Brahmin herpestin, also contain the saponin moneri, Bacoside A and Bacoside B and also present aspartic acid, glutamic acid.

Category \rightarrow Alkaloid.

Pharmacology \rightarrow The saponin is reported

to possess cardiotoxic, sedative. Property

• It is produce a mild inhibitory effect on the respiration of Rat. and alcoholic

extract of the plant in a dose of

50 mg/kg body wt. produce a trans-

-lucic effect on Albino rat.

uses → Astringent and also for the treatment of Asthma, Epilepsy, Diuretic, Cardiotonic as an ~~excellent~~ potent to Nerve tonic.

Marketed formulations

Maintained Tablet, Brahmi ^{Tablet} Capsule, Sesamoid oil, Soji syrup.

SHANKH PUSPI → Hind- Shankhpuspi.

B.S → whole aerial part of Convolvulus
Pluricaulis Lsy. Convolvulus microphallus
-us family. Convolvulaceae.

Morphology → stem is woody at the base, 10 to 30 cm long. leaves are 2.5 to 3 cm long linear, oblong, tapering at base. flowers are small, funnel shape, light pink or white colored. fruits are small upto 2.5 mm long. glabrous.

C.C → The drug contains an alkaloid k/a Shankhpuspin, volatile oil, n-tricalantane, heighel fatty acid alcohol, Kaempferol, its 3-D glycoside, 2,3 dihydroxy cinnamic acid, β -sitosterol, alcohohydrate such as glucose rhamnose, sucrose starch and KCl.

Category → alkaloid.

Pharmacology → The ethanolic extract (50%) of the plant reduces total serum cholesterol, triglycerides, phospholipids and nonsteroid fatty acids after 30 days of oral administration in hyper-

-lipidemic rat.

- The ethanolic extract of plant enhances neuropeptide synthesis of the brain.
- The extract has spasmolytic activity on the smooth muscles.

uses → The plant is reported to be a potent memory improving drug.

• Reduced mental tension.

• Ethanolic extract and plant reduces total serum cholesterol.

Marketed formulations

- Shankhpushpi Syrup, Memory Plus Capsule.
- Alert Tablet.
- Heme Puspa.

SHILAJIT

Sanskrit - Shilajita.

Hindi - Shilajit.

Engl → mineral Pitch.

B.S → It is herbomineral Prepⁿ obtained from fissures in ~~rock~~ Iron rock during hot weathers.

Description → It is herbomineral Drug or prepⁿ ejected out of fissures in Iron rocks during hot weather. It is found to be produced naturally in hilly area specially Himalaya, Vindhya and other mountains in India and also in Nepal.

* The following form of this drug have been reported in ancient Hindu literature.

- ① Iron Shilajit (Blackish Brown variety)
- ② Copper Shilajit (Blue variety)
- ③ Silver Shilajit (White variety)
- ④ Gold Shilajit (Red variety)

o out of which Iron Shilajit is imp. therapeutically.

C.C → Shilajit contains an Iron which when distill is K/a Ichthyol and also contains Benzoic acid, Hippuric acid, fatty acid, resins waxy, ~~that~~ eliminatory gums, albuminoids & vegetable matter with Benzoic acid.

Consider to be the main major active constituent.

The gummy substance of Shilajit dissolves in water. It contains 65% urea and water, 34.5% organic matter and mineral matters 1.03% Nitrogen 7-8% Lime, 9.17% Potash, 0.16% Phosphoric acid and 1.35% Silica

Category: Herbo-mineral and Immunizing agent.

Pharmacology: Promote expectoration, probably reflex by causing irritation of the throat and ^{the} stomach.

• Antiseptic and Paracetidial activity is due to the presence of free benzoic acid which is contains.

• It is also observed that Shilajit produces rise in B.P and stimulation of respiration.

Uses: It is used as a general tonic, stimulant and aphrodisiac.

• Shilajit are authentic quality raw drug ingredient of Ayurvedic prepⁿ mean for immunizing system of human body.

• It is also used as counter irritant Antiseptic and expectorants.

marketed formulations

Yograj.

Protect Tab.

Diabecontab.

Neuromin Tab.

GOKHRO →

Hindi - Chota Gokhru.

Sanskrit - Jkshuganda, Gokshur, Trikanta

English - Small Caltrop.

B.S → In Ayurveda two type of

Gokhru are used.

① the smaller or Chota Gokhru is dried seed of *Tribulus terrestris* family - Zygophyllaceae.

② large or Bada Gokhru consist of dried ripe fruits of *Pedicularis murex* family - Pedaliaceae.

Morphology → The plant is an annual prostrate herb with yellow flowers growing through out India upto 3600m in Kashmir.

The fruits are yellowish globose, diameter nearly 1.2cm. Containing 5 woody, densely hairy, spiny cocci. Each coccus possess two large sharp, pointed spines Director toward the apex. The other 2 smaller shorter spine are directed downward.

* Each Cocculus contains several seeds.

C.C → The fruits are Tribulus terrestris contain Saponin which produce diosgenin, ruscogenin, gogenin on hydrolysis.

The fruits also contain flavone glycoside Kaempferol 3-O-shamanside and kaempferol 6-O-coumaroyl 3-O-glycoside traces of alkaloid, fixed oil, essential oil and Resins

Category → alkaloid.

Pharmacology → Plants and dried spiny fruits are steamed at cooling demulcent, Diuretic, tonic and aphrodisiac.

The diuretic property of the plants no doubt are due to the large quantity of the nitrate present as well as the essential which occur in the seed. stem are considered Astringent unless → the fruit has cooling diuretic tonic aphrodisiac property and used in calculus affection, urinary discharge and impotency in the form of infusion. It is useful as a diuretic in gout.

marked formulation

Gestone syrup.

mahamash oil.

Centido tablet.

Cajido tablet.

ADAMARGH

Syno → Eng → Prickly goose, Rough chaff tree

Hindi → latjira, chirchira.

Sanskrit → Aghata.

B.S → Aerial part of herb Achyranthus
aspera family → Amaranthaceae.

Morphology → The plant is an erect annual or perennial herb, 1 to 2m in height, often with a woody base, stem are angular, ribbed, simple or branched from the base, reddish purple color, leaf thick, oval-elliptic or obovate, rounded but variable in shape and size, flowers greenish white, numerous in axillary or terminal spikes, upto 75 cm long, seeds subcylindrical, rounded at the base, reddish brown.

C.C → The seeds contains Saponin, Penta triacontane, 6 penta triacontanone, hexa triacontane, & triacontane.

✓ The whole plant contains the alkaloids, Achyranthine and Betanin.

• Echinosterone is also present in stem and leaves.

uses → Purgent, Astringent, Diuretics, Purgative, Antirheumatic and Anticathartic, also used in Biles, skin eruption, Dysentery.

Pharmacology → Aqueous and alcohol extract of the roots causes fall in B.P but the chloroform extract raise the B.P in Dogs.

Echyranthine produced hypertension and depression of heart, dilation of blood vessels in Dogs; seed saponin increased contractions of the isolated heart of frog.

Marketed Formulations →

Distone Capsule, A diuretic tablet, ~~Neph~~
Nephroned Tab/Syrup.

Category → Alkaloid, Cardioactive

Gymnema

Hindi - Gulmar.

- Engl - Gymnema.

Sanskrit - Meshashugi.

Bot → Dried leaves of Gymnema Sylvestre
family - Asclepidaceae.

Morphology → The leaves are opposite, usually elliptic, ovate, flowers small, yellow lensiolate apex acute. Upper surface pubescent, lower surface more pubescent upto 7 cm in ~~more~~ length.

C.C → The leaves contains Albumin, organic acid, Palabin, heptatriacontane, pentatriacontane, α & β Chlorophyll, phytin, Resins, tartaric acid, formic acid, butyric acid, anthraquinone derivatives, inositol d-Quercitol, gymnemic acid.

Pharmacology → The alcoholic extract or leaves powder does not show any effect on the concⁿ of sugar in the blood or in the urine of diabetic patients but they cause hypoglycemic in experimental animals when administered. This effect is not due to the any direct influence on the carbohydrate metabolism but to indirect stimulation of insulin secretion by pancreas.

Annual
& All part
Perineal
20/12

The leaves powder are tasteless with aromatic odour which stimulates the heart and the circulatory system, increases the secretion of urine and activates the uterus. Laxative property is attributed to the presence of anthraquinone derivatives.

Category: hypoglycemic and Alkaloids.

uses: hypoglycemic, Stomachic, laxative, Diuretic.

Marketed formulation:

Gymnema Capsule, Glucovid Cap, Diakgur.

NEEM

Hindi - Neem or Nimb.

Engli. - Margosa tree or Azadirachta.

Sans. - Nimba.

B.S. - Neem is fresh or dry leaves and seed oil of *Azadirachta indica* (*Melia Indica* syn.). family - Meliaceae.

Morphology: leaves are lensolate, serrate, dark green to greenish yellow in colour, bitter in taste, flowers white, fruits 1.2 to 1.8 cm long, oblong, one-sided, smooth greenish yellow in colour intensely bitter. Bark rough greyish to brownish in colour about 1 cm thick internally yellowish in colour, fracture fibres.

Category → Antiseptic and Non-sterile products.

C. c. The seed oil contains Nimbin, Nimbidin, Aflatoxin arising from fungal contamination have been found in some oil samples.

The active constituent is Azadirachtin. The leaves contain Nimbin, Nimbinene, Nimbandiol, 6-desacetylnimbinene, Nimbidin, quercetin, β -sitosterol, ascorbic acid, n-hexacosanol, Nonacosane, & amino acids.

The fruits contain gedunin, 7-deacety-7 α -hydroxygedunin, azadiradione, azadirone & Nimbiol.

Pharmacology: The recent work has intended to confirm the therapeutic value of oil and as Anti-inflammatory and Antibacterial Agent. Some Polysaccharide from the bark and glycoprotein from the gum are responsible for the Anti-inflammatory activity.

uses → Antiseptic, Antibacterial, Antipyretic, Anti-inflammatory, hypoglycemic.

The leaves are also useful in leprosy and skin disease.

Marketed formulations

Nimbadiquercetin Capsule, Hair and care oil, Bhuringraj oil, Nimbadiyastha.

TULSI →

Hindi - Tulsi

Engl. - Holy basil.

Sansk - Brinda, Natali.

B.S → Aerial part of Ocimum sanctum
family - Labiatae.

Morphology → Two types are common

① Shree tulsi or Rama tulsi → with green leaves.

② Krishna tulsi - with purple leaves.

- The plant is an erect herbaceous, branched and with soft hair.

- The leaves are elliptical, oblong, acute, entire or serrate, pubescent on both side flowers are purple in colour, odour and taste are aromatic and sharp.

C.C → the bright yellow volatile oil (0.1 to 0.4%) collected by steam distillation method from the leaves and flowering tops. It contains approx. methyl eugenol (70%), eugenol, 3% caryophyllene, eugenyl acetate (20%) and also contains caryophyllin.

- The volatile oil of the plant is reported to contain ~~water~~ alkaloid glycoside saponin tannins. and appreciable amount of vit. C and trace

of mallic, citric and tartaric acid.
The leaf contains ascorbic acid and carotene. The major component of essential oil are cineole, β -Ocimene, β -caryophyllene, β -Bisabolone, α -Bisabolone, methyl chavicol.

Pharmacology \rightarrow The ethanolic extract

of the leaves shows hepatoprotective effect against paracetamol induced liver damage in rats. Oral administration of the alcoholic extract leaves lowers blood sugar level in Normal glucose hyperglycemic rats. The ethanolic extract of fresh leaves has shown antiasthmatic activity against histamine and Ach induced convulsion. This extract also shows anti-inflammatory activity in the hind paw edema in rats against Caragenan.

The essential oil from the leaves shows significant antipyretic activity in yeast induced pyrexia in rats.

Category \rightarrow volatile oil, Immunomodulatory

uses \rightarrow oil is used as antibacterial and insecticidal. leaves are used as stimulant, aromatic, spasmolytic, hepatoprotective, antiasthmatic, antipyretic, hypoglycemic, etc.

M.P. →

Abana, Dakat, Koffet, Fuls, Capsule

METHI →

Hindi -

Methi.

English -

Fenugreek.

Sanskrit -

Medhika.

B.S. →

Dried seed of Trigonella foenum

graecum family - Papilionaceae.

Morphology →

seed are rhomboidal, oblong or

steroid, yellow, olive green or yellow brown

to dark brown in colour after storage

taste is mucilaginous and bitter

oil content None.

C.C. →

28% - Mucilage which occurs in the

endosperm, 22% of protein, 6% of fixed oil

and saponin and two alkaloids trigonellin

and choline.

Pharmacology →

Anaphology →

The alkaloids of Fenugreek.

Stimulate the appetite by their action

on the nervous system also produced

diuretic effect.

Category →

Alkaloid and Stimulant.

uses →

Seeds are used as spice,

diuretics and appetizer.

M.P. →

Methi, Medhika, Medhimenhali.

Sadabahal sugar free, Noorameat

oil, Glucosil capsule Agulstim tablet

PALASH (TESU)

Hindi - Palash.

English - Butea gum.

Sanskrit - Kinsuka.

B.S → The flowers of Butea monosperma
or Butea frondosa family - Papilionaceae.

Morphology → Seeds → shape - flat and dumbbell

size 25 to 38 mm long, 16 to 25 mm wide and

1.5 to 2.1 mm thick.

Cotyle - Dark reddish brown, thin, glassy,
veined and wrinkled enclosing two large

yellowish leaf ^(annular cotyledons for transverse section)

- 3 foliate leaflet, obtuse glabrous above when
cold, finally silky.

Flowers → Bright orange Red, large, in Rigid.

C.C → Flower - Butrin, Butein, Flavonoid,
steroids, Coreopsisin, Isocoreopsisin.

Roots → Glycine, Glucoside, Aromatic compound.

Pharmacology → Aqueous extract of the flower

shows significant Anti-implantation activity.

HOT alcoholic extract of the seed also shows
absorption effect. Antias A Phenolic

Constituent Isolated from the Bark

have show Anti-Asthmatic Agent in

rice. Butrin and Butein is reported

to have Antineoplastic effect.

Category → Anthelmintic.

uses → leaves → Astringent, Antispasmodic,

Aphrodisiac.

Flowers → Sweet, haemostatic, Diuretic,
jaundice, tonic

Seeds → Anthelmintic, Rubicent, aphrodisiac
and tonic, Purgative.

Marketed formulation → Uromahal, Syrup,

Kodna tablet, Arthru oil, Colary Tablet

AGARMOTHA

English - Nut grass.

Hindi - Korehi - Thar.

Sansk. - Mustaka.

Part → B.S → Tubers of Cyperus rotundus
family → cyperaceae.

Morphology → Colour deep brown

Shape - Tuberos.

odour - Aromatic.

C.C → Roots → Flavonoids, Alkaloids

Saponin, Tannin, fatty acid, β -sitosterol,
cinol, Alcohol - isocyperol, Isocyperol,
cyperol.

oil → cyperotundane, α -cyperene, β -selinene,
cyperene, cyperol, Isocyperol.

Category → Polyphenol and Tonic.

Pharmacology It is C.V.'s depressant and

potentiate hypnotic effect action of Pentobarbital.

Increase Anaesthetic effect of Scopolamine. Inhibit the contraction of Stomach and uterus (Smooth muscle relaxant)

• Cystone Inhibits Prostaglandin synthesis

uses → Stimulant, tonic, Diuretic, stomachic, Carminative, Astringent, smooth muscle relaxant.

Marketed formulations → Asvagandha rista,

Trimup syrup, Apicare drop, Livecare drops,

Bitwa Bilva Capsules.

GUGGUL

Hindi - Guggul.

English - Indian Bdellium

Sanskrit - Salaigogil.

B.S. → Gum Resin of Commiphora mukul

family - Burseraceae.

Morphology → Guggul occur as yellowish

biscuits brown tears, all in fragment

pieces, mixed with hair, stem, pieces of

Bark, colour is brownish dark to golden

yellow. It hardens very slowly, with

water it form a milky emulsion.

* Taste is bitter Aromatic.

C. C) The drug contains sterols (guggul sterols I, II and III), guggul sterone) sugar (sucrose, fructose) amino acid, camphorene, cembrene, allyl cembrol, flavanoids (quercetin and its glycosides) and ellagic acid.

Category) Gum resin and Antirheumatic

Pharmacology, like all oleo resin it causes and increase of leukocytes in the blood.

- It is believed to increase the appetite and improves the general condition.

uses, The gum resin is Astringent, Antirheumatic, Antiseptic, expectorant, demulcent and Aphrodisiac.

M.F) Guggul capsule, Yougras, Trigodsha, Noorani oil.

LEHSUN

SYN) Hindi - lasan.

Sanskrit - lasuna.

English - Garlic.

B.S) Bulbs of the plant K/A Allium Sativum family - Liliaceae.

Morphology) It is perennial herb having bulbs with several cobs, enclosed in silky white or pink membranes. Swatop, vepul characteristics, taste pungent and aromatic.

c.c. Allicin a yellow liquid responsible for the odor of garlic, is the active principle of the drug.

- garlic bulb contains 29% of carbohydrates about 66% of protein albumin 0.1% of fat mucilage, 0.06 of protein to 0.1% of volatile oil.
- It also contains phosphorus, Fe and Cu.
- volatile oil of the drug is the chief active constituents and contains allyl-propyl disulfide, diallyl disulfide and allin.

Pharmacology - The has been proved

as bacteriostatic in 1:160000 dilution against gm negative and gm positive bacteria.

- It also produced blood cholesterol level. The drug is reported beneficial in digestion and against intestinal infection.

Category - volatile oil (S-compound).

uses - Analgesic, stimulant, anticonvulsant, antibacterial, diuretic, tonic used in hypertension and atherosclerosis and (thickening of arterial valve.)

- Tuberculosis and whooping cough.
- Aphrodisiac.
- reduced blood sugar level.

Marketed formulations

- Digt tablet.
- Apodet May cap.
- Spark cap.
- Anroyug Syrup

MAJITHA

Syno → Manjit.

Eng. → Indian madder, Dyer's madder

Sanskrit - Manjistha.

B.S. → It consist of dried root of Rubia

Cardifolia family - Rubiaceae.

Morphology → A very variable, prickly climber

- The root stocks are perennial, the root long and cylindrical with a thin, red bark, the stem joint angled.

- The leaves are very variable cordate-ovate to ovate-lanceolate.

- The flowers are small, white or greenish or inside are red and yellow, the fruits globose or slightly two lobed, dark purplish or black, glaucous with two small buds.

C.C.

Purpurin (color), mungistin (orange dye).

Xanthopurpurin, Rupuroxanthin, Pseudo-purpurin, Pentacyclic, triterpene compound Rubiaterrial, rubicumaric acid and rubitolic acid.

Category → Tonic, Antiseptic.

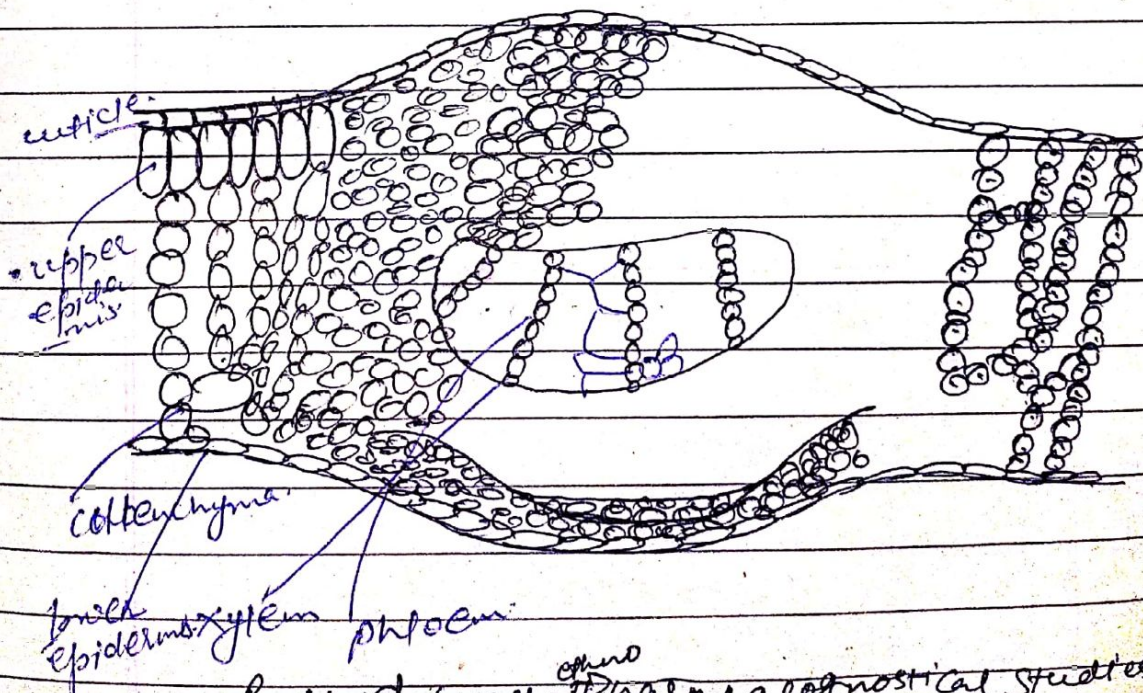
Pharmacology → It produced the Antiseptic property by precipitating the cell.

uses → Tonic, Antiseptic, Astringent.

- used in Rheumatism; useful in skin infection ulcer inflammation.
- Antibacterial and antiallergic action.

Microscopic character of Thevetia

- Transverse section of leaves showed single layer of upper and lower layer of epidermis covered externally by thick cuticle. Mesophyll differentiated into single layer of palisade cells, elongated and compact with a few chloroplast, spongy Parenchyma 5 to 8 layer.
- Midrib was having conjoint, collateral vascular bundles large and U-shaped on both sides epidermis, 2 to 4 layers of chlorenchyma was very dominant in midrib region.
- Paracytic Stomata were present only on Dorsal surface of leaf.
- Stomatal Index was 26.33. vein
vein Islet no. is 4.
ash value is 2.4 gm.



Ratna S. Vashu ^{et al.} Pharmacognostical studies of
Thevetia peruviana (Pers) K. Schum, A Potential
 Synchronous Plant, Bioscience Discovery vol. 02 No. 1
 Jan-2011

Marketed formulations

- Aptizoon syrup, Himnocid suspension
- Uceromid Cap, Systene
- Evacare
- Rinalaya

MAIKANGUNI

Hindi - Malakguni

Eng. → Staff tree

Sans → Kodumbhi

B.S. → Dried seed of Celastrus paniculatus
family → Celastraceae

Morphology

Seed shape → Ellipsoid, enclosed in a fleshy aril.

Colour - yellowish brown.

Taste - bitter.

Odour - unpleasant.

C.C. → Fatty acid, Palmitic acid, oleic acid, linolenic acid.

• Siquiterpene; Polyesters → Maikangunin.

• Siquiterpene's alkaloids - celapanin, celapanin, celapagin.

• Quinone - methide and phenolic triterpenoids celastrol, dristimerin, zeylasterone and zeylasterol.

Category

- Tranquilizer

Pharmacology It passes hypolipidemic and Antiatherosclerosis activity.

- Analgesic and Antifertility activity.

- To enhance the memory and learning process and its ability to decrease the turnover of central monoamines.

uses emetic, diaphoretic, febrifugal. (Antipyretic) and nerve properties.

- used for sharpening the memory.
- used for ulcer, rheumatism and gout.
- used in the traditional system of medicine as a sedative.

Marketed formulations

- Cebrotans syrup.
- Fenigra sp. oil.
- Mentate Tabl. syrup.