Medicinal leaves

1. Buchu Folia, Buchu Leaves

**Arabic name**  
اوراق البوشو

**English name**  
Buchu leaves

**Latin name**  
Barosma betulina

**Family name**  
Rutaceae

**Constituents**  
- 1.3 to 2 % of volatile oils
- 30 % of diosphenol
- Diosmin
- Mucilage
- yellow spherocrystals of hesperidin

**Action and Uses**  
1. Antiseptic
2. slightly diuretic
   it is used principally in inflammatory conditions of the urinary organs.
   The drug is used as infusion, tincture, or liquid extract.
2. Jaborandi Folia, Jaborandi Leaves

**Arabic name**
أوراق الجابوراندي

**English name**
Jaborandi Leaves

**Latin name**
- Pilocarpus Jaborandi
- Pilocarpus microphyllus

**Family name**
Rutaceae

**Constituents**
- Three alkaloids:
  1. pilocarpine (The most important)
  2. isopilocarpine
  3. pilocarpidine

  Isopilocarpine can be converted into pilocarpine by heating with alcoholic solution of potassium hydroxide
  - about 0.5 per cent. of a volatile oil

**Action and Uses**
- Main Actions (in order):
1. diaphoretic (promotes sweating),
2. sialagogue (increases saliva),
3. anti-glaucomic
4. diuretic
5. febrifuge (reduces fever)

- Main Uses:
  1. for glaucoma
  2. for detoxification through copious sweating
  3. for dry mouth disorders
  4. for hair loss (applied topically)
  5. for colds, flu, and pneumonia

Note: Jaborandi preparations are antagonized by preparations of belladonna
3. Eucalypti Folia, Eucalyptus Leaves

**Arabic name**
أوراق الأيكاليبتوس

**English name**
Eucalyptus Leaves

**Latin name**
Eucalyptus Globulus

**Family name**
Myrtaceae

**Constituents**
- 1 to 3% of volatile oil:
  - Eucalyptol
  - Penine
  - Cineole

  - Tannin
  - A bitter principle
  - Resins

**Action and Uses**
- Stimulant
- Antiseptic
- Aromatic
The medicinal Eucalyptus Oil

1. is probably the most powerful antiseptic of its class. "Its antiseptic properties confer some antimalarial action, though it cannot take the place of Cinchona"

2. used as a stimulant and antiseptic gargle. It increases cardiac action.

3. anti cough in Influenza

4. Anti-asthmatic

5. Expectorant
Leaves

4. Cocae Folia, Coca Leaves

**Arabic name**
أوراق الكوكا

**English name**
Coca Leaves

**Latin name**
Erythroxylum coca

**Family name**
Erythroxylaceae

** Constituents **
- Alkaloids:
  1. Cocaine (methyl-benzoyl-ecgonine)
  2. Cinnamyl-cocaine (methyl-cinnamyl-ecgonine)
  3. Truxilline (isatropyl-cocaine or cocamine).

  The total amount yielded by the commercial leaves varies from about 0.1 to 1.0 %
- Cocatannic acid

**Action and Uses**
1. In Peru and Bolivia, coca leaves are chewed for their effect in relieving hunger and fatigue.
2. Coca leaves are used as a cerebral and muscle stimulant.
3. The drug relieves gastric pain, nausea and vomiting.
4. Cocaine is used as local anaesthetic.
5. Senna folia, Senna leaves

**Arabic name**
اوراق السنا

**English name**
Senna Leaves

**Latin name**
Cassia acutifolia (Alexandria Senna)
Cassia angustifolia (India Senna)

**Family name**
Leguminosae

**Constituents**
1. Hydroxyanthracene glycosides, mainly sennosides A and B, which are rhein-dianthrones, and smaller amounts of sennosides C and D, which are rhein-aloe-emodin-heterodianthrones
2. Naphthalene glycosides
3. Flavonoids (derivatives of kaempferol and isorhamnetin)
4. Mineral matter
5. Mucilage (galactose, arabinose, rhamnose, and galacturonic acid)
6. Polyol (pinitol)
7. Sugars (glucose, fructose, and sucrose)
8. Resins

**Action and Uses**

- Laxative
- Its influence is chiefly exerted on the small intestines:
  - augmenting their mucous secretions
  - exciting increased peristaltic motion
6. *Digitalis folia, Digitalis leaves (Foxplove)*

**Arabic name**

اوراق الديجيتياليس (أصبع الثعلب)

**English name**

Digitalis leaves (Foxplove)

**Latin name**

Digitalis purpurea  
Digitalis lanata

**Family name**

Scrophulariaceae,

** Constituents** *

*Digitalis purpurea*

1. Cardiac glycosides: Purpurea glycosides A and B:
   - Digoxin
   - Digitoxin
   - Digitonin
   - Digitalin

2. Saponins: gigitonin

3. Flavonoid glycoside: luteolin

*Digitalis lanata*

Cardiac glycosides (N.B. they are twice to four times as active as official drug)
Leaves

- lannatoside A (Acetyl purpurea A)
- lannatoside B (Acetyl purpurea B)
- Digitoxin
- Gitoxin.

Action and Uses

- Cardiotonic and diuretic, increases the force of systolic contractibility and improves the tone of cardiac muscle, so used in treatment of congestive heart failure

(N.B. digitoxin is cumulative and highly toxic, it should be administered with great care)
7. Tea folia, Tea leaves

**Arabic name**
اوراق الشاي

**English name**
Tea leaves

**Latin name**
Thea sinensis

**Family name**
Theaceae

**Constituents**
1- Alkaloids
   - Caffeine
   - Theobromine
   - Theophylline
2- Flavonoid
   - Catechins
3- Saponins
4- Tannins

**Action and Uses**
1- CNS stimulant.
2- Mild diuretic.
3- As a drink.
4- Weak muscle relaxant.
5- Antioxidant.
6- Large dose of tea cause irritation of stomach, peptic ulcer, constipation, and nervous irritability

Difference of Green tea and black tea,
The leaves are from the same plant, but are processed differently. For black tea, the leaves are processed in such a way as to allow fermentation, resulting in the dark brown color. For green tea, the leaves are processed and dried in such a way as to avoid fermentation. Oolong is partially fermented. here's a flow chart which outlines each:
8. Tobacco folia, Tobbacco leaves

**Arabic name**
اوراق التبغ

**English name**
Tobacco leaves

**Latin name**
Nicotiana tabacum
Nicotiana rustica

**Family name**
Solanaceae

**Constituents**
- Pyridine alkaloids:
  - Nicotine, chief alkaloid (30-60%)
  - Nor-nicotine
  - Cotinine
  - Myosmine
  - Nicotyrine
  - Anabasine
  - Nicotelline
Action and Uses

In small doses, Tobacco increases blood pressure and the activity of the gastric mucous membrane. In larger doses, it reduces blood pressure and lowers muscle tone of the gastrointestinal tract. Tobacco is a stimulant to the respiratory and central nervous system.

Indications and usage

Unproven Uses: Nicotine is used to help break the smoking habit
Preparation: Nicorette (chewing gum); also as transdermal patches.

India: use the drug to treat toothache, mosquito bites and bee stings. In Brazil and Guyana, Tobacco is used for worm infestation, skin parasites and biliary flow disturbances. The drug's use in these conditions is not advised because of the risk of toxicity.

Precautions and adverse reactions

Tobacco leaves are severely poisonous. The chief toxin is nicotine, a liquid alkaloid, that can be resorbed through the skin.

Overdosage

The lethal dosage for nicotine for an adult is 40 to 100 mg, although this can be considerably elevated through habituation (with smoking Tobacco, 2 to 7 g of the drug; one cigarette contains 10 mg nicotine, of which 1 to 2 mg are inhaled during smoking). Symptoms of an acute poisoning include dizziness, salivation, vomiting, diarrhea, trembling of the hands and feelings of weakness in the legs; very high dosages can lead rapidly to spasms, unconsciousness, cardiac arrest and respiratory failure. Poisonings occur in particular through the ingestion of cigarettes by children, the handling of insecticides containing nicotine (through skin contact) and in connection with the harvesting of Tobacco (also through cutaneous resorption). Nicotine patches also represent a danger for children.
9. Rosemary folia, Rosemary leaves

**Arabic name**
أوراق إكليل الجبل

**English name**
Rosemary leaves

**Latin name**
Rosmarinus officinalis

**Family name**
Labiatae

**Constituents**
- Volatile oil (1.0 to 2.5%) chief components
  - 1,8-cineole (20 to 50%)
  - Alpha-pinene (15 to 25%)
  - Camphor (10 to 25%)
  - Borneol
- Triterpenes: chief components oleanolic acid
- Flavonoids: including cirsimarlin, diosmin
- Diterpenes (bitter): including carnosolic acid (picrosalvin), isorosmanol
- Caffeic acid derivatives: chief component rosmarinic acid
Action and Uses

- Blood pressure problems
- Dyspeptic complaints
- Loss of appetite
- Rheumatism

Rosemary is used internally for dyspeptic disorders and externally for hypotonic circulatory disorders and rheumatic conditions.

The drug is mildly antimicrobial and antiviral (oil)
10. Damiana folia, damiana leaves

**Arabic name**  
دﻣﻴﺎﻧﺔ أوراق

**English name**  
Damiana leaves

**Latin name**  
Turnera diffusa

**Family name**  
Turneraceae

**Constituents**
- Volatile oil (0.5-0.9%): chief components 1,8-cineole, alpha and beta-pinene, p-cymene, as well as thymol, alpha-copene, gamma-cadinene, calamene
- Tannins (4%)
- Resins (7%)
- Hydroquinone glycosides: arbutin (0.2-0.7%)
- Cyanogenic glycosides: tetraphylline B (barterin)

**Action and Uses**
- Unproven Uses: Damiana preparations are used as an aphrodisiac and for prophylaxis and treatment of sexual disorders.
11. Henna folia, Henna leaves

**Arabic name**  
اوراق الحنة

**English name**  
Henna leaves

**Latin name**  
Lawsonia inermis

**Family name**  
Lythraceae

**Constituents**  
- Naphthalene derivatives (1,4-naphthaquinones): in particular  
  - lawsone (2-hydroxy-1,4-naphthaquinone), arising during dehydration of the leaves out of the precursor 1,2,4-trihydroxynaphthalen- 4-beta-D-glucoside  
- Tannins

**Action and Uses**  
Coloring of hair  
"The drug is used externally for eczema, scabies, fungal infections and ulcers. It
is also used for amebic dysentery and gastrointestinal ulcers. In African folk medicine, it is used as an abortifacient. The drug is also contained in facial and hair lotions and is used to treat dandruff.
12. Boldo folia, Boldo leaves

**Arabic name**  أوراق البلدو

**English name**  Boldo leaves

**Latin name**  Peumus boldo

**Family name**  Monimiaceae

**Constituents**
- Isoquinoline alkaloids of the aporphine type (0.25-0.5%): main alkaloid boldine (0.1%)
- Volatile oil (2-39c): chief components are p-cymene, cineol, ascaridole
- Flavonoids: including boldoside, fragroside

**Action and Uses**  Boldo has been shown to be antispasmodic, choleretic and to increase gastric secretions.
Dyspeptic complaints
13. Thyme folia, Thyme leaves

*Arabic name*  أوراق الزعتر

Medicinal Parts: The medicinal parts are the oil extracted from the fresh, flowering herb: the dried leaves; the striped and dried leaves; and the fresh aerial part of the flowering plant.

*English name*  Thyme leaves

*Latin name*  Thymus vulgaris

*Family name*  Labiatae

*Constituents*  
- Volatile oil (LO-2.5%): chief components
  - thymol (20-55%)
  - p-cymene (14-45%)
  - carvacrol (1-10%)
  - gamma-terpinene (5-10%)
  - borneol (up to 8%), linalool (up to 8%)
- Caffeic acid derivatives: rosmarinic acid (0.15-1.35%)
- Flavonoids:’ including among others, luteolin, apigenin, naringenin, riodictyol,
cirsilineol, salvigenin, cirsimaritin, thymonine, thymusine, partially present as glycosides

- **Triterpenes**: including among others, ursolic acid (1.9%), oleanolic acid (0.6%)

**Action and Uses**

Thyme is:

1. a bronchial antispasmodic
2. an expectorant
3. and an antibacterial agent.

In animal experiments, a spasmolytic effect was demonstrated for the flavone fraction and an expectorant effect on ciliary activity for the terpenes.

Approved:

1. Cough
2. Bronchitis
3. Flavoring agent
14. Khat folia, Khat leaves

**Arabic name** 
أوراق الفات

Medicinal Parts: The medicinal parts of the tree are the leaves.

**English name** 
Khat leaves

**Latin name** 
Catha edulis

**Family name** 
Celastroceae

**Constituents**
- Phenyl alkyl amines "alkaloids" (0.3 to 0.9%): khatamine, in fresh leaves as chief effective agent (S)-(−)-cathinone (50% in young leaves, in fully-developed leaves only 2%), becoming dimers during dehydration, as well as (+)-norpseudoephedrine (cathine), (−)-norephedrine, merucathinone, pseudomerucathinone, (−)-formyl norephedrine
- Sesquiterpene polyester alkaloids: cathaedulines K1 to K15
- Catechin tannins
- Volatile oil

**Action and Uses**
The alkaloid-containing drug (chief active ingredient cathinone) is:
1. centrally stimulating and
2. indirectly sympathomimetic (amphetamine-like effect).
3. In addition, the leaf preparations have ulcer-protective and
4. insecticidal effects, and
5. the drug's high tannin content makes it constipating.

**INDICATIONS AND USAGE**

**Unproven Uses**: Khat has been used for centuries in Islamic culture to improve communicative abilities, performance and to suppress feelings of hunger.

The leaves can be chewed or administered as an infusion (Yemen) or paste (Ethiopia/Somalia).

Khat leaves are said to have an aphrodisiac effect and are used for depression, headache, gonorrhea, gastric complaints, coughs, asthma and fever.

*The medicinal use of Khat preparations is obsolete today*
**15. Squill folia, Squill leaves**

![Image of Squill leaves]

**Arabic name**  
أوراق العنصل (الأبيض والأحمر)

**English name**  
White and red squill leaves

**Latin name**  
Urginea maritima

**Family name**  
Liliaceae

**Constituents**
- Cardioactive steroid glycosides (bufadienolides, 1-3%): chief components glucoscillarene A, proscillaridin A, scillarene A; including among others, scillicyanoside, scilliglaucoside
- Mucilage

**Action and Uses**
The drug is inotropic on myocardial work capacity and negatively chronotropic. The overall effect is economy of heart action. There is a lowering of increased, left ventricular diastolic pressure and pathologically elevated venous pressure.

**INDICATIONS AND USAGE**
1. Cardiac insufficiency
2. Arrhythmia
3. Nervous heart complaints
4. Venous conditions
16. Peppermint folia, Peppermint leaves

**Arabic name**
أوراق النعناع

**English name**
Peppermint leaves

**Latin name**
Mentha piperita

Varieties:  Mentha piperita var. officinalis Sole.
Mentha piperita var. vulgaris Sole.

**Family name**
Labiatae (Lamiaceae)

**Constituents**
- Volatile oil: chief components: menthol (35-45%), menthone (15-20%), menthyl acetate (3-5%), neomenthol (2.5-3.5%), isomenthone (2-3%), menthofurane (2-7%), additionally including among others limonene, pulegone, alpha- and betapinene, trans-sabinene hydrate
- Caffeic acid: including among others, rosmarinic acid
- Flavonoids: apigenine-, diosmetin- and luteolin glycosides, free lipophile methoxylized flavone including among others, xanthomicrol, gardenine D
**Action and Uses**

**PEPPERMINT LEAVES**

The drug has a spasmolytic effect on the smooth muscle of the digestive tract. It also has antiviral, antimicrobial, diuretic, chologagic, carminative and mild sedative effect.

**PEPPERMINT OIL**

The drug has a spasmolytic effect on smooth muscle of the gastrointestinal tract. It is a carminative, chologogue, antibacterial, insecticidal and secretolytic agent; it also has a cooling effect on the skin.