



## SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES

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### MISCELLANEOUS DRUGS

#### LINSEED

**Synonyms :** Flax seed, alsii (Hindi).

**Biological Source :** Linseed is the dried, ripe seed of *Linum usitatissimum* Linn. Linseed oil is obtained by expression of linseeds.

**Family :** Linaceae.

**Geographical Source :** Linseed is cultivated in many sub-tropical countries such as South America, India, United States, Canada, England, Russia, Greece, Italy, Spain, and Algeria.

**Morphology :**

- Shape - Oval, flattened, elongated,
- Colour - Reddish-brown with minutely pitted surface.
- Odour - Odourless
- Taste - Oily and mucilaginous taste.



**Chemical Constituents :**

- Linseed contains fixed oil (30–40%), mucilage (6–10%), protein (25%) (linin and colinin), small amount of enzyme lipase, and linamarin which is a cyanogenetic glycoside.
- The carbohydrates present are sucrose, raffinose, cellulose, and mucilage.
- On hydrolysis Linseed oil produces unsaturated acids like linolenic acid, linoleic acid, oleic acid together with saturated acids-myristic, stearic, and palmitic .

**Uses :**

- Linseed is used as demulcent and in form of poultices for gouty and rheumatic swellings. Internally it is used for gonorrhoea and irritation of the genito-urinary system.
- Linseed oil has emollient, expectorant, diuretic, demulcent, and laxative properties and is utilized externally in lotions and liniments.

**Adulterants :**

Linseed oil is adulterated with vegetable oils, such as rape, cottonseed, soyabean, sunflower, safflower and candlenut, as well as with rosin and mineral and fish oils.

**SHATAVARI**

**Synonym :** Asparagus.

**Biological source :**The drug is derived from dried tuberous roots of *Asparagus racemosus* Willd.

**Family :** Liliaceae.

**Geographical Source :** The plant is a climber growing to 1–2 m in length found all over India.

**Characteristics :**

- The roots are finger-like and clustered.
- The roots are cylindrical, fleshy raberous, straight or slightly curved, tapering towards the base and swollen in the middle.
- White to colour.
- Bitter in taste.



### **Chemical Constituents :**

- The active constituents are steroidal saponins, such as, Shata-varin I-IV (0.1–0.2%).
- The aglycone unit is sarsapogenin.
- In shatavarin I three glucose and one rhamnose molecules are attached whereas shatavarin IV possesses two glucose and one rhamnose molecules.

### **Uses :**

- The root is alterative, antispasmodic, aphrodisiac, demulcent, diuretic, galactogogue and refrigerant.
- It is taken internally in the treatment of infertility, loss of libido, threatened miscarriage, menopausal problems, hyperacidity, stomach ulcers and bronchial infections.
- Externally it is used to treat stiffness in the joints.
- The root is used fresh in the treatment of dysentery.

## **SHANKHPUSHPI**

**Synonyms :** Shankhvel, Shankhini.

**Biological source :** Shankhpushpi consists of the whole plant of *Convolvulus pluricaulis*, *Convolvulus microphyllus* Sieb, *Evolvulus alsinoids* Linn.

**Family :** Convolvulaceae

**Morphology ( Flower) :**

- Colour - White/purple
- Odour - Characteristics
- Taste - Bitter
- Shape – Round/bell shaped



### **Chemical constituents :**

Shankpushpi consist of carbohydrate-D-glucose, rhamnase, maltose, sucrose and starch.

### **Uses :**

- It helps to manage digestion and constipation due to its mild laxative property.
- It improves mental health and might help in managing depression due to its antidepressant activity.

## **PYRETHRUM**

**Synonyms:** Insect flower, Pyrethri Flores, Flores Insectorum.

**Botanical source:** Pyrethrum Flower consists of the dried flower-heads of *Chrysanthemum cinerariaefolium*

**Family :** Compositae.

**Geographical source:** The Pyrethrum flower plant is indigenous to the Balkans. The plant is widely cultivated throughout the world, the principal sources being Kenya, Japan, Yugoslavia, East Central Africa, Brazil, and India.

### **Macroscopical Characters :**

- Brownish yellow in colour.
- lanceolate in shape.

- Odour aromatic.
- Taste bitter, acrid.



#### **Chemical constituents :**

The insecticidal properties of Pyrethrum flowers are due to two groups of esters, known as Pyrethrins I and Pyrethrins II, present in them.

These are esters of several keto alcohols (pyrethrolones and cinerolones) and chrysanthemic acid (giving pyrethrins I) or pyrethric acid (giving pyrethrins II).

These are collectively termed as “the pyrethrins”. Official pyrethrum flowers should not contain less than 1.3 percent of total pyrethrins.

#### **Uses:**

Finely powdered Pyrethrum Flower is used as an insecticide. It is a strong contact poison for insects.

#### **Substitutes and Adulterants :**

Flowers of other Chrysanthemum species like Chrysanthemum leucanthemum and Chrysanthemum coccineum have been used as substitutes and adulterants of Pyrethrum Flower.