

Diploma in Pharmacy 1st Year

Pharmacognosy Practical

To study morphological characters of Ispaghula

Aim:

To study morphological characters of Ispaghula

Reference :

Dr. Gupta G.D , Dr. Sharma Shailesh , Kaur Navjit , “Practical Manual of Pharmacognosy” Published by Nirali Prakashan , Pg.No 1 - 4

Biological Sources:

Ispaghula consists of dried seeds of *plantago ovate*, Forskal, belonging to family- Plantaginaeca.

The husk consisting of epidermis is separated from the seeds which has its own importance.

Chemical Constituents:

- Ispaghula seeds contain about 10% mucilage which is present in the eoidermis of testa.
- Mucilage consist of two complex polysaccharides of which one is soluble in cold water and the other soluble in hot water. Chemically it is pentosan and aldobionic acid.
- Pentosan on hydrolysis yield xylose and arabinose and aldobionic acid yields galactournic acid rhamnose. Protein and fixed oil are present in endosperm and embryo

Morphological Characters:

Colour	Pinkish gray to brown
Odour	None
Taste	Mucilaginous
Shape	Ovate, boat shaped, cymbiform
Size	1.5 – 3.5 m long, 1 – 1.18 mm wide
Weight of 100 seeds	0.15 – 0.19 g
Appearance	Seeds are hard, translucent and smooth, the dorsal (convex surface) consist of a small elongated glossy reddish brown spot at the center while the ventricle (concave surface) has a cavity nil urn covered with a thin whitish membrane.

Uses :

- ✓ It is useful in dysentery, Chronic, Diarrhoea, in cases of Duodenal Ulcers and piles It works effectively as a smooth agent.

Result

The morphological study of Ispaghula was performed.