

DIURETICS

Diuretic is defined as any **drug** that increases the flow of urine. **Diuretics** promote the removal from the body of excess water, salts, poisons, and accumulated metabolic products, such as urea. They serve to rid the body of excess fluid (edema) that accumulates in the tissues owing to various disease states.

Punarnava

Synonyms

Hogweed, Raktakunda.

Biological Sources

Punarnava consists of whole roots and herb of *Boerhavia diffusa* belonging to family *Nyctaginaceae*.

Geographical Sources

Genus *Boerhaavia*, consisting of 40 species is distributed in tropical and subtropical regions and warm climate. It is found in Ceylon, Australia, Sudan and Malay Peninsula, extending to China, Africa, America and Islands of the Pacific.

Cultivation and Collection

It grows best in sandy-loam to loam soils. Seeds are sown in well-ploughed raised beds in the month of July-August. Later, these plants are transplanted to the ridges at the spacing of 15x15 cm or 30x30 cm. Irrigate the field immediately after transplanting or as and when required.

Harvesting: Plant can be harvested after 2-3 years of plantation. Roots are dug out cleaned and cut longitudinally for drying. Seeds can be collected in the month of October-November.

Morphology.

B. diffusa . is a perennial creeping weed, prostrate or ascending herb, up to 1 m long or more, having spreading branches. The roots are stout and fusiform with a woody root stock. The stem is prostrate, woody or succulent, cylindrical, often purplish, hairy, and thickened at the nodes. Leaves are simple, thick, fleshy, and hairy, arranged in unequal pairs, green and glabrous above and usually white underneath; ovate-oblong, round or subcordate at the base with smooth, wavy, or undulate margins; up to 5.5×3.3 cm² in area. The fruit is an achene and is detachable, ovate, oblong, pubescent and glandular and viscid on the ribs .

Chemical Constituents

Punarnava contains b-Sitosterol, a-2-sitosterol, palmitic acid, ester of b-sitosterol, tetracosanoic, hexacosanoic, stearic, arachidic acid, urosilic acid, Hentriacontane, b-Ecdysone, triacontanol etc.

Chemical Tests

The qualitative chemical examinations revealed the presence of various phytoconstituents like carbohydrates, saponins, phenolic compounds and mucilages in the extracts.

Uses

Punarnava is found in India and is a valuable medicinal plant. Punarnava is beneficial in treating obesity. Punarnava is effective in treating a disease called dropsy, a condition wherein excess of watery fluid gets accumulated in the tissues and body cavities. A liquid extract of this plant stimulates urine secretion and discharge.

Gokhru

Synonyms

Caltrops fruit.

Biological Source

In Ayurveda two types of Gokhru are used, that is, Bada and Chota Gokhru. The smaller or Chhota Gokhru is the dried ripe seeds of *Tribulus terrestris* Linn., belonging to family **Zygophyllaceae**.

Geographical Source

The plant is an annual, prostrate herb growing throughout India upto 3,500 m in Kashmir

Cultivation and Collection

The plant grows widely in nature and bears yellow coloured spiny fruits.

Morphology

The fruits are yellowish in colour, globose, 1.2 cm in diameter containing five woody, densely hairy, spiny cocci. Large pointed spines are present in each coccus. Two smaller and shorter spines are directed downwards. Several seeds are present in each coccus.

Chemical Constituents

The dried fruits of *T. terrestris* consist of steroidal saponins as the major constituents. It includes terestrosins A, B, C, D and E, desgalactotigonin, F-gitonin. The hydrolysed extract consists of sapogenins such as diosgenin, chlorogenin, hecogenin and neotigogenin. Certain other steroidal such as terestroside F, tribulosin, trillin, gracillin, dioscin have also been isolated from the aerial parts of the herb. The flavonoid derivatives reported from the fruits includes tribuloside and number of other glycosides of quercetin, kaempferol and isorhamnetin. It also consists of common phytosterols, such as, β -sitosterol, stigmasterol and cinnamic amide derivative, terestiamide.

Uses

The fruit has cooling, antiinflammatory, antiarthritic, diuretic, tonic, aphrodisiac properties. It is used in building immune system, in painful micturition, calculus affections and impotency. Improves and prolongs the duration of erection. It exerts a stimulating effect on reproductory organs.