

Piper longum L.

Description:

Scandent or straggling shrubs, sometimes ascending and climbing. Leaves simple, alternate, 8 x 4 cm, ovate, acute at apex, cordate and strongly oblique at base, 7-nerved, membranous, shining above; nerves impressed; petiole 1-3 cm long. Female spike stout, erect; peduncle 1.5 cm long; bracts peltate, orbicular. Male spike to 7 cm long, erect, slender; stamens 2. Berry 2 mm across, glabrous, black or deep red.

Important uses:

It is used as a spice and also in pickles and preserves. The fruits and roots are used as medicine for respiratory disease and as counter irritant and analgesic for muscular pains and inflammation. It has carminative, haematinic and anti-helminthic properties. Many plant-derived compounds have been used as drugs, either in their original or semi-synthetic form. Piper longum or Pipali which was mostly used for household cooking purposes as a spice and as seasoning now is a component of medicine as attested by several studies. It is reported as good remedy for treating gonorrhea, menstrual pain, tuberculosis, sleeping problems, respiratory tract infections, chronic gut-related pain and arthritic conditions. Since a long time P. longum has been used to possess immunomodulatory and antitumor activity. Pharmacological and clinical studies have revealed that piperine, a compound isolated from P. longum act as CNS depressant, antipyretic, analgesic, antiinflammatory, antioxidant, and possess hepatoprotective activities. In addition, piperine has also shown to enhance the bioavailability of several drugs, for example sulfadiazine, tetracycline, streptomycin, rifampicin, pyrazinamide, ionized, thambutol, and phenytoin. Considering its significant effect on the bioavailability enhancing capability of drugs, it has potential to be used as an adjuvant with therapeutic drugs in chronic ailments, to reduce the effective dose of the drug intake thus reducing the subsequent adverse effect.