

Botanic name : *Costus speciosus* (J.Koenig) Sm.-- Trans. Linn. Soc. London 1: 249. 1791 [13 Aug 1791] (IK)

Common name : Crepe Ginger, Stair-case plant

Family : Zingiberaceae

Habitat : Terrestrial

Distribution : Indo-Malayan region and Sri Lanka; becomes endangered flora in several states of India due to unsustainable exploitation for medicinal uses, low multiplication rate, poor seed viability, low percentage of seed germination and scanty delayed rooting of vegetative cuttings

Description : A succulent, erect, perennial, undershrub growing to a height of 1- 3 m, rhizomatous, resembling ginger plant; root stock tuberous stem, sub-woody at the base, thick creeping rhizomes; leaves are 6-12 inch long, slightly oval and 3-4 inch wide; flowers are found in clusters, white in color with reddish end and 2-4 inch long, fragrant, looking like crepe paper, thus "Crepe ginger", with a cupshaped labellum and crest yellow stamens; fruits red in color whereas seeds are black, five in number with a white fleshy aril

Phytochemicals: Costusosides, Saponins- dioscin, gracillin and beta-sitosterol- beta-D-glucoside, cardiac glycosides, anthraquinone Glycosides, flavonoids, alkaloids, phenols, essential oils. Diosgenin, 5 α -stigmast-9(11)-en-3 β -ol, sitosterol- β -D-glucoside, dioscin, prosapogenins A and B of dioscin, gracillin, quinones, α - tocopherol, tricontanoic acids, curcumin and tricontanol, aliphatic hydroxyl ketones, triterpenes, starch mucilage, oxa-acids, fatty acids, abscisic acid and corticosteroids, tigogenin and diosgenin (rhizomes and stems), α -amyrin stearate, β - amyryl and lupeol (rhizomes), palmitates (leaves), palmitic acid, stearic acid, oleic acid, linoleic acid, arachidic acid, gadoleic acid and behenic acid (seed fat), diosgenin, glucose, galactose and rhamnase (defatted seeds). Two new quinones dihydropytilplastoquinone and its methyl derivatives including α -tocopherolquinone are isolated from seeds. Costunolide is a sesquiterpene compound exhibiting preventive effects on intestinal carcinogenesis

Medicinal/Economic uses : Rhizomes are slightly slimy, astringent in taste and used like vegetables in some parts of the Indian subcontinent. Used to treat cough, asthma, indigestion and anorexia (rhizome powder), difficulty in labor and pain (fresh rhizome juice), skin affected with discoloration, black spots and itching due to ring worm infection (leaf and rhizome paste), elephantiasis, fever and intestinal worms (decoction of rhizome). A good blood purifier, plant is also used as absorbent, larvicidal, analgesic, estrogenic, anti-inflammatory, antipyretic, diuretic, anti-microbial, useful in diarrhea, Urinary tract disorders, diabetes, skin diseases, blood disorders such as abscess, skin disorders, bleeding disorders such as menorrhagia, nasal bleeding, IBS, and improves digestion strength (Indian Ayurveda). Also grown as ornamental.