

***Hedychium spicatum* Buch.-Ham.: A High Valued Skin Glowing and Curing Medicinal Herb Needs Future Attention on its Conservation**



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Hedychium spicatum

Family : Zingiberaceae

Local name : Van Haldi, Kapoor kachri, Sati

Trade Name : Kapoor kachri

Status : Near endemic threatened

Market value : Rhizome dry weight @ Rs. 15-60 per kg



***Hedychium spicatum* growing in natural habitat**

Himalaya is known for its rich biodiversity. Due to its rich in forest wealth that ranges from subtropical to unique geographical setup, topography and undulating alpine types. Floristically, it falls under the west Himalayan landscape the climatic conditions varied along an altitudinal biogeographic zone and it is rife with floral diversity gradients which attributes diversified ecological habitats comparable to any other Himalayan region in the country ranging from tropical forest, grassland to alpine meadows with an estimated 4000 species of flowering plants having vast and diverse natural resources. Kedarkhand and great economic, medicinal, aromatic, and aesthetic value. Kurmanchal which is today's Uttarakhand is new hill state In western Himalaya about 500 species of carved out of the northern part of Uttar Pradesh, and lies medicinal plants are used for curing illness from time 28° 43' to 31° 28' north and 77° 32' to 81° 00' east; which is memorial. Anthology also reveals that the life saving forms north-western part of country, starting from upper drug Sanjivani was taken from Dronagiri peak of the Gangatic plain in the south region and extends up to snow Himalaya, which is 3rd highest peak of western Himalaya, claded peaks of the Himadri, marking the Indo-Tibetan the direction of a celestial physician Dhanvantri. The boundary. The state constitutes a unique geographical and Uttarakhand has rainfed conditions and the people have geological entity comprising a diverse social, cultural, agro-very limited life supporting resources and are either economic and environmental setup. The land comprising dependent on subsistence agriculture and tourism as their districts of Garhwal and Kumaun with about 53,484 km² primary livelihood. Hence traditional agriculture is area and 84, 79,562 populations, has many charms to offer uneconomical and can not support the poor farmers of the If the timeless temples and joyous and colourful society region. Nearly 75-78% population of the state is dependent lend it cultural importance, it is the abounding mountains for their food energy on horticultural crop and terrace rivers, flora and fauna that invoke a feeling of awe in farming. Though the maximum population involved in everybody. Being situated in the lap of Himalaya the region agricultural activities but due to subsistence agriculture

ecosystem, the output to feed the needs of people is not sufficient and monetary gain is also very low which forces the youth of the region to migrate in the metropolitan cities in search of better livelihood. However, the state is home to many traditional medicinal resources which have been extracted for modern medicinal uses in the recent years and large scale from all over the Uttarakhand and many nutritional value and become a subject of great interest recently. The ethno-cultural diversity in the Uttarakhand is quite pronounced and folk medicinal practices evolved

parallelly using the native medicinal plants, may become viable and sustainable economic generating option for the region. A conservative society, weak economy and inaccessibility and consequently lack of modern medical facilities in the rural areas of the state are the factors leading to interest toward the indigenous medicinal plants for new and sustainable economic generating option. There is virtually no cultivation cost involved, and therefore is a good source of extra income for farmers. Several medicinal plants (*Taxus baccata*, *Acorus calamus*, *Bergenia ciliata*, *Swertia angustifolia*, *S. chiriyita*, *Berberis* species)

Hedychium spicatum Buch-Ham. belonging to the family Zingiberaceae locally known as Ban-Haldi is a tall perennial herb with leafy stems that grow the beneath of forest cover on marginal land and growing up to 1.5m by 7m. The leaves oblong or oblong-lanceolate, reaching 30 cm or more. Spikes sometimes 30 cm, densely flowered, large, obtuse, oblong, calyx shorter than bract flower is white ascending and closely imbricate type. Stamen shorter than lip, anther linear, capsule glabrous, globose. It flowers in October. The flowers are hermaphrodite (has both male and female organs). *Hedychium spicatum* grows well in moist soil, sunny position and wide range of climatic conditions of forest margins from 1500 to 2800m asl. It tolerates temperature down to about -2°C and has been known to withstand temperatures down to -16°C. It can be grown at the foot of a south-facing aspect if given good mulch in the winter. Plants seem to be immune to the predations of rabbits. The tubers should only just be covered with soil. The plant prefers light (sandy), medium (loamy) and heavy (clay) soils. The plant thrives better in acid, neutral and basic (alkaline) soils. It cannot grow in the shade and is susceptible to frost.

The fleshy rhizomes running at or just below the soil surface which have a so-called indeterminate growth habit

The leafy shoots that emerge above ground and carry the spiky leaves that make *Hedychium* such striking plants even when not in flower. The flowers are borne from midsummer to autumn at the top of the leafy stems although not every stem will produce a flower spike or inflorescence. On the inflorescence the flowers emerges in the axils of green leafy bracts that in some species roll in on themselves to form a tube from which the flowers emerge. Deep dry mulch will help protect against the worst of the winter cold. It is suggested that *Hedychium* should be grown under light shade except in marginal gardens where they are best in full sun. Keeping plants well watered in summer can mitigate the tendency for flowers to go over quickly in full sun. *Hedychium* resent being lifted annually and stored as dry rhizomes over winter. *Hedychium* should preferably be left in situ in the garden over winter. If you are concerned about losing the plant to frost then it should be mulched for the. Alternatively whole clumps can be lifted and potted for the winter. In each case the plants are to exploit the global market of plant derived drugs and

over-wintered under protection still in leaf so that they continue to grow slowly in winter.

Medicinal Uses: The roots and leaves are used in several Ayurvedic preparations and has great potential for export. The powder as well as decoction of root is carminative, digestive; emmenagogue. A small cup of root decoction twice in a day is expectorant; stimulant; stomachic; Tonic; Vasodilator. The one spoonful powder of root thrice in a day is useful in the treatment of liver complaints, and also used in treating fevers, vomiting, diarrhoea, inflammation, pains and snake bite. The root is used in Tibetan medicine, it is said to have an acrid taste and two spoonful powders twice in a day is given for heating potency to the female. It is used in the treatment of indigestion and poor circulation due to thickening of the blood. The rootstock is acrid, bitter, pungent, heating, and astringent. The root powder 3-4 gm 2 times in a day is used in asthma, foul breath, bronchitis, hiccup, vomiting, tridosha, diseases of blood. Root powder is laxative to bowel and decoction is tonic to brain.

Besides above medicinal properties the fruit cooked and eaten in savoury dishes with lentils and also used for essential oil and incense. Crushed dried root both the bruised and the dried root are very aromatic with a fragrant, somewhat pungent smell similar to orris root but more powerful. The rootstock yields 4% essential oil. This oil, which has a scent somewhat like hyacinths, is so powerful that a single drop will render clothes highly perfumed for a considerable period. The dried root is burnt as incense. The Fresh flowers are sweetly scented, the scent being most pronounced towards evening.

Propagation: The seeds of this plant should be sown just after ripening of fruit. Allow to grow large enough and keep at least first winter in its natural habitat and plant out in late spring in the forests margin. For the vegetative propagation dig up the clump and divide it with a sharp spade or knife, making sure that each division has a growing shoot. Larger clumps can be planted out direct into their permanent positions, but it is best to pot up the smaller divisions and grow them in its own nature until they are established. Plant them out in the summer or late in the following spring.

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