

# *Humulus lupulus*



**Family:** Moraceae

**Local/common names:**  
Common Hop, Hop, Hops  
(Lahaul)

**Trade name:** Hops

**Profile:**

*Humulus lupulus* is a species that belongs to the family Cannabaceae and genus *Humulus*, which is a dicot genus. Cannabaceae has sometimes been included in Moraceae or Utricaceae but now it is recognized as a distinct family. In India, *Humulus lupulus* or Hops is a perennial twining herb found in Lahaul and Spiti of Himachal Pradesh. Hops have long-established and well-studied medicinal properties and uses, although new uses and properties are also being explored. Hops are noted to attract wildlife. There are five sub species of *Humulus lupulus*. Hop picking can cause hop dermatitis, leading to purpuric eruptions on the hands, legs and face of the person.

**Habitat and ecology:** It is a climbing dioecious perennial herb, cultivated commercially in Kashmir and Himachal Pradesh, especially in Lahaul. It is native to North America and North Asia. It grows well in parts of Northwestern Himalayas. Hops are suitable for temperate climates. Hops are quite hardy, if other growing conditions are good. They do well over a wide range of soils provided they are fertile and have good moisture holding capacity. It is a climbing dioecious perennial herb, cultivated commercially in Kashmir and Himachal Pradesh especially in Lahaul.

**Morphology:** Perennial twining climber growing up to 6m at a medium rate and is not frost tender. The roots are perennial with many annual angular stems. The leaves are opposite, deep green, serrated, venated, and very rough. The flowers are numerous and of a greenish-yellow in color. Flowers are dioecious (individual flowers are either male or female, but only one sex is to be found on any one plant so both male and female plants must be grown if seed is required) and are pollinated by Wind. Male flowers borne in axillary panicles; female blooms appear in clusters on separate plants. Bracts become papery when the fruiting head is ripe. Fruits achene enclosed in the perianth. All parts of the plant are roughly hairy.

**Distinguishing feature:** Hops is a vigorous and quick growing twining creeper with branched, angular and rough hairy stems and opposite serrate veined and rough hairy leaves. Flowers are dioecious, hence, male and female blooms appear in clusters on separate plants.

**Life cycle:** Flowering takes place in July-August whereas fruiting takes place in September-October.

**Uses:** There are certain therapeutic properties present in this plant. Hop is a good tonic, stomachic and diuretic. It prevents worms. It also has antiseptic properties. The syrup of this plant is used as an herbal remedy for digestive disorders, nervous irritability, insomnia and as an aphrodisiac for men. An effective way of using hops for insomnia is to keep hops in pillows. It has mild sedative and hypnotic properties and therefore is used in anxiety neurosis. The female flowers, commonly called hops, are used as flavoring and stabilizers during beer brewing. They impart bitterness, flavor, and have preservative qualities. Also, the plant is useful for abdominal colic, IBS (Irritable bowel syndrome) and other gastrointestinal upsets. Decoction of the female cones is considered as a good anthelmintic. Two of the many medically active ingredients in Hops are Humulene and Lupuline. Lupuline imparts characteristic bitter flavour to fermented beverages. The volatile oil has a characteristic aroma. Young shoots and immature leaves can be added to salad. Female plants are more ornamental and hence, have a commercial value. Dried female buds have a

high methylbutenol content, which has a mild sedative effect on the central nervous system. It is used in the treatment for stress and anxiety. Hops' antibacterial qualities also stimulate gastric juice production. Hops have been studied for anti-viral and anti-mycobacterial properties. They also contain numerous flavonoids and they have been seen to have estrogen precursors as well. The stem is flexible and very tough, with a tenacious fibre that has been used in some cases to make cloth and paper. It may be noted that hops are closely related to hemp, which is also used for fibre.

**Market rate:** Data not available