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## COMPRESSIVE HERBLE USED IN HAIR

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### Abstract

Hair plays a vital role in human body and it is considered to be protective appendages on the body. The main problems associated with hair such as pigmentation problems (Fading), dandruff and failing of hair. Each hair grows in three cyclic phases. In the catagen phase, the growth activity increases and hair moves to the next phase, catagen phase is between 2-3 weeks. The telogen phase is a state at which the hairs move into resting state as 2-3 months.

In general, 50 to 100 hairs are known to be shed everyday and an increase of more than 100 constitutes a state of hair loss or alopecia. Amla is rich source of vitamin C and contains appreciable amount of pectin rich in mineral matters like phosphorous, iron, calcium. Hibiscus consists of calcium, phosphorus, iron, vitamin B1, riboflavin, niacin and vitamin C, used to stimulate thicker hair growth and prevents premature graying of hair. Bramhi contains alkaloids which enhance protein kinase activity. Methi contains high protein fooder which supply required protein nutrition to hair. Cocos nucifera is used to promote the growth of hair.

### Keywords:

Hair Formulation, Physical parameter, herbal oil, Traditional Ayurvedic Medica, Evergreen shrub.

### INTRODUCTION

#### HERBS USED IN HAIR CARE

##### 1. EMBILIKA OFFICINALIS

The tree is small to medium in size, reaching 1 - 8 m (3 ft 3 inch - 26 ft 3 inch) in height. The branchlets are not glabrous or finely pubescent, 10–20 cm (3.9 - 7.9 inch) long, usually deciduous. The leaves are simple, subsessile and closely set along branchlets, light green, resembling pinnate leaves. The flowers are greenish-yellow. The fruit is nearly spherical, light greenish yellow, quite smooth and hard on appearance, with six vertical stripes or furrows.

**Chemical Constituents:**

*Emblica officinalis* is very high in vitamin C, pectin, polyphenol compounds, gallic acid, ellagic acid, corilagin, phyllantidine and phyllantine (both alkaloids). Its ascorbic acid content ranges from 1000mg to 1700mg per 100grams Also found are hydrolysable tannins punigluconin, pedunculagin and Emblicanin A and Emblicanin.

**EMBILIKA OFFICINALIS****Uses:**

- Emblica exhibits strong antioxidant activity
- It is one of the most important plants in the traditional Ayurvedic medical system as well as other traditional health systems for immunomodulatory,
- Antiulcer, anti-inflammatory
- Hepatoprotective and
- Anticancer actions

Botanical Name	<i>Emblica officinalis</i>
Kingdom	Plantae
Division	Magnoliophyta
Class	Magnoliopsida
Order	Euphorbiales

**2. HIBISCUS ROSA-SINENSIS**

*Hibiscus rosa-sinensis* is a bushy, evergreen shrub or small tree growing 2.5–5 m (8–16 ft) tall and 1.5-3 m (5– 10 ft) wide, with glossy leaves and solitary, brilliant red flowers in summer and autumn.

The 5- petaled flowers are 10 cm (4 in) in diameter, with prominent orange-tipped red anthers.

Leaves and stems contain  $\beta$ -sitosterol, stigmasterol, taraxeryl acetate and three cyclopropane compounds and Flowers contain cyaniding diglucoside, flavonoids and vitamins, thiamine, riboflavin, niacin and ascorbic acid.

Quercetin-3- diglucoside, 3,7-diglucoside, cyanidin-3,5- diglucoside and cyanidin-3-sophoroside-5-glucoside have been isolated from deep yellow flowers. All above compounds and kaempferol-3- xylosylglucoside have been isolated from ivory white flowers.heir derivatives.



**HIBISCUS ROSA-SINENSIS**

**Uses:**

- The flowers of Hibiscus rosa-sinensis are edible and are used in salads in the Pacific Islands
- The flower is additionally used in hair care as a preparation.
- It is also used to shine shoes in certain parts of India. It can also be used as a pH indicator
- When used, the flower turns acidic solutions to a dark pink or magenta color and basic solutions to green.

Kingdom	Plantae
Sub kingdom	Tracheobionta – vascular plants
Super division	Spermatophyta – seed plants
Sub class	Dilleniidae
Order	Malvales

### 3. BRAHMI

Brahmi is the small creeping herb with the numerous branches. It grows to a height of 2 -3 feet and its branches are 10 -35 cm long.

It has oval shaped leaves that are 1-2 cm long and 3- 8 mm broad. Leaves are formed in pairs along the stems. Small tubular, five petaled flowers are white- purple in colour.

Its stem is soft, succulent, and hairy with the glands. Roots emerge out of the nodules and directly go to the soil. The fruit is oval and sharp at apex.

The major phytoconstituent of Brahmi are Bacosides. Bacosides are saponins in nature, which help to repair damaged neurons by enhancing proteins involved in the regeneration of neural-cell synapses in body.

The alkali Brahmine resembles strychnine in action but is less toxic. It contains stigma sterol in free state.

The active principle, Hersaponin resembles reserpine and chlorpromazine in action



**BRAHMI**

#### Uses:

- Bacopa has been used in traditional Ayurvedic treatment for epilepsy and asthma.
- It is also used in Ayurveda for ulcers, tumors, ascites, enlarged spleen, inflammations, leprosy,
- anemia and gastroenteritis

Kingdom	Plantae- plants
Kingdom	Magnoliophyta
Class	Magnoliopsida
Family	Scrophuaraiaceae
Order	Lamiales
Species	Bacopamonnier

#### 4. FENUGREEK

*Trigonella foenum-graecum* is an herbaceous annual plant in the family Fabaceae grown for its leaves and seeds which are used as a herb or spice. The fenugreek plant may have a single stem or may be branched at the stem base. The leaves of the plant are small and trifoliate with oval leaflets which are green to purple in color.

Trigogenin, neotrigogenin, diosgenin, yamogenin, 4-hydroxyisoleucine, vitexin, isovitexin, saponaretin, homoorientin, vicenin-1, vicenin-2 and two flavonoid glycosides quercetin and luteolin and steroidal saponins have been isolated from seeds.



#### FENUGREEK

#### Uses:

Fenugreek has been used for controlling high blood sugar in people with diabetes. Some supplement products have been found to contain possibly harmful impurities/additives.

Kingdom	Plantae- plants
Division	Magnoliophyta
Class	Magnoliopsida
Order	Fabales
Species	<i>Foenum-graecum</i> Linn
Species	<i>Bacopamonneri</i>

#### 5. NEEM LEAVES

**Neem:** 15–20 m (about 50–65 feet). Flowers: Very sweet scented, especially at night, appear in March–May; white and fragrant; arranged auxiliary, normally in more-or-less drooping panicles which are up to 25 cm (10 in.) long; inflorescences branch up to the third degree, bear from 150 to 250 flowers; individual flower is 5–6 mm long and 8–11 mm wide; protandrous, bisexual flowers and male flowers exist on the same individual.

**Fruit:** Ripes in July and August, evergreen, the old foliage persisting till after the young leaves have expanded; branches wide spread.

**Leaves:** The opposite, pinnate leaves are 20–40 cm (8 to 16 in.) long, with 20 to 31 medium to dark green leaflets about 3–8 cm (1 to 3 in.) long; terminal leaflet is often missing; petioles short.



**NEEM LEAVES**

**Uses :**

- Neem leaves are dried and burnt in the tropical regions to keep away mosquitoes.
- These flowers are also used in many Indian festivals like Ugadi.
- Neem products are believed by siddha and Ayurvedic practitioners to be antihelmentic, antifungal.
- Antidiabetic, antibacterial, antiviral, contraceptive and sedative. Neem oil is also used for healthy hair, to improve liver function, detoxify the blood and balance blood.
- Sugar levels Neem leaves have also used to treat skin diseases like eczema, psoriasis etc

Kingdom	Plantae- plants
Subkingdom	Tracheobionta
Super division	Spermatophyta
Division	Magnoliophyta
Class	Magnoliopsida
Family	Meliaceae

## 6. COCOS NUSIFERA

Cocos nucifera trees have a smooth, columnar, light grey-brown trunk, with a mean diameter of 30-40 cm at breast height, and topped with a terminal crown of leaves. Tall selections may attain a height of 24-30 m; dwarf selections also exist.

Trunk slender and slightly swollen at the base, usually erect but may be leaning or curved. Leaves pinnate, feather shaped, 4-7m long and 1-1.5 m wide at the broadest part.

Leaf stalks 1-2 cm in length and thornless. Inflorescence consists of female and male auxiliary flowers. Flowers small, light yellow, in clusters that emerge from canoe-shaped sheaths among the leaves. Male flowers small and more numerous.

Female flowers fewer and occasionally completely absent; larger, spherical structures, about 25 mm in diameter. The chemical constituents of cocos nucifera have some biological effects such as antihelmintic, antiinflammatory, antinociceptive, antioxidant, antifungal, antimicrobial and antitumor activities



### COCOS NUCIFERA

#### Uses:

The oil and milk derived from it are commonly used in cooking and frying. Coconut oil is also widely used in soaps and cosmetics. The husk and leaves can be used as material to make a variety of products for furnishing and decorating.

Coconuts have been used in traditional medicine around the world to treat numerous ailments, ranging from sore throat, colds, and earaches to tuberculosis, tumors and ulcers. Recent medicinal studies have found that coconut can have antibacterial, antifungal, antihelmintic and antiviral properties, among other health.

Kingdom	Plantae
Subkingdom	Tracheobionta
Super division	Spermatophyta
Division	Magnoliophyta
Class	Liliopsida
Family	Areaceae

## 7. HENNA

Henna is a tall shrub or small tree, standing 1.8 to 7.6 m tall (6 to 25 ft). It is glabrous and multibranched with spinetipped branchlets.

The leaves grow opposite each other on the stem. They are glabrous, sub-sessile, elliptical and lanceolate (long and wider in the middle ; average dimensions are 1.5-5.0 cm x 0.5-2 cm or 0.6-2 cm x 0.2-0.8 cm) acuminate and have depressed veins on the dorsal surface.

Henna flowers have four sepals and a 2mm calyx tube with 3mm spread lobes. Its petals are obvate with white or red stamens found in pairs on the rim of the calyx tube. The ovary is four-celled, 5 mm long and erect. Henna fruits are small, brownish capsules, 4-8mm in diameter with 32-49 seeds per fruit and open irregularly into four splits.



**HENNA**



**Uses:**

- Henna leaves are used as a prophylactic agent against skin diseases by applying the henna paste.
- On the affected areas Henna leaves have anti-fungal property and the henna paste can be applied even on the nails.
- Any affected part continuously for 15 days to cure the fungal infection.
- The paste of henna leaves can be applied for treating headache and burning sensation feet.
- The henna leaves act against tubercular bacteria and other bacteria and also in typhoid and haemorrhagia.
- Henna is used in the hair care products like rinses, conditioners and application.

Kingdom	Plantae
Subkingdom	Tracheobionta
Division	Magnoliophyta
Class	Magnoliopsida
Subclass	Rosidae
Family	Lythraceae

**8. ALOE VERA**

Aloe vera has succulent leaves that are arranged in a rosette. The leaves are a gray-green colour.

Aloe vera is an important and traditional plant belonging to the family Liliaceae.

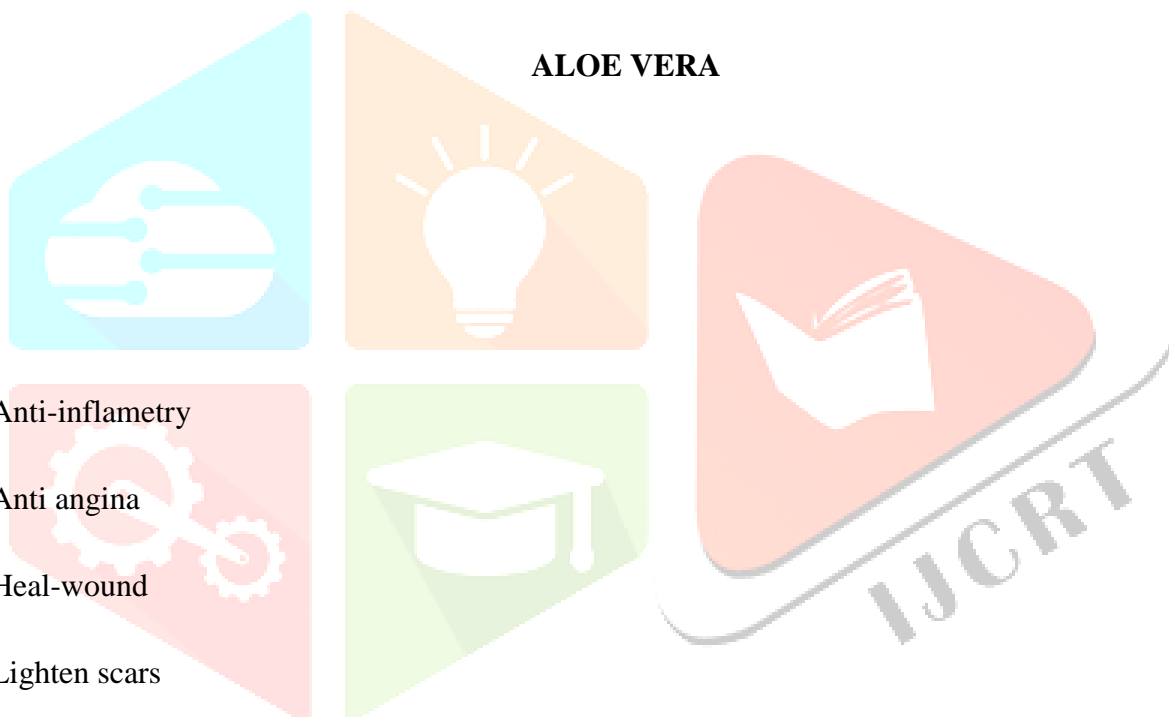
Aloe vera has been known for its healing properties and medicinal uses for 6000 years.



**ALOE VERA**

**Uses:**

- Anti-inflametry
- Anti angina
- Heal-wound
- Lighten scars



Kingdom	Plantae
Scientific Name	Aloe bardinesie miler
Found	Asia, urop amerika
Botanical nane	Aloe bardinesie miler
growing	Dry region
Family	shrubby

## 9. Vetiver

Vetiver can grow upto 150 cm (5 ft) high and form clumps as wide The stems are tall and the leaves are long, thin and rather rigid. The flowers are brownishpurple. Unlike most grasses, which form horizontally spreading, mat like root systems, vertiver's roots grow downward, 2 meters (7 ft) to 4 meters (13 ft) in depth.

**Chemical Constituents:** The chemical constituents present in the plant are Vetiverol, Vetivone[18]. Khusimone, Khusimol, Vetivene, Khositone, Terpenes, Benzoic acid, Tripene-4-ol,  $\beta$ -Humulene, Epizizianal, vetivenyl vetivenate, iso khusimol, Vetiver oils, vetivazulen[19]. E Zizaene, prezizaene, bvetispirene. Among these, the major active constituents identified are khusimol, vetivone, eudesmol, khusimone, zizaene, and prezizaene which are considered to be the fingerprint of the oil



**Vetiver**

### Uses:

- Vetiver grass is grown for many different purposes.
- The plant helps to stabilize soil and protects it against erosion, but it can also protect fields against pests and weeds
- Vetiver has favorable qualities for animal feed. From the roots, oil is extracted and used for cosmetics, aromatherapy, herbal skincare and ayurvedic soap.
- Due to its fibrous properties, the plant can also be used for handicrafts, ropes and more

Kingdom	Plantae
Subkingdom	Tracheobionta
Super division	Spermatophyta
Division	Magnoliophyta
Class	Liliopsida
Species	Vetiveria zizanioides

## CONCLUSION:

The present review is to know about the various constituents available in herbal extracts such as minerals and amino acids may be the cause for the significant hair growth activity.

All these drugs not only show remarkable activity but are also devoid of potential side effects as compared to synthetic drugs.

It gets absorbed into the scalp with in a shorter period of time and thus acts as nourishment to hairs. It acts as natural hair nourisher, helping in hair growth by the reduction of hair fall.

Due to the addition of Neem it also acts as antidandruff hair tonic. Amla and Eclipta alba helps in thickening and blackening of hair.

Hibiscus helps in hair softening resulting in healthy growth. All these dried and powered drugs mixed with coconut oil in sufficient quantities will give a permanent solution for hair fall and proper hair growth.

This hair tonic also effectively used in treating headaches because of cooling effects and thus relieves from stress and strain conditions It has shown good hair growth results without any allergic or side effects as it is completely constituted with naturally occurring crude drugs.

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