



A REVIEW ON HAIR CONDITION PROPERTIES OF VARIOUS MEDICINAL HERBS

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ABSTRACT

The rising preference for natural and plant-based products has led to significant growth in the use of herbal cosmetics in the global personal care industry. Herbal cosmetics incorporate botanicals rich in bioactive compounds that support skin and hair health while minimizing adverse effects commonly associated with synthetic agents. This review provides an extensive overview of the origins, classification, preparation methods, and therapeutic importance of herbs used in cosmetic formulations. A wide range of medicinal plants—including *Aloe vera*, *Azadirachta indica* (neem), *Curcuma longa* (turmeric), *Lawsonia inermis* (henna), *Camellia sinensis* (green tea), *Cocos nucifera* (coconut), *Acacia concinna* (shikakai), *Prunus amygdalus* (almond), and *Santalum album* (sandalwood)—are identified for their moisturizing, antioxidant, anti-inflammatory, antimicrobial, UV-protective, and rejuvenating properties. These herbs are widely used in creams, lotions, hair oils, shampoos, conditioners, face masks, and other cosmetic preparations. By supplying essential nutrients, regulating sebum production, promoting collagen synthesis, and protecting against environmental damage, herbal ingredients play a crucial role in maintaining skin integrity and supporting healthy hair growth. The review also highlights the importance of quality control, standardization, and safety evaluation to ensure the effectiveness and long-term stability of herbal products. As demand for safe, eco-friendly, and sustainable cosmetics continues to rise, herbal formulations represent a promising and rapidly expanding area in modern cosmetology.

INTRODUCTION

The Drugs and Cosmetics act defines cosmetics as anything that is meant to be rubbed, poured, sprinkled, sprayed, or otherwise applied to the human body or any portion of it in order to clean, enhance beauty, promote attractiveness, or change appearance.^[1] Products that are formulated using various Cosmetic Ingredients that are permitted to form a base in which more than one Herbal Ingredient are used" is how herbal cosmetics are defined. That is used to Provide Specified Cosmetic Benefits Only.^[2]

In prehistoric times, around 3000 B.C., man utilised colour as adornment to draw the animals he wanted to hunt. He also used colour to shield himself from assault by the adversary by decorating his body and colouring his skin to make the enemy (whether a man or an animal) fear him. Cosmetics' early history was entwined with superstition, religion, fighting, hunting, and other

activities.^[3]

There has been a significant variance in how herbal cosmetics are used on a daily basis. Herbal soaps, polyhedral soaps, herbal conditioner, face washes, shampoos, lip balms, eye care, and many other products are included. The fact that all of the ingredients in herbal cosmetics are natural is the most crucial and significant aspect of their manufacture. These substances have no negative skin reactions that affect the body.^[4] In commercial cosmetic formulation, botanical extracts that maintain the texture and integrity of skin and hair are frequently employed.^[5]

Herbal Cosmetics: Products marketed as herbal cosmetics are composed of a range of acceptable cosmetic components as the foundation plus one or more herbal elements that are used exclusively to give particular cosmetic benefits.

Preparation of Cosmetics: Formulations are mainly divided into three categories -

Solid: Talcum powder, face powder, face packs, masks, compact Powder, pastes *etc.*

Semi-Solid: creams, liniments, ointment, wax base, creams *etc.*

Liquid: Lotion, moisturizers, hair oil, shampoos *Etc.*^[6]

Classification of Cosmetics:

Cosmetics for the Skin

1. Creams
2. Lubricants lubricating or emollient Cream - night cream
3. Skin protective & hand cream
4. Vanishing cream -foundation cream
5. Cosmetics lotions
6. Miscellaneous creams
7. Cosmetics lotions
8. Hand Lotion
9. Skin toning lotion-skin fresheners
10. Astringent lotions
11. Sun Screen

12. Make-up preparation
13. Lipstick
14. Sunburn external medicines

Cosmetics for the Hairs

- A. Hair preparation
- B. Shampoos
- C. Rinses & conditioners.
- D. Oily scalp hair tonics
- E. Hair dressing
- F. Fixatives
- G. Bleaches
- H. Depilatories
- I. Herbal cosmetics for various types of skin

For Dry Skin

Example: cord folia (manjista), Triphala Tulsi

Fruit Face Mask

Example: Banana or avocado pulp *etc.*

For Sensitive skin

Example: Triphala, Nimba in coconut oil *etc.*

For Oily Skin

Example: Tulsi, Idhova, Nimba, curcuma longa *etc.*^[7]

Table No. 01. Detail of herbs (Latin name, Common name, Part used, Uses.

Latin name	Common name	Part used	Uses
Acoruscalamus	Sweet flag	Rhizome	Aromatic, Dusting Powder, skin Lotions
Allium sativum	Garlic	Bulb	Promote Skin healing, Antibacterial
Aloe vera	Aloe	Leaf	Moisturizer, sun screen Emollient
Alpinia galangal	Galangal	Rhizome	Aromatic, Dusting powder
Avena sativa	Oat	Fruit	Moisturizer, skin tonic
Azadirachta indica	Neem	Leaf	Antiseptic, reduce dark spots, antibacterial
Calendula officinalis	Marigold	Flower	Skin care, anti- inflammatory, antiseptic
Centella asiatica	Gotu gola	Plant	Bound healing, reduce stretch marks creams
Cichorium intybus	Chikori	Seed	Clear skin of blemishes
Citrus aurantium	Orange	Peel	Skin creams, anti-acne, antibacterial
Curcuma longa	Turmeric	Rhizome	Antibacterial, antimicrobial skin creams
Cyperus rotundus	Nagarmotha	Root	Suntan, astringent, anti- inflammatory
Daucus carota	Carrot	Seed	Natural source of Vit. A, creams
Euphorbia hirta	Spurge herbs	Entire	Skin diseases, cracked lips
Rubiacordifolia	Manjistha	Root	Wound healing, Lighten pigmentation marks

HERBS FOR HAIR COSMETICS

Table No. 2: Herbs For Hair Cosmetics.

Latin name	Common Name	Part used	Uses
Aloe Vera	Aloe	Leaf	Moisturizer, shampoos
Azadirachta indica	Neem	Leaf	Antif-atigue graying of hair, Alopecia
Bacopa monnari	Brahmi	Entire herb	Hair growth, Good for sleep, shampoos
Cedrus deodara	Deodar	Wood	Soap, shampoos
Centella asiatica	Gotu kola	Plant	Hair care, Darkening of hair oil
Citrus lemon	Lemon	Peel	Prevent hair loss
Eclipta alba	Bhringraj	Plant	Promoting hair growth, Shampoos, Hair oil
Emblica officinalis	Amla	Fruit	Hair care, prevents grayness, Anti stress
Hibiscus rosasinesis	China rosa	Flower	Improves hair, prevents premature greyness
Lawsonia alba	Heena	Leaf	Hair growth, Natural conditioner
Martica chamomilla	Chamomile	Flower	Hair tonic

Moringaoleifera	Benjamin	Seed	Hair oils
Sapindustrifoliatum	Soap wort	Fruit	Natural detergent, shampoos
Triticumsativum	Wheat germ	Germ	Natural source of Vit. E, shampoo
Wedeliacalendulaceae	Bhangra	Entire herb	Hair care, shampoos
Rosa centifolia	Gulab	Rose	Coolant, Antifatigue
Acacia concina	Shikakai	Pod	Natural cleansing agent, Detergent

Types Of Herbal Products

Cold Creams: It is an emulsion in which fat predominates, yet when applied to the skin, the water contained in it evaporates to give a cooling effect. e.g. Almond oil.

Vanishing Creams: Creams that are referred to as foundation crease because they vanish when applied to skin. e.g. cleansing creams- Rose oil.

Cleansing Cream: Cleansing cream is an oil-in- water emulsion that rapidly spreads over the skin and melts at body temperature.

Face Lotion: These products, often known as bleaching lotions, genuinely lighten skin like whitening creams do.

Types of Herbal Hair Care Products

Hair Oil: The hair oils are used to style, nourish, and add grace to the appearance of hairs. The treatment that is utilised to promote healthy hair development. E.g. Arnica, shikakai.

Hair Lotion: The hair follicles are stimulated by the use of hair lotion. They are typically perfumed with rosemary oil and other astringents since they have good stimulating properties.

Shampoo: Is surfactant preparation in Suitable for the liquid, solid, or powder, as long as it is used under the specified circumstances Specified will eliminate skin debris, superficial grime, and grease. From the hair shaft and scalp without harming the user's health or holy scalp.^[7]

Herbs used in Cosmetic with their Benefits

Table no. 03: Botanical details of plants.^[15,16,17,18,19,20,21,22]

S.No.	Common / Botanical Name	Scientific Name	Family	Kingdom	Species
1	Coconut oil	<i>Cocos nucifera</i>	Arecaceae (Palm family)	Plantae	<i>nucifera</i>
2	Aloe vera	<i>Aloe vera</i>	Asphodelaceae (formerly Liliaceae)	Plantae	<i>vera</i>
3	Turmeric	<i>Curcuma longa</i>	Zingiberaceae	Plantae	<i>longa</i>
4	Green tea	<i>Camellia sinensis</i>	Theaceae	Plantae	<i>sinensis</i>
5	Henna	<i>Lawsonia inermis</i>	Lythraceae	Plantae	<i>inermis</i>
6	Avocado oil	<i>Persea americana</i>	Lauraceae	Plantae	<i>americana</i>
7	Ginkgo biloba	<i>Ginkgo biloba</i>	Ginkgoaceae	Plantae	<i>biloba</i>
8	Neem	<i>Azadirachta indica</i>	Meliaceae	Plantae	<i>indica</i>
9	Almond oil	<i>Prunus amygdalus</i> (syn. <i>Prunus dulcis</i>)	Rosaceae	Plantae	<i>dulcis</i> / <i>amygdalus</i>
10	Shikakai	<i>Acacia concinna</i>	Fabaceae (Leguminosae)	Plantae	<i>concinna</i>
11	Carrot	<i>Daucus carota</i>	Apiaceae (Umbelliferae)	Plantae	<i>carota</i>
12	Sandalwood	<i>Santalum album</i>	Santalaceae	Plantae	<i>album</i>

1. COCONUT OIL (*Cocos nucifera* L.)

The natural and ayurvedic line of skincare and hair-care products now includes coconut oil. It is a great way to hydrate your body and is even utilised in lip balms.

Along with being an excellent source of moisture for the skin, it has anti-acne qualities. It has a reputation for having penetrative qualities, which guarantee that the oil will reach your skin's deeper layers and increase moisture. Protein is crucial for hair. Environmental factors including pollution and sun damage cause the majority of hair loss. Coconut oil feeds the hair follicles by penetrating deeply into the hair shaft.



FIG. 1: COCONUT OIL

Benefits of Coconut Oil

Reduce Acne

- Moisturizer skin.
- Exfoliates skin.
- Stimulate hair growth.
- Reduces dandruff and lice.
- Prevent breakage.
- Provide a natural shine.
- Act hair protector.^[8]

2. ALOE VERA

There are no naturally occurring populations of aloe vera, a kind of medicinal plant in the liliaceae family, however closely related aloes are present in northern Africa.^[9] Due to its nourishing, hydrating, and skin-healing gel, which hydrates and repairs your skin and hair when applied, it is a crucial ingredient in many beauty and health products. It has proteolytic enzymes that are ideal for repairing and regenerating cells on the scalp. Due to its healing, moisturising, and softening properties, it is a common ingredient in cosmetic products. Just cut a leaf off of the aloe vera plant to get the soothing gel out. Aloe vera includes antioxidant-active vitamins A, C, E, B, choline, folic acid, and amino acids like leucine and isoleucine. It also has saponin glycosides that have a cleaning effect.



FIG. 2: ALOE VERA

Benefits of Aloe vera

- ❖ Help soothe sunburn.
- ❖ Lightens to moisturize on the face.
- ❖ Helps in hair growth.
- ❖ Keep dandruff at bay.
- ❖ Act as a conditioner to the hair and scalp.^[10]

3. TURMERIC

Curcuma longa, also known as turmeric, is a rhizomatous herbaceous perennial plant in the ginger family (Zingiberaceae). In numerous Hindu celebrations, turmeric is used. Turmeric improves the qualities of the skin rather than making it darker. Can efficiently remove dark spots without having any negative side effects. Your skin's Complexation will be enhanced if you combine turmeric with other moisturising nutrients like milk or honey. Hindu brides, in particular, would put turmeric on their bodies to appear radiant. Babies are often given

turmeric to rub on their foreheads as a good luck charm. Women typically use turmeric to their cheeks to create a glowing natural golden colour.



FIG. 3: TURMERIC

Benefits of Turmeric

- ✚ Treat acne.
- ✚ Banishes dark circles.
- ✚ Lightens scars and marks.
- ✚ Moisturises dry skin.
- ✚ Prevent early signs of aging.
- ✚ Fight of severe skin conditions.^[11]

4. GREEN TEA

Green tea is a specialty skin protectant that is prepared exclusively from the leaves of the *Camelia sinensis* plant, which is a member of the Theaceae family. Green tea can be eaten topically, as a beverage, or as a food supplement.

It contains Vitamin E that is known for its ability to nourish and hydrate the skin. It not only moisturises the skin, it also brightens and repairs it. This chemical lightens dark spots, acne scars, and other skin irritations brought on by environmental aggressors and helps to repair UV damage.



FIG. 4: GREEN TEA

Benefits of Green Tea

- ✓ Reduces skin inflammation

- ✓ Treats acne
- ✓ Exfoliates gently
- ✓ Hydrates the skin.^[12]

5. HENNA

The most popular is henna, which is used as a natural hair dye and for temporary body tattoos. Henna has been utilised by eastern cultures for thousands of years and has various medicinal benefits. Cleopatra herself used henna to paint her body.

Henna comes from the *Lawsonia inermis* plant family. Henna powder is made by processing the colourant lawsone, which is a member of the Lythraceae family. Gallic acid, glucose, mannitol, lipids, resin (2%), mucin, and trace amounts of an alkaloid are present in addition to lawsone.

The plant produces henatannic acid and an olive oil-green resin that is present in the leaves and soluble in ether and alcohol. It adds thick, glossy texture and lustrous shine. Henna can help with wrinkles, fine lines, and other signs of ageing. Scars, dark spots, and other skin flaws are greatly lessened.



FIG. 5: HENNA

Benefits of Henna

- ✚ It enhances hair growth
- ✚ Repair and strengthen hair
- ✚ Regulates oil secretion
- ✚ Conditions hair
- ✚ Hel prevent dandruff.^[13]

6. AVACADO OIL

The avocado is also known as *Persea americana*. Avocado oil is a source of vitamin E, vitamin D, B-carotene, protein, fatty acids, and lecithin. When added to formulations, avocado oil provides outstanding benefits everything from plants to avocado oil. Two examples of herbal excipients that calm and shield the skin are comfrey and rosemary.



FIG. 6: AVACADO OIL

Benefits of Avacado Oil

- ❖ Calm itchy skin
- ❖ Heal chapped skin
- ❖ Replenish dry skin
- ❖ Protect against skin damage

7. GINKGO BILOBA

The ginkgo tree is the source of *Ginkgo biloba*, a plant that belongs to the Ginkgoaceae family. It is perfect. It is a circulatory tonic and is particularly good at bolstering the tiny capillaries that link the brain to all other organs. Its leaves were used to make an extremely beneficial extract for the skin. A pure mixture created from the tree's leaves is the G. biloba Extract EGb 761. Terpenes (6%), which have shown the ability to be extracted from the leaves of linermis, and flavone glycosides (33%), which are largely derivatives of quercetin and kaempferol, have shown significant antifungal and antibacterial effect.



FIG. 7: GINKGO BILOBA

Benefits of Ginkgo biloba

- Prevent premature aging
 - Has anti-inflammatory properties
 - Helps with hyper-pigmentation
 - Increase collagen production
- Can repair damaged bor irritated skin.

8. NEEM

Neem, commonly referred to as margosa, is the botanical

relative of mahogany. It belongs to the family Meliaceae. Neem's latinized name, *Azadirachta indica*, is a translation from Persian.

Neem produces chemicals that are antifungal, antibacterial, pain-relieving, and anti-compound, which is why it is utilised in dandruff treatments.



FIG. 8: NEEM

Benefits of Neem

- ❖ Moisturises the skin
- ❖ Soothes inflamed and irritated skin
- ❖ Fight multiple sign of premature aging
- ❖ Tackles blackheads and white heads
- ❖ Treats uneven skin tone
- ❖ Protect against environmental damage.^[13]

9. ALMOND OIL

It contains large amounts of phytochemicals, fibre, vitamins, fats, and minerals. Sweet almond oil is better for your skin than other types. It has advantageous components like zinc, vitamins A and E, and omega 3, which contains retinol and antioxidants in addition to useful vitamins.



FIG. 9: ALMOND

Benefits of Almond

- ✚ Remove dandruff
- ✚ Remove dead cells from the scalp
- ✚ Moisturises the skin
- ✚ Elements deals with skin concerns.^[13]

10. SHIKAKAI

Herbis, scientifically known as *Acacia Concinna*, is a climbing plant that encourages the growth of hair. Controls dandruff, lessens skin conditions, and reduces hair loss. These soap pods are used to wash the scalp and strengthen the hair from the roots since they contain natural surfactants. Providing comfort for scaling. It works like magic on hair. A medicinal plant known as *Acacia concinna* Linn. (Leguminosae) grows in southern Asian tropical rainforests. The fruits of this plant are used as a purgative, expectorant, emetic, and for increasing hair growth. There are saponins, alkaloids, sugar, tannin, flavonoids, and anthraquinone glycosides in the powder of *Acacia concinna* Linn.



FIG. 10: SHIKAKAI

Benefits of Shikakai

- ❖ Impart shine and softness to hair
- ❖ Remove hair lice and dandruff
- ❖ Provide stronger and thicker hair
- ❖ Heals infection
- ❖ Nourishes hair follicles.^[13]

11. CARROT

This vegetable is made from the *Daucus carota* plant, which is a member of the Apiaceae family. Carrot seed oil is utilised as an anti-aging, renewing, and wrinkle-reducing agent. It encourages the growth of new cells. As a natural toner, it.^[14]



FIG. 11: CARROT

Benefits of Carrot

1. Carrot strengthens resistance to ultraviolet (UV) rays.
2. Premature aging and wrinkling.
3. It contains natural oil which moisturises the skin.
4. It contains vitamin C.^[13]

12. SANDALWOOD

A potent antibacterial, emollient, and anti-inflammatory ingredient is sandalwood. It has cooling qualities and is believed to ease the *Pitta dosha* in Ayurvedic scriptures. In addition to preventing infection in regions with acne, cuts, or small wounds, sandalwood's antiseptic properties also help keep the skin clean by preventing the growth of bacteria.



FIG. 12: SANDALWOOD

Benefits of Sandalwood

- ❖ Sooth inflammatory skin conditions like eczema, dermatitis and psoriasis.
- ❖ it has cooling properties
- ❖ A painful sunburn or prickly heat can be quickly cooled down^[14]

CONCLUSION

In the morden medicinal preparations, herbs are crucial to a rise in herbal interest is a proponent of the movement for lifestyle reform. These herbal-based cosmetics are currently the focus of the personal care market. Utilising bioactive substances in cosmetics affects the biological processes of the skin and supplies it with the nutrients it needs to maintain healthy skin and hair. The best way to lessen skin and hair issues is to use cosmetics. The market for herbal cosmetics is rapidly growing. Herbal cosmetics require the quality control test to be conducted. Longer amounts of time are considered to be safe.

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