



HERBAL COSMETICS

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ABSTRACT

Human beings have been using herbs for different purpose like food, medicine, beautifying. The word cosmetic was derived from the Greek word “kosm tikos” meaning having the power, arrange, skill in decorating. The natural herbs and their products when used for their aromatic value in cosmetic preparation are termed as herbal cosmetics. The increased demand for the natural product has created new avenues in cosmeceuticals market. The herbal Cosmetics have been the first choice of the customers, for being more potent, easily available and thought to be less side effective. Herbal cosmetics are Fastest growing field of personal care products. Cosmeceuticals is the fastest growing segment of thepersonal care products these are cosmetic preparations which contain biologically active principles or ingredients of plant origin. In recent years there is an increased demand for the use of herbs in cosmetics due to their mild action and less toxic in nature and they are found to be more effective.

KEYWORDS: Herbal cosmetics, cosmeceuticals, herbs, skin care, skin cosmetics, tooth cosmetics, hair cosmetics.

INTRODUCTION

The concept of beauty and cosmetics dates back to ancient mankind and civilization. Generally herbal cosmetics are also referred to as natural cosmetics. Herbal cosmetics are formulated, using different cosmetic ingredients to form the base in which one or more herbal ingredients are used to cure various skin ailments. Plants are highly used for development of new drug products for cosmeceuticals and pharmaceutical applications. Herbal cosmetics are the products in which herbs are used in crude or extract form All human being have urge to look beautiful.

It is because of this reason that they have been using different types of materials from time immemorial. In early period cosmetics were associated with religious practices. It is almost true for all old civilizations like Indian, Chinese, and Egyptian & Greek. Ubtan with flour, turmeric and vegetables oil before marriage is still practiced in India. Kum Kum is still being applied by women. During the early period, all cosmetics items were made in the home. Natural materials like aromatic materials, spices, herbs, resins, dyes, fats, oils, and the used in various cosmetics.

Now-a-days the usefulness of herbs in the cosmeceutical production has been extensively increased in personal care system and there is a great demand for the herbal

cosmetics. Cosmetics are the substances is to be applied to the human body for cleansing, beautifying, promoting attractiveness, and altering the appearance without affecting the body's structure or functions. The word cosmetic was derived from the Greek word “kosm tikos” meaning having the power, arrange, skill in decorating.

The skin and hair beauty of individuals depends on the health, habits, routine job, climatic conditions and maintenance. The skin due to excessive exposure to heat will dehydrate during summer and causes wrinkle, freckles, blemishes, pigmentation and sunburns. The extreme winter cause damages to the skin in the form of cracks, cuts, maceration and infections.

The use of natural herbs ingredients in personal and health care product has been emerged for its better experiences. Recent researchers proves that herbs while being more effective as they mild and soothing. Potent synthetic preparation and chemicals, though effective, constitute a toxic burden to human body. Herbal Cosmetics, referred as Products formulated by various natural herbal ingredients are used in as base in preparation of effective herbal cosmetic. Herbs do not produce instant cures. They offer a way to put the body in proper tune with nature.

The demand of herbal medicines is increasing rapidly due to their skin friendliness and lack of side effects. The best thing of the herbal cosmetics is that it is purely made by the herbs and shrubs and thus is side-effects free. The natural content in the herbs does not have any side effects on the human body; instead provide the body with nutrients and other useful minerals.

Advantages of herbal cosmetics over synthetic

1. Naturally Available

Herbal cosmetics are made by herbs which are easily available from nature; they are free from all the harmful synthetic chemicals. Although herbal cosmetics prepared by naturally available plant parts and plant extracts, they may as effective as synthetic product. e.g. aloe-vera gel and coconut oil. They also consist of natural nutrients like Vitamin E, Vitamin C that beautify skin and provide nourishment to the skin. For example, Aloe vera is an herbal plant species belonging to liliaceae family and is naturally and easily available.

2. Safer to Use

As compared to synthetic products, herbal cosmetics are safe to use. They are less allergenic, non toxic, tested and proven by dermatologists to be safe to use. Since they are made of natural ingredients.

3. Less Side Effects

The synthetic beauty products can irritate your skin, and cause rash on skin. Sometime they might block skin pores and make skin dry or oily. With herbal cosmetics, we need not worry any adverse reactions. The natural ingredients used assure no side effects; it can apply on the skin assuredly.

4. Economical to Use

Natural cosmetics are not that expensive. In fact, some of these products are more affordable than synthetic ones. They are offered at discounted prices and are sold for a cheap price during sales. Just need to survey enough to look for great deals.

Herbs used in cosmetics/cosmeceuticals

There are numerous herbs available naturally having different uses in cosmetic preparations for skincare, hair care and as antioxidants, Perfumes as follows.

1. Skin care

➤ Coconut Oil



Fig. No. 1: Coconut Oil.

Coconut oil is excellent as a skin moisturizer and softener. Coconut oil is derived from the fruit or seed of the coconut palm tree *Cocos nucifera*, family Arecaceae which contains about 60- 65% of the oil. Coconut oil contains a high amount of glycerides of lower chain fatty acids.

➤ Olive Oil



Fig. No. 2: Olive Oil.

This oil is a fixed oil extracted from the fruits of *Olea europaea*, family oleaceae. The major constituents are triolein, tripalmitin, trilinolein, tristearate, monostearate, triarachidin, squalene, β -sitosterol and tocopherol. It is used as skin and hair conditioner in cosmetics like lotions, shampoos etc. It is a potent fatty acid penetration enhancer.

➤ Aloe Vera



Fig. No. 3: Aloe Vera.

Aloe vera is an herbal plant species belonging to family liliaceae. It is an ingredient in many cosmetics because it heals, moisturizes, and softens skin. Simply cut one of the aloe vera leaves to extract the soothing gel.

➤ Green Tea



Fig. No. 4:-Green Tea.

The tea plant (*Camellia sinensis*) has been cultivated in Asia for thousands of years. The 4 major polyphenolic catechins present in green tea leaves are (2)-epicatechin (EC), EGC, (2)-EC-3-gallate, and EGCG, which is the most abundant. It was found that green tea extracts or an individual green tea polyphenol (GTPP), especially epigallocatechin (EGC)-3-gallate (EGCG), inhibited two-stage chemical carcinogenesis (eg, induced by 7,12-dimethylbenz(a)anthracene [DMBA] and 12-Otetradecanoylphorbol 13-acetate [TPA]), and photocarcinogenesis (induced by UVB).

➤ Calendula



Fig. No. 5: Calendula.

Calendula officinalis is reported to have a remarkable antioxidant activity, anti-inflammatory activity and wound healing activity. A previous study demonstrated that the essential oil of *Calendula* consists mainly of α -thujene, α -pinene, 1,8-Cineole, dihydrotageton and T-murolol.

➤ Turmeric



Fig. No. 6: Turmeric.

It is a deep yellow-to-orange powder that comes reduce the number of ultraviolet B (UVB)- induced sunburn. It is skin protecting agent as well as antiseptic in nature.

➤ Multani Mitts (Fullers earth)

It is Mother Nature's own baby powder. Clay was one of the earliest substance to be used as a beauty mask to draw oils from the skin, natural moisturizers for hairs, teeth, gums, and hairs, to remove pimple marks, treatment on sunburn, helps unclog pores, to cleans the skin of flakes and dirt.

➤ Chandan



Fig. No. 7: Chandan.

It was used as scrubs and face packs that were applied on face to remove dead cells. Regenerate growth of new cells and gives a young look. It also use as detanning agent in sunburn treatment.

➤ Jojoba Oil

It is a mixture of long chain, linear liquid wax esters extracted from the seeds of the desert shrub *Simmondsia chinensis*, and belonging to the Family *Simmondsiaceae*. Jojoba oil is easily refined to remove any odour.

➤ Rhodiola rosea

It is commonly known as golden root, roseroot, Aaron's rod, arctic root, king's crown, *Lignum rhodium*, belonging to the family *crassulaceae*. Traditional folk medicine used *R. rosea* to increase physical endurance, work productivity, longevity, resistance to high altitude sickness.

➤ Carrot

It is obtained from the plant *Daucus carota* belonging to the Family *Apiaceae*. It is a valuable herb since ages as due to its richness in Vitamin A along with other essential vitamins. Carrot seed oil is used as anti-aging, revitalizing and rejuvenating agent.

2. Hair care

Ayurveda has numerous natural medications in dandruff treatment wherein the most common herbs include Neem, Kapoor (naphthalene), and Henna, Hirda, Behada, and Amalaki, Magic nut, Bringaraj, Rosary pea, sweet Flag, cashmere tree and Mandor.

➤ Henna

Henna comes from the plant *Lawsonia inermis* family *Lythraceae*, which contain a dye molecule called Lawsone, which when processed produces Henna powder. Besides lawsone other constituents present are gallic acid, glucose, mannitol, fats, resin (2%), mucilage and traces of an alkaloid.

➤ Shikakai

Acacia concinna Linn. (*Leguminosae*) is a medicinal plant that grows in tropical rainforests of southern Asia.

The fruits of this plant are used for washing hair, for improving hair growth, as an expectorant, emetic, and purgative.

➤ Amla

Amla is the fruit of a small leafy tree (*Emblica officinalis*), which grows throughout India and yields an characteristics. There are mainly four species of roses for oil production.

➤ Hibiscus

A Red colour obtained from the extract of *Hibiscus sabdariffa* family *Malvaceae*. *Hibiscus* consist of calcium, phosphorus, iron Vitamin B1 used to stimulate thicker hair growth and prevent premature greying of hair.

Applications of herbal products in cosmetics

Herbal Skin Care Products: Lavender Silk Soaps, Lotions creams, Body powder, Lavender Herbal body powder, Skin Care Creams.

Herbal Hair Care Cosmetics: Henna (*Lawsonia Inermis*), Amla (*Emblica Officinalis*), Shikakai (*Acacia Concinna*), Brahmi (*Bacopa Monnieri*), Bhringraj (*Eclipta Alba*), Guar Gum (*Cyamopsistetragonolobus*).

Herbal Lip Care Cosmetics: Herbal Lipsticks, Herbal Lip Gloss, Herbal Lip Balm, Herbal Lip plumper.

Herbal Eye Care Cosmetics: Eye Make Up, Eye Shadows, Eye Gloss, Liquid Eye Liners Creams: Aloe Moisturizing Hand Cream, Rich Face and Hand Cream, Herbal Moisturizers Herbal Oils: Herbal oils are Effective for Baldness, Falling of Hair, Thinning of Hair, Dandruff, and Irritation & Itching of Scalp, Patchy Baldness, and Maintenance of fine head of Hair.

Herbal Perfumes & fragrances: Citrus Fragrance: The light, fresh character of citrus notes (bergamot, orange, lemon, petitgrain, mandarin etc.) is often combined with more feminine scents (flowers, fruits and chypre).

Chypre Fragrance: Based on a woody, mossy and flowery complex, sometimes with aspects. Chypre fragrances smell slightly dry, not very sweet.

3. Classification of Herbal Cosmetics

1. Skin cosmetics

- Cream
- Scrub
- Lip balm
- Powder
- Lotion & Liniment
- Face pack

2. Hair cosmetics

- Shampoo
- Hair Oil

- Hair colorant

3. Tooth cosmetics

- Tooth powder
- Tooth paste
- Mouth wash

4. Nail preparations

5. Shaving preparations

6. Foot preparations

Raw materials generally used in herbal cosmetics

Oils, Waxes, Gums, Hydrophillic Colloids, Colours, Perfumes, Protective Agents, Bleaching Agents, Preservatives, Antioxidants And Other Auxillary Agents.

1. Oils: Oils are derived from vegetable and mineral sources, and are used in cosmetics. Examples of vegetable oils are almond oil, arches oil, castor oil, olive oil and coconut oil. Examples of mineral oils are light and heavy paraffin.

a) Almond Oil: It is a fixed oil obtained by expressing the seeds of *Prunes amygdalus*, Family *Rosaceae*, The oil is pale yellow in colour, with a characteristic odour. The active principles are mainly the mixture of glycoside with oleic acid, linoleic acid, myristic and palmitic acid. It has an emollient action, so it is used in the preparation of creams and lotions.

b) Arachis Oil: This is also a fixed oil obtained from the seeds of the *Aarchishypogea* belonging to the family *Leguminosae*. The oil is pale yellow in colour, with a faint nutty odour. Refined groundnut oil is colourless, with active principles like oleic

c) Castor Oil: Oil is obtained from the seeds of *Ricinus communis* belonging to the family, *Euphorbiaceae*. It has a slight odour; the oil is either yellow in colour or colourless. It consists of a mixture of glycosides, in which 80% of ricinoleic acid is the major constituent

d) Olive Oil: This oil is obtained from the fruit of the *Olea europea*, belonging to the family, *Oleaceae*. The oil is either pale yellow or greenish yellow in colour, it has a slight odour. It consists of the glycerides of oleic acid, palmitic, linoleic, stearic and myristic acids.

e) Coconut Oil: This oil is obtained from the dried solid part of the endosperm of the coconut - *Cocos nucifera*, family *Palmea*. It is a white or pearl-white unctuous mass in winter and colourless in summer.

2. Waxes: Waxes are the esters resulting from the condensation of high molecular straight chain fatty acids with high molecular straight chain monohydric alcohol of the methanol series.

a) Beeswax: It is a purified wax separated from the honeycomb of bees, *Apis mellifera* which belong to the Family, *Apidae*. Beeswax is composed of 70% ester myricylpalmitate. It is yellowish brown in colour, solid, with a honey-like odour. Under cold conditions it becomes brittle; when bleached, it becomes yellowish-white solid with a faint characteristic odour.

b) Carnauba Wax: This is obtained from the leaves of the Brazilian wax palm, *Copernicia pruriens*, which belongs to the *Palmae* family. Carnauba wax is available in various grades. The highest grade is light-brown to pale-yellow in colour. It is in the form of moderately coarse powder or flakes, with a characteristic bland odour.

c) Paraffin Wax: It is derived by the distillation of petroleum. It is a mixture of solid hydrocarbons consisting mainly of *n*-paraffins and, to some extent, their isomers. So, it is also called hard paraffin wax.

3. Colours: Colours have been used in cosmetics, since time immemorial, by human beings. Basically, the desire to buy a cosmetic product is controlled by three senses, namely, sight, touch and smell. So color is one of the most important ingredients of cosmetic formulations.

a) Cochineal: Cochineal is a red dyestuff derived from the dried female insect, *Dactylopius coccus*, which belongs to the *Coccidae* family. Carminic acid is the main colouring constituent in cochineal. On crystallization, carminic acid forms red needles and at 130°C, the needles darken and also carbonize at 250°C.

b) Saffron: It consists of the stigmas and tops of the styles of the plant, *Crocus sativa*, which belongs to the *Iridaceae* family. It is a perennial plant grown in Jammu and Kashmir in India. Saffron powder is yellowish and is easily soluble in water, so it is used as a flavouring and colouring agent in food preparations.

c) Chlorophyll: It is the natural green pigment, found abundantly in nature. It is the component that is responsible for photosynthesis.

d) Rose: It is obtained by the steam distillation process from the flower petals of *Rosmarina officinalis* which belongs to the *Labiatae* family. For obtaining rose oil, the blossoms are collected before they open, a little before sunrise.

e) Jasmine Essential Oil: Obtained from the flowers of *Jasminum grandiflorum* which belongs to the *Oleaceae* family, the oil is obtained by the solvent extraction method and its essence is used in the perfumery industry.

f) Lavender: It is obtained from the flowers and stalk of *Lavandula officinalis* which belongs to the *Labiatae* family.

g) Champa: It is obtained from the flowers of the *Michelia champaka*. The colour of the flower is yellow to deep orange.

h) Cinnamon: Cinnamon oil is obtained from the different parts of the cinnamon tree - its leaves, bark and roots. *Cinnamomum zeylanicum* belongs to the family, *Lauraceae*. The oil obtained from the bark is most valuable. The oil has a warm, spicy and sweet character.

i) Clove: It contains essential oils, obtained from the buds of the *Eugenia caryophyllus*, which belongs to the family, *Myrtaceae*.

j) Sandalwood: It is obtained by the steam distillation process from the hard wood of *Santalum album* belonging to the family, *Santalaceae*. In most perfumes, it is used as a fixative agent.

4. Protective Agents: In the formulation of creams, silicones act as protective agents; a combination of silicones with other barrier agents like petroleum jelly, beeswax, paraffin etc can produce excellent barrier creams.

a) Bleaching Agents The most commonly used bleaching agents are given below. **Mercury Compounds:** Mercuric chloride ($HgCl_2$), red mercuric oxide (HgO) and ammoniated mercury are examples of mercury compounds that can be used, for their skin bleaching effects. Currently, the use of mercury compounds is prohibited in cosmetics.

CONCLUSION

There are numerous herbs available naturally having different uses in cosmetic preparations for skincare, hair care and as antioxidants. The current review highlights importance of herbal cosmetics, the herbs used in them and their advantages over the synthetic counterparts. Herbal cosmetics are the preparations containing phytochemical from a variety of botanical sources, which influences the functions of skin and provide nutrients necessary for the healthy skin or hair. Herbal cosmetics are prepared, using one or more herbal ingredients to treat different skin ailments and for the beautification. The present study revealed that herbal cosmetics are very safe and does not produce any toxic and adverse reactions compare to marketed cosmetics products. We suggest that, we use herbal cosmetics in future, we will avoid skin problems.

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REFERENCES

1. Sumit K, Vivek S, Sujata S, Ashish B. Herbal cosmetics: used for skin and hair. *Inven J.*, 2012; 2012: 1-7.
2. Joshi LS, Pawar HA. Herbal cosmetics and cosmeceuticals: An overview. *Nat Prod Chem Res.*, 2015; 3(2): 170. <https://doi.org/10.4172/2329-6836.1000170>
3. Jain S, Purohit A, Nema P, Vishwakarma H, Jain PK. Intelligent or Smart Polymers: Advance in Novel Drug Delivery. *J Drug Deliv Ther.*, 2022; 12(5): 208-216. <https://doi.org/10.22270/jddt.v12i5.5578>
4. Larsson SC, Bergkvist L, Naslund I, Rutegard J, Wolk A. Vitamin A, retinol, and carotenoids and the risk of gastric Cancer: a prospective cohort study. *Am J Clin Nutr.*, 2007; 85(2): 497-503. <https://doi.org/10.1093/ajcn/85.2.497>
5. Pandey S, Meshya N, Viral D. Herbs play an important role in the field of cosmetics, *Int J Pharm Tech Res.*, 2010; 2: 632-639.
6. Gediya SK, Mistry RB, Patel UK, Blessy M, Jain HN. Herbal plants: used as cosmetics, *J Nat Prod Plant Resour.*, 2011; 1: 24-32.
7. Saha R. Cosmeceuticals and herbal drugs: practical uses, *Int J Pharm Res Sci.*, 2012; 3: 59-65.
8. Sharma HD, Paramesh R. Trends in aging and skin care: Ayurvedic concepts. *J Ayurveda Integr Med.*, 2010; 1: 110-113. <https://doi.org/10.4103/0975-9476.65081>
9. Nema P, Jain S, Vishwakarma H, Purohit A, Jain PK. A complete review on aromatherapy: a complementary alternative medication therapy with recent trend. *Int J Med Sci Pharm Res.*, 2021; 7(4): 1-7. <https://doi.org/10.22270/ijmspr.v7i4.28>
10. Akinyele BO, Odiyi AC. Comparative study of the vegetative morphology and the existing taxonomic status of Aloe vera. *J Plant Sci.*, 2007; 2: 558-563. <https://doi.org/10.3923/jps.2007.558.563>
11. Escamilla M, Ferre A, Hidalgo C, Fuentes N, Kaps R, et al. Revision of european ecolabel criteria for soaps, shampoos and hair conditioners. *Joint Res Cen Europ Commi.*, 2012; 1-40.
12. U.S. Food and Drug Administration, "Parabens".
13. Suzuki D. The "Dirty Dozen" ingredients investigated in the David Suzuki Foundation Survey of chemicals in cosmetics. *Backgrounder.* 2010:1-5.
14. Sharma A, Shanker C, Tyagi LK, Singh M, Rao ChV. Herbal medicine for market potential in india : an overview. *Acad J Plant Sci.*, 2008; 1: 26-36.
15. Kuroda Y, Hara Y, Antimutagenic and anticarcinogenic activity of tea polyphenols. *Mutat Res Rev Mutat Res.*, 1999; 436: 69-97. [https://doi.org/10.1016/S1383-5742\(98\)00019-2](https://doi.org/10.1016/S1383-5742(98)00019-2)
16. Wanjari N, Waghmare J. A review on latest trend of cosmeticscosmeceuticals. *Int J Pharm Res Rev.*, 2015; 4: 45-51.