

**A COMPREHENSIVE REVIEW ON HERBAL COSMETICS****Apeksha V. Masal\*, Pallavi G. Dhaware, Anushri S. Baral and Anuja S. Pawar**

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**ABSTRACT**

India has long history in development of Ayurveda, Unani, siddha, homeopathy. Humans are blessed by natural beauty. To enhance the beauty the herbal cosmetics helps a lot. Various beauty products having herbs are used to look delightful and youthful. Now days, demand of herbal cosmetic is growing in globe market and is a irreplaceable gift of nature. It doesn't have any side effects as synthetic products. Herbs contains leave, steams, flower and seeds which are not only used to enhance beauty but also used for nourishing, healing and smoothing appearance. This paper will review on different herbal products, formulation along with research based knowledge and it is concerned about preparation and formulation of herbal cosmetics.

**KEYWORDS:** Cosmetics, Herbal, Formulation.**INTRODUCTION**

The cosmetics have been arising from plants in its historical evolution. The word cosmetics was acquire from Greek word "kosmetikos" which means having potential and skill in adorn.<sup>[1]</sup> As claimed by drug and cosmetic act 1940 and rule to be sprayed, poured, rubbed, or sprinkled on or introduced into or applied to human body or it's any part for ablution, glamorize, promoting enchantment or reshape the appearance.<sup>[2]</sup> Herbs are nothing but any plant with leaves or flowers used for flavouring medicine or perfumes. Herbal cosmetics are preparations which are manufactured by using plant products having cosmetic actions.<sup>[4]</sup> Traditional use of perfuming and skin care in the form of infusions, poultices etc.

The term cosmeceuticals was derived by 'Raymond Reed' founding member of US society of cosmetics chemist in 1961.<sup>[8]</sup> The term cosmeceuticals design to describe the OTC skincare

products that assert therapeutic benefit by addition of plant based active ingredient, such as alpha-hydroxy acid, ascorbic acid and coenzyme Q10.<sup>[4]</sup> Cosmeceuticals are topical cosmetic pharmaceuticals are used to escalate health and beauty through ingredients that influence the skin's biological functions.<sup>[3]</sup> The various topical application products which retard the signs of aging are called as anti-aging cosmeceuticals.<sup>[3]</sup>

There is a large scale variety of herbal cosmetics which are manufactured for daily purpose. Herbs perform multiple functions such as food additives, cosmetics and medicines in form of tea, tablet, capsule, cream and tincture.<sup>[1]</sup> Herbal cosmetics are mainly produced for purposes such as moisturizing dry skin, lighting, removal of dark spots, anti-dandruff effect and skin protection.<sup>[6]</sup> Most cosmetic products and methods are deliberated to refine the look of the face.

Facial cosmetics are categorized into two classes: those which improve the basic quality of the skin and second, are those which sit on the skin during active social life.

In the scope of herbal cosmetic phytocosmetics are termed as the products which are produced only by plants and herbal constituents.<sup>[3]</sup> They generally include; volatile oils, plants, plant extracts, aromatic waters, gums and congeners, mucilage, plant carbohydrates or purified plant components.<sup>[2]</sup> Remarkable activities in case of phytocosmetics are mainly anti-oxidant activity, anti-microbial activity and anti-tyrosinase activity.<sup>[6]</sup>

The favorable things related to the herbal cosmetics is that it is made up of unblended herbs and shrubs and thus do not cause any side effect. The natural content in herbal cosmetics does not produce any side effects on the human body; instead they enrich the human body with nutrients and other useful minerals.<sup>[8]</sup>

#### **Advantages of herbal cosmetics<sup>[2,4,8]</sup>**

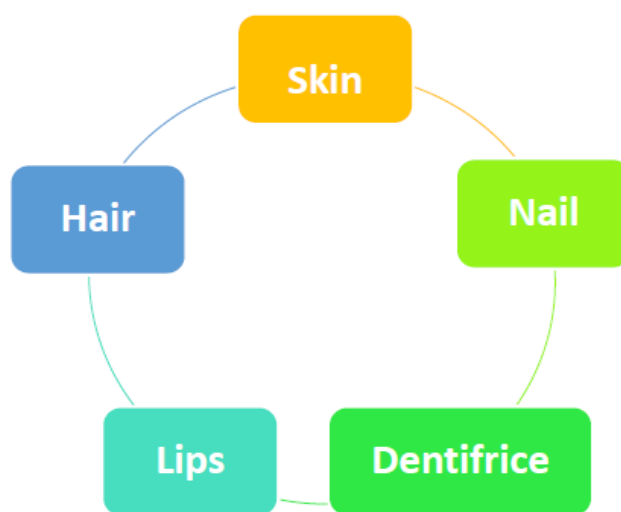
- ✓ Herbal cosmetics are in demand now more than synthetic chemicals, as these products impart – nutrients to the body, improve health and are free from artificial chemicals and have no side effects as related to synthetic cosmetics.
- ✓ Herbal cosmetics are natural and free from all detrimental artificial chemicals which are proven toxic to the skin. In herbal cosmetics instead of traditional artificial products different plant parts and plant extracts are used.
- ✓ They are hypo-allergenic and tested and demonstrated by dermatologists to be safe to be

safe to use.

- ✓ Herbal cosmetics are economical.
- ✓ These are not tested on animals.
- ✓ Herbal cosmetics have prolonged history of fingerprint acceptance.

#### Classification of herbal cosmetics<sup>[4]</sup>

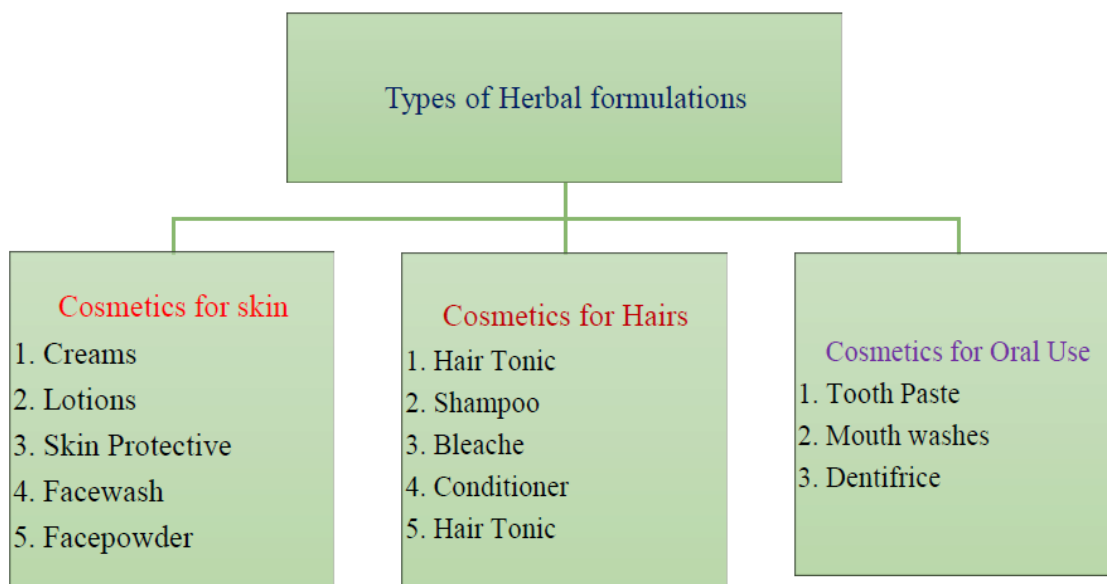
Herbal cosmetics are classified on bases of site of application.



**Fig. no. 1: Herbal cosmetics are classified on bases of site of application.**

#### Formulation<sup>[4,7]</sup>

Nowadays herbal ingredients are gaining more acceptance among consumer instead of using non herbal ingredient in formulating preparations. The formulation of herbal cosmetics follows the same mechanism as that of the cosmetic preparations composed with synthetic origin. Formulations are depend on the selection of proper emulsifying agent, constitution of appropriate ingredients and modified procedure to get a required products. The creators should verify the quality of raw material and the final products by quality control testing. The other variables tested contains organoleptic characteristics, pH, viscosity, refrigeration and stability towards light. The major disadvantage of herbal ingredients is the attack of microbes which make it unfit for human use. Hence care should be taken to avert the complete bacterial attack.



**Fig. no. 2: Types of herbal formulations.**

#### List of plants with cosmetically applications<sup>[7,11]</sup>

**Table no. 1: Herbal cosmetic plants.**

Sr no.	Common name	Botanical name	Parts	Application
1	Jasmin	<i>Jasminum officinale</i>	Flower	Skin tone, Moisturizing, Anti-aging agent.
2	Avacado	<i>Persea americana</i>	Fruit	Skin elasticity, Prevent dry skin, Cleanser.
3	Laghukarni	<i>Clementis triloba</i>	Leaves	Prevent skin infection.
4	Karanj	<i>Millettia pinnata</i>	Seed	Skin disorders.
5	Brahmi	<i>Bacopa monnieri</i>	Plant	Help in wound healing, Reduces stretch marks.
6	Viranga	<i>Embelia ribes</i>	Fruit	Folliculitis.
7	Alfalfa	<i>Medicago sativa</i>	Plant	Cleanser.
8	Orris root	<i>Iris germanica</i>	Roots	Moisture, Skin elasticity
9	Witch Hazet	<i>Hamamelis</i>	Leaves	Skin care, Reduce bleeding.
10	Carrot	<i>Daucus carot</i>	Roots	Antioxidant, Protector.
11	Ginseng	<i>Panax ginseng</i>	Roots	Reducing Wrinkles Promoting elasticity, Reducing Inflammation. Lighting Skin tone.

12	Wheat Germ	<i>Triticum Sativum</i>	Germ	Antioxidant, Anti-aging product.
13	Kaner	<i>Cascabela thevetia</i>	Root	Skin Disorders
14	Saffron	<i>Crocus sativus</i>	Stima and Styles	Skin Whitening, Source of vitaminC.
15	Vetiver	<i>Chrysopogon zizanioides</i>	Roots	Heals scars and Diminishes marks
16	Clary sage	<i>Salvia sclarea</i>	Inflorescence or flower	Stabalize production of natural oil and sebum
17	Nutmeg	<i>Myristica fragrans</i>	Seed	Restore moisture, Reduce sign of agening
18	Angelica	<i>Angelica archangelica</i>	Roots	Brighten skin, Heal eczema, breakouts
19	Frankincense	<i>Boswellia sacra</i>	Gum	Improve Skintone, Defencemechanism against bacteria
20	Caraway	<i>Carum carvi L.</i>	Ripe fruit	Regeneration of skin cells.
21	Myrrh	<i>Commiphora</i>	Gum	Soothes iching.
		<i>myrrha</i>		Prevent chapping, cracking and sagging.
22	Star anise	<i>Llicium verum</i>	Fruit	Exfoliating. Anti-acne, Moisturizing effect.
23	Cajeput	<i>Melaleuca leucadendra</i>	Fresh leaves and twings	Used in fungal infection, toothache.
24	Patchouli	<i>Pogostemon cablin</i>	Leaves	Helping with oily hairs or dandruff.
25	Turpentine	<i>Syncarpia glomulifera</i>	Gum resin	Paint Solvent, Cleansing agent.
26	Litsea	<i>Litsea cubeba</i>	Fruit	Smoothes the muscle
27	Oregano	<i>Origanum vulgare</i>	Dried Leaves	Improve skin condition such as psoriasis, acne, eczema.
28	Mace	<i>Myristica fragrans</i>	Seeds	Gives aroma, Dental health
29	Chir Pine rosin	<i>Pinus roxburghii</i> Sarg.	Wood	Help in hair growth, Skin cleansing, Anti cellulite

30	Bamboo	<i>Bambusa vulgaris</i>	Bamboo sap	Aids collagen production, antibacterial, antiacne
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### Standardization and Evaluation of Selected Plants<sup>[7,9,10]</sup>

Standardization of herbal cosmetics is the process of recommend a set of levels or inherent characteristics, constant parameters, definitive qualitative and quantitative values that gives an assurance of quality, effectiveness, protection, and repeatability. It is the method of originating and cooperating up on technical standards.

The evaluation of herbal cosmetics is very essential which are performed to ensure the efficiency, storage, processing, operation and stability requirements. The ingredients used in cosmetics should be of the highest quality so as to overcome the irritancy and sensitivity reaction. The physical estimation variables used for herbal cosmetics consist the color, odor, form of physical state, pH, and net content. The evaluation based on analytical methods which are regularly employed by execution and regulatory authorities to ensure that the products confirms to permissible standards and are safe and accurately described. They are classified as classical methods and instrumental methods.

- 1. Classical method:** It is based on the examination and estimation of the chemical reactivity of analytes in solution.
- 2. Instrumental method:** It is based on the detailed inspection of the physical or physiochemical properties of analytes related to their molecular or atomic structure. The skin evaluation can be accomplished visually or by super facial sampling of the skin with image scrutiny of the cells. By evaluating nine basic cosmetic variables related to physical properties of the hair the evaluation of hair care products can be carried out. The parameters contain comb-out on wet hair, comb-out on dry hair, shine, silkiness, absence of static electricity, individualization, bounce, spring back and body. The antidandruff estimation carried out in autumn and early spring. It is generally focus on the antimicrobial activity, solubility in sebum, penetrability of the hair follicles and cytostatic effect.

### Evaluation test

- a) Physical evaluation-** Color, odor, form, pH, Net content.
- b) Grittiness-** Knead the pinch of product on skin and observe the skin with the help of

magnifying glass. If there is no rash on skin then it is considered free from grittiness.

- c) **Bleeding test-** It is the test generally use for semisolid preparation in which examine the bleedind of liquid i.e. liquid exclude from preparation. If there is no bleeding then it is said that product is stable at climatic condition.
- d) **Rheology-** It deals with the study of flow liquid and semisolid products. Also determine spreadability and pourability of product.
- e) **Stability studies** – It is execute at aloft temperature like 45,90,120 °C, relatively humidity and ph. A period of 6 months and above parameters are estimated periodically to changes in product.
- f) **Infra-red spectroscopy studies** – It is used to determine the comparitibility of excipients.
- g) **Chromatographic Evaluation-** Determine of content of cosmetics preparation confirmed by chromatography like TLC, HPLC, HPTLC, Gas chromatography.
- h) **Sensitivity Test-** It is also known as patch test .In third test product is apply on skin or human epidermis and then the observe the skin if there is no rash or eruption then it is free from sensitivity.
- i) **Irritation Test** – It is execute on animal to calculate LD/50 values and acute chronic toxicity variables using mice preferably.

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