

REVIEW ON HERBAL COSMETICS**Saudagar R. B.*¹ and Sisodiya M. H.²**

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ABSTRACT

Herbal cosmetics are the preparations used to enhance and improved the human appearance. The aim of the present research was to formulate and prepared herbal lotion for the purpose of moistening and nourishing the skin. Different crude drugs including Glycyrrhiza glabra (Licorice-root and stolons), Ocimum sanctum (Tulsi-leaves), Azadirachta indica (Neem-leaves) were taken. The pharmacognostical standardization has been done as per the, The Ayurvedic Pharmacopoeia (Volume I 1989, Volume II 1999, Volume III 2001) of India (API).includes tulsi, foreign organic matter (0.76%), water soluble extractive (14.36%), alcohol soluble extractive (8.42%), total ash (15.03%), acid insoluble ash (2.24%). All the values are in compliance with API. Evaluation of herbal lotion has been done with

the result- fatty matter (10.10%), water content (90.8%). The other parameters acid value, peroxide value, iodine value was also evaluated. For the Accelerated stability testing of final two sample the environmental chamber has been with temperature $25 \pm 1^{\circ}\text{C}$ and humidity $60 \pm 10\% \text{ RH}$.

KEYWORDS: Cosmetic, Herbal lotion, Formulation, API.

INTRODUCTION

The word cosmetic was acquire from the Greek word “kosm tikos” meaning having the power, order, skill in decorating.^[1] The birth of cosmetics form a continuous narrative throughout the history of man as they developed. The man in ancient times 3000BC used colours for the decoration to charm the animals that he wished to hunt and also the man

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survived attack from the rival by colouring his skin and adorned his body for protection to provoke fear in an enemy (whether man or animal).^[2] The origin of cosmetics was associated with hunting, fighting, religion and credulity and later associated with medicine.^[3]

Herbal Cosmetics, here referred as Products, are formulated, using various permissible cosmetic ingredients to form the base in which one or more herbal ingredients are used to provide defined cosmetic advantages only, shall be called as "Herbal Cosmetics".^[4] Beginning 1990's cosmetic manufacturer redesign a term 'cosmeceuticals' to describe the OTC skin care products that claims therapeutic benefit by addition of plant based active ingredient such as alpha-hydroxy acid, retinoic acid, ascorbic acid and coenzyme Q10.^[5] These active ingredients serves many purposes viz. increase in skin elasticity, delay in skin aging by reducing the wrinkles, protection against UV radiation by antioxidant property and to check degradation of collagen respectively.^[6]

The health, habits, routine job, climatic conditions and maintenance were responsible for individuals skin and hair beauty.^[7] 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 and hairs in the form of cracks, cuts, maceration, infections and hair fall.^[8] The skin diseases are common among all age groups and can be due to exposure towards microbes, chemical agents, biological toxin present in the environment, and also to some extent due to malnutrition.^[9] The only factor they had to rely on was the knowledge and information of nature assemble in the ayurveda. The science of ayurveda had utilized many herbs and floras to make cosmetics for beautification and protection from external affects.^[10] The cosmetics, according to the the Drug and Cosmeics Act is defined as articlesintended to be rubbed, poured, powdered or sorayed on, introduces into or otherwise applied to the human body or any part of the body threof for cleansing, beutifying, promoting attractiveness or altering the appearance.^[11] The cosmetic does not come under the preview of drug license. The herbal cosmetics are those when natural herbs and their products used for their aromatic value in cosmetic preparation.among consumers for herbal products triggered the demand for natural products and natural extracts in cosmetics preparations.^[12]

Definition of Cosmetics^[13]

“The cosmetics, according to the Drugs and Cosmetics Act is defined as articles intended to be rubbed, poured, sprinkled or sprayed on, introduced into or otherwise applied to the

human body or any part there of for cleansing, beautifying, promoting attractiveness or altering the appearance. The cosmetic does not come under the preview of drug license”.

Definition of Herbal Cosmetics

These are the cosmetics which are prepared using plant products having cosmetic actions. Recently the use of botanicals in cosmetics have increased mainly due to the mild action and non-toxic nature. In cosmetics, both natural and phyto-ingredients are used. Natural products include oils, extracts, secretions etc. Phyto-ingredients include pure constituents obtained by various process.

Types According To Site Of Application^[13]

- Skin
- Hair
- Dentifrice
- Nail
- Eyes

CLASSIFICATION OF COSMETICS

Cosmetics for the skin

1. Creams
2. Lubricating or emollient cream-night cream
3. Skin protective & hand cream
4. Vanishing cream-Foundation cream
5. Liquid cream
6. Miscellaneous cream
7. Cosmetics lotions
8. Hand lotion
9. Skin toning lotions-skin freshners
10. Astringent lotions
11. Bleaching & freckle lotions
12. Medicated lotion
13. After shaving lotions
14. Deodorants
15. Sunscreen

16. Sunburn external medicines
17. Make-up preparation
18. Variations of face powders
19. Toilet powders
20. Lipstick
21. Mascara-eyebrow pencils-eye Shadow

Cosmetics for bath product

1. Bath product
2. Soaps

Cosmetics for the Nails

1. Cosmetics for nails

Cosmetics for the Hair

1. Hair preparation
2. Shampoos
3. Rinses & conditioners
4. Oily scalp hair tonics
5. Hair dressings
6. Fixatives
7. Bleaches
8. Depilatories

Cosmetics for oral product

1. Dentrifices & mouth washes
2. Tooth pastes
3. Cosmetics for teeth & mouth washes
4. General cosmetics

Herbal Cosmetics For Various Types of Skin^[13]

1. For Dry Skin

Example of Herbs

Rubia Cardifolia (Manjista),

Triphla,

Tulsi,
Glycerihza glabra in sesame oil.

Fruit face mask

Banana or avocado pulp.

2. For Sensitive Skin

Example of Herbs

Usheero,
Curcuma longa,
Triphala,
Azadircta indica mustaka,
Nimba in coconut oil.

Fruit face mask

Banana or pineapple pulp.

3. For Oily Skin

Example of Herbs

Tulsi,
Idhora,
Nimba,
Curcuma longa.

Fruit face mask

Strawberry or papaya pulp.

Herbal Creams and Lotions^[13]

□□ Cold Creams

It is an emulsion in which the fat predominates, but the cooling effect produced when it is applied to the skin is due to skin evaporation of the water contained.

e.g: Almond oil.

□□ Vanishing Creams

Vanishing creams are also called foundation creams because they disappears when Rubbed into skins. e.g: Rose oil.

□ □ **Cleansing Creams**

A satisfactory cleansing cream is water in oil emulsion that melts at temperature of body and spreads readily over the skin.

□ □ **Face Lotion**

These are also called the bleaching lotions, actually alter the color of skin like the whitening creams.

Types of Herbal Hair Care Products^[13]

➤ **Hair oil**

The hair oils used for dressings and nourishing the hairs and grace to appearance of hairs. This preparations is generally used to increase the growth of hair and remains healthy. E.g Arnica, shikakai.

➤ **Hair lotion**

Hair lotion has a stimulating effect upon the hair follicles. They are generally perfumed with oil of rosemary and others ascenes as it posses a good stimulating property.

➤ **Hair colorants**

These are preparations which are used for the coloring of the hairs. They enhances the attractiveness of gray hair. They are applied externally on the hair with help of brush. E.g Lawsonia alba Lam.

➤ **Shampoo**

Shampoo is preparation of surfactant in suitable form liquid, solid or powder, which when used under the condition specified will remove surface grease, dirt and skin debris from the hair shaft and scalp without affecting adversely the hair, scalp or health of the user.

E.g: Accacia concinna DC.

Herbals Used In Dentifrice^[13]

Dentifrice are the preparations intended for use with a toothbrush for the purpose of cleaning the accessible surfaces of teeth. Ingredients used: Soap powder, Saccharin, Amaranth (solution), Oil of cinnamon, Oil of peppermint.

Herbals Used In Nail Care^[13]

Fungal infections of nails are very common and difficult to cure. The conventional treatment of nail fungal infection is expensive and long term.

- *Lavendula officinalis*
- *Melaleuca latrifolia*
- *Cytopogon citrates*

Nail Polish

- Celluloidal film,
- Amylacetate,
- Eosine.

Use of Herbal Cosmetics^[13]**➤ Aloe Vera Benefits**

- It keeps skin looking smooth and supple.
- Delays visible signs of ageing like fine.
- Healing cracked heels.
- Moisturizes the skin

➤ Sandalwood Benefit

- Naturally clear skin complexion and add a healthy glow to it.
- Tightens the drooping skin tissues,
- Provide youthful appearance.
- Effectively in fighting the bacteria and fungi,

➤ Turmeric Benefit

- Help lighten stretch marks.
- Effectively reducing fine lines and wrinkles.
- Quick relief of accidentally burn skin.
- Antiseptic, anti-inflammatory and anti-bacterial properties.

➤ Rose Benefit

- Rose water is a natural toner for skin.
- Prevent dark circles below eyes.
- It helps to lock moisture into the skin,

- keeping skin feeling smooth.

➤ **Jasmine Benefit**

- It mild fragrance make natural anti-deodorant.
- It helps strengthen the roots of the hair.
- Effective cure for scrapes, wounds, and cuts.
- Antiseptic properties help keep skin infections at bay.

➤ **Papaya Benefit**

- It helps in removing dead skin cells.
- It helps prevent balding.
- It is used to treat sore and cracked heels.
- Used for skin whitening.

➤ **Cucumber Benefit**

- It remove dark complexion.
- It reduces freckles.
- It helps in removing dark circles under eyes.
- It helps in soothing and softening your skin.

➤ **Tea benefit**

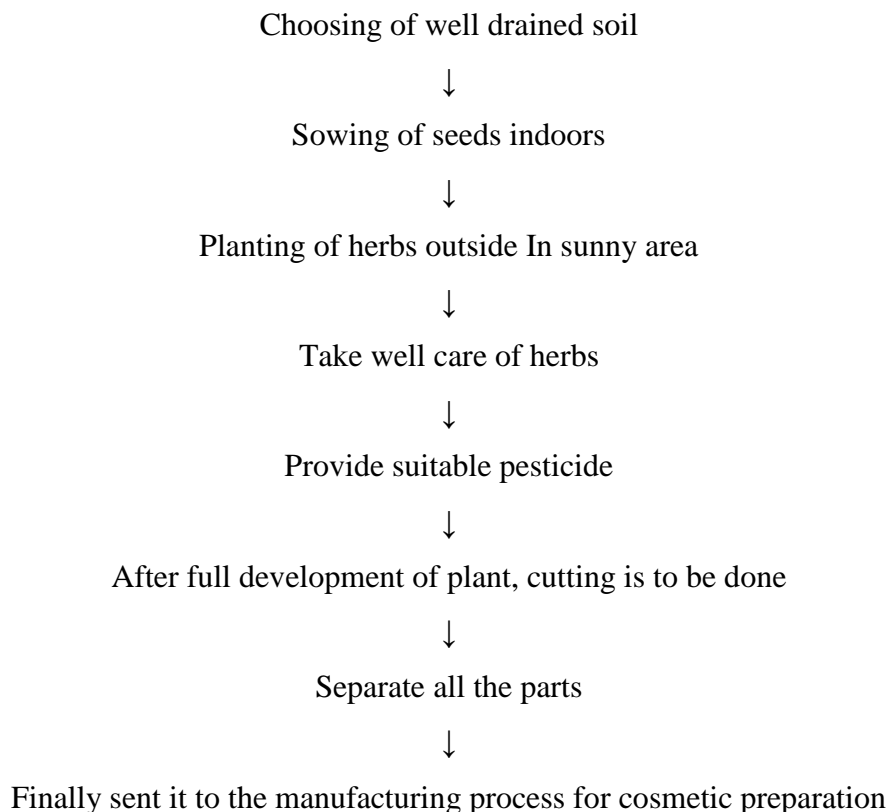
- Adds shine to dull hair.
- Eliminate darkness around the eye area.
- Increases the resistance of the body against various infections.

➤ **Coffee Benefit**

- It plays a crucial role in regulating cell re-growth.
- It is beneficial for hair fall.
- Increase skin elasticity.
- Protect skin against UV rays.

HOW TO PLANT HERB FOR COSMETIC

Steps



Top 10 Herbal Cosmetics Used In Daily Life^[14]

1. Aloe Vera

Aloe Vera has been an important herb sought after by cosmetic industry as it is a great moisturizer; it softens the skin and gives it a youthful look. The herb also has great healing property which can be used to treat rashes, cuts, bruises, sunburn and other skin problems.

2. Avocado

The avocado oil has a rare vitamin D, known as the sun-ray vitamin which can nourish the skin. The oil has unusual property that penetrates through the dermis and epidermis effectively to rejuvenate the skin from within. For those who have been denied of sunlight due to illness, this herb proves to be a boon.

3. Almond

The almond oil is one of the safest oil that can be used in cosmetic products, since it has the less acidic reaction than any other oil. The oil has been used for skin protection against the dry and hot climate of desert regions. Almonds have special property to whiten the skin which is used in fairness creams.

4. Henna

Henna has been used for centuries to dye hair and skin on hands and feet, especially of women. Henna is the safest dye, which besides enhancing the appearance, also has curative property to give hair a shiny, healthy look. The tattoos of henna do not have any side effects on skin either.

5. Sandalwood

Sandalwood is used in cosmetic products to freshen and revitalize dull skin. Sandalwood paste is known not only to have curative powers to heal skin problems, but also a glow to the skin which is unmatched by any other product. Sandalwood is also used for face packs and scrubs.

6. Saffron

Saffron was considered to be one of the most beneficial herbs for skin ailments and cleansing of skin by ancient Indian physician Charaka. The herb is used in cosmetics in production of fairness creams, cleansers and anti-blemish lotions.

7. Elder Tree

Every part of the plant is utilized in production of cosmetic products like soothing lotion, beautifying cream, healing ointments and skin softening balms. The herb with luring scent has amazing property of healing sunburn; furthermore it removes the ill effects like blemishes, spots and freckles caused due to exposure to sun.

8. Neem

The antifungal, antibacterial and detoxifying property of Neem has seen its extensive use in production of lotions, creams, toothpastes, soaps, shampoos and many more. Many medicinal dermatology products prescribed for itchy skin, eczema and psoriasis contain Neem. It is also used in anti-ageing products.

9. Lavender

The exotic scent of lavender has seen its use in production of perfumes, oils, talcum powders, bath gels, soaps, shampoos and many more cosmetic products. Besides the scent, the herb has excellent antiseptic and antifungal property in addition to providing relief from acne and psoriasis.

10. Amla

Amla or *Embilica Officinalis* is sought after by the cosmetic industry for its high content of vitamin C which is excellent product for skin care. The herb also gives out oil which is excellent remedy for various hair and scalp problems.

The Requirement For The Basic Skin

- **Cleansing agent:** which remove the dust particles, dead cells and dirt from skin that chokes the pores on the skin. Some of the common cleansers include vegetable oils like coconut, sesame and palm oil.^[15]
- **Toners:** The toners help to tighten and toning the skin and keep it from being exposed to many of the toxins that are floating in the air or other environmental pollutants. witch hazel, geranium, sage, lemon, ivy burdock and essential oils are some of the herbs used as toners.^[16]
- **Moisturizing:** The moisturizing helps the skin to become soft and supple.^[17]

THE BENEFITS OF HERBS MAY INCLUDE THE FOLLOWING

- Enhance physical and mental well-being in individuals.
- Strengthen the immune system of individuals.
- Detoxification to remove toxins.
- Aid in sleeping, breaking down.
- Increase stamina level and mainly reduce fatigue etc.

Herbal products in cosmetics or herb in cosmetics can also be referred as botanical origin products in cosmetics.^[18]

Advantages of Herbal Medicine

- Herbal medicine have proloned history of use and better patient tolerance as well as acceptance.
- Medicinal plants have a renewable source, which is our only hope for sustainable supplies of in-expensive medicines for the world growing population.^[19]
- Especially in developing countries like India availability of medicinal plant is not a problem because India having rich agro-climatic, cultural and ethnic biodiversity.
- The cultivation and processing of medicinal herbs and herbal products is environmental warm.^[20]

- Prolong and apparently uneventful use of herbal medicines may offer testimony of their protection and efficacy.
- Throughout the world, herbal medicine has provided many of the most potent medicines to the vast arsenal of drugs obtained to modern medical science, both in crude form and as a unmixed chemical upon which modern medicines are structured.^[21]

LIMITATIONS OF HERBAL MEDICINES

Similar to any other branch of science and technology, present scenario of herbal medicine has its own limitations arising out of its own technical constituents. The prominent limitations of herbal medicines can be summarized as follow.^[22]

Dry Skin Treatment

1. Coconut oil

Coconut oil comes from the fruit or seed of the coconut palm tree *Cocos nucifera*, family *Arecaceae*. The melting point of coconut oil is 24 to 25°C (75-76°F) and thus it can be used easily in both liquid and solid forms and is often used in cooking and baking.^[23] Coconut oil is excellent as a skin moisturizer and softener. A study shows that extra virgin coconut oil is effective as well as safe when used as a moisturizer, with absence of adverse reactions.

A study found that coconut oil helped prevent protein loss from the wet combing of hair when used for fourteen hour.^[24]

2. Sunflower Oil

It is the non-volatile oil indicated from sunflower seeds obtained from *Helianthus annuus*, family *Asteraceae*. Sunflower oil contains lecithin, tocopherols, carotenoids and waxes. In cosmetics, it has smoothing properties and is considered noncomedogenic.^[25]

3. Aloe

A native of southern Africa, the aloe vera plant has fleshy spiny-toothed leaves and red or yellow flowers.^[26] It is an ingredient in many cosmetics because it heals moisturizes, and softens skin. Simply cut one of the aloe vera leaves to easily extract the soothing gel.

Anti-Aging Treatment

1. Golden Root

Rhodiola rosea (Roseroot, Aaron's rod), is a plant in the Crassulaceae family that grows in cold regions of the world. The *Rhodiola* root has long been used in the traditional medical systems in Europe and Asia to increase an organism's resistance to physical stress, currently; it is widely thought to have antioxidative properties.^[27]

2. Ginkgo

Ginkgo comes from the ginkgo tree, *Ginkgo biloba* belongs to family Ginkgoaceae, which grows to a huge size. It is best known, as a circulatory tonic, in particular for strengthening the tiny little capillaries to all the organs, but especially to the brain.^[28] The capillaries become more flexible and as a result more oxygen is delivered to the brain and eyes (to protect against degenerative eye diseases like macular degeneration), so important as we age. Ginkgo also protects the nervous system and fights oxidation.^[29]

Dandruff Treatment

Ayurved has numerous natural medications 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.^[30]

1. Henna

Henna comes from the plant, *Lawsonia inermis* family Lythraceae, which contain a dye molecule called Lawsone, which when processed becomes Henna powder. Henna has a natural affinity with the proteins in our hair, making it able to "stain" the colour onto the hair shaft.^[31]

Skin Protection

1. Green Tea

Green tea is tea made solely with the leaves of *Camellia sinensis* belonging to family Theaceae. Whether applied topically or consumed as a beverage or dietary supplement, green tea is a premiere skin protectant.^[32] It protects against direct damage to the cell and moderates inflammation, according to research from the Department of Dermatology, Columbia University, New York. Studies suggest that the catechins in green tea are some 20 times stronger in their antioxidant powers than even vitamin E.^[33] Men, women and children need to position this super shield on their side against the ravaging effects of the sun.^[34]

2. Turmeric

Turmeric, *Curcuma longa* is a rhizomatous herbaceous perennial plant of the ginger family Zingiberaceae. Turmeric is used in many celebrations of Hindus.^[35] Especially in Hindu wedding brides would rub with turmeric on their bodies for glowing look. New born babies also rubbed with turmeric on their forehead for good luck. Traditionally women apply turmeric on their cheeks to produce a natural golden glow.^[36]

Hair Care

1. Amla

Amla is obtained from the plant *Emblica Officinalis*, Family Euphorbiaceae.^[37] Amla is rich in vitamin C, tannins and minerals such as phosphorus, iron and calcium which provides nutrition to hair and also causes darkening of hair.^[38] 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.^[39]

2. Almond Oil

The almond oil is obtained from *Prunus dulcis*. The almond oil contains about 78% of fat. It amounts contains very small of super-unsaturated Omega-3 essential fatty acids.^[40]

Standardization And Evaluation of Selected Plants

A system to ensure that every single medicinal plant, part of a plant or an extract, an isolate or an enriched portion or a product thereof, being sold has the correct substances in the correct amount and will induce its therapeutic effect, is known as standardization. Medicinal plants, being an important aspect of various traditional systems of medicine, have been used therapeutically around the world. From Ayurveda to Chinese traditional medicine, from Unani to Tibetan Medicine and from Amazonian to African Medicine, all systems of traditional medicine, although based on different theoretical and cultural models, integrate phytotherapy into their doctrine.^[41] In high-income countries, however, the widespread use of phytotherapy declined at the end of the first part of the twentieth century, due to the development and production of synthetic medicines.

Physical Standardisation^[42,43,44,45,46]

Total ash

About 2 g of the powdered drug was accurately weighed in a tared silica crucible. The powdered drug was spread as a thin layer at the bottom of the crucible. The crucible was

incinerated at a temperature not exceeding 450°C until free from carbon. The crucible was cooled and weighed. The procedure was repeated till a constant weight was observed. The percentage of the total ash was calculated with reference to the air-dried drug.

Acid insoluble ash

The ash obtained as described in the determination of total ash was boiled with 25 mL of hydrochloric acid for 5 min. By using hot water the insoluble ash first collected on an ash-less filter paper and then washed. The insoluble ash was moved into a tared silica crucible, ignited, cooled and weighed. The procedure was repeated till a constant weight was observed. The percentage of acid insoluble ash was deliberated with reference to the air-dried drug.

Water soluble ash

The ash obtained as described in the determination of total ash was boiled for 5 min with 25 mL of hot water. The insoluble matter was collected on an ash-less filter paper and cleaned with hot water. The insoluble ash was transferred into a tared silica crucible and ignited at a temperature not exceeding 450°C. The procedure was repeated until a constant weight was observed. The weight of the insoluble matter was subtracted from the weight of the total ash. The difference in weight was considered as water-soluble ash. The percentage of watersoluble ash was calculated with reference to air-dried drug.

Extractive Values^[47]

Ethanol soluble extractive

5 g of previously weighed air-dried drug was taken in a stoppered flask to which 100 mL of 95% ethanol was added. It was shaken continuously for 4 h on a magnetic stirrer. Then it was filtered rapidly taking precautions against loss of the solvent. 25 mL of this filtrate was evaporated to dryness in a tared flat-bottomed petri dish, dried at 105°C and weighed. The percentage of ethanol soluble extractive was calculated with reference to the air-dried drug. Standardization, extraction and evaluation of selected plant

Water soluble extractive

5 g of previously weighed air-dried drug was taken in a stoppered flask to which 100 mL of chloroform water was added. It was shaken continuously for 4 h on a magnetic stirrer. Then it was filtered rapidly taking precautions against loss of the solvent. 25 mL of this filtrate was evaporated to dryness in a tared flat-bottomed petri dish, dried at 105°C and weighed. The percentage of water-soluble extractive was calculated with reference to the air-dried drug.

Ether soluble extractive

5 g of previously weighed air-dried drug was taken in a stoppered flask and 100 mL of ether was added to it. It was shaken continuously for 4 h on a magnetic stirrer. Then it was filtered rapidly taking precautions against loss of the solvent. 25 mL of filtrate was evaporated to dryness in a tared flat-bottomed petridish, dried at 105 °C and weighed. The percentage of ether-soluble extractive was calculated with reference to air-dried drug.

Foreign organic matter^[42]

The sample (100-500 g) was spread on a white tile or a glass plate uniformly to form a thin layer without overlapping. The sample was inspected with the unaided eye or by means of a lens (5x or above). The foreign organic matter was separated manually. After complete separation, the matter was weighed and percentage w/w present in the sample was determined as described in WHO guidelines.

Moisture content by Loss on drying^[42]

About 2-5g of accurately weighed drug was dried at 100-105°C for 5 h, and then weighed again. Percentage was calculated with reference to the initial weight.

CONCLUSION

So the herbal cosmetics are the most important part of the today's modern life. As they are used for the beautifications purpose mainly, their demand increases vigorously.

Herbal Cosmetics having certain advantages over there synthetic cosmetics as follows:

- They are cheap in cost.
- They are easily available in the market.
- They are least toxic and also having least or no adverse effects.

So from all the study of Herbal Cosmetics we can conclude that "The Herbal Cosmetics are the most significant alternative for the synthetic cosmetics".

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