



A Detailed Insight into Natural Herbal Cosmetic Products and Their Uses

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Abstract

Herbal cosmetics refer to products formulated using plant-based or crude herbal ingredients, primarily for their aromatic and therapeutic properties in cosmetic applications. In recent years, the growing consumer demand for herbal products has significantly expanded opportunities within the cosmeceutical market. Historically, cosmetic formulations were often prepared at home using natural ingredients such as aromatic herbs, spices, resins, dyes, oils, fats, and locally available perfumes. Today, herbal or natural cosmetics—hereafter referred to as "products"—are developed by incorporating one or more beneficial herbal components into a cosmetic base. These products are designed to deliver specific cosmetic benefits through natural means, without relying on synthetic ingredients. Various herbal additives used in these formulations include bleaching agents, fixed oils, essential oils, waxes, antioxidants, perfuming agents, herbal colorants, and plant-derived substances such as leaves, gums, and mucilage. These natural preparations are increasingly favored for their ability to avoid synthetic chemicals while enhancing the duration of action and improving user compliance.

INTRODUCTION: Herbal cosmetics are specially formulated products that combine traditional cosmetic bases with one or more herbal ingredients to deliver both cosmetic and therapeutic benefits. Unlike synthetic treatments that may offer quick results but pose health risks, herbal products work gradually, aligning the body with nature and promoting long-term wellness. One of the key advantages of herbal cosmetics is their natural composition. Made entirely from herbs and shrubs, these products are generally safe and free from harmful side effects. Rather than causing damage, they nourish the body with essential nutrients and minerals. According to the European Directive 93/35/EEC, a cosmetic product is defined as any substance or preparation intended for external application on parts of the human body—such as the skin, hair, nails, lips, and external genital organs—or on the teeth and oral mucosa. The primary purposes of these products include cleansing, perfuming, enhancing appearance, correcting body odors, and maintaining good physical condition (Singh et al., 2014). Herbal cosmetics—also known as natural cosmetics—are becoming increasingly popular due to their gentle action on the skin and absence of adverse side effects (AS, 1999). They are widely used to treat various skin and hair concerns and are part of a larger global shift toward natural living. This movement emphasizes the

use of organic foods, herbal medicines, and eco-friendly therapies, as people become more aware of the health hazards associated with synthetic chemicals, dyes, and artificial additives. Over the last 150 years, such synthetic substances have contributed to numerous health issues, environmental pollution, and ecological damage (Arora, 2019). The rising preference for herbal cosmetics reflects a broader desire for products that support natural wellness while enhancing physical beauty. These cosmetics are applied externally to improve the appearance, texture, and condition of the skin and hair. They aim to enhance radiance, improve skin tone, reduce signs of aging like wrinkles, and offer a safer, more holistic alternative to conventional beauty treatments (Niharika and Snehil, 2023).In essence, herbal cosmetics serve as a bridge between traditional beauty practices and modern health-conscious living, offering effective, nature-based solutions for personal care.

Cosmetic Preparations: The physical states of cosmetics preparation are broadly divided into the following three categories

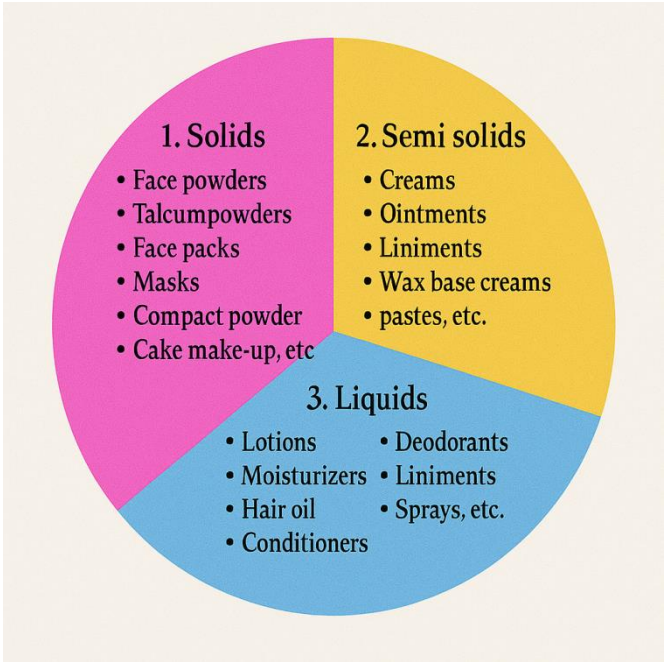


FIG. 1: COSMETICS PREPARATION

Source: https://www.google.com/search?sca_esv=ba7240e1186f396b&rlz=1C1FHFK

History of Herbal Cosmetics: The ancient science of cosmetology is believed to have originated in Egypt and India, with the earliest records of cosmetic substances and their use dating back to around 2500–1550 B.C., particularly in the Indus Valley Civilization (Lal, 2002). In ancient India, there is substantial evidence of advanced practices related to self-beautification, with a wide variety of cosmetics used by both men and women. These beauty rituals were often deeply integrated with the rhythms of nature—specifically the seasons (*Rutus*)—and the daily routines of life (*Dinacharyā*).

Cosmetic use in this context extended beyond enhancing outward appearance; it was closely tied to the pursuit of virtue (*Punya*), longevity and good health (*Aayush* and *Aarogyam*), and overall happiness (*Anandam*). One of the earliest references to a beautician can be found in the *Mahabharata*, where Draupadi, during the Pandavas' exile, assumed the role of a female attendant (*Sairandhri*) in the palace of the Queen of Virāta. She is described as carrying a *Prasadhana Petikā*—a vanity case containing cosmetics, toiletries, and decorative accessories (Patkar, 2008). Classical Ayurvedic texts like the *Astanga Hridaya*, which is over 1500 years old, provide detailed cosmetic formulations tailored to the six seasons of the year. Additionally, specialized cosmetic oils (*Tailams*) and clarified butter-based applications (*Ghritas*) were used for facial beauty. The removal of

superfluous hair was also considered important, and various depilatory agents were recommended for this purpose.

Definition of Cosmetics: The word cosmetics is defined as "Substances of diverse origin, scientifically compounded and used to:

- 1. Cleanse.
- 2.Allay skin troubles.
- 3. Cover up imperfections.
- 4. Beautify"

In ancient India, various *Lepas* (herbal masks or applications) were recommended for body beautification, with specific formulations tailored to each season. The ingredients used during colder months differed significantly from those applied in warmer seasons, reflecting a deep understanding of how climate affects the body and skin. Special herbs and natural substances were also used for washing hair, and numerous remedies were documented to promote hair growth, prevent hair fall, and delay premature greying. The use of natural hair dyes, fragrant rinses, and fumigants for hair care was well established. Fragrant bath powders and body deodorants were commonly used, indicating a strong emphasis on cleanliness and personal grooming. Oral hygiene was also an integral part of daily life, involving dental care, mouth fresheners, and natural lip colorants. These practices were not merely cosmetic but were embedded in daily rituals and guided by holistic principles of wellness.

This comprehensive approach to personal care suggests that ancient Indians had already conceived a full spectrum of cosmetic practices—many of which align closely with modern beauty routines. These traditions, rooted in the use of natural resources, represent a continuous and evolving narrative in the history of human self-care and beautification (Bole & Patkar, 1997).

Herbal Cosmetics : Herbal cosmetics is a type of cosmetics where herbal products/ drugs are derived from vegetable sources from various parts of the plants like roots, leaves; flower fruit extrude, or plant(Ashawat et al,2009 ;Dongare et al,2001).

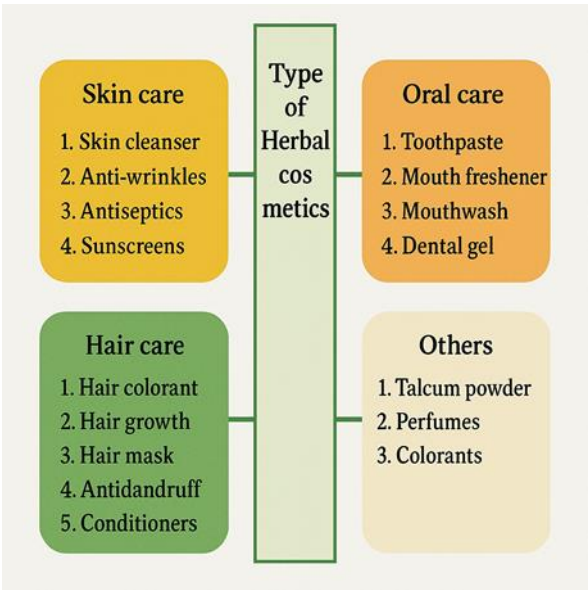


FIG. 2: TYPES OF HERBAL COSMETIC

Source:https://www.google.com/search?q=type+of+herbal+cosmetics&sca_esv=ba7240e1186f

Applications of Herbal Products in Cosmetics

The cosmetics industry increasingly incorporates herbal ingredients due to their natural, safe, and therapeutic properties. Herbal formulations are widely used across various beauty and personal care products. Key applications include:

Herbal Skin Care Products Herbal ingredients are commonly used in skincare items such as soaps, lotions, creams, body powders, and specialized products like lavender herbal body powder and herbal skin care creams. These products help nourish, soothe, and rejuvenate the skin naturally.

Herbal Hair Care Products Herbal oils and treatments are effective in addressing a range of hair and scalp issues, including baldness, hair fall, thinning hair, dandruff, itching, and scalp irritation. They also support the maintenance of healthy and strong hair and can help treat patchy baldness.

Herbal Lip Care Products Natural lip care products include herbal lipsticks, lip gloss, lip balms, and lip plumpers. These products not only enhance appearance but also provide hydration and protection from environmental damage.

Herbal Eye Care Products Herbal formulations are used in a variety of eye cosmetics such as eye makeup, eye shadows, eye gloss, and liquid eyeliners. These products are designed to be gentle on the sensitive eye area while enhancing beauty.

Herbal Dental Care Products Herbal tooth care products are effective in treating various dental issues such as toothache, dental caries, and other oral disorders. They help maintain oral hygiene with natural ingredients that are both safe and beneficial.

Herbal Oils Widely used in hair care, herbal oils are known for their therapeutic benefits. They promote hair growth, reduce hair fall, combat dandruff, relieve scalp irritation, and support overall scalp health.

Herbal Perfumes and Fragrances Natural fragrances derived from herbs and essential oils, such as citrus-based scents (bergamot, lemon, orange, petitgrain, mandarin), are increasingly popular. These are often blended with floral, fruity, or chypre notes to create fresh and elegant perfumes (Shram et al., 2022).

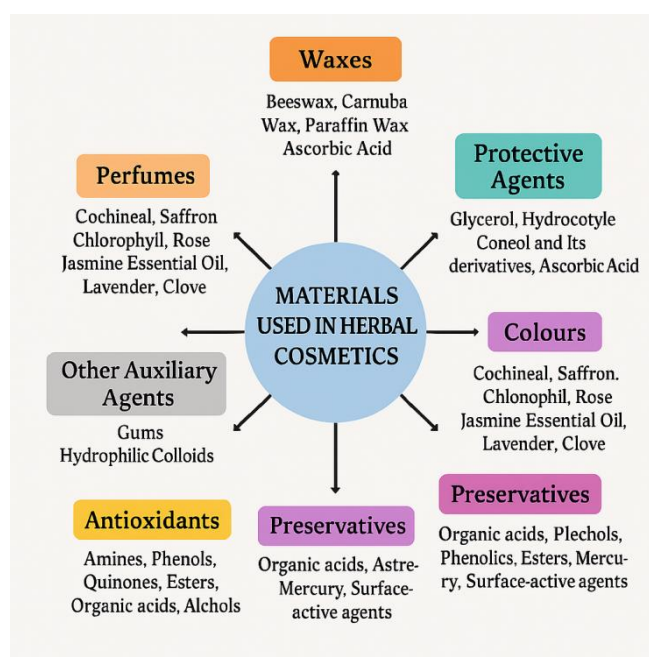


FIG. 3: HERBAL COSMETIC USED MATERIAL

Source: https://www.google.com/search?q=HERBAL+COSMETIC+USED+MATERIAL+diagram&sca_esv=ba7240e1186f396b&rlz

Herbal Cosmetics for Various Types of Skin

Normal Skin Normal skin is characterized by an even tone and smooth texture. It is soft to the touch, with no visible pores, blemishes, oily patches, or dry areas (VP, 2005; Baldi, 2012). Herbal ingredients commonly recommended for maintaining healthy normal skin include the juice of pomegranate leaves, as well as essential oils such as chamomile, fennel, geranium, lavender, lemon, rose, and sandalwood (Hamdani & Tabassum, 2014).

Dry Skin Dry skin, also known as xeroderma, is a common condition that often worsens in winter due to low humidity from cold outdoor air and heated indoor environments. This leads to moisture loss, causing the skin to crack, peel, or feel rough. Xeroderma can result from nutritional deficiencies (such as vitamin A, vitamin D, or zinc), systemic illnesses, severe sunburn, certain medications, or exposure to irritants like choline inhibitors and household detergents (e.g., washing powders and dishwashing liquids). To manage dry skin, herbal remedies such as aloe vera, calendula, comfrey, and oils from chamomile, fennel, geranium, lavender, lemon, rose, sandalwood, and almond are commonly used for their soothing and moisturizing properties (Linde, 1987; Ashawat et al., 2009).

Fruit Face Mask: Banana or Avocado Pulp.

Sensitive Skin Sensitive skin is a common condition, though it is not classified as a medical diagnosis. It generally refers to skin that is more reactive or prone to inflammation and irritation. Individuals with sensitive skin often experience discomfort or allergic-like reactions to chemicals, dyes, and fragrances found in skincare and cosmetic products. They may also develop irritation or rashes due to friction from clothing or environmental factors. Often, sensitive skin is a symptom of an underlying issue, and identifying and avoiding specific triggers is key to managing it. Common aggravators include sun exposure, wind, and harsh weather conditions, which can lead to dryness, heightened sensitivity, allergic reactions. To help soothe and protect sensitive skin, the use of essential oils such as chamomile, lavender, neroli, rose, and sandalwood is recommended due to their calming and anti-inflammatory properties (Ashawat et al., 2009; Jemec & Serup, 1992).

Fruit Face Mask: Banana or Pineapple Pulp.

Oily Skin Oily skin occurs when the sebaceous glands beneath the skin's surface produce excessive amounts of sebum—an oily, fat-based substance. While sebum plays a vital role in protecting and moisturizing the skin and hair, overproduction can lead to clogged pores, shine, and acne breakouts. Factors such as genetics, hormonal fluctuations, and stress can contribute to increased sebum production. Although managing oily skin and acne can be challenging, many individuals find relief through natural remedies, which may reduce symptoms without the need for prescription medications or costly skincare routines. Herbal treatments and essential oils known to help balance oily skin include aloe vera, burdock root, chamomile, horsetail, oat straw, thyme, lavender, and lemongrass. Effective essential oils for oily skin care include bergamot, geranium, juniper, lavender, lemon, sage, and evening primrose oil (Hamdani & Tabassum, 2014; Aburjani & Natsheh, 2003).

Fruit Face Mask: Strawberry or Papaya Pulp.

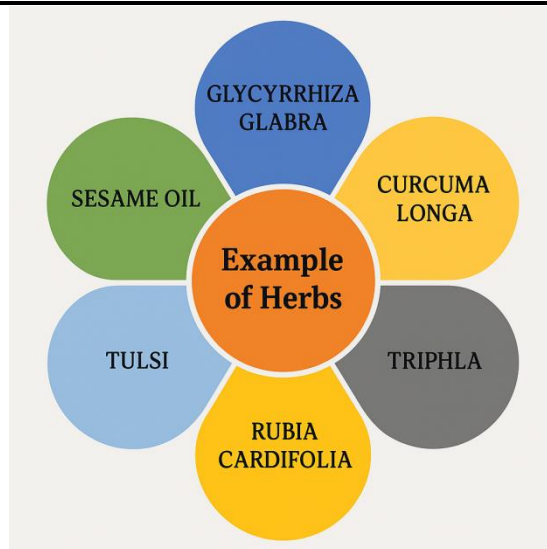


Figure: Example of Herbs

Source: https://www.google.com/search?q=Example+of+Herbs+diagram&sca_esv=ba7240e1186f396b&rlz=1C1FHK_enIN964IN964&udm

Combination Skin Combination skin is characterized by a mix of both dry and oily areas. Typically, the cheeks may be dry or flaky, while the central part of the face—known as the T-zone, which includes the forehead, nose, and chin—tends to be oily. This skin type requires a balanced approach to skincare, addressing both oil control and hydration. Herbal and natural remedies that can help manage combination skin include witch hazel, menthol, aloe vera, turmeric, wheat germ, and sweet flag. Additionally, essential oils such as citrus, jasmine, and sandalwood are often used to balance and soothe the skin (Srinivas et al., 2021).

Some Herbal Cosmetics Dosage Forms (Saha and saha,2021):

Herbal face wash is a widely used skincare product designed for cleansing, treatment, and enhancing the appearance of facial skin. It is especially beneficial for managing acne vulgaris, a very common skin condition that affects nearly everyone at some point in life. Although acne is most prevalent during adolescence, many adults between the ages of 20 and 30 also experience it. Acne can be classified into several types, including comedonal, papular, pustular, cystic, and nodular forms. Comedonal acne, a non-inflammatory type, is further divided into two subtypes: whiteheads and blackheads. Whiteheads, or closed comedones, appear as small, white or flesh-colored bumps, while blackheads, or open comedones, are open pores filled with a dark mixture of melanin, sebum, and dead skin cells. Herbal face washes are particularly effective in treating these forms of acne, and a wide range of such natural formulations are available in the market today.

Examples: Neem, Turmeric, Aloe Vera,

Herbal Face Pack Herbal face packs are natural skincare formulations applied to the face to help treat acne, pimples, scars, pigmentation, and blemishes. Typically available as fine powders, they are mixed with liquids to form a smooth paste and applied evenly to the face. Once applied, the paste is left to dry for about 15 to 30 minutes. As it sets, it forms a thin film on the skin that tightens and strengthens the skin while drawing out impurities. In Ayurveda, this practice is known as *Mukha Lepa*, an ancient facial therapy used for skin rejuvenation. The drying and tightening sensation provides a soothing effect and leaves the face feeling refreshed and revitalized. The natural clays and other herbal ingredients in these packs work through adsorption and exfoliation, effectively removing dirt, oil, and dead skin cells from the surface. Herbal face packs help enhance the skin's texture, improve fairness, and restore a natural glow. Their benefits are most noticeable when selected according to skin type, making them a personalized and effective skincare solution. These Ayurvedic treatments are known for their nourishing, cleansing, astringent, antiseptic, and healing properties. Affordable,

free from side effects, and rooted in tradition, herbal face packs remain one of the oldest and most trusted methods of skin cleansing and beautification. This article focuses on the formulation and evaluation of such herbal face packs using natural ingredients at home for radiant and healthy skin.

Examples: Multani Mitti, Turmeric, Aloe Vera, Sandalwood, Lemon Peel, Rose Petal Powder, Manjistha, Lodhra, and Gram Flour (Arora et al., 2019).

Herbal Body Lotion Psoriasis is a chronic inflammatory skin condition characterized by painful, itchy, and scaly lesions that can significantly impact a person's quality of life. It is a T-cell-mediated autoimmune disorder, often marked by well-defined, red, thickened plaques covered with silvery-white scales. The condition is non-contagious but can be both physically and emotionally distressing. Psoriasis typically affects areas such as the scalp, elbows, knees, shins, lower back (sacrum), palms, soles, fingertips, toes, and areas like the umbilicus, under the breasts, genitals, and gluteal region. Its name originates from the Greek word *psora*, meaning "itch."

Herbal Soap: Herbal Soaps and Creams Herbal soaps are crafted by incorporating a variety of dried herbs, flowers, and stems into a natural soap base. Due to their high medicinal value, wide availability, cost-effectiveness, and compatibility with skin, herbs have long been used in the treatment of numerous skin conditions and general health concerns (Saikia et al., 2006; BT, 200). When added to soaps, these herbal ingredients offer several beneficial properties such as gentleness on the skin, a rich lather, and protection against common skin disorders like rashes, eczema, scabies, and infections such as ringworm. They also promote even skin tone and improve skin smoothness (ND, 2003; Devipriya et al., 2021).

Herbal Creams Herbal creams are popular cosmetic formulations used for moisturizing, softening, and cleansing the skin. These creams, especially facial creams, are widely used in India and globally for daily skincare. Rooted in the Ayurvedic system of medicine, herbal creams harness the power of natural plant extracts for therapeutic and cosmetic purposes. Ayurveda has a long history of using medicinal herbs to manage a wide range of skin and health conditions (Badwaik et al., 2022), making herbal creams a safe and effective choice for natural skincare.

Examples: Aloe Vera, Tulsi, Neem, Bees Wax.

Hair Care and Herbal Hair Products Hair is a defining and expressive feature that plays a significant role in self-image and identity. Unlike many physical traits, hair is highly adaptable—its length, color, and texture can be easily altered to suit personal style, cultural trends, or individual expression. Hairstyles can be a form of self-expression, used to make a statement, conform to societal norms, or enhance attractiveness.

Despite not serving a vital biological function, hair holds profound psychological and social importance. This is often most keenly felt by those experiencing hair loss (alopecia), a condition that affects both men and women. Hair loss can be caused by various factors, including genetics, hormonal changes, nutritional deficiencies, and medical conditions such as thyroid disorders (Wijaya et al., 2013).

Herbal Hair Care Products Plants have long served as a source of nourishment and healing, and their role in hair care is well established. Natural plant oils and herbal extracts are widely used in cosmetics and personal care formulations due to their therapeutic properties. For centuries, plant-based materials have been relied upon to maintain healthy hair, treat hair loss, and enhance hair's strength and shine (VP, 2005).

Herbal hair care products offer a natural and holistic approach to maintaining scalp health and improving hair texture. These products often include ingredients known for their nourishing, antimicrobial, and strengthening properties—making them a popular choice for those seeking chemical-free alternatives for hair maintenance and treatment.



Figure: Hair Care Cosmetics

Herbal Hair Oils Herbal hair oils, also known as hair tonics, are formulated by blending various herbal extracts with a carrier oil. These oils often include a combination of multiple herbs and base oils to enhance their therapeutic value. In a typical formulation, carefully measured amounts of both dried and fresh herbs such as Amla, Nirgundi, Bhringraj, Jatamansi, Neem, Gambhari, Aprajita, Shankhpushpi, Brahmi, Camphor (Kapur), and Mint (Pudina) are ground and combined with carrier oils like almond, coconut, castor, and olive oil. The mixture is then blended into a base consisting of 63% sesame oil (Til oil) to produce a potent herbal hair oil (Tiwari & Tiwari, 2021; KS, 2006).

Herbal Hair Colorants Since ancient times, plant-based materials have been used to dye hair naturally. Ingredients such as Henna, Chamomile, and Indigo have long been valued for their ability to darken grey hair without synthetic chemicals. Leaves of Henna, Indigo, Brahmi, Tea, and Bhringraj, as well as Amla fruits, Shoe flowers (Hibiscus), and Cinnamon bark, are collected, shade-dried, and ground into fine powders. Herbal colorants are then prepared using these powders and aqueous extracts from ingredients like Hibiscus (*Hibiscus rosa-sinensis*), Jatamansi (*Nardostachys jatamansi*), Kuth roots (*Saussurea lappa*), Kattha (*Acacia catechu*), and Amla (*Emblica officinalis*). Additional color-enhancing ingredients such as Coffee powder, Beetroot, and Henna powder are also used to achieve natural, effective hair coloring (Hu et al., 2011; Shinde et al., 2013).

Herbal Shampoos Traditional hair care practices have long utilized natural minerals and plants for cleansing and conditioning. Among these, bentonite powder, a natural mineral soap, is used for its thickening and cleansing properties in shampoo formulations. Natural oils like coconut and sesame oil are often chosen as the base for both solid and liquid herbal shampoos. With the rise of synthetic detergents, shampoos gained prominence in the cosmetics market. In this context, herbal shampoos have been formulated using extracts of *Hibiscus rosa-sinensis*, *Trigonella foenum-graecum* (fenugreek), *Centella asiatica*, *Emblica officinalis*, *Acacia concinna* (Shikakai), *Sapindus indica* (Soapnut), *Eclipta prostrata*, *Aloe barbadensis* (Aloe vera), and *Cassia auriculata*. These ingredients, blended in various proportions, were evaluated for their physicochemical properties (Sarath et al., 2013). Traditional Indian hair cleansers like Soapnut (*Sapindus mukorossi*), Amla (*Phyllanthus emblica*), and Shikakai have been used for generations for their natural cleansing and conditioning benefits (Badi & Khan, 2014; PS et al., 2010).

Herbal Oral/Dental Care: Oral health is closely linked to overall health, as poor oral hygiene can lead to significant pain and discomfort. Plant-based medicines, with their naturally occurring active ingredients, offer an effective way to restore health with minimal side effects. These natural remedies not only address oral health problems but also provide preventive benefits. Herbal products, whether used alone or in combination, have been shown to be safe and effective in treating various oral issues like bad breath, bleeding gums, mouth ulcers, and dental cavities.

One of the key advantages of herbal products is that they are typically alcohol and sugar-free—ingredients commonly found in many over-the-counter dental products. Natural ingredients such as Red Thyme, Cinnamon Bark, Eucalyptus, Lavender, Peppermint, Echinacea, and Gotu Kola are known for their antibacterial, anti-inflammatory, antimicrobial, and antifungal properties. These pure essential oils and extracts help reduce gum inflammation, heal and rebuild gum tissue, and freshen breath, making them a valuable alternative for maintaining oral health (Pandhi, 2020).

Other Herbal Products:

Perfumes: Natural fragrances are scents derived from elements found in nature, such as plants, trees, and some animal sources. Many popular floral and musky scents, like rose and jasmine, originate from these natural materials. While these fragrances are pleasant and often preferred for their authenticity, they typically don't last as long as synthetic alternatives. However, there are several natural, affordable ways to maintain a pleasant scent throughout the day without relying on synthetic products. These include showering regularly, eating antioxidant-rich foods, wearing breathable natural fabrics, using essential oils, choosing hair and skincare products with natural scents, and staying well-hydrated. Natural fragrance components include substances like musk, civet, ambergris, and castoreum, as well as plant-derived compounds like eugenol, farnesal, rose oxide, citral, and limonene, which contribute to scents in categories such as floral, citrus, oriental, and fruity (Ashry et al., 2003; Jellinek, 1997; Smit et al., 2019). Regarding colorants, “natural colors” are typically extracted from fruits, vegetables, and minerals. Unlike synthetic FD&C dyes, they don't require batch certification, though only certain ingredients are FDA-approved for use in food products. Companies like IFC Solutions provide a wide range of FDA-approved natural colorants and custom blending services to help meet the specific needs of food and cosmetic manufacturers (Shui et al., 2019; Tagde et al., 2021).

Benefits of Herbal Cosmetics: (Yoo and Ahn,2019 ;Dwivedi and Tripathi, 2014):

Reduced Risk of Adverse Reactions: Herbal cosmetics are less likely to cause allergic or harmful side effects.

Easy Absorption: They are easily absorbed into the skin and hair, enhancing their effectiveness.

Natural Therapeutic Properties: Many herbal ingredients serve as renewable sources of natural remedies.

Widespread Availability: Especially prevalent in developing countries like India, herbal cosmetics are easily accessible.

Enhanced Efficacy with Fewer Side Effects: Plant-based extracts minimize the adverse effects of conventional cosmetics while offering beneficial pharmacological properties.

Abundant Variety and Supply: Herbal cosmetics are available in a wide range and in large quantities.

Cost-Effective: They are generally more affordable compared to synthetic alternatives.

Natural: Composed of natural ingredients, they are free from synthetic chemicals.

Challenges of Herbal Cosmetics (Yoo and Ahn,2019 ;Dwivedi and Tripathi, 2014):

Slower Market Growth: Herbal tablets are gaining popularity at a slower pace compared to allopathic (conventional) medicines.

Taste and Odor Issues: Masking the natural taste and odor of herbal products can be difficult, affecting user acceptance.

Limited Availability: Herbal tablets are not as readily available as their synthetic counterparts.

Complex Manufacturing: The production process for herbal cosmetics is often labor-intensive and technically challenging.

Lack of Standardization: There is no official pharmacopeia that outlines specific methods or ingredients, leading to inconsistency among products from different manufacturers.

Inconsistent Suitability: Some herbal cosmetics may not contain the precise ingredients needed for certain skin types, reducing their effectiveness.

Ingredient Constraints: This may be due to difficulty sourcing specific ingredients in certain regions (e.g., the U.S.) or because manufacturers avoid certain compounds—like parabens—due to safety concerns, even if they are effective in small amounts.

Need for More Research: Manufacturers must invest in research to identify and incorporate the most effective natural ingredients for optimal results.

CONCLUSION: While general awareness of herbal cosmetics is widespread, many people remain unaware of their potent medicinal and therapeutic benefits compared to chemically inert alternatives. The use of plants in beauty and healthcare is deeply rooted in cultural and traditional practices. This study emphasizes various herbal products employed in treating dermatological conditions and for hair care, skincare, dental/oral hygiene, and overall cosmetic purposes. Interestingly, many plants serve dual roles—both as remedies and as cosmetic enhancers. Continued ethnobotanical and ethnopharmacological research could lead to the discovery of new plants and bioactive compounds beneficial for hair, skin, and dental care. Today, there is a significant and growing interest in natural beauty and personal care products. Natural ingredients are increasingly favored in pursuit of healthy teeth, shiny hair, and radiant skin—all key aspects of personal appearance. Herbal formulations often include ingredients such as natural bleaching agents, fixed oils, essential oils, perfuming agents, waxes, antioxidants, protective agents, herbal colorants, and plant-based materials like leaves, gums, and mucilage. Herbal cosmetics, which rely on these natural components, are progressively replacing synthetic alternatives. The data presented underscores the therapeutic and cosmetic potential of herbal medicines and natural compounds. However, to ensure their effectiveness and safety, herbal products must be subjected to stringent quality control measures, which are essential for maintaining product integrity and consumer trust.

REFERENCES:

Arora R, Aggarwal G, Dhingra GA & Nagpal M: Herbal active ingredients used in skin cosmetics. Asian Journal of Pharmaceutical and Clinical Research 2019; 7-15. Doi:10.22159/a PCR. 2019.v12i9.33620.

Abubakar AR and Haque M: Preparation of Medicinal Plants: Basic Extraction and Fractionation Procedures for Experimental Purposes. J Pharm Bioallied Sci 2020; 12(1): 1-10. doi: 10.4103/jpbs.JPBS 175 19. Epub 2020 Jan 29.

Aburjai T and Natsheh FM: Plants used in cosmetics. Phytother. Res. Int. J. Devoted Pharmacol Toxicol Eval Nat Prod Deriv 2003; 17: 987-1000. Srinivas M, Dumpaty S and Singh A: Current Review on Herbal Face Care Int J Pharm Sci Rev Res 2021; 67(2): Article No. 17, Pages: 101-107. DOI: 10.47583/ijpsrr. 2021.v67i02.017. 26.

Ashish Baldi: Herbal Cosmetics: Used for Skin and Hair, Inventi Rapid Journals 2012; (1): 1-7.

Ashry EI, Rashed E., Salama N and Saleh O: A Components, therapeutic value and uses of myrrh. Die Pharm Int J Pharm Sci 2003; 58: 163-168.

Antignac E, Nohynek GJ, Re T, Clouzeau J and Toutain H: Food Chem Toxicol 2011; 49: 324–341.

Alvaro MR, Alejandra HH and Antonio DC: In-vitro Antibacterial Activity of *Maclura tinctoria* and *Azadirachta indica* against *Streptococcus mutans* and *Porphyromonas gingivalis*. JPRI 2015; 7: 291-298.

Badwaik, Chandrashekhar, Lade, Updesh, Agarwal, Tikesh, Barsagade, Prachi, Nandgave and Madhuri: Formulation and Evaluation of Herbal Face Cream 2022; 2249-7781. 10.35629/7781-0701955960

Badi KA and Khan SA: Formulation, evaluation and comparison of the herbal shampoo with the commercial shampoos, Beni- Suef university Journal of Basic and Applied Science 2014; 3(4); 301- 305.

Boelsma E, Hendriks HF and Roza L: Nutritional skin care: Health effects of micronutrients and fatty acids. Am J Clin Nutr 2001; 73: 853-864.

Bouldin AS: Pharmacy and herbal medicine in the US. Soc Sci Med 1999; 49: 279- 289.

Bhatia SC: Perfumes, Soaps, Detergent, Cosmetics. In: Herbal cosmetics, Vol-II. CBS Publication, Delhi. 1st ed, 2001; 625.

Devipriya Nisha P, Nivetha L and Deepak Kumar U: Formulation, Development and Characterization of Herbal Soap Using *Borassus flabellifer* and *Curcuma zedoaria*. In Pharm Sci Rev Res 2021; 69(2): 134-139.

Dongare PN, Bakal RL, Prashant VA, Patinge PA, More MPMV and Jagdish: an Overview on Herbal Cosmetics and Cosmeceuticals. IJP Sci Rev Res 2021; 68(1): 75-78.

Dhamal K and Bhalekar O: A Review on Medicative Plant of Paschim Maharashtra, Maharashtra 2020. Available online:

Dwivedi V and Tripathi S: Review study on potential activity of *Piper betle*. J Pharm 2014; 3: 93-98.

Encyclopaedia Britannica 1970 <https://www.google.com/search?q=herbal+encyclopedia+book&sxsrf>.

Fitzpatrick RE and Rostan EF: Double-blind, half-face study comparing topical vitamin C and vehicle for rejuvenation of photodamage. Dermatol Surg 2002; 28: 231-236.

Goyal A, Sharma A, Kaur J, Kumari S, Garg M, Sindhu RK, Rahman MH, Akhtar MF, Tagde P and Najda A: Bioactive-Based Cosmeceuticals: An Update on Emerging Trends. Molecules 2022, 27, 828. <https://doi.org/10.3390/molecules27030828>

Getradeghana BT: Evaluation of African traditional soap. Global J of Pure and Applied Science 2000; 6: 174-179. 31. Prajapati ND: Agro's Dictionary of Medicinal Plants. 1st edn. India: Agrobiosis 2003.

Getradeghana BT: Evaluation of African traditional soap. Global J of Pure and Applied Science 2000; 6: 174-179. 31. Prajapati ND: Agro's Dictionary of Medicinal Plants. 1st edn. India: Agrobiosis 2003.

HU, Shinwari ZK and Khan AA: Staining effect of dye extracted from dry leaves of *Lawsonia inermis* linn (Henna) on angiospermic stem tissue. Pak J Bot 2011; 43: 383-9.

Kokate KC, Purohit AP and Gokhale SB: Cosmeceuticals In: Pharmacognosy. Nirali Publication, Pune 36th Ed, 2006; 548-593.

Kumar D and Kumar V: from International Journal of Advanced Scientific Research ISSN: 2456-0421; Impact Factor: RJIF 5.32 www.allscientificjournal.com Volume 1; Issue 4; July 2016; Page No. 36-41

Kole PL, Jadhav HR, Thakurdesai P and Nagappa AN: Cosmetic potential of herbal extracts. Indian J Nat Prod Resour 2005; 4: 315-321.

Khushboo PS, Jadhav VM, Kadam VJ and Sathe NS: *Psoralea corylifolia* Linn. "Kushtanashini" Pharmacognosy Rev 2010; 4(7): 69-76.

Lal BB: The Saraswati Flows on The Continuity of Indian Culture 2002

Linde YW: Acta. Derm Venereal 1989; 69:311-314. 23. Pierard G. E. Int J Derm 1987; 26: 167-168.

Luo B, Kastrat E, Morcol T and Cheng H: *Gaultheria longibracteolata*, an alternative source of wintergreen oil. Food Chem 2021; 342: 128244.

Majeed M, Majeed S, Nagabhushanam K, Mundkur L, Neupane P and Shah K: Clinical study to evaluate the efficacy and safety of a hair serum product in healthy adult male and female volunteers with hair fall. Clin Cosmet Investig Dermatol 2020; 13: 691.

Niharika and Snehil Singh: Evolution of Cosmoceutical: A Summary of Journey from General Cosmetic to Cure Skin Disease. Mod Appl Pharm Pharmacol 3(1). MAPP.000555. 2023. DOI: 10.31031/MAPP.2023.03.000555

Nasri H, Baradaran A, Shirzad H and Rafieian-Kopaei M: New concepts in nutraceuticals as alternative for pharmaceuticals. Int J Prev Med 2014; 5(12): 1487-99. PMID: 25709784. 19. Kapoor VP: Herbal Cosmetics for Skin and Hair care, National Botanical Research Institute 2005; 4(4): 306-313.

Nowacki L, Vigneron P, Rotellini L, Cazzola H, Merlier F, Prost E, Ralanairina R, Gadonna JP, Rossi C and Vayssade M: Betanin-enriched red beetroot (*Beta vulgaris* L.) extract induces apoptosis and autophagic cell death in MCF- 7 cells. Phytother Res 2015; 29: 1964-1973.

Patkar KB: Herbal cosmetics in ancient India. Indian J Plats Surg 2008; 41: 1347. PMID: 20174537; PMCID: PMC2825132.

Patkar KB and Bole PV: Herbal cosmetics in ancient India with a treatise on *planta cosmetica*. Bharatiya Vidya Bhavan Mumbai, India Mumbai: Worldwide Fund for Nature 1997.

Pandey S, Meshya N and Viral D: Herbs play an important role in the field of cosmetics, International Journal of Pharm Tech Research 2010; 2: 632-639.

Pandhi S: Odontonutraceuticals: Phytochemicals for Oral Health Care. In Innovations in Food Technology Springer Singapore 2020.

Rakesh KS and Rajesh Arora: Plants for Aromatherapy and cosmetics in: Herbal Drug. Jaypee Publication, New Dehli. 1st Edition 2006; 469-475.

Singh N, Kumar PM, Sharma A and Jai Prakash: Indian medicinal plants: For hair care and cosmetics, World Journal of Pharmaceutical Sciences 2014; ISSN (Print): 2321-3310; ISSN (Online): 2321-3086

Saha P, Das S and Saha A: Formulation and evaluation of herbal cream for skin care using extracts of *krishna tulsi* as active ingredient with anti-microbial activity. Pharmawave 2021; 14: 35-45.

Solanki R: Treatment of skin diseases through medicinal plants in different regions of the world. International Journal of Biomedical Research 2011; 2(1): 73-88.

Saikia AP, Ryakala VK, Sharma P, Goswami P and Bora U: Ethnobotany of medicinal plants used by Assamese people for various skin ailments and cosmetics. Journal of Ethnopharmacology 2006; 106(2): 149-157.

Singh V, Ali M and Upadhyay S: Study of colouring effect of herbal hair formulations on graying hair. Pharmacognosy Res 2015; 7(3): 259-62.

Singh V, Ali M and Upadhyay S: Study of colouring effect of herbal hair formulations on graying hair. Pharmacognosy Res 2015; 7(3): 259-62.

Smit N, Vicanova J and Pavel S: The hunt for natural skin whitening agents. Int J Mol Sci 2009; 10: 5326-5349.

Shui M, Feng T, Tong Y, Zhuang H, Lo C, Sun H, Chen L and Song S: Characterization of key aroma compounds and construction of flavor base module of Chinese sweet oranges. Molecules 2019; 24: 2384.

Tabassum N and Hamdani M: Plants used to treat skin diseases. Pharmacogn Rev 2014; 8.

Tiwari G and Tiwari R: Assessment of Nutraceutical Potential of herbs for Promoting Hair Growth: Formulation Concideration of Herbal Hair Oil, The Open Dermatology Journal 2021; 1874-3722.

Tagde P, Tagde P, Islam F, Tagde S, Shah M, Hussain ZD, Rahman MH, Najda A, Alanazi IS and Germoush MO: The Multifaceted Role of Curcumin in Advanced Nanocurcumin Form in the Treatment and Management of Chronic Disorders. Molecules 2021; 26: 7109.

Uddin MA, Shahinuzzaman M, Rana MS and Yaakob Z: Study of chemical composition and medicinal properties of volatile oil from clove buds (*Eugenia caryophyllus*). Int J Pharm Sci Res 2017; 8: 895.

Wijaya WH, Munim A and Djajadisastra J: Effectiveness test of fenugreek seed (*Trigonella foenum-graecum* L.) extract hair tonic in hair growth activity. Int J Curr Res 2013; 5(11): 3453-60.

Yoo W and Ahn C: Dyeing behavior of silk dyed with indigo leaf powder using reduction and nonreduction dyeing and its relationship with the amount of indigotin and indirubin adsorbed in silk. J Korean Soc Cloth Text 2019; 43: 753-767.