

HERBAL COSMETICS

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Abstract: Cosmetics and beauty are as old as civilization and humanity itself. Women are fascinated with appearances. They thus utilize a variety of herbal-infused beauty products to seem lovely and youthful. Indian plants are well-known over the world for their many uses. Herbal cosmetics are a priceless gift from nature that are in high demand on the global market. Herbal remedies have always garnered a lot of interest due to their excellent activity and little to nonexistent adverse effects when compared to manufactured medications. Human beauty has always been preserved and enhanced by the use of herbs and spices. Indian women have traditionally utilized natural oils to scent their bodies, henna to color their hair, hands, and soles, and herbs like sandalwood and turmeric to treat their skin. Intricate herbal beauty treatments were once used to enhance sensual appeal and preserve general cleanliness in India's royal palaces.

Key words: Cosmetic, Hair, Medicinal plants, Skin.

INTRODUCTION

There has been a notable surge in the utilization of Indian herbs in cosmetic and toiletry products. Traditional wisdom and contemporary research have both attested to the efficacy of these herbs in personal care products. These goods, referred to as herbal cosmetics, are made by mixing one or more herbal substances with approved cosmetic compounds to offer certain cosmetic advantages. Because herbal treatments have no negative side effects, there is an increasing demand for them. The only ingredients used in herbal cosmetics are herbs and shrubs, which naturally provide nutrients and minerals that replenish the body without causing harm. Cosmetic products are defined by the European Commission as substances or preparations meant to come into touch with different regions of the human body for purposes such as cleaning, fragrance, enhancing appearance, correcting odors, protecting, or maintaining. Numerous active chemicals found in plants not only relax and smooth the skin, but also help to repair, heal, and protect it, according to scientific studies.[2]

DRY SKIN TREATMENT

Coconut oil

The fruit or seed of the *Cocos nucifera* coconut palm tree, belonging to the Arecaceae family, is the source of coconut oil. Because coconut oil melts between 24 and 25 °C (75 and 76 °F), it is frequently used in baking and cooking. It may be utilized readily in both liquid and solid forms. Coconut oil does wonders for softening and moisturizing skin. According to a research, using extra virgin coconut oil as a moisturizer is safe, effective, and does not cause any negative side effects. [3] According to a research, using coconut oil for four hours helped stop protein loss during wet combing. [4]

Sunflower oil

The non-volatile oil is extracted from sunflower seeds (*Helianthus annuus*, Asteraceae family). Lecithin, tocopherols, carotenoids, and waxes are all present in sunflower oil. It has smoothing qualities and is regarded as noncomedogenic in cosmetics.

Aloe

The aloe vera plant, which is native to southern Africa, features red or yellow blooms along with thick, spiky leaves with teeth. Due to its ability to cure, moisturize, and soften skin, it is a common component in cosmetic products. To get at the calming gel, just chop off a leaf of aloe vera.

ANTI-AGING TREATMENT

Golden Root

As seen in figure 1, *Rhodiola rosea*, also known as Roseroot or Aaron's rod, is a plant in the Crassulaceae family that thrives in cold climates. The *Rhodiola* root is believed to possess antioxidative qualities [5] and has been utilized for a considerable amount of time in traditional Asian and European medical systems to boost an organism's tolerance to physical stress.[6]



Figure 1: *Rhodiola rosea*



Figure 2: *Ginkgo biloba*

Carrot

It is extracted from the Apiaceae family plant *Daucus carota*. Since ancient times, this herb has been valued for its abundance of natural vitamin A and other vital vitamins. Carrot seed oil has anti-aging, renewing, and rejuvenating properties, because it encourages the growth of new cells and lessens wrinkles. It revitalizes and tones the skin naturally.[7]

Ginkgo

Ginkgo biloba, a member of the very large family Ginkgoaceae, is derived from the ginkgo tree, as seen in figure 2. It is most recognized for its ability to strengthen the tiny capillaries that supply all of the organs, but notably the brain, as a circulatory tonic. As we age, the capillaries become more flexible, which increases the amount of oxygen that reaches the brain and eyes (protecting against degenerative eye illnesses like macular degeneration). Ginkgo additionally combats oxidation and safeguards the neurological system.

DANDRUFF TREATMENT

Among the many herbal remedies used in Ayurveda include Neem, Kapoor (naphthalene), Henna, Hirda, Behada, and Amalaki, as well as Magic Nut, Bringaraj, Rosary Pea, Sweet Flag, Cashmere tree, and Mandor.

Henna

Figure 3 illustrates the *Lawsonia inermis* family of Lythraceae plants, which are the source of henna. These plants contain a color molecule known as Lawsone, which, when processed, turns into henna powder. Because henna naturally binds to the proteins in human hair, the color can be "stain" onto the hair shaft. [8]



Figure 3: *Lawsonia inermis*

Neem

Azadirachta indica is the scientific name for the neem tree, which is indigenous to the subcontinent of India. Because of its many therapeutic benefits, it has been utilized in traditional medicine for generations. For its medicinal properties, nearly every component of the neem tree—leaves, bark, seeds, fruits, and roots—has been used. Because neem extracts are said to be good for skin and hair, they are found in skincare and haircare products.[9]



Figure 4: Neem

SKIN PROTECTION

Green Tea

Only the leaves of the *Camellia sinensis* plant, which is a member of the Theaceae family, are used to make green tea. Green tea is an excellent skin protector that may be used topically, ingested as a beverage, or taken as a nutritional supplement. According to studies from the Department of Dermatology at Columbia University in New York, it moderates inflammation and guards against direct harm to the cell. According to studies, green tea's catechins have antioxidant properties that are around 20 times greater than those of vitamin E. It is important for men, women, and kids to use this powerful barrier to protect themselves from the sun's harmful rays.[10]

Table: 1 Herbal plant for Skin care

Latin name	Common name	Part used	Uses
<i>Acorus calamus</i>	Sweet flag	Rhizome	Aromatic, Dusting powders, Skin lotions
<i>Allium sativum</i>	Garlic	Bulb	Promotes skin healing, Antibacterial
<i>Aloe vera</i>	Aloe	Leaf	Moisturizer, Sun screen, Emollient
<i>Alpinia galanga</i>	Galanga	Rhizome	Aromatic, Dusting powders
<i>Avena sativa</i>	Oat	Fruit	Moisturizer, Skin tonic
<i>Azadirachta indica</i>	Neem	Leaf	Antiseptic, Reduce dark spots, Antibacterial
<i>Echinacea purpurea</i>	Echinacea	roots, stem, and leaves	Skin regeneration
<i>Centella asiatica</i>	Gotu kola	Plant	Wound healing, Reduce
<i>Symphytum officinale</i>	Comfrey	leaves	cell regeneration, stimulates the growth of new cells, rejuvenate the skin
<i>Crocus sativus</i>	Kesar	Flowering top	Skin cleansing lotion

Calendula

As seen in figure 4, the genus *Calendula*, often known as pot marigold, is composed of around 12–20 species of annual or perennial herbaceous oilseed plants in the daisy family Asteraceae. When used topically, calendula solution or tincture reduces inflammation, stops bleeding, and soothes inflamed tissue in the treatment of acne.[11] Calendula cream or ointment has "limited evidence" of effectiveness in treating radiation dermatitis.[12,13] Topical administration of 4% calendula ointment produced significantly fewer cases of Grade 2 or higher dermatitis in a randomized study including 254 radiation patients than in the group receiving trolamine. Users of calendula also reported fewer treatment interruptions and suffering from radiation.[14]



Figure 4: Calendula

Turmeric

Curcuma longa, a perennial herbaceous essential oil plant belonging to the Zingiberaceae family, is the source of turmeric. Numerous Hindu holidays include the usage of turmeric. Hindu brides, in particular, would apply turmeric to their bodies to give them a radiant appearance. For good fortune, newborns are often massaged with turmeric on their foreheads. Women traditionally apply turmeric to their cheeks to give them a naturally radiant golden hue.

HAIR CARE

Amla

Due to its high nutrient content and possible skin advantages, amla, also known as *Emblica officinalis*, is a common component in cosmetics and skincare products. Here are a few applications for amla in makeup:[16]

Almond oil

The *Prunus dulcis* is the source of the almond oil. Nearly 78% of this fat is found in almond oil. Extremely little levels of super-unsaturated Omega-3 necessary fatty acids are present in this oil. It turns out to be incredibly nutritious, strengthening and softening the hair. Additionally, almond oil works incredibly well as a cleaning agent. For many ages, almond oil was utilized, even prior to its widespread use as a commercial agricultural commodity.

Table: 2 Herbal plants used for Hair care

Latin name	Common name	Part used	Uses
<i>Aloe vera</i>	Aloe	Leaf	Moisturizer, Shampoos
<i>Bacopa monneri</i>	Brahmi	Entire herb	Hair growth, Good for sleep, Shampoos
<i>Arctium lappa</i>	Burdock root	Roots	Promots hair growth.
<i>Cedrus dessential oilsdara</i>	Dessential oilsdar	Wood	Soaps, Shampoos
<i>Centella asiatica</i>	Gotu kola	Plant	Hair care, Darkening of hair, Hair oil
<i>Citrus aurantium</i>	Orange	Peel	Soaps, Shampoos
<i>Citrus limon</i>	Lemon	Peel	Prevents hair loss
<i>Eclipta alba</i>	Bhringraj	Plant	Promoting hair growth, Shampoos, Hair oil
<i>Acacia Concinna</i>	Shikakai	Pods	promots hair growth and preventing dandruff

ESSENTIAL OILS

Natural scents called essential oils are taken from almost every part of a plant. Essential oils are ephemeral, liquid fragrance molecules derived mostly from plants. Although they are not oils in the true sense, essential oils frequently have a low water solubility. Terpenoids, benzenoids, fatty acid derivatives, and alcohols are the principal volatiles found in essential oils. Essential oils are usually regarded by the FDA and other organizations as safe. Despite being widely utilized in cosmetics, the precise mechanism of action of essential oils is still unclear. The chemical, physical, and sensory characteristics of essential oils vary widely amongst them, and these characteristics dictate their intended use. Each of the several chemical components present in oil adds to its overall character. Essential oils can be used cosmetically in a variety of methods, including inhalation, massage, steam treatments, compresses, rooms, and baths [17].

Rose oil

Rose oil, which is made from the petals of *Rosa damascena* and *Rosa centifolia*, members of the Rosaceae family, is most likely the most well-known essential oil. "Rose otto" is the term for steam-distilled rose oil, while "rose absolute" is the name of the product obtained by solvent extraction. In perfumery, it is more frequently utilized. The main flavoring ingredients that give rose oil its unique aroma are oxide, beta-ionone, beta-damascenone, and beta-damascone.

Eucalyptus Oil

The distilled oil obtained from the leaves of *Eucalyptus*, a species within the Myrtaceae plant family, is commonly referred to as "eucalyptus oil." Dandruff may be eliminated using eucalyptus oil, which can then aid in encouraging healthy hair development. Simply combine nine or ten drops of eucalyptus oil with shampoo, massage the scalp gently for a few minutes, and then rinse with water. Eucalyptus oil massages on the scalp can improve blood flow, which in turn promotes healthy, attractive hair. [18]

Citronella oil

Figure 5 illustrates that this particular essential oil is extracted from the leaves and stems of various plants within the *Cardiophoridaceae* family of *Cymbopogon*. This oil is used in body sprays and deodorants because of its rich, crisp scent that is reminiscent of lemon or citrus. However, it should only be used in very little amounts as large amounts can cause skin irritations. It may also be used with the bath water for a revitalizing soak that eliminates body odor.



Figure 5: *Cymbopogon*

ANTIOXIDANTS

Antioxidants, whether synthetic or natural, endogenous or exogenous, can be useful in reducing such illnesses by scavenging free radicals or encouraging their breakdown.[19,20, 22] The use of herbal resources as natural antioxidant sources is becoming more and more popular these days.[23–25] Studies on

medicinal plants and vegetables, both epidemiological and in vitro, provided compelling evidence in favor of the theory that plant components with antioxidant activity might shield biological systems from oxidative stress.[26–29] Naturally occurring antioxidants, a group of useful chemicals, regulate the development of free radicals.[30]

Antioxidants can also be found in significant amounts in unremarkable nutritional plants, in addition to fruits and vegetables.[31] The world's most common daily herb intake is black tea (*Camellia sinensis*), whose leaves have been used for a long time by cultures in Asia and the West, respectively. They are a significant source of antioxidants that may protect health[32, 33].

Tamarind

The fabaceae family, which includes the tamarind, *Tamarindus indica*, is extensively grown in tropical countries and has long been used as a traditional medicine and a significant source of nourishment. Tamarind seeds have antimicrobial, lipid peroxidation-reducing, and radical scavenging properties [34, 35].[36] Its antioxidant properties make it suitable for use in anti-wrinkle makeup.



Figure 6: *Tamarindus indica*

Vitamin C

Because it donates free radicals, it inhibits the damaging effects of free radicals. It helps to strengthen the immune system. Carrots, peaches, sweet potatoes, oranges, broccoli, etc. are good sources of vitamin C. [37]

Vitamin E

Animals and vegetation are both good sources of vitamin E. It has been shown to be helpful in preventing several cancers and heart issues. It is referred to as a "free radical scavenger." Nuts, entire cereal grains, almonds, vegetable oils, etc. are good sources of vitamin E.

CONCLUSION

In the field of skincare and cosmetics, herbal cosmetics provide an enticing combination of natural efficacy, safety, and sustainability. By using the potency of plant-based components, these cosmetics offer a mild yet efficient substitute for traditional makeup. They support comprehensive well-being by taking into account both internal and exterior health in addition to nourishing and revitalizing the skin. Herbal cosmetics embrace current science and celebrate cultural history with their wide range of plant extracts and traditional formulas. Herbal cosmetics are well-positioned to satisfy the growing need for eco-friendly, customized skincare products as customers place a greater emphasis on natural and eco-friendly choices.

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