

Herbal Face Scrub for Skin Exfoliation

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Abstract: *Scrubs are products used to remove dead cells, pigmentation, blackheads and whiteheads from the skin, making the skin bright, smooth, soft and healthy. Toothpaste can be used directly on the skin. In today's society, masks are very popular, cheaper successful. Natural or herbal cosmetics are made using natural substances to treat wrinkles, acne, and oil secretion management. skin dryness after prolonged usage, which shortens the duration of acne and redness. Using a scrub Antimicrobial, antioxidant, and anti-aging plant parts are typically found in herbal cosmeceuticals. Cosmetics are products that affect the biological function of the skin, and herbal cosmetics are the safest to use regularly. The main purpose of this study is to prepare different types of herbal cosmetics Natural or herbal cosmetics work by using natural components to reduce oil production, treat wrinkles, and treat acne. Herbal cosmetics often contain herbs with qualities that are antibacterial, antioxidant, and anti-aging Cosmetics are the safest things to use on a regular basis and have no negative effects; yet, they alter the biological activities of the skin.. In this preparation, the active ingredients in the gel preparation with The ingredients in carbopol include glycerin, sodium lauryl sulfate, methyl paraben, turmeric, aloe vera gel, coffee, coconut oil, rose water, and fenugreek. Differences The main purpose of this study is to prepare different types of herbal cosmetics in gel form*

Keywords: antioxidant, skin, acne, exfoliants, phyto ingredients, herbal scrub

I. INTRODUCTION

Items referred to as "Herbal Cosmetics" are prepared with various cosmetic substances that are allowed, serving as a foundation for the use of one or more herbal ingredients to provide "characteristic corrective preferences." Cosmetic manufacturers began updating the word "cosmeceuticals" in the 1990s to refer to over-the-counter skin care products that added active ingredients derived from plants, such as coenzyme, retinoic acid, alpha-hydroxy acid, and ascorbic acid, to claim therapeutic benefits. These active components have several functions, including improving skin suppleness, delaying the aging process of the skin by reducing wrinkles, providing antioxidant protection from UV rays, and preventing collagen breakdown^[1]

The word "cosmetic" comes from the Greek "kosmetikos," which implies to have control, order, or decorating talent. The development of beauty care products is a story that has been told continuously throughout human history. In ancient times, around 3000 BC, man utilized colors to entice the creatures he wanted to pursue. He also used colors to protect himself from attacks by decorating his body and skin to frighten opponents, both human and animal.

The health, routines, employment schedules, weather, and maintenance were factors that affected people's skin and hair beauty. Summertime dryness from extended heat exposure to the skin causes sunburns, wrinkles, blotches, pimples, and pigmentation. The severe winter cold harms hair and skin by causing cracks, wounds, maceration, contaminations, and hair loss. All age groups have skin disorders, which can be brought on by exposure to chemicals, biological toxins found in the environment, or organisms. In addition, some skin diseases might worsen as a result of malnutrition. The information and data of nature compiled in the ayurveda was the only thing they could rely on. Many herbs and plants were used in the science of ayurveda to create cosmetic items^[2]

Cosmetics definition: -

Cosmetics are defined under the Drugs and Cosmetics Act as items that are intended to be cleaned, beautified, enhanced in attractiveness, or altered in appearance while being rubbed, poured, sprinkled, sprayed, introduced into, or applied in any other manner to the human body or any portion of it. Cosmetics are exempt from the drug license preview.^[3]

II. HERBAL COSMETICS

It is defined as makeup made with plant-based ingredients that have cosmetic effects. The moderate action and nontoxic nature of botanicals have led to an expansion in their use in beauty care products in recent times. Products classified as natural include oils, extracts, secretions, etc. Pure substances derived from various processes are referred to as Phyto-ingredients^[4]

Objective of scrub:-

- For a healthy glow .
- Eliminates dead skin cells.
- Provide smoother skin.
- Closes off dark paths.^[5]

Ideal Properties of scrub:-

The following characteristics are acknowledged to be present in an ideal scrub.

- It ought to be not harmful
- have tiny, grit-filled granules
- mildly corrosive
- Not grating.^[6]

The benefits of face scrub: -

- Luminous, wholesome skin that minimizes spores, lessens acne and breakouts, and conceals wrinkles
- permits product absorption, enhances tan, and keeps pH levels of the body stable.
- One of the most crucial steps in a facial skincare routine is exfoliating the skin to remove dead or dry skin cells.
- In addition to treating a variety of skin issues, exfoliation improves blood circulation, which contributes to healthy, radiant skin^[4]
- For mechanical exfoliation, scrub cleaners with abrasives are utilized.
- VI. Create Clean Skin: After scrubbing, your skin is clear of perspiration, oil, and debris.
- In fact, face wash bottle, face wash water and face wash bottle cannot remove all the dust from the pores of the skin.
- Scrubbing gets the job done Prevent exfoliation of your skin.
- Exfoliating the skin can create dry skin.
- It causes cells to die from time to time.
- Skin peeling can help you solve the problem of skin sagging.^[7]

The drawbacks of scrub

- Both vigorous scrubbing movements and chemicals have the potential to irritate skin, resulting in redness and inflammation. The chemicals in the synthetic scrubs might potentially cause allergic responses in people with sensitive skin.
- Excessive washing may lead to open pores that are simultaneously exposed to UV radiation and pollutants. Additionally, it makes your skin more vulnerable to sunburn and infections.^[8]

How to Apply a Face Scrub: -

- Step 1: Give your face a good, thorough water rinse. Avoid drying out.
- Step 2: Hold a face scrub in your hand the size of a nickel.
- Step 3: Scrub your face once it's been moist.

- Step 4: Apply less pressure as you gently sweep the brush across your face. You may use your fingers to make circles with the brush.
- Step 5: Massage upwards onto the face, paying particular attention to the lips, chin, nose, and corners of the nose each time.
- Step 6: Keep rubbing for a further ten to fifteen seconds.
- Step 7: Massage for an additional ten seconds, moving now to your neck and beneath your chin.
- Step 8: Use cold or warm water to wash your face when the peeling process is finished.
- Step 9: Use a gentle cloth to gently pat dry your face.^[9]

Distinctive features of herbal and synthetic scrubs:

Herbal scrub	Synthetic scrub
herbal goods are so healthy, they don't have all of the dangerous substances.	Synthetic products can be very harmful because they are synthetic products.
Herbal refers to products derived from plants due to their medicinal values	refers to products made from synthetic drugs
safer to use than cosmetics with chemicals	They might damage skin that is too sensitive.
Products made with chemicals are referred to as synthetic.	more adverse effects than with herbal products
Eg.Plum Green Tea Gentle Revival Face Scrub, for instance	EgFor instance, Cetaphil extra-gentle cleansing every day

Table no:-1

III. HERBAL COSMETICS FOR DIFFERENT SKIN TYPES

Different herbs used in face scrub-

- **For dryskin:-** Herbs such as Rubia Card folia (Manjista), Tri Phala, Tulsi, and Glycyrrhiza glabra with sesame oil.
- Herbal fruit mask: pulp from bananas or avocados.
- **For sensitive skin:-**Herbs like Usheero, Curcuma longa, Tri Phala, Azadi Acta indica mustaka, and Nimbi in coconut oil.
Herbal Fruit mask: pulp from bananas or pineapples.
- **For Skin That Is Oily:-** iii. Tulsi, Idhora, Nimba, and Curcuma longa for oily skin. Herbal fruit mask made with strawberry or papaya pulp^[10]

Wheat cover powder:

- **Synonym:-**cereal
- **biological source:-** is the dried seed coverings of Triticum aestivum, a member of the Poaceae family.
- **Description:-** Color: White; Odor: Sweet; Taste: Sweet;
- **Chemical Components:-** Cellulose, Pentosans, and Bran Fiber;
- **Uses:-** Nourishes, Prevents Sun Damage, Fights Acne.



Fig. Wheat cover powder
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Neem leaves powder:-

- **Synonym** :-Neem
- **Biological source** :- Azardicta indica.
- **Characteristics**:- Green hue, pungent taste, bitter aftertaste
- **Chemical components**:- Quercetin, Nimbidin, and Nimbinin.
- **Uses**:- Skin toner, brightens dark spots on the skin, Take out the blackheads.



Fig. Neem leaves powder

c) Powdered Tulsi leaves: -

- **biological source**: - is the dried leaves of *Ocimum sanctum* L, a member of the laminaceae family
- **Synonym**: -Tulsi.
- **Color Description**: - Green Scent - Fragrant - Strong Taste
- **Chemical ingredients**: -ursolic acid, rosmarinic acid, and oleanolic acid
- **Uses**: - Improves skin texture, prevents acne and pimples, and acts as a cleaner.



Fig: -Tulsi leaves powder

Turmeric powder:

- **Synonym**: *Curcuma longa*
- **biological source**:- of the substance is the dried rhizomes of *Curcuma longa*, which is a member of the Zingiberaceae family.
- **Description**: - Yellow in colour Aromatic Taste, Bitter Odor
- **chemical components**: -include curcumin and curcuminoid.
- **Use**: - Minimize acne; Brighten skin; Lighten skin.



Fig:- Turmeric powder

Powdered orange peel: -

- **Synonym:** -orange zest
- **Biological source:** -citrus fruits in the Rutaceae family
- **Synopsis Color:** orange-red; Aromatic
- **chemical components:** - flavonoids, carotenoids, and terpenes
- **Uses:** Treat acne and pimples; lessen skin blotches and markings; aid in skin lightening.



Fig: -Orange peel powder

Aloe vera:-

- **Biological source:** - dried latex of the plant's leaves, also known as cape aloe, which belongs to the family Aloe vera, burn plant-Liliaceae
- **Characteristics:** -Color: transparent gold that is slightly yellow to clear. Odor: akin to that of spoiled onions or garlic
- **ingredients chemicals:** -Aloe emodin
- **Uses:** - treats acne and heals burns.



Fig: -Aloe vera

Why scrub with herbs?

Herbal medication has a longer history of use and is more well-tolerated and accepted by patients. The only reliable source of pricey medications for the world's expanding population is medicinal plants, as they have a renewable supply. In addition to being safe to use, a herbal face scrub will exfoliate your skin, giving it a more radiant, healthy-looking appearance. Because face scrubs made of You may buy natural substances to replace artificial ones because they are entirely safe to use and have no side effects. But you have to refrain from using a face scrub every day to exfoliate your skin. This is because everyday use of scrubs to exfoliate the skin might cause the cells^[11]

What is a Exfoliation?

Exfoliation is the process by which a facial scrub removes dead skin cells from the skin by using tiny particles, beads, or chemicals. Exfoliants are the agents that are employed in exfoliation.

Exfoliating compounds are used to get rid of dead skin cells and increase blood flow to the skin, leaving it looking refreshed and radiant. It helps to maintain a skin pore clean by keeping the face free of dust, debris, and oils. The skin can be exfoliated in two different methods. During an exfoliation the skin's surface is cleared of the oldest dead skin cells. Latin is where the word exfoliates, which meaning "to strip off leaves," originates. A facial always includes exfoliation^[12]

IV. COMMONLY USED EXFOLIANTS

Jojoba Beads: -

As Exfoliator Exfoliation protects and helps the skin undergo antiaging. Cleaning particles can be used as one method of exfoliation.

Jojoba beads were among the first products on the market and are still in demand; several producers are now selling exfoliants made from naturally hydrogenated jojoba oil. Jojoba beads are tiny, spherical, insoluble in water, and have a light scent. Jojoba beads ensure a mild yet efficient exfoliation that isn't harsh, comfortable to use, and non-occlusive^[12]

KhusKhus:-

An oilseed called khus-khus is derived from poppy flowers. Due to their potent anti-inflammatory properties, poppy seeds (KhusKhus) are frequently employed in Ayurvedic remedies for the treatment of inflammation. Insomnia and other sleep disorders are treated with this mystical seed. Khus can also be used to treat emotional problems like anger or distress that may be the cause of sleeplessness. It performs well on a number of metrics, including dietary fiber, vitamins, minerals (iron and calcium), and omega-6 fatty acids. Because of its therapeutic qualities, this herb is used externally in bath soaps^[13]

Salt and sugar:-

"Sugar scrubs have smaller particles and tend to be gentler on the skin; salt scrubs tend to boast larger, grittier particles that help your skin absorb subsequent products better and help you achieve a brighter, more even complexion." Compared to salt scrubs, they are frequently less abrasive and drying^[14]

Hazelnut :-

Walnut consumption is a great choice for your health and skin. Walnuts are so full of nutrients that our skin needs that several manufacturers of cosmetics and skin care products have included them in their products.

Walnuts are highly popular not only for skin care but also for hair color^[15]

Fenugreek:-

It is exfoliated, toner, and clean skin. It lessens extra oil on the skin in addition to exfoliating it. hydrates the skin Fenugreek seeds nourish, moisturize, and eliminate any dryness from the skin. Diminish dark circles and wrinkles Vitamins K and C included in fenugreek seeds assist to minimize wrinkles and dark circles around the eyes. 7Has anti-aging qualities that can eliminate free radicals and wrinkle-causing cells in the dark. cures acne the potent anti-inflammatory qualities of fenugreek seeds can aid in the treatment of acne^[16]

Coffee:-

Coffee provides several advantages for hair and skin care, including exfoliating in water, coffee grounds do not dissolve. This makes them ideal for use as the primary component in scrubs that exfoliate. A coffee face mask may help with skin nourishment and dead skin elimination, to name just a couple of advantages. Feet are cleaned and nourished. Combats Acne Coffee's stimulants, acids, and antioxidants make it an ideal face mask or scrub for acne, thoroughly cleaning the pores^[16]

V. METHODS

- Collection and extraction of herbal extract.
- Phytochemical analysis.
- Quantitative estimations.
- Preparation of nanoparticles.
- Evaluation of nanoparticle.

Evaluation of nanoparticles :-

- UV Visible spectroscopy
- Antioxidant studies
- Anti-microbial activity.

VI. HOME REMEDIES FOR HEBAL SCRUB

Mild Oat Cleaning :-

Oats that are calming and anti-inflammatory are perfect for delicate skin. Oats that have been ground gently unclog pores as their natural saponins absorb and remove oil and debris.

- ½ cup raw old-fashioned oats
- Water

Pulse the dry oats in a blender until they are finely ground. Put a small amount of ground oats in your hand's palm and add water to make a paste. For subsequent usage, keep the ground oats in an airtight container.

Bonus: You can use yogurt or milk, which both contain lactic acid, which acts as a chemical exfoliator, in place of water. Alternatively, add malic acid-containing apple cider vinegar for its brightening effects.^[17]

Brown Sugar Scrub with Honey: -

As natural humectants (moisture preservers), honey and sugar work well as a mild scrub to remove flakes, unclog pores, and retain moisture.

- One tablespoon of finely powdered brown sugar
- One spoonful of raw honey

Blend the honey and brown sugar together. Next, using clean fingertips, gently massage the scrub in tiny circular motions over your face to help exfoliate the skin without causing any damage. If necessary, use a washcloth to remove any remaining honey after rinsing with warm water.^[17]

Add-In for Baking Soda :-

All skin types benefit from the at-home microdermabrasion effect of baking soda's ultrafine texture.

This cheap component is very beneficial for oily skin because it absorbs excess oil as well.

- One tsp baking soda
- Your go-to liquid face wash

Probably the simplest scrub to make: simply mix a tiny bit of your normal cleanser with one teaspoon of baking soda to transform it into an exfoliating cleanser.

Coffee and Body Polish :-

Coffee grinds leftover are gentle enough to put on any part of the body, including delicate areas like the face.

Furthermore, the spent coffee grounds still contain a ton of antioxidants and caffeine [source], which give the skin a toned, youthful appearance.

- A tablespoon of used coffee grinds
- One tablespoon rosehip, olive, or jojoba oil

Let's discuss reducing, reusing, and recycling! After brewing your morning cup, save the spent coffee grinds. You only need to add one tablespoon of oil to them to create a mild scrub that increases collagen. Areas of the body prone to cellulite can benefit greatly from coffee scrubs (enriched with essential oil) [source].

Egg White & Rice Exfoliating Face Scrub:-

For lightening skin discolorations and brightening complexions, ground rice powder works wonders as a cleanser. Brown rice flour helps relieve oily and sensitive skin because of its ability to absorb oil and its anti-inflammatory properties. If fighting aging, mix with 1 tablespoon of ground almonds.

- Half a cup of brown rice
- One egg white

Grind the brown rice grains finely in a coffee grinder. To make a paste, add one egg white and whisk. Next, use tiny circular motions to gently massage the scrub into the skin in order to exfoliate dead cells.

Sugar and Aloe Vera Gel Face Scrub: -

The finer the grit in your scrub, the better it is for your skin; superfine sugar is a terrific cooking component. For all skin types, aloe vera is believed to be therapeutic and calming [source].

Mix the two ingredients together, massage the mixture into your skin gently, and then let it sit for a few more minutes before rinsing it off thoroughly.

- One tablespoon of aloe vera gel
- A dash of extra-fine sugar.

Almond Jojoba Scrub :-

Raw almonds are another readily available component for cooking. Skin will be smoother after grinding them very finely in a food processor or coffee grinder than it was before. Because it is non-comedogenic, jojoba oil is excellent for use on skin that breaks out easily.

- Twelve uncooked almonds
- One or two tablespoons of jojoba oil

The raw almonds should be ground into a fine powder. Next, apply the jojoba oil and gently exfoliate in circular motions.

Scrub with Flax Seed:-

Flax seeds have anti-inflammatory properties on the outside as well as the inside [source]. A handful of flax seeds can be combined with many different ingredients to make a really easy-to-make yet powerful scrub.

- One teaspoon of flaxseed meal or ground flaxseed
- One tablespoon of carrier ingredient (yogurt, honey, jojoba oil, rosehip oil, aloe vera gel)

Thoroughly combine with a mortar and Pestel, then extract with warm water.

VII. PARAMETERS FOR EVALUATION

Colour :-Visual inspection revealed that the facial scrub was yellowish brown in colour.

Odour:-Odor was discovered to be a trait. Like an odour, yet sweet and simple syrup.

State:-Semisolids state of scrub as seen with the naked eye.

Consistency:-Visual observation revealed a smooth consistency.

PH:- Using PH paper, the produced gel's PH was assessed. On PH paper, a small amount of scrub was applied. PH was discovered to be between 4-6.

Spreadability:- This determines how easily the gel spreads across the skin.

A glass slide with a small amount of sample on it is topped by another slide.

The amount of weight applied to the slide, how long it took for it to expand, and how much of it was spread out are all measured.

It computed using this formula:

$$L/t \times m = S.$$

Intolerance: -

When you apply a small amount of toothpaste to your skin and leave it for a few minutes, you will notice that it does not itch.

Irritability:- After applying a small amount of gel to the skin and waiting a few minutes, it was discovered to be non-irritating.

Washability:-After applying a small amount of gel to the skin and washing it with water for a few minutes, the gel was confirmed to be water-washable.

Viscosity:-

Scrub's viscosity is determined with a Brookfield viscometer.

Grittiness: - Fenugreek seeds are ground into a powder and sieved; this preparation has a small number of gritty particles. Exfoliants must have an abrasive quality.

The index of foaming:

In a test tube, add 1 g of formulation to 5 ml of water. See the foam in centimetres' foaming index is less than 100 if the height of the foam is less than 1 cm. It is over 1000 if the height of the foam is greater than 1 cm.

Index of foaming = $1000/a$.^[18]

VIII. CONCLUSION

Natural and herbal cosmetics are safer, more effective, and easier to use than conventional cosmetics on the market. Plants are a great option for skin types of all kinds, which is one of their main advantages. The plant's primary uses are in the treatment of severe skin conditions and health enhancement. However, when traditional items become harmful or unsuitable, the usage of traditional medicine is growing. For skin that is both attractive and healthy, use Multi Herbal Face Scrub. The anti-aging, anti-inflammatory, and antioxidant qualities of amla, turmeric, and fenugreek boost the efficacy of this adaptable herbal remedy. The preparation is evaluated based on several criteria and is appropriate for the skin. All of the evaluation's tests were passed by the report.[20]

REFERENCES

- [1]. Glaser DA: Cosmetics and anti-aging products. *Clinical N Am J Facial Plast Surg*, 2004; 12(4): 363–372.
- [2]. Topical anti-inflammatory agents: Draelos ZD. *Cosmetic Dermatol*. 2003; 16(10): 41–42.
- [3]. Regulations pertaining to the security, effectiveness, and caliber of herbal treatments are discussed by Rousseaux CG and Schachter H. 68(6): 505–510 in *Birth Defects Res. B, Dev Reprod Toxicol*, 2003.
- [4]. Herbs Have a Significant Impact on the Field of Cosmetics, Pandey Shivanand, Meshya Nilam, D.Viral, *International Journal of Pharm Tech Research*, 2010; 2(1): 632- 639.
- [5]. *Indian Journal of Natural Products and Resources (IJNPR)* [formerly *Natural Product Radiance (NPR)*], V P Kapoor, Herbal cosmetics for skin and hair care, 2005; 4(4): 306-314.
- [6]. Botanical antioxidants, Draelos ZD, *Cosmetic Dermatol*, 2003, 16(10): 41–42.
- [7]. "Herbal Cosmetics: <https://www.slideshare.net/rahimbrave/69811712>"
- [8]. "Mimicry and assessment of a herbal scrub with tamarind peel" Mahamuni S. S.1, Ghadage P. K.*1, and Kachare D. S.2.
- [9]. Kokate C.K., Gokhale S.B., and Purohit A.P., "Pharmacognosy," Nirali Prakashan, 52nd ed. Pages 19.1–19.2, 14.21, 14.91, and 14.132.

- [10]. "Mimicry and assessment of a herbal scrub with tamarind peel" Mahamuni S. S.1, Ghadage P. K.*1, and Kachare .
- [11]. [https://en.wikipedia.org/wiki/Exfoliation_\(cosmetics\)](https://en.wikipedia.org/wiki/Exfoliation_(cosmetics))
- [12]. Purohit A.P., Gokhale S.B., and Kokate C.K., "Pharmacognosy," Nirali Prakashan, 52nd ed. pages no .19.1–19.2, 14.21, 14.91, and 14.132.
- [13]. examination of herbal cosmetics Sisodiya M. H. 2 and Saudagar R. B.* 1.
- [14]. [HelloGlow.co/handcrafted-face-scrubs]
- [15]. scrub-manufacturers-us on www.hisomedical.com.
- [16]. Gowthamarajan K, Giriraj Kulkarni T, Muthukumar A, Mahadevan N, Samanta MK and Suresh B: Evaluation of fenugreek mucilage as a gelling agent, International Journal of Pharmaceutical Excipients 2002;21.
- [17]. Mane P.K: Development and evaluation of a peelable gel containing fenugreek, Pharmaceutical Resonance 2021;3(2).
- [18]. Sakshi Ekavade: 21 Benefits of Fenugreek Seeds for Skin, Hair and Health April 19, 2022.
- [19]. Hima Gopinath, Kaliaperumal Karthikeyan: Turmeric: Condiment, Cosmetics and Treatment, Indian Journal of Dermatology, Venereology and Leprosy 2018; 84:16-2130.
- [20]. Wasim Ahmad, Azhar Hasan, Abdullah Ansari thiab Tehran Tarannum: Turmeric - kev tshuaj xyuas, Hippocratic Unani Medical Journal 2010; 5(4): 179-190.