

FORMULATION AND EVALUATION OF FACE SCRUB USING NATURAL EXFOLIANT

¹Pawar sanyogini Bramhanand, ²Shubham vaidya

¹²Student

¹²GLS University

pawarsanyogini2003@gmail.com

Abstract—The present study focuses on the formulation and evaluation of an herbal face scrub using natural exfoliating agents and bioactive herbal ingredients. The increasing awareness regarding the harmful effects of synthetic cosmetics has led to the development of herbal formulations that are safer, eco-friendly, and effective for skincare applications. The formulated face scrub contains walnut shell powder, rice flour, aloe vera gel, beetroot extract, honey, kaolin clay, glycerin, Vitamin E, and herbal extracts that collectively provide exfoliating, moisturizing, antioxidant, anti-inflammatory, and skin rejuvenating properties. The study involved the preparation of the scrub formulation, optimization of ingredient concentrations, and evaluation of various physicochemical and microbiological parameters such as pH, spread ability, viscosity, washability, grittiness, stability, irritancy, microbial load, and organoleptic characteristics. The prepared formulation exhibited acceptable pH, smooth consistency, good spread ability, pleasant odor, easy washability, and non-irritant properties. The results confirmed that natural exfoliants can effectively remove dead skin cells, unclog pores, and improve skin texture without causing adverse effects. The study concludes that herbal face scrubs prepared from natural ingredients have promising potential as alternatives to synthetic cosmetic products and can be effectively utilized for routine skincare.

For the healthy and nourish skin periodic cleansing requires which removes the dirt, dead skin, sebum other secretion Extends the skin and their appendix by chemical topical application. This is useful for making skin charming and beautiful. Cosmetic plays very important role in everyone's life to make joyful skin. Nowadays herbal cosmeceuticals are in demand due to less or no side effect. Herbal cosmeceutical usually contains plant part which possess antimicrobial, antiaging, antiacne, antioxidant property. The number of research has studied rice benefit namely good nutritional value, resistance to high blood pressure. The problem like blackhead, whiteheads, acne might irritate nowadays here scrubbing become useful. For the healthy skin there is need of cleansing, removing dirt and debris. The current work is based on the formulation and evaluation of herbal facial scrub by using herbal drugs and evaluation is done by using various parameters. Thus, prepared formulation uses effectively to show the cleansing and glowing action. Using rice flour, lemon juice, Multani mitti, Neem Powder, Haldi, Tulsi, Mint, Carbopol 940, Gram flour, Sodium Benzoate, Sodium Lauryl Sulphate and Water, we Created four different formulation F1, F2, F3 and F4 for scrubbing and whitening. These formulations were then tested for various parameter, including Physical appearance, Homogeneity, Extrudability, Spread ability, Irritability, Washability, Grittiness, Foamability, Viscosity, Stability, Consistency.

Index Terms—Scrubbing, cleansing, herbal, Antiacne, Whitening.

I. Objectives

1. To prepare an herbal face scrub using natural ingredients.
2. To evaluate the physicochemical properties of the formulation.
3. To study the exfoliating and cleansing effects of the scrub.
4. To determine pH, viscosity, spread ability, washability, and stability.

5. To assess irritancy and skin compatibility.
6. To compare the effectiveness of herbal ingredients in skincare.

II. Introduction

● Introduction to Cosmetics

Cosmetics are substances intended to be applied to the human body for cleansing, beautifying, promoting attractiveness, or altering appearance. Cosmetic products are widely used in daily life and include creams, lotions, serums, gels, masks, and scrubs. Among these products, face scrubs have gained significant popularity due to their ability to exfoliate dead skin cells and improve skin texture.

Modern consumers increasingly prefer herbal cosmetics because of their safety, minimal side effects, and eco-friendly nature. Herbal products contain plant-derived ingredients that provide therapeutic benefits while reducing the risk of irritation associated with synthetic chemicals.

The body's largest organ is the skin. It acts as the body's defense mechanism. Skins act as a wrapper-like barrier for protection. Maintaining everything below. Skin is a sensory organ that shows a person's health.

Definition of cosmetic: Cosmetics are defined as article meant to be poured, rubbed, sprinkled, sprayed, or injected into the human body for cleansing, beautifying, boosting attractiveness, or altering appearance without harming structure of function under the terms of the food drug and cosmetic act. [1]

Cosmetics are described as products that are used to cleanse, beautify, promote beauty, or alternate one's appearance. Different herbs have been utilized for cleaning, beautifying, and managing them since ancient times. The skin of the face is the largest part of the body and reflects an individual's health. [2]

Cosmeceuticals are a marketer's dream, allowing for the incorporation of an infinite number of active ingredients obtained from a wide range of natural and synthetic sources into skin care products. Vitamins, antioxidants, minerals, herbs, hormones, anti-inflammatories, anti-depressants mood-altering aromas (aromatherapy), and even exotic ingredient like placenta and amniotic fluid have all been utilized in cosmeceuticals. [3]

Natural beauty blessings and cosmetics aid in the presentation and enhancement of a person's beauty and personality. People nowadays prefer natural foods, herbal treatments, and natural healing procedures for a healthy lifestyle. Herbal cosmetics are formulations with phytochemicals from various plant sources that regulate skin function and give essential nutrients for healthy skin. Herbal cosmetics are natural plants and their products that are utilized in cosmetic preparations for their aromatic value. Because there is a widespread assumption that chemical-based cosmetics are harmful, herbal goods have sparked a desire for natural products and natural extracts in cosmetics formulations. [4]

● Skin and Its Importance

The skin is the largest organ of the body and serves as a protective barrier against environmental pollutants, microorganisms, ultraviolet radiation, and harmful chemicals. It also regulates body temperature and prevents excessive water loss.

Layers of Skin

1. **Epidermis** – Outer protective layer.
2. **Dermis** – Contains collagen, elastin, blood vessels, and glands.
3. **Subcutaneous Tissue** – Fat layer providing insulation and support. Healthy skin contributes significantly to personal appearance and self-confidence.

• Types of Skin

Different individuals possess different skin types:

- **Normal Skin:** Balanced moisture and oil.
- **Dry Skin:** Rough, flaky, and dehydrated.
- **Oily Skin:** Excessive sebum production.
- **Combination Skin:** Oily in some areas and dry in others.
- **Sensitive Skin:** Easily irritated and prone to redness.

• Face Scrub

A face scrub is a cosmetic preparation designed to exfoliate dead skin cells from the surface of the skin. It contains exfoliating particles that mechanically remove impurities, excess oil, dirt, and dead cells.

• Benefits of Face Scrub

- Removes dead skin cells.
- Improves blood circulation.
- Enhances skin brightness.
- Unclogs pores.
- Prevents acne and blackheads.
- Improves absorption of skincare products.
- Promotes healthy and glowing skin.

• Herbal Face Scrubs

Herbal face scrubs are formulations prepared using natural ingredients such as plant powders, herbal extracts, essential oils, and natural clays. They are free from harmful chemicals like parabens, sulfates, and synthetic fragrances.

• Advantages of Herbal Face Scrubs

- Safer for long-term use.
- Minimal side effects.
- Biodegradable and eco-friendly.
- Rich in antioxidants and nutrients.
- Suitable for sensitive skin.
- Cost-effective and easily available.

• Disadvantages

- Shorter shelf life.
- Variability in natural ingredients.
- Slower visible results.

- Risk of contamination if improperly stored.

III. LITERATURE REVIEW

Literature review:

The use of herbal cosmetics has increased significantly in recent years because of growing awareness regarding the harmful effects of synthetic chemicals on the skin. Herbal face scrubs are among the most widely used skincare formulations because they provide exfoliation, cleansing, hydration, and skin rejuvenation using natural ingredients. Various researchers have studied the formulation and evaluation of herbal facial scrubs containing plant-based exfoliants, antioxidants, moisturizers, and antimicrobial agents. These studies emphasize the effectiveness, safety, and consumer acceptance of herbal skincare products.

According to Bharti et al. in the study “A Research on Formulation and Evaluation of Herbal Walnut Shell Face Scrub,” herbal face scrubs are cosmetic preparations designed to exfoliate and rejuvenate facial skin using natural ingredients such as walnut shell powder, rice flour, aloe vera, honey, kaolin clay, beetroot extract, blue-mink flower, glycerin, and vitamin E. The authors explained that herbal cosmetics are safer than synthetic products because they are prepared using plant-derived ingredients with antioxidant, anti-inflammatory, antibacterial, and moisturizing properties.

The study highlighted the importance of exfoliation in skincare. Exfoliants help remove dead skin cells and unclog pores, thereby improving skin texture and appearance. Physical exfoliants such as walnut shell powder, sugar, rice flour, and coffee granules mechanically remove dead skin cells, whereas chemical exfoliants such as alpha-hydroxy acids and beta-hydroxy acids dissolve intercellular bonds between dead cells. The authors emphasized that herbal exfoliants are gentle on the skin and suitable for sensitive skin types when used appropriately.

Bharti et al. formulated an herbal walnut shell face scrub using walnut shell powder as the primary exfoliating agent. Rice flour was added as a natural exfoliant rich in antioxidants and minerals. Aloe vera extract was included for its moisturizing and anti-inflammatory properties, while honey acted as a natural humectant and antibacterial agent. Kaolin clay was incorporated to absorb excess oil and impurities from the skin. Vitamin E was used due to its antioxidant and skin-repairing activity. The prepared scrub was evaluated for pH, washability, spread ability, grittiness, viscosity, stability, and irritancy. The formulation showed good consistency, easy spread ability, pleasant odor, acceptable pH, and non-irritant behavior, proving its suitability for skincare applications.

Another important study was conducted by Mounika et al. titled “Formulation and Evaluation of Herbal Face Scrub Using Exfoliating Agents.” In this research, the authors formulated a polyherbal face scrub containing poppy seeds, neem powder, turmeric powder, aloe vera gel, sandalwood powder, glycerin, and tea tree oil. The study stated that herbal scrubs are beneficial in reducing age-related skin damage, removing dead cells, improving blood circulation, and enhancing skin glow.

The researchers described the medicinal significance of the ingredients used in the formulation. Neem powder possesses antibacterial, anti-inflammatory, and oil-balancing properties, making it useful for acne-prone skin. Turmeric contains curcuminoids that

exhibit antioxidant, antimicrobial, and anti-inflammatory activities. Aloe vera gel provides hydration, soothes irritation, and promotes collagen synthesis. Poppy seeds act as gentle exfoliating agents and improve skin smoothness.

The formulation prepared by Mounika et al. underwent evaluation for parameters such as color, odor, texture, consistency, spread ability, foamability, washability, pH, and grittiness. The prepared formulations exhibited satisfactory physical properties and were non-irritating to the skin. Among the three formulations developed, formulation F3 showed the best results with suitable pH, easy washability, acceptable consistency, and effective exfoliating action. The study concluded that herbal scrubs provide better safety and fewer side effects than synthetic cosmetic products.

A similar study titled “Formulation and Evaluation of Facial Scrub” by Nirali Thakor and Vishwakarma Singh focused on the preparation of a facial scrub using red lentil powder, rice flour, and butterfly pea flower extract. The authors discussed the role of cosmetics in improving appearance and maintaining skin health. They also explained different skin types and common skin disorders such as acne, wrinkles, blemishes, and body odor.

The researchers reported that facial scrubs help detoxify the skin, unclog pores, remove flakes, improve skin texture, and enhance the absorption of skincare. The prepared formulations were evaluated for organoleptic characteristics, pH, spread ability, irritability, washability, viscosity, and microbial load. Results indicated that the optimized formulation possessed uniform texture, pleasant odor, acceptable pH range, stable consistency, and good spread ability. The study concluded that polyherbal facial scrubs are effective in exfoliating the skin and improving skin tone naturally while minimizing adverse effects associated with synthetic products.

Another significant contribution was made by Shrushti Bhojar et al. in the study “Formulation and Evaluation of Herbal Scrub of Neem Extracts.” The researchers developed an herbal scrub using neem powder, rice flour, aloe vera, gram flour, honey, lemon juice, Multani mitti, rose water, and preservatives. The study emphasized that herbal cosmetics are gaining popularity because consumers prefer natural products over synthetic formulations due to safety concerns.

The authors described the advantages of herbal scrubs, including removal of dead skin cells, improved blood circulation, pore cleansing, reduction of acne and scars, and enhanced absorption of skincare products. Neem was selected for its antimicrobial and anti-aging properties, aloe vera for its moisturizing effect, gram flour and rice flour for exfoliation, lemon juice for its antiseptic action, and Multani mitti for oil absorption and blackhead removal.

The herbal scrub was evaluated using parameters such as organoleptic properties, pH, spread ability, grittiness, washability, foaming ability, microbial load, skin irritation, and stability testing. The results showed that the formulation possessed a pleasant odor, semi-solid consistency, easy washability, non-irritant behavior, and acceptable viscosity. Regular use of the scrub improved skin texture, reduced excess oil, and helped prevent acne formation.

From the reviewed literature, it can be concluded that herbal face scrubs prepared from natural ingredients such as walnut shell powder, rice flour, neem, aloe vera, turmeric, lentils, honey, and botanical extracts are effective alternatives to synthetic exfoliating products. These herbal formulations provide exfoliation, cleansing, moisturizing, antioxidant protection, and

anti-inflammatory effects without causing significant irritation or harmful side effects. Most studies reported satisfactory pH, spread ability, washability, viscosity, and stability, confirming the suitability of herbal scrubs for cosmetic applications. Therefore, herbal face scrubs have strong potential in the cosmetic industry as safe, eco-friendly, and effective skincare products.

IV. ANATOMY OF SKIN

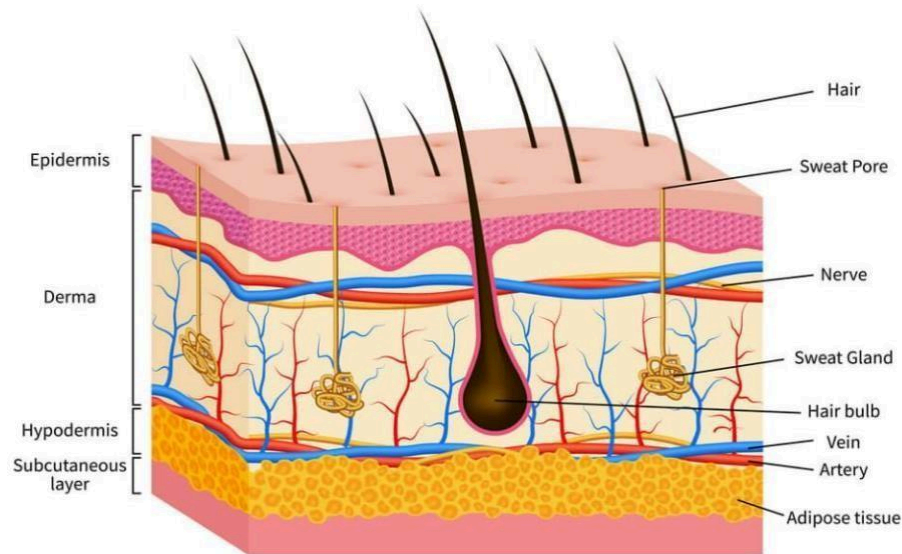
Anatomy of skin:

The integumentary system is largest organ and composed of skin, hair, nails and glands. Epidermis regenerates with new cells every 28 days. This layer measures the thickness of 0.05 to 0.1mm.

- A) Epidermis
- B) Dermis
- c) Subcutaneous tissue.

A cosmetic product called a facial scrub is used to hydrate, exfoliate, and clean the skin on the face. The three types of skin are sensitive, oily, and dry skin. Those have dry skin should wash their faces with a moisturizer-containing cleanser and then apply moisturizer. Gently scrubbing sensitive skin is recommended. To avoid clogged pores and to keep the skin's oil production in control, oily skin needs a scrub that exfoliates deeply. [5] There is no specific procedure in the preparation of rice scrub compared to other products; it is a pure natural handcrafted facial scrub, so there is no specific technique. So, all we have to do now is combine the various components in a precise and discrete manner until we get a perfect mixture, which we may call a scrub. There are various forms of scrub that we might refer to as alternatives. When dead skin cells accumulate on the surface of your skin, your complexion might become bland. That's where exfoliation, specifically the use of a face scrub, might help. When you remove dead skin cell buildup from the surface of your skin, your complexion can improve. [6] Scrubbing your skin has many advantages: [7] For perfectly clear skin: Scrubbing remove filth, oil and sweat from your skin. Unreality, cleaning milk, face wash and facial cleanser will not be able to remove all of the dust that has accumulated in your skin's pores. Scrubbing is effective in this situation. Remove flake from your skin: Dry patches are caused by flaky skin. It permits the accumulation of dead cell over time. Cleaning your skin can assist you in effectively dealing with flaky skin. Assist in the removal of dead cells Your skin will appear dull and weary as a result of dead cells. Use a mild scrub to remove them. Add Glow to skin Exfoliation can actually make your skin glow. Exfoliating your skin can actually make it sparkle. Remove Dark Patches Use scrub twice a week to get results. It is especially effective on knuckles, elbows and knee Acne scar removal Exfoliation aids in the removal of acne scars. Help in prevent in growing hair Scrubbing is the method to preventing ingrown hairs which is a perennial problem. For a smooth complexion Smooth skin, the key to a more attractive appearance. The scrub will not just improve the appearance of your skin.it will be absolutely smooth

SKIN ANATOMY



- **Improves your skins Texture**

Scrubbing your skin will leaves it clean, silky and with a better texture.

Pharmacogenetic study [8] Rice Flour-

Humans consume 95% of the world's rice production, which is a cereal grain that is consumed by half of the world's population, including almost all of East and South East Asia.

- **Synonyms:** Meal of rice, Rice vermicelli.

- **Biological Source:** Organic rice that has been thoroughly milled. Rice starch, on the other hand is commonly made by steeping rice in lye. It's a particularly good option for wheat flour, which might upset certain people's digestive systems.

- **Chemical constituent:** protein, rice, starch, ash, lipid

- **Medicinal Properties:** Enhances the health of the nervous system, is naturally anti-inflammatory and gluten-free, is a good source of energy, and has diuretic and digestive properties that prevent constipation, lower the risk of cancer, prevent obesity, and improve skin health. It is also a good source of protein, which supports heart health and regulates blood sugar and blood pressure.

- **Refreshes and brightens the skin:** It brightens the skin texture by removing dead skin cells. Rejuvenates and brightens the skin. It brightens the skin texture by removing dead Skin cells.

- **Collection:** Rice flour is collected from local area Siddhivinayak store hanuman Vadi Nashik, Maharashtra.

- **Purification:** Rice flour was collected and dried in shade of room temperature then

crushed in grinder mixer manually to form powder material. These powder passes through sieve 60 for getting particles of material in proper size. Abrasive agents used in face scrub are having particle size range between 200-600 μ m.

V. MATERIALS

1) NEEM POWDER

- a) **Biological source:** Azadirachta Indica
- b) **Key Constitution:** limonoids, alkaloids, flavonoids, and other bioactive compounds.
- c) **Uses:** Antiaging, Humectant



Fig. 1 NEMM POWDER

2) HONEY

- **Biological Source:** Apis crena
- **Key Constitution:** fructose and glucose,
- **Uses:** Moisturizer, Nourish skin.



Fig. 2 HONEY

3) GRAM FLOUR

- **Key Constitution:** protein, carbohydrates
- **Uses:** remove all the dead and dirt skin cell from your face.



Fig. 3 GRAM FLOUR**4) ALO VERA**

- **Biological Source:** Aloe barbadense miller.
- **Key Constituents:** Polysaccharides, amino acids, vitamins (A, C, E, B12), enzymes.
- **Uses:** Moisturizes scalp; soothes irritation; reduces dandruff; promotes hair growth.

**Fig. 4 ALO VERA****5) MULTANI MITTI**

- [1] **Biological source:** Fuller Earths Clay
- [2] **Key Constitution:** silica, alumina, iron oxide,
- [3] **Uses:** Remove blackhead and whitehead



Fig. 5 MULTANI MITTI

6) Rise Flour

Biological source: *Oryza sativa*

Key Constitution: moisture, ash, fat, and protein.

Uses: Gentle exfoliating properties, ability to absorb excess oil, and potential to brighten the skin.



Fig. 6 RICE FLOUR

7) SODIUM BENZOATE

TABLE I. **Key Constitution:** Benzoic acid

TABLE II. **Uses:** Prevent yeast, mold, fungus from forming



Fig. 7 SODIUM BENZOAT

8) METHYL PARABEN

a) **Uses:** Cosmetics and Personal care product, food products, pharmaceutical.



Fig.8 METHYL PARABEN

9) ROSE WATER

[1] **Key Constitution:** water and a significant amount of rose oil

[2] **Uses:** toner, facial mist, makeup remover, and ingredient in face.



Fig. 9 ROSE WATER

VI. FORMULATION TABLET

Sr. No	Ingredients	F1 min	F2	F3
1	Neem powder	2.5 g	3.8 g	5 g
2	Honey	1 g	1.5 g	2 g
3	Gram Flour	0.8 g	1.15 g	1.5 g
4	Aloe Vera	4 g	5.7 g	7 g
5	Multani Mitti	1.2 g	1.9 g	2.5 g
6	Rice Flour	1.5 g	2.3 g	3 g
7	Sodium Benzoate	0.5 g	0.76 g	1 g
8	Methyl Paraben	0.1 g	0.19 g	0.25 g
9	Rose Water	12.4 ml	5.7 ml	0.25 ml

Table: 1 List of Ingredient

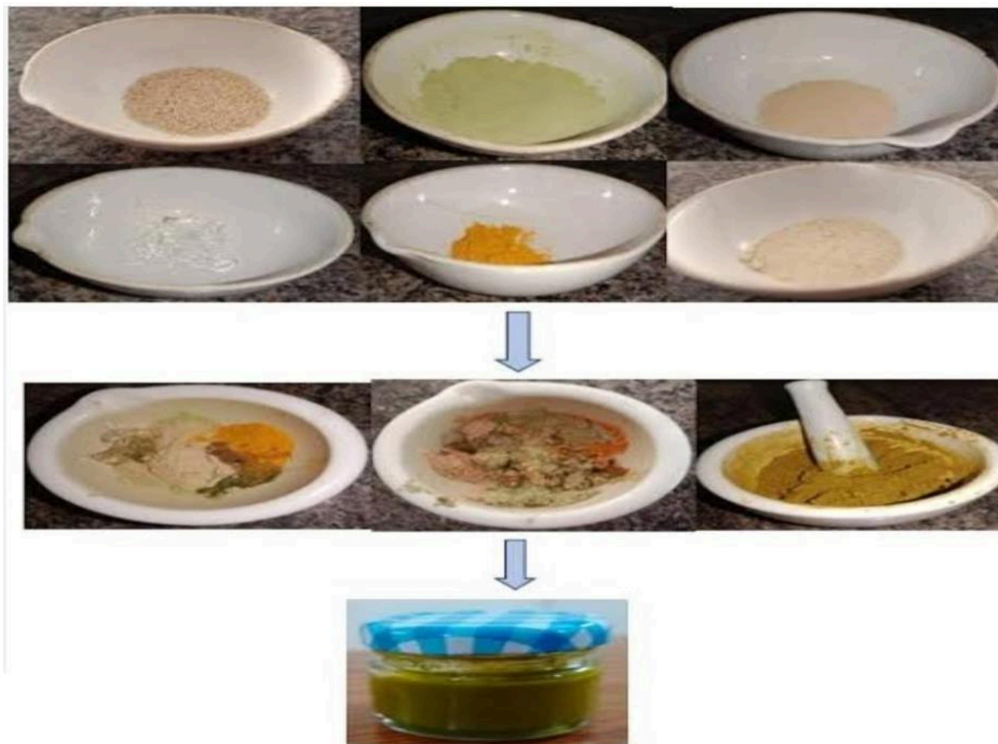


Fig. Weighing of Ingredient

VII. METHODS OF COLLECTION

1. Prepare the Neem Powder:

Collect fresh neem leaves, wash them to remove any dirt, and then dry them in the shade for 7-15 days.

Once dry, grind the leaves into a fine powder using a mortar and pestle or a grinder. You can sift the powder through a fine sieve for a smoother consistency.

Fresh rice was gathered from a shop. Rice was washed and dried. To produce the product, these rices are

Appropriately ground in a grinder and produced a powder after going through sieve number 60.

2. Collection of Ingredients:

Lemon juice, Multani mitti, Honey, gram floor was collected from shop. Methyl Paraben, Sodium Benzoate, Sodium laurel sulphate, Rose oil was collected from college laboratory.

Honey is a natural antioxidant and help keep acne at bay, due to its anti-inflammatory properties. Sugar is used to remove dead skin cells form your face, Among this ingredient

VIII. METHODS OF PREPARATION

Step 1. Preparation of active ingredients:

Weigh all ingredients as given in formulation table. Mix them Uniformly using mortar and pestle.

Step 2. Add prepared gel:

The produced gel was added to the active ingredient mixture and mixed. The produced Formulation was then Assessed utilizing several parameters.

Step 3. Using mechanical stirrer, add water to and rose water to mixture.

IX. EVALUATION OF HARBAL SCRUB

- **Objective:**

To assess the physical, chemical, and microbiological properties of a newly formulated herbal scrub to ensure its Safety, stability, and efficacy for cosmetic use.

1 Organoleptic Evaluation:

Appearance: Observe the color, texture, and consistency.

Odor: Assess the aroma for pleasantness and strength.

Texture: Check for smoothness and uniformity of particles.

2 pH Determination:

Method: Use a calibrated digital pH meter.

Procedure: Dissolve 1g of the scrub in 10ml of distilled water and record the ph.

Acceptable Range: 4.5 – 6.5 (suitable for skin application).

3 Spread ability Test:

Objective: To evaluate the ease of application on the skin.

Procedure: Place a sample between two glass slides and measure the spread diameter under standard weight.

Result Interpretation: Greater spread indicates better application.

4 Grittiness/Particle Size Check:

Method: Rub a small amount on the back of the hand. **Observation:** Should feel mild and not overly abrasive.

Microscopy: Optional detailed particle size analysis.

5 Wash ability:

Procedure: Apply to a small skin area and rinse with water.

Observation: Should rinse off easily without leaving residue.

6 Foaming Ability:

Objective: To assess cleansing action.

Method: Shake 1g of scrub in 10ml distilled water and observe foam formation.

Evaluation: Moderate foaming is ideal for scrubs.

7 Stability Test:

Storage Conditions: Room Temperature (25°C)

Elevated Temperatures

(40°C) Refrigeration

(4°C)

Duration: Monitor over 4 weeks for changes in texture, color, odor, and phase separation

8 Microbial Load Test:

Objective: Ensure the scrub is free from harmful microorganisms.

Method: Standard plate count for bacteria and fungi.

Limits: As per cosmetic microbiological standards.

9 Skin Irritation Test (Patch Test):

Procedure: Apply a small amount to a patch of skin (usually inner forearm).

Observation Period: 24–48 hours.

Expected Result: No redness, itching, or inflammation.

10 User Acceptance Study (Optional):

Participants: Small group (10–20 volunteers).

Feedback Collected On: Texture, ease of use, skin feel, fragrance, Overall satisfaction.

Evaluation Table:

Sr.no	Parameter	Observation
1	Color	Greyish green
2	Oduor	Pleasant
3	Nature	Semi Solid
4	PH	5
5	Irritability	Nonwritable
6	Viscosity	1429 centipoise
7	Wash ability	Easy washing properly
8	Skin sensitive	No rashes
9	Patch test	No side effect

Table: 2 Evaluation of Herbal scrub**Fig. Hand on application with formulation and Hand after washing formulation****X. RESULT**

Using a neem scrub regularly can improve the skin's texture and appearance. It helps to

remove dirt, oil, and dead Skin cells, leaving the skin feeling fresh and smooth. Because neem has natural antibacterial properties, it can reduce Pimples and prevent new ones from forming. Over time, it may also help fade dark spots and give the skin a healthy Glow. People with oily or acne-prone skin often see the best results, as it helps control excess oil and keeps the skin Clean.

Accurate pH of the formulation is important for minimizing irritation to the skin. The formulation has pH 6.5 to 7 Which is suitable and non – irritating for the skin. The viscosity was measured by using Ostwald viscometer. The Readings of viscosity was based on time interval of 1 min for formulation to reach upper marking to the lower Marking of Ostwaldviscometer.If the formulation takes more time, then the formulation is considered viscous and if it takes less time than the viscosity of formulation is considered less than the requirement After using the scrub, Skin was sure to feel softer, cleaner and refreshed. It made skin beautiful, youthful and soft and glowing. Herbal Cosmetics showed lesser or no side effects, hence use of herbal cosmetics get increased.

XI. CONCLUSIONS

In conclusion, herbal scrubs offer a natural and effective alternative to chemical-based skincare products. They are Enriched with the goodness of herbs and natural ingredients that help in exfoliating dead skin cells, improving Blood circulation, and promoting healthy, glowing skin. Regular use of herbal scrubs can also help in preventing Acne, blackheads, and other skin issues without causing harmful side effects. With increasing awareness about the Benefits of herbal products, herbal scrubs are becoming an essential part of a healthy skincare routine.

The prepared scrub was compared with various parameters like color, odor, consistency, pH, spreadability, Extrudability, viscosity, irritability, Washability, grittiness, foamability and found to be satisfied with all required characterization. Thus, the developed Formulation can be used as an effective scrub for using it to bear a healthy and glowing.

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24. Cosmetic formulations containing herbal ingredients are increasingly preferred because of their antioxidant, antimicrobial, anti-inflammatory, and exfoliating properties, making them suitable for safer and more sustainable skincare applications.
25. Herbal face scrubs prepared using natural ingredients such as walnut shell powder, neem, rice flour, aloe vera, turmeric, honey, and herbal extracts provide effective exfoliation while minimizing irritation and adverse effects on the skin.
26. Evaluation parameters such as pH, spreadability, viscosity, grittiness, washability, stability, irritancy, and microbial load are essential to ensure the safety, quality, and effectiveness of herbal cosmetic formulations.
27. Polyherbal scrubs are beneficial in improving skin texture, reducing acne, removing dead skin cells, controlling excess oil secretion, and enhancing skin glow through regular application.
28. Natural exfoliating agents like rice flour, walnut shell powder, lentil powder, and poppy seeds help cleanse clogged pores and support regeneration of healthy skin cells.
29. Aloe vera, honey, butterfly pea extract, neem, and turmeric are commonly used in herbal skincare due to their moisturizing, antioxidant, antibacterial, and anti-inflammatory properties.
30. Herbal cosmetics are considered eco-friendly and skin-friendly alternatives to synthetic cosmetic products because they are generally associated with fewer side effects and better skin compatibility.
31. Regular exfoliation using mild herbal scrubs improves blood circulation, promotes collagen production, and enhances absorption of skincare products.
32. The reviewed studies confirm that herbal facial scrubs can be effectively formulated using natural ingredients and evaluated successfully according to cosmetic standards for safe topical application.