

# Formulation and Evaluation of Herbal scrub

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**Abstract:** *The main objective of the present study was to formulate a herbal facial scrub With the incorporation of lentil pulse as the main active drug. The use of natural Constituents to act potentially against wrinkles, acne and they also helps in control of Secretion of oil from the skin open pores that is why they are the part of herbal cosmetics. Herbal products or cosmeceuticals usually consist of the parts of plant which possess Antimicrobial, antioxidant and anti aging properties. Natural constituents are the safest and The best product to use in day to day life because they do not have any adverse effects and These cosmetics also influences the biological function of the skin. In this formulation of herbalscrub Neem, Amla, Turmeric, Lentil pulse, Green tea, Fenugreek, sandalwood, Aloe vera, Rose water . Aloe Vera are used as active ingredients. The prepared herbal scrub was evaluated for various Parameters such as appearance, pH, viscosity, Spreadability, extrudability, grittiness, stability Studies, Foamability, washability, irritability and found to be contented with all required Characterizations. Thus, this formulation can be used as an efficient herbal scrub for using it For the maintenance of healthy and glowing ski.*

**Keywords:** Antioxidant, Anti microbial, Less Abrasive, glow , herbal scrub, Skin Exfoliating, dead skin cells, reduce acne

## I. INTRODUCTION

Skin is the one of the largest organ of body. It serves as a major protective organ for other body parts. Skin functions as a protective Wrapper, keeping everything beneath it and keep safe from daily threats such as the harsh effects of sun, wind and pollution .filled Grime [1] The skin supports its own ecosystem of microorganism, including yeast and bacteria, which cannot be removes by any Amount of cleaning. Skin is also a sensory organ, which indicates the health of individual.[2] It is consists of material such as amino acid, Lipid and carbohydrate etc. so that a balanced skin to keep it glossy, clean and clear and healthy.[3]A facial scrub is usually a cream-based product that contains little exfoliation pieces that when massaged across the skin help smooth the skin by physically lifting dry, dead skin cells. Scrubbing is the process of eliminating dead skin cells from the surface of your skin using the granulated substance and exfoliator tool. A facial scrub is generally a cream and Gel based product that contains tiny exfoliating pieces. A facial scrub is an added a step above And beyond a basic cleanser-toner-moisturizer routine, it often gets neglect[4]Exfoliating agents are those used to remove dead cells present on the skin And boost blood circulation, giving renewed and glowing skin. It keeps Face free from dirt, grime, and oils which are also beneficial in keeping the Skin pores clean. There are two ways to exfoliate the skin.[5]

- **Physical Exfoliation** :Abrasive agents are used to remove dead cells by gently rubbing the Skin in circular motion with hand or by rough sponge.
- **Chemical Exfoliation** :Chemically dissolves the initial glue that holds dead (keratinized) Skin cells together and then penetrates the upper layer of the skin for Complete removal of dead cells.[6]

### Benefits of using an Exfoliate :

1. Helps removing dirt and grime
2. .Prevents spots and provide clear complexion
3. Cleans skin before shaving, removes dead skin cells that clog up razor And improve shaving. [7]

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 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.

#### **Ideal properties of an exfoliant**

1. Non-toxic
2. Possess small gritty particles
3. Mild abrasive
4. Non-irritant
5. Non-sticky
6. Removes dead skin [8]

#### **Precautions to be taken while applying an exfoliant**

1. An exfoliant is selected based on the skin type
2. Excessive exfoliating and rubbing can damage the skin
3. Do not exfoliate skin if any open wounds, cuts, and sunburns present
4. Apply twice a week
5. Apply with a rotating motion to face and neck for about 30secs. Thoroughly rinse with water

## **II. METHOD AND MATERIAL**

All the natural materials used in the study were purchased from the local market of Burhanpur, in a dried powder form. The details of the plant material used in the formulation are Mentioned in Table no. 1

**Table 1: Name of herbal ingredients**

Sr. No.	Name of Ingredients	Quantity %	Use
1	Neem	3gm	Treat dry skin, stimulate collagen production, reduces scar, heal wounds,
2	Amla	10gm	Anti-aging, treats acne, Evens skin tone, treats skin Pigmentation, removes, Dead skin, natural hair Straightener
3	Turmeric	2gm	Reduce acne and any resulting scars, anti-inflammatory, anti-oxidant, provides glow and lustre
4	Lentil pulse	15gm	Natural exfoliator that helps in getting rid of dead skin cells. Leaving the skin smooth and dirt free. It helps in fighting acne and blackheads too.
5	Green tea	10 gm	Antioxidant, anti-inflammatory, and antimicrobial, treats acne and oily skin, reduce sebum secretion
6	Fenugreek	5gm	Exfoliates Skin, Moisturizes Skin, Reduces blemishes and dark circles, Anti-Aging Properties, Cure Acne.
7	Sandalwood	5gm	Smoothing, cooling effect and improves fairness
8	Aloe vera	Q. S.	Soothe sunburn, moisturize ,The skin, fights skin aging, Reduces acne, lightens ,blemishes .
9	Rose water	Q. S.	Cooling ,soothing ,

#### **Method of herbal scrub Preparation**

- Weighed accurately all the herbal powders such as green tea, amla, neem powder and sandal wood powder and sieved through #120 and mixed them together to form a uniform mixture with mortar and pestle.
- Weighed accurately lentil pulse, Fenugreek and turmeric powder triturated them together to form a uniform mixture. In that mixture added previously prepared herbal drug and triturated to obtain a uniform drug powder of face scrub.
- In mortar and pestle added aloe vera gel (as base) and all the herbal powder were Triturated to obtain a paste like consistency and rose water was added for fragrance.



**Fig. 1 Herbalscrub**

### Evaluation Parameters of Herbal Scrub

To evaluate the quality of prepared formulation, several Quality tests were performed

- 1. Physical Appearance:** Physical appearance of formulation was observed visually. In This test colour, odour, nature, and consistency were observed.
- 2. pH:** 1gm of formulated scrub dissolve in 10 ml water then the pH was measured by Using pH paper.[9]
- 3. Washability:** Formulation were applied on the skin easily remove by Washing with water were checked manually.
- 4. Spreadability:** Two slides are taken and herbal sample Was placed on one slide. Other slide was placed on the first slide. 100 g of weight was kept on the slides so that it spreads as a thin layer. Weight was been eliminated much high than the prisms. Next weight of 20 g was kept on the upper slide. It was performed for 3 times and average was calculated.

Spreadability was calculated by using the following Formula,

$$S = M \times L / T$$

Where, herbal scrub

S- Spreadability

M- Weight tied to the upper slide (20 g)

L – Length of the glass (6.5 cm)

T- Time in sec.

- 5. Viscosity:** Brookfield viscometer was used to measure The viscosity of our sample. Viscosity of sample and Water were taken in poise[10]
- 6. Grittiness:** Exfoliant needs to have abrasive property so to satisfy that the lentil pulse were powdered and passed through sieve no 60 such that the preparation has few gritty particles. .
- 7. Skin Irritation:** Little quantity of the scrub was applied on the surface of skin and kept for few minutes.
- 8. Homogeneity:** Homogeneity of the formulation was inspected visually.
- 9. Stability** formulation was stored at different temperature conditions for a Period of 25 days and evaluated for parameters like colour, odour, pH, and consistency.
- 10. Foamability :** A small amount of gel was taken in a measuring cylinder, and it was Shaken for 5 min and the foam stability of the gel was measured [11]

**Table 2:** Evaluation of Herbal scrub

Sr. No.	Parameters	Observation
1	Colour	Peanut brown
2	Odour	

3	Nature	Semi solid
4	Consistency	Smooth
5	PH	6.5
6	Washability	Easily washable
7	Irritation	No irritation
8	Spreadability	Easy to spreadable
9	Viscosity	6960-7100cps
10	Grittiness	Small gritty particles
11	Homogeneity	No aggregation
12	Foam ability	Foam volume 85mlat 5 minute
13	Stability	Good

### III. RESULT

The formulated herbal scrub was evaluated at different parameters. All the organoleptic properties were checked visually such as colour, odour, consistency, homogeneity and texture. As a result, colour observed as peanut brown, no bad smell occurred from formulation. The consistency of the formulation found suitable as required to apply on skin. Particles were used to check for the texture and homogeneity of preparation on skin found good and satisfactorily as the preparation show grittiness, greasiness properties on skin. Washability properties found good, as it is easily removed by washing with normal water. pH of the formulation checked and found 6.5 means suitable for skin. Spreadability quality also tested with the help of glass plates and found that preparation having good consistency and easily spreadable. No irritation, redness, edema and any dermatological effects observed on skin. Viscosity checked and result found as 6960-7100 cps at 10 rpm

#### Photographs of Before and After herbal Scrub Application



Fig. 2 Before Apply After

### Comparison After Application



**Fig. No. 3**

### IV. CONCLUSION

The present study was about to prepare and evaluate herbal scrub. From the above results it is concluded that new formulation herbal scrub can be safe to use and the lentil pulse used as a scrubbing/cleansing agent showing good effects and as mostly ingredients are natural ingredients so chances for side effects are less. It can be used for any type of skin i.e. normal, oily and dry. It gives best results and make the skin glowing and healthy.

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