



FORMULATION AND EVALUATION OF HERBAL FACE SCRUB

Dakhani Rehan Manjur*, Kadam Abhijit Suhas**, Kamble Mitali ,Dr. Shaikh Gazi, Pathan Muzakkir

R P College Of Pharmacy Dharashiv (Osmanabad)

ABSTRACT:

The concept of beauty and cosmetics dates back to ancient mankind and civilization. Generally herbal cosmetics are also referred to as natural cosmetics. Herbal cosmetics are formulated, using different cosmetic ingredients to form the base in which one or more herbal ingredients are used to cure various skin ailments. Plants are highly used for development of new drug products for cosmeceuticals and pharmaceutical applications. Herbal cosmetics are the products in which herbs are used in crude or extract form. Compared to other beauty products, natural cosmetics are safe to use. They are hypo-allergenic and tested and proven by dermatologists to be safe to use anytime, anywhere. Since they are made of natural ingredients, people don't have to worry about getting skin rashes or experience skin itchiness. The aim of this research work is to formulate and evaluate herbal scrub by using various herbal ingredients. In this study herbal scrub is formulated using onion juice, turmeric powder, aloe vera, gram flour, multani mitti, khus khus, guar gum and rose oil.

INTRODUCTION:

The body's largest organ is the skin. It acts as a key organ of protection for other body parts. The skin serves as a barrier to protect the inside from external dangers like the corrosive effects of the sun, wind, and pollution as well as dirt and germs that are present in daily air. The health of a person can also be determined by their skin, another sensory organ. It is made up of substances like amino acids, lipids, and carbohydrates, among others, thus skin needs a balanced diet to be shiny, clear, and healthy.

Cosmetics are defined as the products used for the purpose of beautifying, cleansing, promoting attractiveness or alternating the appearance. Cosmetics come in a variety of forms and are used worldwide to enhance beauty. For the purpose of enhancing skin beauty, several skin conditions are developed, such as skin protection, sunscreen, anti-acne, and anti-wrinkle products. Some people have natural beauty, while others have it artificially enhanced.

A facial scrub is a cosmetic or a beauty product used to exfoliate and clean the skin on the face and body. Blackheads, whiteheads, sebum, and skin cells can all be removed with the help of facial scrubs. It also supports keeping skin looking good.

To remain healthy and of good appearance, the skin surface requires frequent cleansing to remove grime, sebum and other secretions, dead cells, crusts and applied make-ups. Prepare & evaluate a herbal scrub to prevent Acne, Tanning, Wrinkles. This facial scrub contains herbs which show Antioxidants, Antiseptic, Skin brightener & Reducing inflammation properties.

We have formulated the herbal scrub by using different herbal powders such as turmeric, orange peels, aloe vera, gram flour etc. & Onion juice. The scrub was evaluated by using the parameters like Appearance, Smoothness and effect on acne, Effect on white and black heads, Spreadability, Irritation. The scrub shows

excellent effects on oily skin, and satisfactory effects of normal and dry skin.

- The usage of cosmetics and herbal products has substantially expanded in the current climate. Despite the enormous health benefits of synthetic substances, which once more cause environmental destruction, demand for herbal items and cosmetics is rising daily.
- Skin care products play a significant role in boosting people's confidence. Although it was always believed that women were the main consumers of skin care products, today's males are just as concerned with how they look. Products that are used to cleanse and enhance the skin are known as herbal cosmetics.
- Men have rough skin, and when they don't take proper care, the skin darkens from excessive sun exposure.
- The main benefit of using a herbal cosmetic is that it is pure and has no negative side effects on the human body. The name itself indicates that herbal cosmetics are natural and they do not contain any chemicals.

Benefits of Scrubbing :

1. For A Squeaky Clean Skin: Scrubbing gives you clean skin, free from dirt, oil, and sweat. Actually, the bottles of cleansing milk, face wash and facial cleansers cannot pull out all the dust that accumulates in the pores of your skin. Scrubbing does this job successfully
2. Frees Your Skin From Flakes: Flaky skin gives rise to dry patches. It allows dead cells accumulate over time. Scrubbing your skin can help you deal with flaky skin effectively
3. Helps In Removing Dead Cells: Dead cells make your skin look dull and tired. Scrub them off with a gentle scrub.

4. Adds Glow To Skin:Exfoliation can actually make your skin glow
5. Removes Dark Patches:Use of scrub twice a week to get results. It is especially effective on knuckles, elbows and knees.
6. Removes Acne Scars:Exfoliation helps in doing away with acne scars.reverts Ingrown Hair:Ingrown hair is a perennial problem and scrubbing is the solution to prevent this problem
7. For Smooth Skin:Smooth skin is the key to a more beautiful you. The scrub will not only make your skin look flawlessly smooth, but will also make it soft and well-nourished.

Facial scrub

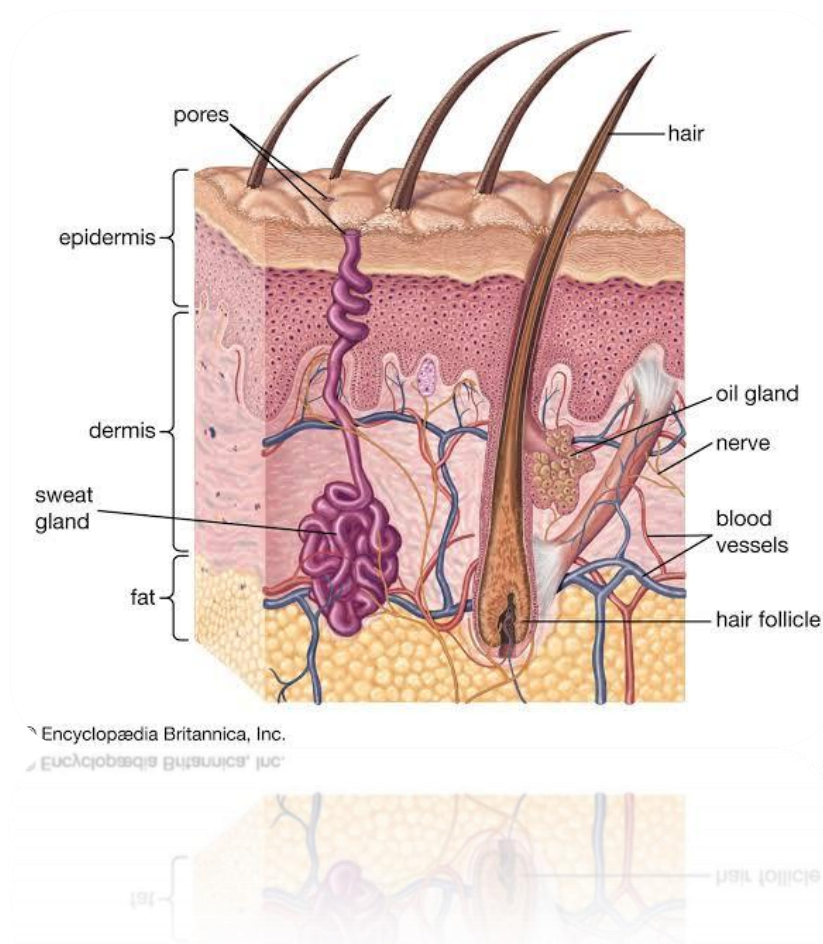
Cosmetics come in a variety of forms, each with its function on the skin. Due to a variety of factors, skin becomes dull and lifeless, which can be effectively combated with the use of scrubs. Facial scrubs and body scrubs are the two types of scrubs used on the skin. The only difference between these two is the amount of oil and sugar added to each. Because of the large percentage of oil in the facial scrub, it is less abrasive. It exfoliates the skin and eliminates dead skin cells. Scrub can be used on all skin types. Only the essential oil used as an ingredient in the scrub will differ depending on the skin type. Dry skin, oily skin, and sensitive skin are three different types of skin.[5] Since dead skin cells are removed and new skin cells are exposed, skin becomes radiant and smoother with regular usage of scrubs. One of the most important elements in the facial scrub formulation is a mild abrasive agent.

Ideal properties of scrub

- Non toxic
- Possess small gritty particles
- Mild abrasive
- Non irritating
- Non sticky
- Able to remove dead skin cells.

Medicinal uses of onion

Numerous traditional practices and scientific investigation have critically evaluated the beneficial effect of onion consumption on human health. Most of this health benefits are due to its flavanoids component that have an antioxidants properties, anti-allergic, anti-asthamatic action, anti-carcinogenic, anti-inflammatory, cardiovascular protective effects, antibacterial and antifungal properties. Due to these medicinal values the consumption of onion in our daily diet reduces the risk of heart diseases, diabetes, cancer and many infectious diseases. Onion has been used for healing both internally and externally. Internally, onion has been recommended to treat colds, cough, bronchitis, whooping cough, asthma and other respiratory problems. It is believed to help in congestion of the lungs and expands the airways. Onion is also used internally to relieve excess gas and calm and upset stomach. A mixture of rue and onion is used torid of parasites of the digestive system. Onion is also thought to stimulate appetite. When applied externally, fresh onion juice prevents bacterial and fungal infections It can be applied to wounds and stings on the skin, to remove warts and to stimulate hair growth .



PLANT PROFILE



Fig 2 onion

1. Onion

- Scientific name : *Allium cepa*
- Synonym : Japanese leek , Egyptian onion.
- Family : Alliaceae
- Chemical constituent :

Volatile oil, Flavonoid, Phenolic acid , phenol,

Uses :

- Anti allergic
- Anti microbial
- Anti asthematic
- Decongestant
- Anti inflammatory.

Turmeric



- Scientific n:

- Synonym: Saffron Indian; haldi
- Family: zingiberaceae
- Chemical constituent :

volatile oil also contains α - and β -pinene, camphene, limonene, terpinene, terpinolene, caryophyllene, linalool, isoborneol, camphor, eugenol, curdione, curzerenone, curione, AR-curcumenes, β -curcumene, γ -curcumene. α - and β -turmerones, and curzerenone.

Uses :

- Anti allergic
- Anti microbial
- Anti inflammatory
- Anti septic.

Aloe vera



Fig 4 aloe vera

- **synonyms:** Aloe barbadensis Mill., Aloe indica Royle, Aloe perfoliata L. var. vera and Aloe vulgaris Lam.
- **Scientific Classification:**
- **Kingdom:** Plantae
- **Order:** Asparagales
- **Division:** Spermatophyta
- **Subdivision:** Angiospermae
- **Class:** Monocotyledoneae
- **Family:** Liliaceae
- Genus: Aloe
- Chemical constituents:

Chemical Constituents of Aloe vera. The two-main class active constituent of the Aloe-vera plant extract is chromone and anthraquinone and its glycoside derivatives, alongside others such as phenyl pyrone derivatives, flavonoids, phenylpropanoids, coumarins, phytosterols, naphthalene analog lipids and vitamins.

Uses:

Rich in moisturising properties, it helps in removing deadlines. Prevent and reduce wrinkles and dark spots of your face. Give protection against harmful uv rays of the sun and prevent skin burning

Gram flour



Fig 5 Gram flour

Biological source:

Gram flour, also known as besan, is a fine, nutty-flavored powder made from Ground chickpeas

Uses

Gram flour is good for acne-prone skin and can help to lighten any acne scars. It can also be applied all over the body to remove dark spots. It has been used as a base in preparation of herbal scrub.

Multani mitti



Geological source -India , Pakistan, Shrilanka.

Multani mitti helps skin in different ways like minimise pore sizes, removing blackheads and whiteheads, cleansing skin, improving blood circulation, reducing acne and gives a glowing effect to a skin as they contain healthy nutrients. Multani mitti is rich magnesium chloride

Khus khus



Fig 7 Khus khus

➤ Biological source

Khus is obtained from the Vetiver plant and is known for its earthy aroma, whereas Khus Khus is obtained from the *Poppy flower*

Uses

- *Thickening Agent,*
- *Baking Ingredient,*
- *Flavor Enhancer,*
- Hydration,
- Toning,
- Anti-Aging,
- Stress Relief.
- Controls Acne,
- Reduces Scars
- Blemishes,
- Soothes The Scalp,
- Improves Blood Circulation.

Methyl paraben



Fig. 8 methyl paraben

Methyl paraben is a 4 Hydroxybenzoate ester resulting from the formal condensation of of carboxy group of 4 hydroxybenzoic acid with methanol.

Guar gum

- **Botanical name:** - Cyamopsis tetragonoloba
- **Family:** - Fabaceae
- **Genus:** - Cyamopsis
- **Active constituents :**

The leaves and pods contain carbohydrates, protein, fibers, galactomannans, ascorbic acid and condensed tannins together with caffeic acid, gallic acid, genetic acid. Its flavonoidal content include quercetin, diaizinin, kaemferol.

Uses :-

- Guar gum hydrates the hair by sealing in the moisture.
- It acts as a conditioner and makes hair smooth and shiny.
- It prevents breakage
- It reduces product buildup in the hair

Rose oil



Fig. 9 Rose oil

- **Synonym:** - Rosa banksia, Rosa odorata
- **Biological Source:**
- A rose is a woody perennial flowering plant of the genus Rosa,
- **family** Rosaceae.
- **Chemical Constitutes**

The principal components of rose extracts are various molecules, especially citronellol, geraniol, phenylethyl alcohol, nerol, quercetin and linalool.

Uses

Rose water is used in a lot of beauty products because of its ability to reduce the signs of ageing. When applied to an area, rose water plumps the skin and improves the appearance of wrinkles. Rose water also tightens the skin, meaning that your skin looks firmer and more radiant

MATERIAL AND INSTRUMENT

Material

Sr.No	Material	Supplier
1	Onion juice	Obtained by grinding
2	Turmeric	Local Market of Dharashiv (osmanabad).

3	Aloe vera	Botanical garden of V P Educational Campus Dharashiv (osmanabad).
4	Gram floor	Local Market of Dharashiv (osmanabad).
5	Mulatani mitti	Local Market of Dharashiv (osmanabad).
6	Khus khus	Local Market of Dharashiv (osmanabad).
7	Methyl paraben	College lab
8	Guar gum	College lab
9	Rose oil	Local Market of Dharashiv (osmanabad).

Table 1

INSTRUMENT

Sr. No	Instrument	Supplier
1	Weighing balance	College lab
2	Mortar pastle	College lab
3	Sieve shaker	College lab

Table 2

METHOD OF PREPARATION

METHOD OF PREPARATION

Step 1 Extraction of onion juice

Onion juice is obtained by grinding method. Cut the onion in small slice & grind them in mixer until the juice is form. All powdered ingredients were packed in moisture resistant, well closed containers.



Step 2

Weigh accurately all the herbal ingredients
Seive through seive no.24
Mix them together to form a uniform mixture in mortar & pestel.



Step 3

Measure accurately Onion juice in another mortar.
Weigh Aloe vera then add to mortar.
Add methyl paraben & guar gum.



❖ Step 4

Mix all herbal powders & triturate them until the proper consistency occurred.



Step 5
Add Rose oil for fragrance.

FORMULA

Sr.No	Material	Supplier
1	Onion juice	5 ml
2	Turmeric	2 gm
3	Aloe vera	2 gm
4	Gram floor	2 gm
5	Mulatani mitti	q.s
6	Khus khus	2 gm
7	Methyl paraben	2 gm
8	Guar gum	2 gm
9	Rose oil	q.s

Table 3

METHOD OF EVALUATION

Colour:

Yellowish orange colour of scrub was observed by visual examination

Odour:

Odour found to be aromatic.

State:

Solid state of scrub observed by visually.

pH:

pH of the prepared scrub evaluated by using pH paper . Small amount of scrub applied on pH paper. pH was found in the range of 5.5-6.

Washability:

Small quantity of scrub applied on the skin and wash with water. It is easily washable.

Irritability:

Small amount of scrub applied on skin and kept for few minutes and found to be non- irritable.

RESULTS

ORGANOLEPTIC EVALUATION

Sr no	Test	Observation
1	Colour	Yellow
2	Odour	Aromatic, Pleasant smell
3	Appearance	Smooth and fine

IRRITANCY TEST

The results of irritancy test were shown in the following table the formulation showed absence of irritation, redness, and swelling during irritancy test study. And it is concluded that the formulated cold cream is safe to use.

Sr.No.	Parameter	Observation
1	Irritation	No
2	Redness	No
3	Swelling	No



FORMULATION



IRRITATION TEST

CONCLUSION

All the ingredients use in this herbal scrub herbal ingredients . And hence, the chances for our product to show side effects are less or even negligible. We can use this herbal scrub for its best result for oily skin. It can Also be used for dry and normal skin. The efforts are applied to formulate the scrub in a powder base. In order to achieve better stability & spreadability along imparting emollient and smoothing action of the scrub. The prepared scrub was evaluated using various parameters and was found to be satisfied for the application on the all types of skin to make it healthy and glowing without any side effects. On evaluation it is found that we prepared herbal scrub is safe to use. The prepared herbal scrub shows neagative irritation test . Prepared formulation has better stability and good appearance.

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