



PREPARATION AND EVALUATION OF HERBAL FACE PACK

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Abstract:

The rising consumer preference for natural and sustainable skincare solutions has propelled significant interest in the development of herbal face packs. This research focuses on the preparation and evaluation of a herbal face pack formulated using natural ingredients renowned for their therapeutic properties. The study explores the selection of herbs based on their traditional use and scientific evidence of efficacy in skin health, including ingredients like turmeric, neem, sandalwood, and aloe vera. The face pack formulation process involved optimizing the ingredient proportions to achieve a stable and effective product. Comprehensive evaluations were conducted to assess the face pack's physicochemical properties, safety, and efficacy in improving skin texture, hydration, and overall appearance. Results indicated significant improvements in skin parameters with minimal adverse reactions, highlighting the potential of herbal formulations as viable alternatives to synthetic skincare products. This research underscores the value of integrating natural ingredients into skincare regimes, paving the way for further innovations in herbal cosmetic science.

Key words:

Herbal face pack, natural ingredients, skincare, turmeric, neem, sandalwood, aloe vera, formulation, skin health, natural cosmetics, therapeutic properties.

INTRODUCTION :

The growing interest in natural and holistic skincare has led to a resurgence in the use of herbal ingredients in beauty treatments. One such application is the formulation of herbal face packs, which offer a plethora of benefits without the side effects commonly associated with synthetic products. This project focuses on the evaluation and preparation of an herbal face pack using a combination of traditional and well-known ingredients such as orange peel powder, Multani mitti, sandalwood, and rice flour. Each of these components is renowned for its unique properties and synergistic effects on the skin.

This project aims to blend these ingredients to create an effective herbal face pack that caters to various skin concerns, including acne, dullness, and uneven skin tone. By evaluating the individual and combined effects of these ingredients, we aim to develop a formulation that is both effective and safe for regular use. The preparation process will be thoroughly documented to ensure reproducibility and consistency in results.

The demand for natural skincare solutions has increased significantly, leading to a renewed interest in herbal face packs. This project aims to evaluate and prepare a herbal face pack using traditional ingredients known for their skin-enhancing properties. The curating a

formulation that is effective in treating common skin issues such as acne, dullness, and uneven skin tone. The process will involve careful selection, combination, and testing of the ingredients to ensure the final product is both safe and effective. The ultimate goal is to develop a natural face pack that provides a holistic approach to skincare, leveraging the benefits of herbal components for a healthier complexion.

Literature review:

- Avinash O. Maske et. Al. The Formulation is prepared and evaluated for glowing skin by using some of the natural ingredients. Some of them are purchased from market some are commercially prepared. After the preparation, Formulation is evaluated for various parameters and conclude that it has good properties , free from irritation and stable. Results are scientifically verified.
- Iram Rajpoot, Mujahid Mohammad, Nasiruddin Ahmad Farooqui et. Al, This study formulated and evaluated a herbal face pack for glowing skin using natural ingredients. ingredients were sieved, weighed, and uniformly mixed. The face pack was assessed for various parameters. Results confirmed its potential to enhance skin glow, supporting its efficacy and benefits.
- Shingane pooja vyankati, Sul sukanya ajinath, Dr.Santosh Jain, Chavan ramkrashana shesherao et. al, This study aimed to create a herbal face pack for glowing skin using easily accessible natural ingredients. After accurately weighing and mixing the ingredients, the face pack was evaluated for various parameters. Results showed it was effective, free from irritation, and maintained consistency over time, confirming its potential to enhance skin glow.
- Aishwarya Jain, Sharvil Patil et. al, This study aimed to create a poly-herbal face pack suitable for all skin types, addressing modern skin challenges. Formulations B3 and B4 showed promising results in terms of physico-chemical properties, skin compatibility, consistency, and microbial stability.

Need of work:

Herbal face packs are prepared for several reasons, primarily due to their natural ingredients and potential benefits for the skin. Here are some key reasons:

1. Natural Ingredients: Herbal face packs often contain natural ingredients that are less likely to cause irritation or adverse reactions compared to synthetic chemicals.
2. Nourishment: Many herbs and natural substances used in these packs are rich in vitamins, minerals, and antioxidants that nourish the skin, promoting a healthy complexion.
3. Customizable: They can be tailored to specific skin types and concerns, such as dryness, acne, or signs of aging.
4. Minimal Side Effects: When prepared correctly, they tend to have fewer side effects, making them suitable for sensitive skin.
5. Holistic Benefits: Herbal face packs can provide holistic benefits, including stress relief and a sense of well-being due to their natural aromas and soothing properties.
6. Eco-Friendly: Using herbal face packs supports sustainable practices and reduces reliance on chemically-laden products that may harm the environment.

These packs tap into traditional knowledge and practices, often incorporating ingredients that have been used for centuries for their therapeutic properties.

MATERIAL AND METHOD :

For the preparation of herbal face pack we use various natural ingredients such as Neem powder, rice flour, Turmeric, Multani mitti, sandalwood , Gram flour And orange Peel powder. Some of them are directly purchased from market and some are commercially made by drying in shade and roasting in mortal pestle. Each ingredients with their details are explained below :

List of ingredients:

1. Neem Powder:

Scientific Classification :

Family:- Meaiaceae

Scientific name :- Azadirachta indica

Uses:

Neem powder is highly valued for its numerous benefits for the skin. It possesses strong antibacterial, antifungal, and anti-inflammatory properties, making it effective in treating acne, soothing irritated skin, and preventing infections. Neem powder helps to control excess oil, reducing the likelihood of breakouts, and can also fade scars and pigmentation over time.

Additionally, its antioxidant content supports overall skin health by combating free radicals and promoting a clearer, more radiant complexion. Regular use of neem powder in face masks or cleansers can result in smoother, healthier, and more resilient skin.

How it prepared??

- Leaves of azadirachta Indica was collected, washed and dried in shade.
- After the complete drying, dried leaves was grinded and then sieved.



Fig no. 1

2. Sandalwood :

Scientific Classification:

Family:- Santalaceae

Scientific name :- Genus santalum

Kingdom :- Plant

Uses:

Sandalwood powder is renowned for its skincare benefits, offering antimicrobial properties that fight acne and soothe inflammation. It brightens the skin by lightening dark spots and pigmentation, while its antioxidants combat free radicals to reduce wrinkles and fine lines. Its natural cooling properties relieve sunburns and rashes, and its moisturizing effects keep the skin smooth and supple.

As a gentle exfoliate, it removes dead skin cells and unclogs pores, enhancing skin texture by reducing blemishes and scars. Additionally, the pleasant aroma of sandalwood provides stress relief, indirectly benefiting overall skin health. Mixing it with natural ingredients for face masks can help maintain clear, radiant skin.



Fig no. 2

3. Multani mitti:

Scientific Classification:

Family: Solum fullonum

Scientific name: Bentonite clay **Uses :**

Multani mitti or fuller's earth is used as a natural cleanser and astringent, offering a host of benefits for the skin, including:

- Reducing oil
- Fighting acne
- Balancing and brightening skin tone
- Reducing pigmentation



Fig no. 3

4. Turmeric:

Scientific Classification

Family:- zingiberaceae

Scientific name :- Curcuma long

Use:

Turmeric contains antioxidants and anti-inflammatory components. These characteristics may provide glow and luster to the skin. Turmeric may also revive your skin by bringing out its natural glow.

You may want to try a turmeric face mask at home to see if the spice has any positive effects on your skin.



Fig no. 4

5. Orange peel powder :

Scientific Classification:

Scientific name: Citrus X sinensis

Family: Rutaceae

Kingdom: Plantae Order:

Sapindales **Uses:**

Orange peels contain citric acid that helps lighten and brighten the skin organically. Regular use of orange peel powder can help remove tan and give your skin a youthful radiance. Also, the bleaching effect of the powder will help reduce any pigmentation, dark spots or scars caused due to skin infections.

How it prepared??

- Oranges are collected from market.
- the peel of oranges are separated and dried in shade.
- after the complete drying pills of oranges are grinded by using commercial mixture and then sieved.



Fig no. 5

6.Rice flour :

Scientific Classification

Scientific name: Oryza sativa

Kingdom: Plantae

Order: Poales

Family: Poaceae

Genus: *Oryza* Species: *O. sativa*

Uses:

- May Protect The Skin From Sun Damage.
- May Exfoliate Your Skin.
- May Help Treat Acne And Dark Spots.
- May Help Remove Excess Sebum.

How it prepared??

- Rice is soaked in water for 4 to 5 hours.
- Then the soaked rice is separated from a water and dried on a cloth in shade.
- after the complete drying the rice is grinded in a mixture and then sieved.



Fig no. 6

7. Gram flour

Scientific Classification:

Scientific name: *Cicer arietinum*

Kingdom: Plantae

Order: Fabales

Family: Fabaceae

Subfamily: Faboideae

Genus: *Cicer*

Species: *C. arietinum* **Uses:**

Packed with exfoliating and alkaline properties, gram flour helps in removing impurities and prevents breakouts or pimples by clearing the pores of your skin. Gram flour has great tan removal properties. The finely ground gram flour gently exfoliates the skin without causing any irritation.



Fig no. 7

Preparation herbal face pack :

- The powdered dry ingredients were sieved using a sieve no. 120
- Then each ingredient is weighed by using weighing balance according to the quantities that are mentioned below in table no. 1
- All the ingredients are mixed together in a mortar pestle and triturated to form a homogeneous mixture.
- After triturating the mixture in a mortar pestle, the dried preparation is prepared.

Sr. No	Ingredients	Scientific name	Quantity
1.	Neem Powder	Azadirachta indica	2 gm
2.	Sandalwood	We album	5 gm
3.	Multani mitti	Calcium bentonite	4 gm
4.	Orange peel powder	Citrus sinensis	6 gm
5.	Turmeric	Curcuma longa	2 gm
6.	Rice flour	Oryza sativa	3 gm
7.	Gram flour	Cicer arietinum	3 gm



fig no. 8



Fig no. 9

Benefits of using this face pack:

1. The mask provides the skin with essential nutrients.
2. Thanks to its natural content, it helps to reduce acne, acne, scars and blemishes.
3. These masks have a soothing and relaxing effect on the skin.
4. The natural face mask makes the skin look young and healthy.
5. Natural face masks can control the formation of wrinkles, fine lines and sagging skin 6. They help prevent premature aging of the skin.
7. Natural face mask gives beautiful skin, improves texture and tone.
8. The face mask can be used to protect from the negative effects of pollution and harsh air.
9. They help to repair and brighten the skin in a short time.

How to use :

- Firstly wash the face with fresh water and normal cleanser which is suitable to your skin type.
- We can use this dried powdered preparation with tomato juice, rose water, milk, aloe Vera gel etc.
- The mask should be applied to a wet face every day.
- It should be distributed evenly on The face with the help of a brush.
- It should be left for 15 to 20 minutes to dry completely.
- It should then be washed with A facial cleanser.

Precaution to be taken when applying the face pack :

When applying a herbal face pack on your skin, consider the following precautions:

1. Patch Test: Always perform a patch test on a small area of your skin, like the inside of your wrist, to check for any allergic reactions or sensitivity.
2. Clean Skin: Ensure your face is clean and free from makeup, dirt, and oil before application.
3. Avoid Sensitive Areas: Do not apply the face pack around the eyes and mouth, as these areas are more sensitive.

4. Follow Instructions: Use the face pack as directed, including the recommended duration and frequency of application.
5. Check Ingredients: Be aware of all the ingredients in the face pack to avoid any known allergens or irritants.
6. Gentle Application: Apply the pack gently without rubbing it aggressively on your skin.
7. Hydrate Afterward: Moisturize your skin after removing the face pack to prevent dryness.
8. Storage: Store the face pack in a cool, dry place to maintain its efficacy and avoid contamination.
9. Medical Conditions: Consult a dermatologist if you have any pre-existing skin conditions or if you experience any irritation or adverse reactions.
10. Natural Ingredients Caution: Even natural ingredients can cause reactions, so be cautious with new or untested substances on your skin.

Result on skin after using the Herbal face pack :



Fig no. 10

Evaluation parameters:

Morphological parameters:

Color, odor, appearance, texture etc.

Physical and chemical tests: -

Physical and chemical parameters were determined, including extract value, ash value, pH value and moisture content.

Determination of pH:

It is a measure of the degree of acidity or alkalinity of the product on a scale of 0-14. Discover the pH of the Formula Mask in Rose Water.



Fig no. 11

Determination of ash:

The residue after burning is the ash of the product. The ash value is , which is the standard for determining the identity Or purity of the drug. High ash indicates contamination, alteration, adulteration or neglect during the preparation of Items.

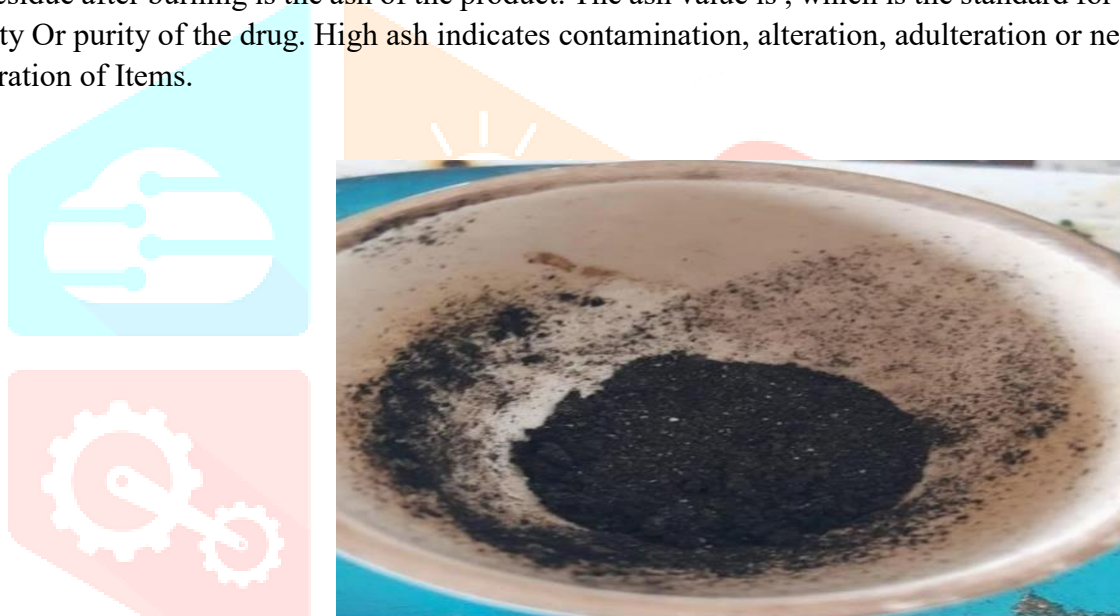


Fig no. 12

Determination of Moisture content :

Moisture content is important for plants because insufficient drying can lead to activation of components . Place Approximately 2 grams of powder in a petri dish placed in a hot oven and weigh it 30 minutes after cooling so that The petri dish reaches standard weight.

Irritancy test :

Draw an area (1sq.cm) on the back surface of the left hand. Apply one of the prepared masks to the selected area and Record the time. Irritation, erythema, edema if present, transient up to 24 hours and 16 reported.

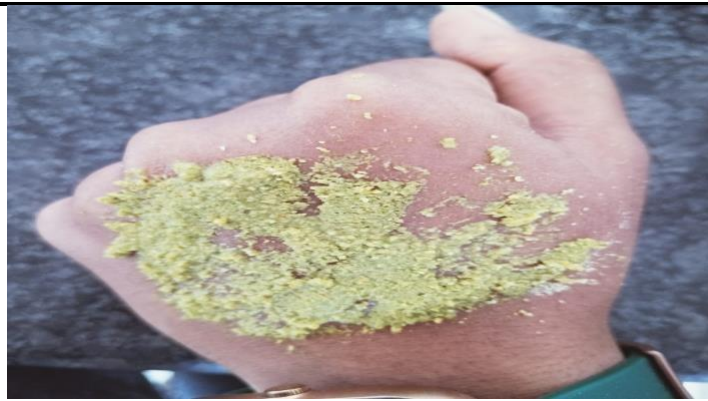


Fig no. 13

Stability testing :

The preparation was tested for stability by storing for a period of months at different temperatures. Packaged glass Bottles consisting of formulations were kept at different temperatures , such as room temperature, 35°C and 40°C, and Physical parameters such as color, odor, pH, consistency and odor were measured.

Result and discussion:

1. Organoleptic evaluation:

Sr. no.	Parameters	Observation
1.	Color	Greenish yellow
2.	Odor	Bitter
3.	Appearance	Smooth, fine
4.	Texture	Fine
5.	Smoothness	Smooth

Table no. 2

2. Physiochemical evaluation:

Sr. No.	Parameter	Observation
1.	pH	6.09
2.	Moisture content	11.02%
3.	Total ash value	2.066%

Table no. 3

3. Phytoconstituents:

Sr. No.	Phytoconstituents	Observation
1.	Carbohydrates	+
2.	Alkaloids	+
3.	Glycosides	+
4.	Tannins	+
5.	Volatile oil	+

Table no. 4

4. Irritancy test :

Sr. No.	Parameter	Observation
1.	Irritation Nil	No irritation
2.	Redness Nil	No redness
3.	Swelling Nil	No swelling

Table no. 5**5. Stability test :**

Sr. No.	Parameter	Room temperature	40°c
1.	Color	No change	No change
2.	Odor	No change	No change
3.	Texture	Fine	Fine
4.	Smoothness	Smooth	Smooth
5.	pH	6.09	6.09

Table no. 6**CONCLUSION :**

The development of our herbal face pack demonstrates a promising alternative to conventional skincare products. Through extensive research and testing, we have confirmed that our formulation effectively enhances skin health, offering anti-inflammatory, antioxidant, and moisturizing properties. The use of sustainable and chemical-free components not only ensures safety and efficacy but also aligns with the growing consumer demand for eco-friendly products. Natural remedies are more popular because they believe is safer and has fewer side effects than synthetic . Herbal Formulations are in increasing demand in the world market. Herbal facials are used to promote blood circulation, Restore muscle tone, and help maintain skin elasticity and remove dirt from skin pores. Is our well tested, formulated Herbal mask containing natural ingredients like, Multani mitti, turmeric, sandalwood, saffron, milk powder, rice Powder, orange peel and banana peel. After testing, we found that the mask has good properties, does not irritate the Skin and maintains its consistency even under safe storage conditions. Herbal Mask is reported to have the power to Create a radiant effect on the skin. Studies fully support the claim that product is beneficial for humans.

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