

# FORMULATION AND EVALUATION OF HERBAL FACE PACK CONTAINING MORINGA OLEIFERA POWDER

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## Abstract :

Herbal cosmetics are becoming very popular nowadays because they are made from natural ingredients and have very few side effects compared to chemical-based products. People are now more aware about their skin health and prefer safe and eco-friendly products. This project is based on the formulation and evaluation of a herbal face pack using Moringa oleifera powder as the main ingredient. Moringa is known as a “miracle plant” because it contains many nutrients like vitamins, minerals, and antioxidants which are highly beneficial for skin. The face pack was prepared by mixing Moringa powder with other herbal ingredients like multani mitti, turmeric, sandalwood powder, and rose water. The prepared formulation was evaluated for different parameters such as pH, consistency, spreadability, and stability. The results showed that the face pack is safe, effective, and suitable for improving skin glow, reducing acne, and nourishing.

**Keywords:** Skin care, Protection from environment, Pollution and UV radiation , Acne, pigmentation, dryness, Natural remedies, Herbal cosmetics, Plant-based products, Safety and fewer side effects, Traditional medicine (Ayurveda) Nutritional value of plants

## 1. INTRODUCTION:

Skin is the largest organ of the human body and it plays an important role in protecting internal organs from harmful environmental factors such as dust, pollution, bacteria, and ultraviolet radiation. Due to increasing pollution, unhealthy diet, stress, and lack of proper skincare, many people suffer from skin problems like acne, dryness, dullness, pigmentation, and premature aging. Therefore, proper skincare is very important to maintain healthy and glowing skin.

Herbal cosmetics are products made using natural plant-based ingredients and are widely used in traditional systems like Ayurveda. These products are safer and more beneficial as compared to synthetic cosmetics. One such important plant is Moringa oleifera which is widely used for medicinal and cosmetic purposes. It is rich in vitamins A, C, and E which help in repairing damaged skin, improving skin tone, and preventing aging. Moringa also contains antioxidants which protect the skin from free radicals and reduce inflammation. Herbal face packs are simple and effective skincare formulations that help in cleansing, exfoliating, and nourishing the skin. They are easy to prepare and can be used regularly without any harmful effects. This project focuses on preparing a herbal face pack using Moringa powder and evaluating its effectiveness for skincare routine.

## 2. AIM

The main aim of this project is to formulate and evaluate a herbal face pack using Moringa powder for skincare purposes. The objectives of this study include preparing a natural and safe herbal face pack using easily available ingredients. Another objective is to study the medicinal and cosmetic properties of Moringa and understand its benefits for the skin. The project also aims to evaluate the prepared formulation based on parameters like pH, spreadability, and stability to ensure its safety and effectiveness. Additionally, the study

focuses on developing a cost-effective and eco-friendly skincare product that can be used by people of all skin types.

## REVIEW LITERATURE

Many research studies have shown that *Moringa oleifera* has excellent medicinal properties. It is rich in antioxidants which help in reducing oxidative stress and protecting the skin from damage. Antioxidants are substances that neutralize harmful free radicals in the body and prevent cell damage.

*Moringa* contains vitamin A which helps in skin repair and improves complexion. Vitamin C helps in collagen production and keeps the skin firm and youthful. Vitamin E acts as a moisturizer and protects the skin from dryness. Apart from *Moringa*, other herbal ingredients like turmeric have antibacterial and anti-inflammatory properties which help in reducing acne and skin infections. Multani mitti is a natural clay that absorbs excess oil and cleanses the skin deeply. Sandalwood powder has cooling properties and helps in soothing irritated skin. Rose water acts as a natural toner and refreshes the skin. The combination of all these ingredients results in a powerful herbal formulation that improves overall skin health.

## METHOD OF PREPARATION:

The herbal face pack using *Moringa oleifera* powder was prepared by using simple and natural ingredients under hygienic conditions. First, all the required ingredients such as *Moringa* powder, multani mitti, turmeric powder, sandalwood powder, and rose water were collected and checked for their purity and quality. All the glassware and utensils used in the preparation were properly cleaned and dried to avoid any contamination.



Initially, the required quantities of all powdered ingredients were accurately weighed using a weighing balance. The powders were then transferred into a clean and dry mixing bowl. After that, all the powders were mixed thoroughly using a spatula to ensure uniform distribution of all ingredients. Proper mixing is very important to obtain a homogeneous formulation.

After mixing the powders, rose water was added slowly in small quantities to the mixture. The mixture was stirred continuously to form a smooth and lump and prevent contamination. After ensuring cleanliness, each ingredient was accurately weighed in the required quantity using a digital weighing balance. Accurate weighing is an important step because it ensures the correct proportion of each ingredient in the formulation, which directly affects the quality and effectiveness of the face pack.

After weighing, all the powdered ingredients were transferred into a clean, dry glass or ceramic mixing bowl. The powders were then mixed thoroughly using a spatula in a circular motion for a sufficient period of time to ensure uniform blending of all components. Proper mixing is essential to achieve a homogeneous mixture, as uneven mixing may result in poor consistency and reduced effectiveness of the product. During mixing, care was taken to avoid formation of lumps and to maintain a smooth texture of the powder mixture.



Once the dry powders were mixed properly, rose water was added slowly in small quantities to the mixture. The addition of rose water was done gradually while continuously stirring the mixture to form a smooth, thick, and lump-free paste. The amount of rose water added depends on the desired consistency of the face pack. Continuous stirring helps in proper hydration of the powders and ensures uniform consistency throughout the formulation. The mixture was stirred until a semi-solid paste with good spreadability was obtained.

After preparing the paste, the final product was observed for its physical characteristics such as color, odor, texture, and consistency. The prepared face pack showed a greenish color due to the presence of Moringa powder and had a pleasant herbal odor. The texture was smooth and suitable for easy application on the skin. The prepared formulation was then transferred into a clean, dry, and airtight container to prevent exposure to moisture, air, and contaminants. Proper storage is important to maintain the stability and shelf life of the herbal face pack. The container was labeled with necessary details such as name of the formulation, date of preparation, and ingredients used. The face pack was stored in a cool and dry place away from direct sunlight.

Thus, by following all the above steps carefully, a safe, effective, and stable herbal face pack formulation using Moringa powder was successfully prepared. This method is simple, economical, and suitable for small-scale as well as large-scale preparation of herbal cosmetic products.

### 3. MATERIAL AND METHOD:

The materials used for preparing the herbal face pack include Moringa powder, multani mitti, turmeric powder, sandalwood powder, and rose water. All the ingredients were collected and checked for purity.

Each ingredient plays an important role in the formulation. Moringa powder provides nourishment and antioxidants to the skin. Multani mitti helps in removing excess oil and dirt. Turmeric acts as an antibacterial agent and reduces acne. Sandalwood provides a cooling effect and improves skin texture. Rose water helps in forming a smooth paste and adds freshness.

For preparation, all the powders were weighed accurately and mixed properly in a clean container. Rose water was added slowly while mixing to form a smooth paste. The prepared face pack was stored in an airtight container to prevent contamination and moisture.



# FLOWCHART

## Preparation of Herbal Face Pack using Moringa



#### 4. ADVANTAGES AND DIS-ADVANTAGES:

The herbal face pack has many advantages as it is made from natural ingredients and does not contain harmful chemicals. It is safe for regular use and suitable for all skin types. It helps in improving skin glow, reducing acne, and nourishing the skin.

However, there are some disadvantages such as shorter shelf life and the need for proper storage. Since it is a natural product, it may not last as long as chemical-based cosmetics.

#### EVALUATION:

The prepared face pack was evaluated using different parameters. The color, odor, and texture of the formulation were observed and recorded. The face pack showed a pleasant herbal smell and smooth texture.

The pH of the formulation was tested and found to be between 6 and 7, which is suitable for skin application. Spreadability was checked by applying the face pack on the skin and observing how easily it spreads. The formulation showed good spreadability which makes it easy to use.

Stability studies were conducted by storing the product at room temperature and observing any changes over time. The formulation remained stable without any change in color, odor, or consistency. These results indicate that the prepared face pack is safe and effective for use.

#### RESULT AND DISCUSSION:

The results of the study showed that the prepared herbal face pack is effective in improving skin condition. The presence of Moringa and other herbal ingredients provides multiple benefits such as cleansing, nourishment, and protection.

The formulation showed good stability, consistency, and user acceptability. It can be used regularly without any side effects. The study confirms that herbal face packs are a better alternative to chemical-based skincare products.

#### 5. CONCLUSION:

The study concludes that the herbal face pack prepared using Moringa powder is safe, effective, and economical. It improves skin health and provides a natural solution for skincare problems.

#### REFERENCES:

1. **Herbal Drug Technology**- This book provides comprehensive information on herbal formulations, extraction techniques, and the development of herbal cosmetic products. It explains the use of medicinal plants in skincare and helps in understanding the preparation and evaluation of herbal face packs.
2. **Textbook of Pharmacognosy**- This textbook gives detailed knowledge about medicinal plants, their chemical constituents, and therapeutic uses. It is useful for studying the phytochemical composition of Moringa and its antioxidant, antimicrobial, and skin-protective properties.
3. **Pharmacognosy Research Articles**- Various research articles in pharmacognosy provide scientific evidence about the medicinal and cosmetic uses of plant-based ingredients. These studies support the effectiveness of herbal face packs and explain the biological activities of natural compounds.
4. **Research Papers on Moringa oleifera (Journals)**- Several published research papers highlight the antioxidant, anti-inflammatory, and antimicrobial properties of Moringa oleifera. These studies confirm its

usefulness in skincare products, especially for reducing acne, improving skin texture, and protecting against environmental damage.

5. **Standard Cosmetic Science Books** - related to cosmetic science provide knowledge about formulation, evaluation parameters such as pH, stability, and spreadability, and safety considerations of cosmetic products. These references help in evaluating the prepared herbal face pack.

6. **Internet Sources (Educational Websites)** -Information collected from reliable educational websites and online journals Data related to herbal cosmetics and skincare formulations General knowledge about natural ingredients like turmeric, sandalwood, and multani mitti.

7. **Laboratory Manual / Practical Notes** -Practical knowledge and laboratory guidelines were referred to during the preparation and evaluation of the herbal face pack.



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