

The Creation and Assessment of the Herbal Face Pack

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Abstract

The aim of this study is to develop and test herbal facials for glowing skin using organic herbs. Natural herbal components in the form of dry powder, such as Orange peel, Tulsi (Holy Basil), Masoor dal (Lentil), Multani mitti (Calcium Bentonite), and Methi (Fenugreek), Sandalwood (Santalum album) were bought from the local market. Orange peel powder was made via commercial shade drying. To guarantee a consistent composition, all powdered natural materials were weighed exactly, sieved through #120 mesh, and geometrically combined. The powder was then evaluated for morphological, physicochemical, physical, phytochemical, and irritancy factors in addition to stability testing. Consequently, in this project, we used simple materials to make vegetable masks that are easy to use. Following assessment, it found that the face packs had two positive attributes: they did not cause skin irritation and maintained their consistency even when stored in stable conditions. The study's conclusions offered empirical support for the claim that a herbal face pack may significantly brighten skin. Owing to the positive effects the entire study had on participants, product claims might be supported by it.

Keywords: Natural herbal, skin, herbal face pack, formulation, evaluation

INTRODUCTION

People have known for ages that plants may be used to promote healthy, attractive, and bright skin. Cosmetics are products that are meant to accentuate, maintain, and promote a gorgeous appearance. Cosmetics are easily accessible products that are used to improve skin appearance through beauty enhancement, purification, and enhancement. Many plants have been utilized for managerial, medical, and cosmetic purposes since ancient time. The majority of the body's skin on the face is indicative of an individual's health [1]. Women used to take extra care of their particular skin types and were highly aware about their appearance. Even now, people still choose natural medicines like plant extracts—such as those from tulsi, rose, aloe-vera, orange peel, and neem—for a variety of cosmetic uses,

especially in rural and mountainous areas. Everyone aspires to have lovely, light skin. These days, dark circles, black heads, pimples, and acne are frequent among young people who have them. According to Ayurveda, blood impurities are usually the root cause of skin problems [2]. In Ayurveda, the paste made of herbs called "mukha lepa" is applied topically on the face. This paste made of herbs is used on the face to treat acne, pimples, scars, and pigmentation. Natural fair skin may be achieved at a lower cost and without any negative effects using herbal face packs. Products called herbal cosmetics are used to enhance and cleanse the skin. The principal advantage of employing herbal cosmetics is their inherent purity and absence of detrimental impact on human wellbeing [3]. A face pack is the silky powder used

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to apply makeup to the face. These preparations are used as a lotion or liquid on the face, and are dried and thickened to form a film that leaves the skin firm, firm and clean. It is usually left on the skin for ten to twenty-five minutes depending on let the water cool completely. This allows the ensuing film to constrict, stiffen, and remove with ease. The face pack's tightening and warming properties give the appearance of a revitalized face, while the adsorption and colloidal clays they contain draw impurities and oil from the skin. Finally, when the face pack is applied, skin debris is removed [4].

For dry, normal, and oily skin types, there are numerous pack kinds available individually these days. To make the skin more smooth and fair, face packs are applied. It reduces dark circles, wrinkles, acne, and outbreaks. Face packs are recommended for those with blackheads and oily skin types who are prone to acne. They usually regulate the rate at which sebum is released from sebaceous glands and fight off harmful bacteria that are often found in acne lesions [5].

AIM AND OBJECTIVE

Aim

Preparation of Herbal Face Pack for Glowing Skin.

Objective

- The skin of humans has grown more sensitive and prone to premature ageing as a result of increasing pollution, allergies, microbes, and other factors. A pack that is ideal for all skin types has been attempted to be created. Following the synthesis, every parameter was computed to ensure that the quality criteria were satisfied.
- To design and evaluate a polyherbal face pack with herbal ingredients for cosmetic preparation. To improve blood circulation, revitalize the skin, maintain its suppleness, and remove pollutants from pores, apply herbal face masks and packs.
- To hydrate, exfoliate, refine, and revitalise your skin. Masks work on all skin types and age groups.
- The profile of herbal ingredients:

Multani Mitti

Because it contains healthy nutrients, multani mitti (Figure 1) benefits skin in many ways, such as reducing pore sizes, getting rid of blackheads and whiteheads, decreasing freckles, soothing sunburns, cleaning the skin, increasing blood flow, improving complexion, minimizing acne, and making skin look radiant. In multani mitti, magnesium chloride is plentiful. Calcium bentonite, often referred to as multani mitti, benefits the skin in a number of ways, including minimizing pores, getting rid of blackheads and whiteheads, and diminishing freckles, relieving sunburns, cleaning the skin, enhancing blood flow and complexion, lessening blemishes and acne, and giving the appearance of glowing skin because of the nutrients it contains, especially magnesium chloride [6].

The main application for turmeric powder, which is made from *Curuma longa*, is skin regeneration. It has antibacterial, antibacterial and anti-inflammatory properties, and helps stop wrinkles and other signs of aging. Additionally, turmeric has anti-pimple properties and effectively cures acne by lowering sebaceous gland oil secretion. It also functions as a blood purifier [7].

- *Botanical Name:* Fullers Earth
- *Family:* Bentonite Clay
- *Active Constituents:* Calcium bentonite, magnesium chloride and hydrated aluminum silicates form the bulk of Multani Mitti which produces these products.
- *Uses:*
 1. Use an antibacterial to prevent acne and pimples Multani Mitti can aid in skin toning. As a result wrinkles, lose skin, and other sing of ageing can be slow down.

2. Multani mitti may be effective antimicrobial.
3. Prevent acne and pimple has a antiseptic properties.
4. Mild sclap and hair cleaners [8].



Figure 1. Multani mitti.

Orange Peel

Citrus fruit and orange peel (Figure 2) are rich in minerals such as vitamin C, calcium, magnesium and potassium. Protects against oxidative stress, free radical damage and skin dryness. It also stops aging, acne, wrinkles, and blemishes. It also gives off a sheen right away. Citrus reticulata, which yields orange peel powder, is a citrus fruit high in calcium, magnesium, potassium, and vitamin C. Hydrating, reducing oxidative stress, and shielding the skin from free radical damage are its three main benefits. In addition, it instantly brightens the skin and helps defuse wrinkles, discolorations, acne, and other signs of age [9].

Oranges and citrus fruits are rich in vitamin C, calcium, magnesium, potassium, and many other minerals. Water deficit, free radical damage and oxidative stress are all inhibitors. Plus, it prevents aging, wrinkles, wrinkles and blemishes. It also produces fast light. Vitamin C, calcium, magnesium, potassium, and other minerals abound in citrus fruits like oranges. Protects against dehydration, free radical damage and oxidative damage to the skin. In addition, it can stop wrinkles, blemishes, acne, and aging in the skin rapidly [10].

- *Botanical Name:* Citrus Sinesis (sweet orange), Citrus aurantium (bitter orange)
- *Family:* Rutaceae Genus
- *Active Constituents:* A minimum of 2.5% volatile oil is present, along with 90% limonene, 4% citral, Vitamin C, pectin, hesperidine, aurantimaric acid, 39% octanal, 42% decanal, and 91% monoterpene.
- *Uses:*
 1. Prevents damage from free radicals to the skin.
 2. Hydrates skin that is dehydrated.
 3. Restores moisture.
 4. Protects skin cells from oxidative stress for youthful, radiant skin.
 5. Works as a skin lightening agent.
 6. Removes tan.
 7. Loaded with Anti-ageing properties [11, 12].



Figure 2. Orange peel.

TULSI

Tulsi is a prominent emblem in Hindu religious tradition (shown in Figure 3). Though ‘Tulsi’ means incomparable, another name for her is Vishnupriya, which she refers to after gaining the favor of Lord Vishnu. Most Indian households include it, and it is revered, and Indian culture has always been infused with its legend. Tulsi belongs to the Lamiaceae family of plants, which also includes Holy Basil, or *Ocimum sanctum*. Because of its many medicinal properties, it has contributed much to science since ancient times as well as contemporary research. There are two forms of tulsi: vanya (wild) and gramya (grown in households). The former have darker leaves, although they are the same.

Basil at home can cure many diseases, such as ulcers, pneumonia, liver diseases, cat fever, eye diseases, gastrointestinal diseases, ulcers, gastrointestinal diseases, venereal and urinary tract infections, skin eye diseases, multiple toxins and psychological stress. Additionally, it has the following properties: it is aromatic, vermifuge, febrifuge, carminative, demulcent, diaphoretic, expectorant, alexiteric, and stomachic [13].

- *Botanical Name:* *Ocimum sanctum*
- *Family:* Lamiaceae
- *Genus:* *Ocimum*
- *Active Constituents:* 0.7% volatile oil comprising about 71% eugenol and 20% methyl eugenol.
- *Uses:*
 1. Tulsi is well known for improving the tone and texture of skin.
 2. It has ingredients that contribute to skin brightness, leaving it with a glowing, youthful appearance
 3. It also aids in lightening various discolorations, hyperpigmentation, and dark spots.
 4. It is used in skin brightening.
 5. It is used for skin protection.
 6. Use in treatment of skin diseases.
 7. It has a anti-inflammatory and antioxidant properties.
 8. Tulsi leaves are use to treat skin problem like premature aging, blackheads and acne.

Masoor Dal (Lentil)

If you know how to utilise them, a lot of culinary pulses may be used as ingredients for skin care products. Lentils including mung dal, chana dal, besan, and masoor dal (shown in Figure 4) can help heal skin issues if they are included in your skin care program. Red lentils, or masoor dal, should be ground into a powder and kept in an airtight, clean, and dry container. Later on, you may utilise this to make several face packs that will really benefit your healthy skin. Face packs from Masoor Dal offer

the same many health advantages for which it is renowned. Let's examine this miraculous beauty product found in kitchen cabinets.



Figure 3. Tulsi.

A face pack is the silky powder used to apply makeup to the face. Bond, nourish and cleanse the skin with this treatment, which is applied to the face in lotion or water and then dried to thicken into a paste. Typically, they are applied to the skin for a duration of 10 to 25 minutes to enable the complete evaporation of water. The resultant coating then hardens, compresses, and becomes easily removable. The appearance of a revitalized face is stimulated by the warming and tightening effects. Both the deposited dirt and skin debris are removed when the face pack is eventually taken off. Cosmetics are goods that are used to enhance beauty, clean, look better, or change appearance [14].

- *Botanical Name:* Lens culinary
- *Family:* Fabaceae
- *Genus:* Vicia
- *Active Ingredient:* Like flavonoids, catechin, stigmasterol, campesterol, β -sitosterol and tannins are also present.
- *Uses:*
 1. It help as a natural cleaner.
 2. It work well on blackheads by exfoliating them.
 3. It has anti aging properties which results in wrinkles free skin.
 4. It is a natural bleaching agent.
 5. It's help in removal of tans.
 6. Skin looks radiant as a result.
 7. Masoor dal is helpful for getting skin that glows. It is packed with vitamins, minerals, and antioxidants that promote healthy skin.
 8. It has exfoliating qualities as well [15].

Methi (Fenugreek)

A excellent ingredient for skincare, especially for the face, is fenugreek (shown in Figure 5). Its advantages include lowering inflammation, managing sebum production, treating acne, and encouraging a more radiant complexion. Vitamins and flavonoids, two substances found in fenugreek seeds, nourish and revitalize the skin. Fenugreek can be used as a facial toner, in masks, face packs, and other applications. All skin types can benefit from its natural qualities, however it's advisable to conduct a patch test before using it extensively can do wonders for your skin when added to your face pack routine. Anti-inflammatory and antioxidant qualities of fenugreek are well-known for their ability to calm inflammation, lessen acne, and brighten the skin. Tell me if you require a recipe. This nourishing blend of fenugreek aids in restoring the pH balance of your skin, combats free radical

damage, boosts your skin's natural glow, and provides your skin with exceptional nourishment. Additionally, fenugreek naturally contains antibacterial, antioxidant, and anti-inflammatory qualities that greatly improve the health of your skin [16].

- *Botanical Name:* Trigonella foenum-graceum
- *Family:* Fabaceae
- *Active Constituent:* Alkaloids-trimethylamine, neurin, trigonelline, choline.
- Isoleucine, 4hydroxyisoleucine, histidine, leucine, and lysine are the amino acids.
- Fenugrin B, fenugreekine, saponin–graecunins, and trigofenosides AG
- *Flavonoids:* rutin, vitexin, isovitexin, and quercetin . Fibres - gum, neutral detergent fibre
- *Lipids:* triacylglycerols, diacylglycerols, monoacylglycerols, phosphatidylcholine, phosphatidylethanoamine, free fatty acids.
- *Uses:*
 1. It is use in control Acne.
 2. It is also enhance skin glow.
 3. It is use to treat lighten dark close.
 4. It is use to treat the skin damage.
 5. It is use as a moisturizer and cleanser.



Figure 4. Masoor dal.



Figure 5. Fenugreek.

Arjuna Powder

Arjuna chaal, an extract from the bark, keeps skin from ageing. Arjuna bark's primary and most significant function is to naturally lessen acne marks (Ghadde). An increase in the number of free radicals is associated with aging. Arjuna possesses strong antioxidant qualities that stops the harm that these free radicals do to the skin. It enhances the skin's protective layer and releases sebum creation to lessen and safeguard against the symptoms of dry skin the skin from outside threats. Arjuna bark and powder are shown in Figure 6.

- Terminalia Arjuna is a native plant.
- The Combretaceae family
- *Intact parts:* Triterterternoids, minerals, polyphenols, sterols, tannins, saponins, and flavonoids are the major components of T. coli. T.S. Other essential amino acids in arjuna are tyrosine, histidine, cysteine and tryptophan.
- *Applications:*
 1. Fighting Pigments applies.
 2. It is use in Prevent in Premature Aging.
 3. It is use in Reduce Acne & Breakout.
 4. It is use in Help Rough & Dry Skin.
 5. It is use in Improve Elasticity [17].



Figure 6: Arjuna bark and powder.

Sandalwood

This herbal paste (Figure 7) is used on the face to treat acne, scars, marks, and pigmentation. Similar in concept is Face Pack; it consists of a smooth powder applied to the face in the form of a paste or liquid, which is then allowed to dry and set to tighten the skin. Cleaning and fortifying properties for the skin. Usually, they are applied to the skin for fifteen to after allowing the water to completely evaporate for thirty minutes, the resultant films compress, solidify, and become readily eliminated with water. Applying a face pack has the cleansing and tightening impact that leads to skin renewal on the face. Numerous nourishing face packs are described in the literature on Ayurveda. They are restorative, sanitizing, drying, and they improve the skin's sheen and smoothness by lessening wrinkles, zits, acne, and dark spots [18].

- *Botanical Name:* Santalum Album
- *Family:* Santalaceae
- *Genus:* Santalum
- *Uses:*

1. Nourishes the skin by giving it vital nutrients.
2. Aids in minimizing skin scars and marks, acne, and pimples.
3. It typically eliminates the skin's dead cells.
4. Regular usage of natural face packs improves skin tone, texture, and radiance.



Figure 7. Sandalwood.

HERBAL INGREDIENT COMPOSITION

List the amounts and compositions of herbal ingredient are shown in Table 1.

Table 1. Lists the amounts and compositions.

S.N.	Name of Ingredients	Sample for 100g in 100%
1	Multani Mitti	25
2	Sandalwood	20
3	Methi	16
4	Tulsi	14
5	Orange Peel	10
6	Arjuna Powder	8.5
7	Masoor Dal	6.5
8	Rose Water	qs

PREPARATION METHOD

- *Step 1:* It carefully weighed all of the herbal powders required to make the face pack using a digital balance. Table 1 lists the amounts and compositions.
- *Step 2:* The herbal remedies, which included Tulsi, orange peel, and Santalum album Linn, were put in a mortar and pestle and triturated were shown in Figure 7.
- *Step 3:* To create a homogeneous, fine combination, herbal medications are triturated in a different mortar and pestle.
- *Step 4:* A previously prepared mixture of herbal powders was added to a mixture of fine powders and triturated to generate a homogenous medication powder for face packs were shown in Figure 8.
- *Step 5:* Sieve number #120 was used to filter the particles.
- *Step 6:* For use in additional research, the produced face pack powder was placed into a labelled, self-sealing polyethylene bag [19].



Figure 7. Triturated in a separate mortar and pestle.



Figure 8. Prepared face pack powder was packed into self – sealable.

Face Pack Application Procedure

- Transfer the face pack powder into a basin and stir in the prescribed manner.
- After that, precisely mix in the rose water.
- Thoroughly combine and apply to the facial skin.
- Cover any areas with sores and blisters, leave for 20 to 25 minutes to dry completely. Next, give it a wash in cold water.

EVALUTION PARAMETERS

- *Organoleptic Evaluation:* The organoleptic factors, which were assessed manually for their physical attributes, are its look, color, odor, texture, grittiness, and washability [20].
- *Physicochemical Evaluation:* The determination of physicochemical parameters, such as ash values, pH, extractive values, and moisture content, was done [21].
- *Moisture Detection:* Moisture is important for plant-based medicines because poor drying can cause enzymes to break down active ingredients through loss on drying (LOD) and accounted for moisture. Weigh precisely three grams of the powdered medication, transfer it to a petri dish, and bake it in a hot air oven between 100 and 108 degrees Celsius. Weighing it repeatedly until a consistent weight was reached [22]. Formula for calculating Loss On Drying, or LOD. * $LOD = \frac{\text{Total weight of drug taken} - \text{weight of dried material from the initial sample}}{\text{Total weight of drug taken}} \times 100$
- *Determination of Ash Values:* One measure used to determine the identification or purity of the medicine is its ash value. A high ash value indicates that the product was prepared carelessly, substituted, adulterated, or contaminated. The following can be used to determine ash values:
- *Total Ash Value:* The total ash value can be used to identify low-quality, exhausted products as well as an excess of earthy, sandy particles present in the medicine. A crucible that had been lit and tared before was filled with two to four grams of the prepared sample. After being equally distributed around the crucible, the material was ignited by progressively raising the heat until it

turned white, or carbon-free. It was cooled in a desiccator and weighed. The airdried sample served as a benchmark for calculating the overall ash percentage. Total ash value = $[100(z-x)/y]\%$ where, x= weight of empty dish y= weight of drug taken z = weight of dish + ash obtain.

- **Soluble Ash Value:** The difference between the weight of total soluble ash and the residue after hydrolysis is known as soluble ash value. It's used to find out if the substance has been drained by water. Following a 5minute boil, 25 milliliters of water were added to the crucible retaining all of the ash. An ash-free filter paper was used to collect the insoluble material. burnt in a crucible for fifteen minutes at a temperature not to exceed 450 degrees Celsius after being cleaned in hot water weighed after cooling. The percentage of water soluble ash was computed using the airdried sample as a reference [23].
- **Test of Irritability:** Make one square centimeter mark on the back of the left arm. Predetermined amount of solution was applied on the indicated area and the duration was noted. Irritability, erythema, and edema were noted and checked on a frequent basis for the entire day [24].
- **Studies on Stability:** For formulation F2, a monthlong period of storage at various temperatures was used to examine the created formulation's stability. The glass vials containing the formulation were packaged and kept at room temperature, 35°C and 40°C. Physical attributes like feel, pH, color, odor, and consistency were evaluated [25].

RESULT AND DISCUSSION

Organoleptic Assessment

The organoleptic metrics listed in Table 2 were used to evaluate the herbal face pack. The finished composition was colored brown. The created mixture has a nice, agreeable smell, which is ideal for cosmetic compositions.

Table 2. The organoleptic metrics list.

S.N.	Parameters	Observations
1	Color	Brown
2	Odour	Pleasant
3	Appearance	Fine.Smooth
4	Texture	Fine
5	Smoothness	Smooth

Physicochemical Evaluation

The physicochemical parameters listed in Table 3 were evaluated for the herbal front pack. The pH of this solution was found to be 6. The water content was acceptable.

Table 3. The physicochemical parameters list.

S.N.	Parameters	Observation
1	pH	6
2	Moisture Content	11.34%
3	Total ash value	2.055%
4	Water soluble ash value	1.44%

Observation

The formulation's moisture content value amply demonstrated its hygroscopic character. Ash and extractive values were discovered to be within the bounds. Neutral pH has been shown to fulfill the needs of all types of skin.

Irritancy Test

Table 4 displays the results of an irritancy test conducted on the produced herbal face During irritation testing, the herbal face pack formulation showed no evidence of redness, swelling, or irritation.

Table 4. Results of an irritancy test.

S.N.	Parameters	Observations
1	Irritation	No irritation
2	Redness	No redness
3	Swelling	No swelling

Observations

Irritancy tests yielded negative findings for irritancy, redness, swelling, and UV irritancy, indicating that herbals in their natural form, without the addition of chemicals, were compatible with skin proteins.

Stability Studies

The created herbal face pack was subjected to stability tests, and the results are shown in Table 5. There was no change in color, odor, texture, smoothness, or pH levels.

Table 5. Stability test of Herbal face mask.

S.N.	Parameters	Room Temperature	40° C
1	Color	Brown	No change
2	Odour	Pleasant	No change
3	Texture	Fine	Fine
4	Smoothness	Smooth	Smooth
5	pH	6	6

BENEFITS OF HERBAL FORMULATION

- Improve youthful glow of facial skin.
- Antioxidant properties for cellular rejuvenation and repair.
- Penetrating moisture and nutrients to enhance penetration to all layers of skin.
- The skin is receiving nourishment from the face pack.
- Depending on the herbal elements it contains, it helps to lessen scars and markings, acne, and pimples.
- Tulsi aid in the reduction of acne and pimples, as well as in controlling the excessive secretion of sebum from sebaceous glands and eliminating dangerous germs from acne lesions.
- Fine sandal powder can be used to lessen skin marks and scars.
- It aids in clearing the skin on the face of dead cells.
- Their effect on the skin is relaxing and comforting.
- The face pack is frequently used to enhance complexion, texture, and radiance.
- The usage of face packs helps lessen the negative impacts of pollution and arid regions.
- They help prevent premature skin aging.
- They stop the skin from sagging and developing fine lines and wrinkles [26].

PRECAUTIONS

Precautions to take while applying a face pack:

- Use the face pack in accordance with the type of skin you have.
- Discussed with a skin specialist before to using any natural face therapy.
- Leave on face for no more than 15 to 20 minutes, then wash and take out all of the medication.
- The skin should be completely dry before using the face mask.
- Try not to scrape with too much force.
- Use a face mask once a week.
- It is not advisable to peel or scrub dry dried face pack. This can damage the underlying skin.

- Apply room temperature water to your skin before removing dry face mask. Remove the mask and fold the ice over your facial skin.
- Supports firm skin and promotes pore sealing. Additionally, soothes and tones skin.
- Refrain from using makeup on the sensitive area around the eyes. The skin surrounding the eyes may be injured during the face pack removal operation [27].

CONCLUSION

Since natural medicines are safer than synthetic ones, they are the greatest option for treating any illness. Natural remedies are the best choice when it comes to treating a variety of skin disorders without producing negative consequences.

The goal of the herbal face pack is to increase blood flow, maintain skin elasticity, remove stuck on dirt particles, and stimulate the muscles. It is used to treat acne, pimples, wounds and blemishes, soothes, soothes and soothes the skin.

The natural face packs are intended to reduce wrinkles, fine lines, loose skin, and early signs of ageing on the skin. After applying this, the face might appear more natural. Excellent herbal face pack mixture made with readily available natural components such as Multani mitti, Sandalwood, Orange peel, Tulsi, Masoor dal, Methi, Arjuna Powder.

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