



## Formulation and Evaluation of herbal face pack.

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### ABSTRACT :-

Herbal face packs are powders or pastes made from herbal ingredients used to address skin concerns. They stimulate blood circulation, rejuvenate muscles, maintain skin elasticity, and remove dirt. Orange peel is a common ingredient in these packs due to its antioxidant properties, which help reduce acne. Sandalwood, also known as “Chandan” in India, offers anti-tanning, anti-aging, skin brightening, acne treatment, oil control, scar reduction, and cooling effects. Moderation is key to avoid irritation or dryness, especially for sensitive skin types.

### OBJECTIVES :-

- ❖ Skin Nourishment
- ❖ Exfoliation
- ❖ Anti-Aging Properties
- ❖ Hydration
- ❖ Reduction of Acne and Scars
- ❖ Improvement of Skin Texture
- ❖ Soothing Effects
- ❖ Brightening Effect

### INTRODUCTION :-

Herbal face packs are powders or pastes made from herbal ingredients used to address various skin concerns. They stimulate blood circulation, rejuvenate muscles, maintain skin elasticity, and remove dirt from pores. Orange peel is a common ingredient in these packs due to its anti-inflammatory and anti-bacterial properties. Sandalwood, also known as “Chandan” in India, is used for its anti-tanning, anti-aging, skin brightening, acne treatment, exfoliation, soothing sunburns, and tightening properties. Aloe vera is a potent ingredient in these packs, known for its moisturizing and soothing properties. Mustard seed powder is a valuable ingredient, acting as an exfoliator, anti-aging, hydrating agent, anti-inflammatory, antimicrobial, and tanning reducer. Tulasi leaves, also known as holy basil, are potent antioxidants and anti-inflammatory. Neem and tulsi face packs have antibacterial, anti-inflammatory, and antifungal properties that help prevent and treat acne. These gentler treatments are suitable for all skin types, including sensitive skin, and have shown no side effects in studies.

**KEYWORD** :- Face pack, orange peel, anti-aging, Ayurveda.

### LETERATURE REVIEW :-

**Amit A. Shimpi (Vol. 14 Issue 3 July-September 2022.)** This study aims to create and test an herbal face mask using natural ingredients for shiny skin. The Natural Face Pack contains vitamins for healthy, radiant skin. The modified structure was tested for physical parameters, stability, and microbial load. Ayurvedic facial pockets help prevent wrinkles, acne, and dark circles, while maintaining skin health through blood circulation.

**Sachin B. Somwanshi (2017)** This study aimed to create a natural herbal face pack for glowing skin using four formulations (F1 F4), including multam mitti, turmeric, aloe vera, sandal wood, orange peel, seem, and nutimag. F2 was found to be the best, with good physical properties, skin irritation-free, and microbiological stability.

**Dhanashri Sanjay Koli (27 May 2016 DOI: 10.20959/wjpps20166-7034)** This study focuses on developing and evaluating an herbal anti-acne face wash using neem leaves, turmeric, liquorice root, shahi jeera, orange peel, and nutmeg fruit extract. The aim is to create a pure herbal formulation without synthetic ingredients, based on their anti-microbial, anti-oxidant, and anti-inflammatory properties. Different formulation batches were prepared using xanthum gum, and batch F2 was found to be the optimum for all parameters.

**Mr K.G Bhutkar(May 2019, Volume 6, Issue 5)** This study aims to create a polyherbal face pack using herbal ingredients like Kaoline, tragacanth, orange peel powder, neem powder, chandan powder, aloe juice powder, turmeric powder, Fullers earth, and Cicer arietinum Powder. The dried powder has passable low properties, making it suitable for a face pack.

## Material and equipments:

All natural ingredients used in this study were orange peel, mustered powder, aloe vera, sandalwood, Tulsi leaves, neem leaves..

### Materials:

#### 1)Orange peel:

It prevents the skin from free radical damage, skin hydration and oxidative stress. Also it has instant glow property. Prevent acne, blemishes, wrinkles and aging.

Scientific name: Citrus reticulate

Synonym: Sweet orange

Family: Rutaceae

#### 2)Sandal Wood:

Sandalwood has an anti-tanning and anti-aging property. It also helps in many ways like toning effect, emollient, Antibacterial property, cooling astringent property, soothing and healing property.

Scientific name: Santalum alba

Synonym: Sandal, Indian sandalwood oil.

Family: Santalaceae.

#### 3)Aloe Vera:

Aloe vera is an excellent skin moisturizer. Aloe Vera nourishes the skin while moisturizing and protecting the Cuticle. They always look fresh. Aloe vera has antimicrobial properties that make it effective in treating acne and pimples. Aloe is a plant.

Vera Powder contains many nutrients like Glycerin, Sodium Palmate, Sodium Carbonate, Sodium Pine Hymalate, Sorbitol.

Scientific name: Aloe barbadensis.

Synonym: aloe, kumari.

Family: Asphodelaceae.

Chemical constitute: Amino acid, vitamins, lipids, sterols, tannin and enzymes, phenol, saponin, Antithraquinones.

#### 4)Mustard seeds:

Mustard seeds are used as spices and in condiments around the world. The most famous. Product of Mustard Seed is used for skin treatment Yellow Mustard Powder is obtained by grinding yellow mustard seeds to desired granulation. Product is bright

Family: Brassicaceae

Synonyms: Brassica kaber.

#### 5)Tulsi leaves:

Family: Lamiaceae.

Synonyms: Holy Basil, Indian Basil.

Chemical composition:

Here are the key chemical constituents of Tulsi leaves that are beneficial for the face:

##### Antioxidant and Anti-Inflammatory Compounds

1. Ursolic acid: Anti-inflammatory, antimicrobial, and antioxidant properties help reduce acne, inflammation, and fine lines.
2. Rosmarinic acid: Antioxidant, anti-inflammatory, and antimicrobial properties protect the skin from damage, reduce inflammation, and promote healthy skin.
3. Eugenol: Antimicrobial and anti-inflammatory properties help reduce acne, inflammation, and prevent skin infections.

##### Skin-Protecting and Soothing Compounds.

1. Linalool: Sedative, anxiolytic, and antimicrobial properties help calm and soothe the skin, reducing redness and irritation.
2. Geraniol: Antimicrobial, antifungal, and antioxidant properties help protect the skin from damage, reduce inflammation, and promote healthy skin.

##### Natural Astringent and Toner Compounds

1. Tannins: Natural astringent and toner properties help balance skin pH, reduce pores, and tighten the skin.

##### Other Beneficial Compounds:

1. Vitamin C: Antioxidant properties help protect the skin from damage, promote collagen production, and improve skin texture.
2. Flavonoids: Antioxidant and anti-inflammatory properties help protect the skin from damage, reduce inflammation, and promote healthy skin.

#### 6)Neem leaves:

Neem leaves can be used to improve skin health because they have antibacterial, antifungal, and antioxidant properties. They can help with acne, wrinkles, and hyperpigmentation.

Scientific name: Azadirachta Indica

Synonyms: India Lilac

Chemical composition:

Alkaloids, flavonoids, saponins, tannins, and vitamins

**MATERIAL AND METHODOLOGY :-**

Sr. No.	Ingredients	Quantity taken
1.	Orange peel powder	8 gm
2.	Mustard seeds powder	2.4 gm
3.	Tulsi leaves powder	2.4 gm
4.	Neem leaves powder	2.4 gm
5.	Aloe vera	2.4 gm
6.	Sandal wood	2.4 gm

**Equipment's and Material****Equipment:**

1. 1 Mortar pestle
2. 2.Sieve no. 100
3. 3.Weighing balance
4. 4.Spatula

**Method of preparation:**

All plant components are dry and ground into a fine powder using a mill to reduce size.

Weigh it all

The herbal powder needed to prepare the fruit mask was accurately weighed individually. Using a digital scale.

The quantity and composition are indicated in the composition of the herbal package or mask

Mixing: All these fine ingredients were mixed thoroughly by mixer to form a homogenous fine powder.

Sieving: Then this fine powder was passed through sieve no. 100, to get the sufficient quantity of fine powder..

Collection & Storage: The powder mixture was collected and store in a suitable plastic

Container and used for face.

**EVALUATION PARAMETERS AND TEST :-****1. Organoleptic Evaluation**

Appearance: Observing the color and consistency of the face pack.

- Odor: Assessing the fragrance, which should be pleasant.
- Texture: Evaluating smoothness and grittiness to ensure a fine formulation.

**2. Physicochemical Properties**

- pH Level: Ideally close to neutral to avoid skin irritation.
- Ash and Moisture Content: Determining these helps in assessing the stability and quality of the product.

**3. Irritancy Test**

- A small amount of the face pack is applied to a specified area on the skin, and reactions such as erythema or edema are monitored over 24 hours to ensure safety for use.

**4. Stability Studies**

- The formulation is stored under various conditions (e.g., room temperature, elevated temperatures) for a month to evaluate changes in physical properties like color, odor, and consistency.

**5. Washability**

- Testing how easily the face pack can be washed off after application, which is important for user experience.

Orange peel powder undergoes various quality and safety tests to ensure its suitability for skincare. These tests assess its potential benefits, risks, and overall compatibility with the skin:

### 1. Safety Tests

- Dermal Irritation Test: Studies show no irritation when orange peel-derived ingredients are used at appropriate concentrations. For example, Citrus Aurantium Dulcis (Orange) Peel Wax at 100% concentration showed no irritation in human patch tests.
- Sensitization Test: Human Repeated Insult Patch Tests (HRIPT) confirm that orange peel powder is not a dermal sensitizer when used within safe limits.
- Phototoxicity Assessment: Ensures compliance with IFRA standards to avoid phototoxicity from furocoumarins like 5-MOP, which must not exceed 0.0015% in leave-on products.

### 2. Quality Tests

- Emulsion Stability: Evaluates the stability of formulations containing orange peel powder in water or oil-based systems.
- Microbial Testing: Ensures the absence of harmful bacteria or fungi in the product.
- pH Testing: Confirms compatibility with skin's natural pH (around 5.5–7).

### 3. Efficacy Tests

- ❖ Skin Brightening and Anti-Aging: Hesperidin, a bioactive flavonoid in orange peel, is tested for its antioxidant and skin-brightening properties, which promote collagen synthesis and reduce pigmentation.
- ❖ Moisturization and Cleansing: Evaluated for its ability to hydrate and cleanse the skin without causing dryness.

### Uses of herbal face pack :-

- ❖ Enhancing Skin Complexion
- ❖ Acne and Pimple Treatment
- ❖ Cleansing and Exfoliating
- ❖ Reducing Dark Circles and Scars
- ❖ Moisturizing and Nourishing
- ❖ Anti-Aging Effects
- ❖ Soothing Sun Damage

## RESULT :-

Orange peel herbal face packs are regarded as an effective method of enhancing the appearance of the skin. With consistent application, they can improve complexion, lessen imperfections, and improve skin texture.



## CONCLUSION :-

Herbal face packs with orange peel are a sustaining and productive way to improve skin appearance. They stimulate blood circulation, rejuvenate muscles, and maintain skin elasticity while removing dirt from skin pores. Orange peel is rich in vitamin C and antioxidants, which helps to lighten and brighten skin, reduce dark spots, and promote a healthy glow. The natural oils in orange peel moisturize and hydrate the skin. These herbal face packs utilize natural ingredients, considered safer with fewer side effects compared to synthetic alternatives. Studies confirm that herbal face packs can effectively brighten the skin.

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