



## **Formulation And Evaluation Of Herbal Facepack**

*Shivani Vijay Kolhe<sup>1</sup>, Neha Tongire<sup>2</sup>*

<sup>1</sup>Student of Yashodeep Institute of Pharmacy, Chhatrapati Sambhajnagar, Maharashtra, India.

<sup>2</sup> Assistant Professor of Yashodeep Institute of Pharmacy, Chhatrapati Sambhajnagar, Maharashtra, India.

Email :-shivukolhe24@gmail.com

Mobile No: 9075930830

---

### **ABSTRACT :**

The top priority for scientists worldwide in the twenty-first century has been environmentally friendly products. The demand for herbal cosmetics is rising on the international scene. The primary functions of face packs made of natural substances are to minimize dust particles from the skin's surface, improve blood circulation, and eliminate scars, dark circles, and zits. In the current situation, using a herbal face pack works better and is safer than using a synthetic one. The purpose of this study was to support the use of safe natural ingredients in place of synthetic ones when producing herbal face packs. The formulation and assessment studies of the herbal face pack are the main focus of this paper.

The bulk of cosmetics on the market are synthetic in nature and have a number of negative side effects when worn over extended periods of time. Using herbal cosmetics is one way to solve this issue. Herbal cosmetics are thought to be safe for regular usage and to have few negative effects. Among the most common skin conditions are acne, redness, wrinkles, dark circles, pimples, and dry, dead skin. The use of herbal cosmetics, such as face packs, scrubs, creams, etc., can reduce all of these issues. The current project involved making a powdered herbal face mask using natural ingredients like orange peel, rose oil, neem, tulsi, and sandalwood. Orange peel was a key component of natural or herbal cosmetics because of its capacity to lessen wrinkles and acne as well as regulate excessive oil secretion. The formulation's look, smoothness, spreadability, irritation, pH, and other qualities were assessed. The evaluation parameters have yielded findings that indicate the safety of using the produced face pack.

**Keywords:** skin,herbal facepack,cosmetics

---

### **INTRODUCTION :**

People have known for ages that vegetables may provide many of the important nutrients needed for healthy, beautiful skin. Cosmetics are items that are used to enhance, clean, and maintain an attractive appearance. The majority of the body, the skin on the face, is a mirror that reflects each person's unique state of health. Maintaining bright, shiny, and healthy skin requires a balanced diet rich in lipids, carbs, and amino acids. Women in the past took particular care of their unique skin types and were highly aware of their beauty. The products used to cleanse and enhance the appearance of the skin are called herbal cosmetics. The primary benefit of utilizing herbal cosmetics is their purity and lack of human body. Humans have rough skin, and if they don't take enough care of it, their skin might become black from excessive sun exposure, other pollutants, etc.I've created a natural herbal face pack in this post to help both men and women's skin tone, lighten, and brighten. This face pack is simple to make at home and contains natural skin-lightening properties.Natural face masks are high in key vitamins that are necessary for skin health and radiance. Numerous benefits for skin have been demonstrated for these compounds. Utilizing natural face packs is simple. They make the blood flow more freely through the facial veins, which makes the skin appear more vibrant. An efficient herbal face pack should give the skin with needed nutrients and can be applied externally as a loose powder. To supply the necessary nutrients, it should pierce deeply into the subcutaneous tissues. Every skin type has different needs when it comes to skin packs. These days, there are various pack varieties available individually for dry, normal, and oily skin. Face packs are applied to the skin to improve its smoothness and fairness. In addition to reducing wrinkles and pimples, it also circles of the skin.

Blackheads and oily skin types are advised to use face packs, which typically regulate the pace at which sebum is released from sebaceous glands and combat harmful germs found within acne lesions.They don't cause allergies, toxicity, or habit formation. They have a longer shelf life and are natural in every way. There are no extra preservatives in them. They are simple to prepare and keep for an extended period of time. The development and assessment of a herbal face pack for radiant skin using natural ingredients such as beets, turmeric, sandalwood, nutmeg, honey, etc. are the topics of this study paper. Cosmetics are applied to the human body with the intention of cleaning, beautifying, decorating, enhancing attractiveness, and/or changing the skin's look. Skin cosmetics work on the skin's outermost layers, or epidermis, without altering the skin's natural physiological characteristics. These substances are frequently used in different kinds or forms to enhance the appearance of the skin. Cosmetics are typically used to prevent and lessen wrinkles, fine lines, and aging, to treat acne, and to regulate the skin's excessive oil production. A face pack is a smooth-textured, fine powder or paste that is applied in a thin layer to the skin of the face and left to dry for a few minutes, leaving behind a film that is readily removed with water. Regular use of face

packs has several benefits for the skin, including exfoliation, removal of dry and dead skin, calming, cooling, moisturizing, and nourishing effects, as well as, depending on the formulation, skin tightening and strengthening effects. It also helps to eliminate grease and grime from the skin.

### Procedure of Face Pack Application :

Place the face pack powder in a basin and stir in the rose water according to the directions. Blend thoroughly and smear onto the facial skin. Also cover up the patches with blemishes and pimples. Left unaltered for a full twenty to twenty-five minutes, and then rinse with cold water.

### Benefits of beetroot facepack

- It improves the production of collagen.
- It improves the skin appearance due to the presence of vitamin c.
- Vitamin c decreases the melanin formation and treats hyperpigmentation.
- Beetroot lightens the skin tone and removes dead skin cells.
- Beetroot is also a rich source of iron phosphorus and proteins which gives an healthy and pinkish skin.
- Nourishes the skin. Fruit face pack supply essential nutrients skin.
- Helps to decrease ,acne,pimple, scars, and marks depending on its natural ingredients.
- Facepacks using for decrease dead cells of skin surface.
- The skinface masks provide as relaxing effect on skin.
- They help to restore the lost shine and glow of skin in short span of time.
- Regular use of natural face packs helps to improves complexion.
- The harmful effects of pollution climates can be effectively use of face packs.
- They help to prevent aging of skin.
- Natural ingredients face packs make the skin look bright ,young and healthy

### Structure of the skin

- The facial skin is particularly thin and most visible part of the body.
- Four types of the skin-oily,dry,normal and combination
- The facial skin performs an important role as a barrier against the external environment.
- Layers of the skin – Epidermis [outer layer]  
Dermis [middle layer]  
Hypodermis [ bottom layer]

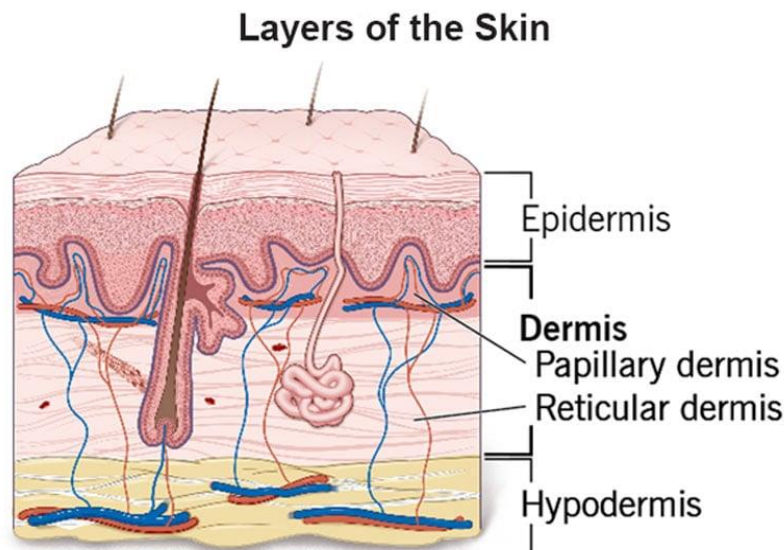


Fig 1: structure of skin

## OILY & DRY SKIN

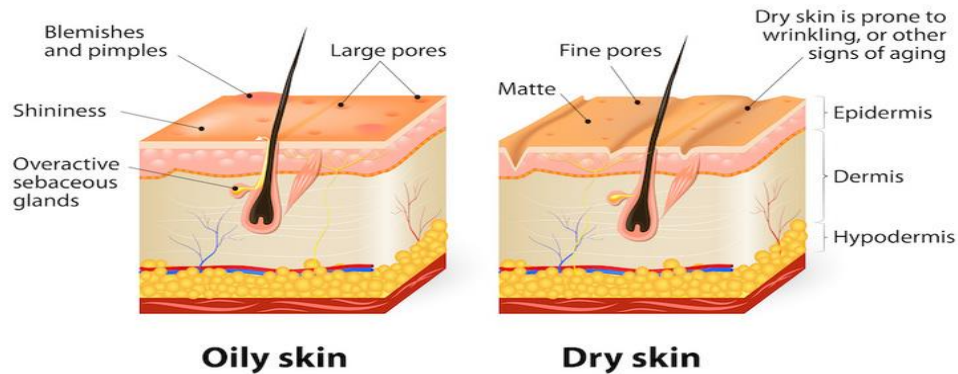


Fig 2: types of skin

### NEED OF STUDY :

Nowadays, facial skin problems occurs due to dust, stress, dirt, imbalance diet, chemical product. So, to overcome this problem many of the chemical product are present in market, but some of them are not suitable for humans skin. So, they may lead to irritation, itching resulting in swelling of skin. So, to overcome this problems, we must formulate, evaluate the herbal facepack of natural ingredients.

### AIM AND OBJECTIVE :

#### Aim:

Formulation and evaluation of herbal facepack

#### Objective:

- To reduce pigmentation.
- To formulate herbal facepack for glowing skin by using herbal ingredients.
- Frequent use of natural facepack improves skin texture and complexion.
- Marketed formulated facepack are evaluated by various parameters like colour, odour, spreadability, irritancy test.

### PLANT PROFILE :

#### BEETROOT

- **Synonyms** :Sugar Beets, Garden Beet, Beta alba.
- **Biological Source** :It is a taproot portion of the beet plant known as Beta Vulgaris.
- **Family** :Amaranthaceae.
- **Kingdom** :Plantae.
- **Chemical constituents** : Betanin, Phenolic acid, Betaxanthin, Betacyanin
- **Order** : Caryophyllales
- **Uses** :Antioxidant, Improves Blood Flow, Antiageing, Detox Skin, Reduce pigmentations and wrinkles.



Fig3:Beetroot

1	Botanical Name	Beta Vulgaris
2	Kingdom	Plantae
3	Order	Caryophyllales
4	Family	Amaranthaceae
5	Species	B. vulgaris

Table no. 1

***NUTMEG***

- **Synonyms :** Myristicafragrans
- **Biological source :** It consist of dried kernels of seeds myristicafragrans.
- **Family :**Myristicaceae
- **Chemical constituents :** Myristicin, dipentene, volatile oil, gum, lignin
- **Uses :** Used to prevent acne, flavouring agent, carminative



Fig4:Nutmeg

1	Botanical name	Myristicafragrans
2	Kingdom	Plantae
3	Order	Magnoliales
4	Family	Myristicaceae
5	Plant part	Seeds

Table no.2

**ALOE VERA**

- **Synonyms :** Aloe
- **Biological source :** Aloes is Obtained from the dried juice of the leaves of aloe barbadensis miller
- **Family :** liliaceae
- **Chemical constituents :** Barbaloin, isobarbaloin, aloe emodin, resins
- **Uses :** Used as Moisture base cleanser, used in shampoo and facewash, pergative, laxative

**Fig 5:Aloevera**

1	Botanical name	Aloe Barbadensis
2	Kingdom	Plantae
3	Order	asparagales
4	Family	liiaceae
5	Plant part	leaf

**Table No. 3****SANDELWOOD**

- **Synonym :** chandan
- **Biological source:** It is dried heart wood of Santalum album
- **Family :** Santalaceae
- **Chemical constituents :** Santene, santanone
- **Uses :** Used to treat acne, prevent wrinkle, cooling effect

**Fig 6 : Sandalwood**

1	Botanical name	Santalum album
2	Kingdom	Plantae
3	Order	Santalales
4	Family	Santalaceae
5	Plant part	Wood

Table No. 4

**Material and Method:-**

Formulation Table

Sr no	Ingredient	Quantity	Uses
1	Beetroot powder	10gm	Antioxidant
2	Multani mati	10gm	Reduce oil
3	Sandalwood powder	3mg	Prevent wrinkle
4	Aloe vera gel	15 gm	Cooling effect
5	Rose water	q.s	Skin toner
6	Methyl paraben	2gm	Preservative

Table No:5

**Equipments :-**

- Mortar pestle
- Weighing balance
- Spatula
- Porcelaine dish
- Stirrer
- Ph meter

**Material and method :-**

## Phytochemical screening test

Sr.no	Chemical constituent	Test	Inference	Result
1.	Alkaloid	1. Mayer's test 2. Hager's test 3. Wagner's test 4. Dragandroff's test	Apperance of yellow cream ppt Formation of white ppt Reddish brown ppt Red ppt	Positive Positive Positive Positive
2.	Glycoside	1. Legal test 2. Buljet yest 3. Killerkillini test	Pink to red colour Yellow to orange colour Reddish brown colour	Positive Positive Positive
3.	Tannins	1. Ferric chloride test 2. Gelatin test	Black or blue colour form Formation of white ppt	Positive Negative
4.	Flavonoids	1. Shinoda test 2. Lead acetate test	Red to pink colour Formation of white ppt	Positive Positive

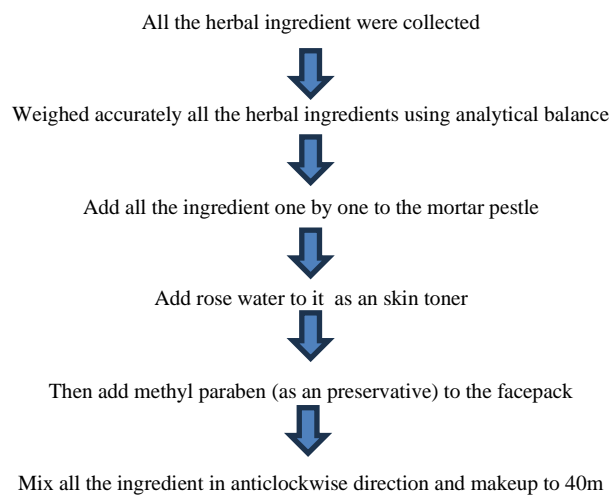


**Fig 7: Alkaloid test**



**Fig 8: Glycoside test**

**Procedure:-**





**Fig 9: Beetroot Facepack**

### **Method Of Evaluation :-**

Prepared face pack was evaluated using following parameters to ensure supremacy of prepared face pack:

#### **A. Organoleptic Evaluation:-**

The prepared face pack was evaluated for various organoleptic parameters such as; color, odor, appearance, texture and consistency. Color, odor and texture were evaluated visually by touch and sensation respectively.

#### **B. Rheological Evaluation :-**

It involved evaluation of powder characteristics. The sample was evaluated using a variety of physical criteria, including bulk density and angle of repose.

##### **a) Angle of Repose:**

The funnel was positioned at a height of 6 cm, and the necessary amount of sample was allowed to fall out. The heap's height and radius were noted for further computations. The formula for calculating the angle of repose ( $\theta$ ) is as follows:

formula:

$$\text{Angle of repose } (\theta) = \tan$$

Where, h is the heap's height, r is its angle of repose, and  $\theta$  - Radius of the base

##### **b) Bulk Density:**

It is calculated by the ratio of given mass of powder and its bulk volume. Determined by transferring 25 gm of accurately weighed amount of powder sample to the graduated cylinder.

$$\text{Bulk density}(\rho_b) = M/V$$

Where,

$\rho_b$  - Bulk density

M – Weight of powder

V – Volume of powder

#### **C. Physicochemical Evaluation**

Physicochemical evaluation included parameters like pH, irritancy test, washability test



**pH:**

The pH of the preparation was determined by using digital pH meter. The pH meter was initially calibrated at different pH using suitable buffer solution. A 10 % (w/v) dispersion of the preparation was prepared in distilled water and pH was determined directly without any further dilutions

**IRRITANCY TEST:**

The prepared face pack was applied to the previously marked area of a 1 square cm was marked on the left-hand dorsal surface and time was recorded.

**WASHABILITY:**

The formulation's capacity to wash off was assessed. After using a face pack, the skin's easiness and thoroughness of washing with regular tap water were personally assessed.

**RESULT AND DISCUSSION :**

Sr.No	Parameter	Observation
1	Colour	Red
2	Odour	Pleasant
3	Apperance	Smooth
4	Texture	Fine
5	Ph	6
6	Moisture content	12%
7	Spredability	9
8	Taste	Plesant

**CONCLUSION :**

The combined pack's dry powders demonstrated good flow properties, making them appropriate for use in a face pack. Organoleptic evaluation showed that the pack is smooth & pleasant odour. Rheological findings justified the flow properties of the pack as it was found to be free flowing & non stick in nature.

Because natural medicines are thought to be safer and have less adverse effects than synthetic ones, they are more widely accepted. Demand for herbal formulations is rising globally. Because natural medicines are thought to be safer and have less adverse effects than synthetic ones, they are more widely accepted. Demand for herbal formulations is rising globally.. Herbal face packs are used to stimulate blood circulation, rejuvenate the muscles and help to maintain the Relasticity of the skin and remove dirt from skin pores. Because of the entire study's beneficial effects on people, it can be used to support claims made about products. The use of herbal components in cosmetic formulations allowed for the development of safe formulas. Herbal face packs are considered as sustaining and productive way to look naturally beautiful.

**REFERENCE :**

- Okereke JN, Udebuani AC, Ezeji EU, Obasi KO, Nnoli MC. Possible Health Implications Associated with Cosmetics: A Review, *Sci J Public Health* 2015; 3(5-1): 58-63.
- Mary P. Lupo. Antioxidants and Vitamins in Cosmetics. *Clin Dermatol* 2001; 19: 467–473.
- Sowmya KV, Darsika CX, Grace F, Shanmuganathan S. Formulation & Evaluation of Poly-herbal Face wash gel. *World J Pharm PharmSci* 2015; 4(6): 585-588.
- Millikan, Larry E. Cosmetology, Cosmetics, Cosmaceuticals: Definitions and Regulations. *Clin Dermatol* 2001; 19 (4); 371-374.
- Rieger MM. Harry's Cosmeticology. In: Chapter 23, Face, Body& Hair Masks & Scrubs. 8th ed. vol I. New York: Chemical Publishing Co., Inc.; 2009. p. 471-483.
- Zinnia. Ayurvedic Face Packs for Glowing Skin. *Style Craze*, Feb 2017 [cited 2017 Apr 24].
- Indian Standard, Face Pack-Specification, IS 15153: 2002, August 2002

8. Banerjee PK. Skin cosmetics. *Indian J Dermatol.* 1988; 33(1):9-12.
9. Saraf S, Ashawat M, Banchhor M, Saraf S. Herbal cosmetics: Trends in skincare formulation. *Pharmacogn Rev.* 2009; 3(5):82-
10. Gavhane Ritu R, Tambe Sagar. Formulation and Evaluation of Polyherbal Facial Scrub. *Int J Adv Res Sci Commun Technol.* 2022; 2020(5):773-8.
11. Seema Yuvraj Mendhekar, Pratiksha Sukhadev Sonawane, Rupali BajiraoKale, Jadhav S.L. And Gaikwad D.D. Formulation and Evaluation of Polyherbal Face Pack. *World Journal of Pharmacy and Pharmaceutical Sciences.* 2017;6(12); 1378138
12. Rajeswari R, Umadevi M, Rahale CS, Pushpa R, Selvavenkadesh S, Sampath Kumar KP, Bhowmik D. Aloe vera: The Miracle Plant Its Medicinal and Traditional Uses in India. *J Pharmacogn Phytochem* 2012; 1(4): 118-124.
13. Nemade CT, Baste N. Formulation and evaluation of a herbal facial scrub. *World J Pharm Res* 2014; 3(3): 4367-4371.
14. Himaja N, Ashok kumar A, Bhart kumar B. Preparation and Evaluation of Poly Herbal Fruit Face Mask. *J Res Pharm Sci* 2015; 2(11): 07-13
15. Koli DS, Mane AN, Kumbhar VM, Shaha KS. Formulation & Evaluation of Herbal Anti-Acne Face Wash. *World J Pharm Pharm Sci* 2016; 5(6): 2001-2007
16. Preparation and Evaluation of Herbal Anti-Acne Gel. *Int J Pharm Bio Sci* 2013; 4(2): 956 – 960. 16. Farheen B, Mohammad I. Design and Development of Unani Face Pack For Skincare. *European J Pharm Med Res* 2016; 3(12): 627-632.
17. Buhse L, Kolinski R, Westenberger B, Wokovish A, Spencer J, Chen CW et al. Topical Drug Classification. *Int J Pharm* 2005; 295: 101-112.
18. Banchhor M, Ashawat MS, Saraf S, Saraf S. Herbal Cosmetics: Trends in Skin Care Formulation. *Pharmacogn Reviews* 2009; 3(5): 82-89.
19. Mandeep S, Shalini S, Sukhbir LK, Ram KS, Rajendra J. Preparation and Evaluation of Herbal Cosmetic Cream. *Pharmacologyonline* 2011; 1258-1264.
20. Rani SR and Hiremanth, Text book of Industrial pharmacy, Drug delivery systems & Cosmetics & Herbal drug technology: Universities press (India) Ltd; 2nd Edition, 2002.