

“Formulation and Evaluation of Butea Monosperma Facepack”

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ABSTRACT

This work's goal is to create and assess a cosmetic herbal face pack for all skin types utilising natural ingredients in varied concentrations. Three different formulations were made using ingredients such as Butea monosperma flowers, multani mitti, turmeric, neem, and aloe vera. These formulations were then put through sieve number 44, geometrically mixed, and evaluated for their morphological, physio-chemical, general powder, and chemical properties. The amalgamated dry powder shows adequate flow quality, manufacture it suitable for a face pack. All generated formulations were tested for irritancy and photosensitivity as well as stability, morphological characteristics, and physio-chemical parameters. Herbal face packs or masks are used to increase blood flow, revitalise muscles, and support.

Key-words: (Multani mitti, Aloe Vera, Neem, turmeric,).

I. INTRODUCTION:

Since from ancient period of time, people are aware of the use of plants for the healthy, glowing and beautiful skin cosmetics are products used clean, beautify and promote attractive to appearance cosmetics are commercially available products that are used to improve the appearance of the skin by action of cleansing. Beautifying, promoting attractiveness. From the ancient time, different herbs are used for cleaning, beautifying and to manage them face skin is the major part of the body, which indicates the health of an individual skin of the face is the major part of the body, which is a mirror, reflecting the health of an individual a balanced nutrition containing amino acids, lipids and carbohydrates are required for the skin keep it clear glossy and healthy.

In ancient times, women were very conscious about their beauty and took special care of their specific skin types every type of skin is specific for the requirement of skin pack. Nowadays different types of packs are available

separately for the oily. Normal and dry skin. Face packs are used to increase the fairness and smoothness of the skin. It reduces wrinkles, pimples, acne and dark circles of the skin. Face packs which are recommended for oily skin prone to acne, blackheads, usually control the rate of sebum discharge from sebaceous glands and fight the harmful bacteria present inside acne lesion. The leftover marks of skin can be reduced by incorporation of fine powders of sandalwood, rose-petals and dried orange peels. Herbal growing beds face packs are nowadays being used on a large scale, due to the various benefits of them over chemical-based packs. They are non-toxic, non-allergic and non-habit forming. They are natural in every aspect, having larger shelf life. They have no added preservatives. They can be easily formulated and stored over a larger span of time. Present research article deals with the formulation and evaluation of herbal face pack for glowing skin by using natural materials such as Butea monosperma, Multani mitti, turmeric, neem, aloe vera.

Benefits of applying facepack:

- ❖ They help to prevent premature aging of skin.
- ❖ Formation of wrinkles, fine lines and sagging of skin can be effectively controlled by using natural face packs.
- ❖ Nourishes the skin. Fruit face packs supply essential nutrients to skin.
- ❖ Helps to reduce, acne, pimple, scars and marks depending its herbal ingredient.
- ❖ Usually face packs made of neem and help to reduce acne and pimple.
- ❖ Face packs which are recommended for acne, pimple, black heads usually control the over discharge of sebum from lesion.

Precautions to be taken while applying face pack:

- ❖ Select the face pack according to your skin type. If you have any serious skin concerns,

take opinion of natural therapist or concerned skin expert before applying face pack.

- ❖ The face pack should not left be on face more than 15 to 20 minutes. Keeping for very long time may result in formation of wrinkles, sagging of skin and enlargement of open pores
- ❖ Apply face pack once in a week.
- ❖ Don't try to peel or scratch the dried face pack.
- ❖ Do not scrub face vigorously. This may result in eruption of pimples and dark spots.
- ❖ Avoid applying face pack near "eye zone". The skin around eye is very delicate. The process of removing face pack may damage the sensitive skin around eyes.
- ❖ Stay away from heat when you have applied face pack.
- ❖ This may harm underlying skin. Spray water (which is at room temperature) on face before removing dried face pack. After removing the mask roll an ice cube on facial skin. This helps to close open pores and tightens skin. It also tones and soothes the skin.

II. MATERIALS AND METHODS

1. Palash flowers (*Butea monosperma*)

Scientific Name: *Butea monosperma*

Common Names: Flame of the forest, Palash, Dhak

Family: Fabaceae

Parts Used: Flowers, seeds, bark, leaves, gum

Phytochemical Constituents: Flavonoids (butrin, isobutrin), Tannins, Steroids, Alkaloids, Phenolic compounds, Glycosides, Saponins



2. Neem (*Azadirachta indica*)

Neem, scientifically known as *Azadirachta indica*, is a medicinal tree native to the Indian subcontinent. It has been used in Ayurvedic, Unani, and traditional medicine systems for its

antibacterial, antifungal, antiviral, and anti-inflammatory properties⁴¹.



3. Aloe vera (*Aloe barbadensis miller*)

Scientific Name: *Aloe barbadensis miller*

Common Names: Aloe, Aloe Vera, Ghritkumari

Family: Asphodelaceae

Parts Used: Leaves (gel and latex)

Chemical Constituents: Polysaccharides: Acemannan, Glucomannan

Anthraquinones: Aloin, Emodin, Barbaloin

Enzymes: Amylase, Catalase, Lipase

Vitamins: Vitamin A, C, E, B12

Minerals: Calcium, Magnesium, Zinc⁴²



4. Multani Mitti (Bentonite)

Scientific Name: Bentonite or Calcium Montmorillonite (varies based on composition)
Multani Mitti, also known as Fuller's Earth, is a natural clay material rich in minerals. It is widely used in skincare, haircare, and industrial applications due to its high absorbent and cleansing properties⁴³.



5. Turmeric (*Curcuma longa*)

Scientific Name: *Curcuma longa*

Family: Zingiberaceae (Ginger family)

Common Names: Turmeric, Indian saffron, Haldi (Hindi), Kurkum (Arabic)

Native Region: South Asia, mainly India and Southeast Asia

Turmeric is a perennial flowering plant with bright yellow-orange rhizomes (underground stems) used as a spice, dye, and medicinal ingredient. It has a warm, bitter taste and is a key ingredient in many Asian dishes, particularly in curry powders.



6. Methyl Paraben (Methylparahydroxybenzoate)

Methylparaben is a type of paraben. Parabens are chemicals that are often used as preservatives to give products a longer shelf life. They're added to

food or cosmetics to prevent the growth of mold and other harmful bacteria. Methylparaben is one of the most common parabens.



7. Rose Water

Botanical Name: *Rosa Damascena* Mill L.

Family: Rosaceae

Rose water can help reduce skin redness, prevent additional swelling, and soothe the discomfort of acne.



FORMULATION OF BUTEA MONOSPERMA FACEPACK

Step – 1

All the required herbal powders for the face pack preparation were accurately weighed as listed in table no.01.

Table No. 1: Ingredients of Butea monosperma face pack

SR. NO	INGREDIENTS	QUANTITY (IN GM)		
		LOW	MEDIUM	HIGH
1	Butea monosperma	5	10	20
2	Neem	10	10	10
3	Aloevera Extract	15	15	15
4	Multani Mitti	5	5	5
5	Turmeric	2	2	2
6	Glycerine	qs	qs	qs
7	Rose Water	qs	qs	qs
8	Methyl Paraben	1	1	1

Step – 2

The herbal drugs such as multani mitti, turmeric, neem , methyl paraben, were transferred to mortar and pestle and triturate.

Step – 3

Previously prepared mixture of herbal extracts of Butea monospermawas transferred to the mixture of fine powders and triturated to obtain uniform paste of face pack.

Step – 4

The prepared face pack paste was packed into a self-sealable container, labelled and used for further studies.

III. RESULTS AND DISCUSSION

The result of evaluation are displayed in table form of organoleptic and physico-chemical and general facepack evaluation. The study of nature, colour, odour, texture, pH of facepack combined form under investigation provided the important features of organoleptic and physico-chemical evaluation, irritancy test and spreadability test.

Organoleptic Evaluation :

Table.2 : Organoleptic Evaluation of Butea monospermaFacepack

SR.NO	PARAMETERS	OBSERVATION		
		LOW	MEDIUM	HIGH
1	Nature	Slightly Yellow	Slightly Yellow	Slightly Yellow
2	Odour	Pleasant	Pleasant	Pleasant
3	Texture	Fine	Fine	Fine
4	Appearance	Smooth	Smooth	Smooth
5	Spreadability	Spreadable	Spreadable	Spreadable

Physico-Chemical Evaluation:

1) Irritancy Test

Table.3: Irritancy Test

SR.NO.	PARAMETERS	OBSERVATION		
		LOW	MEDIUM	HIGH
1	Irritant	No	No	No
2	Erythema (Redness)	No	No	No
3	Edema	No	No	No

2) pH Test :

Table.4: pH Test

SR.NO.	PARAMETERS	OBSERVATION		
		LOW	MEDIUM	HIGH
1	pH	5.2	7	7.85



Fig 8: Butea monosperma Facepack
Low Conc. (10%)



Fig 10: Butea monosperma Facepack
High Conc. (40%)



Medium Conc. (20%)
Fig 9: Butea monosperma Facepack



Before After
Fig 11: Result of Facepack
Low Conc. (10%)



Before

After

**Fig 12: Result of Facepack
Medium Conc. (20%)**



Before

After

**Fig 13: Result of Facepack
High Conc. (40%)**

IV. CONCLUSION:

Natural remedies are more acceptable in the belief that they are safer with fewer side effects than the synthetic ones. Herbal formulations have growing demand in the world market. Herbal face packs are used to stimulate blood circulation, rejuvenate the muscles and help to maintain the elasticity of the skin and remove dirt from skin pores. It is an our good attempt to formulate the herbal face pack containing natural herbal ingredients such as Butea monosperma, neem, aloe vera extract, multanimitti, turmeric. After evaluation, we found good properties for the face packs, free from skin irritation and maintained its consistency even after stability storage conditions. It has been revealed that herbal face pack having enough potential to give efficient glowing effect on skin. The overall study is useful to substantiate product claims due its useful benefits on the human beings. Herbal ingredients opened the way to formulate cosmetics without any harmful effect. Herbal face packs are considered as sustaining and productive way to advance the appearance of skin.

For a suitable face pack, aim for one with a pH between 4.5 to 5.75, which is the healthy skin pH range. Hence Butea monosperma face pack of low concentration (10%) having pH up to 5.2 is found to be suitable or best for face skin.

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