



**INTERNATIONAL JOURNAL OF
PHARMACEUTICAL SCIENCES**
[ISSN: 0975-4725; CODEN(USA): IJPS00]
Journal Homepage: <https://www.ijpsjournal.com>



Research Article

Development And Assessment of Herbal Facial Cream

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ARTICLE INFO

Published: 14 May 2025

Keywords:

Cosmetics, cream, aloe vera, Tulsi, Turmeric.

DOI:

10.5281/zenodo.15401200

ABSTRACT

A half-length substance commonly used in the skin is called a cream. This study focused on the production and evaluation of herbal medicines used in these formulas, as well as several medicinal plants. The herb cream is a water-in-oil lotion. The natural ingredients used in the preparation of herbs are turmeric, papaya, aloe vera, tulsi, amla, cucumber and neem. The choice of these components depends on their properties. Cosmetics are manufactured with adhesives such as liquid paraffin, beeswax, borax, and methylparaben. These formulations include pH, viscosity, stimulation, distribution, microbial growth, thermal stability, uniformity, acidity, saponigenic values, velocity stability studies, patches, coating scheme tests, back resistance, tension resistance, resistance, physical fault tests, and plant diffusion studies. Most of the existing creams are made of synthetic ingredients and are compatible with the face, but also compatible with side effects such as stimulation and allergic reactions. Herbal creams have no side effects and beautify your skin without side effects.

INTRODUCTION

The word “cosmetic” means that it comes from the Greek word “cosmetic.” Since then, all products have been called cosmetics to glorify or improve the appearance [22-23]. The term vegetable refers to security compared to synthetic products that are toxic to human health. Work statistics show that the herbal medicine industry is growing, and the herbal cosmetics industry is increasing the demand for herbal products around the world. Cream made

from plants (herbs), herbal plants that are good for the skin. This plant requires many properties, such as the cream being used topically for softening and cleaning [26-27]. There are many types of cosmetics, including hand and body massage cream, cream, night cream, cleaning cream, cooling cream, foundation cream, and more [27]. Herbal cream is a lotion that contains oil and water. Includes herbs such as neem, papaya, aloe vera, tarsi and turmeric [30]. Herbal creams

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Relevant conflicts of interest/financial disclosures: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.



contain a variety of tinctures, extracts and essential oils. [31-32].

Types of herbal creams:

They are divided into two groups:

Oil-in-Water (O/W) Cream: Creams containing a small amount of oil. However, emulsions containing oil droplets dispersed in the water phase are called oil-in-water (O/W) emulsions [10]. **Water-in-Oil (W/O) Cream:** Cream formed by the combination of water and oil is called water-in-oil (W/O) cream. When the dispersed phase is water and the dispersion medium is oil, the emulsion is calculated according to the water-in-oil (W/O) type [20].

Benefits:

- Benefits of Herbal Cream
- Moisturizes dry skin.
- Smooth calluses.
- Feels and smells great.
- Help you relax.
- Softens the roughest parts of the body.

Properties:

Herbal cream should remain stable for a long time.

Anti-inflammatory: herbal medicines may have anti-inflammatory properties

Stability: Herbal cream should remain stable for a while.

Application:

- Moisturizing and hydrating.
- Anti-aging (reduces lines and wrinkles).
- Antioxidants (against environmental stress).
- Firm the skin and even out the complexion.

- Prevent acne and diseases. Relieve sunburn and irritation.

Materials Used in Herbal Face Cream:

1) Aloe Vera:



Fig no.1: Aloe vera (*Aloe Barbadensis*)

Botanical ingredients: minerals, enzymes, hormones, lignin, salicylic acid, glucose, vitamin A, choline, fructose, etc.

Genre: Aloe.

Family: Asphodelaceae.

Kingdom: Plantae.

Roles:

1. Prevent premature aging.
2. Gives skin a natural glow.
3. Moisturize your skin with essential oils.

2) Turmeric:



Fig.no.2: Turmeric (*Curcuma Longa*)

Botanical ingredients: curcumin, essential oil, dihydrocurcumin.

Genre: *Curcuma longa*.

Family: Curcumaceae.

Kingdom: Plantae.

Roles:

1. It has antibacterial effects.

It has antifungal effects.

It has anti-inflammatory properties.

Reduce dark circles.



Method of Preparation:

Tulsi:



Fig no.3: Tulsi (*Ocimum tenuiflorum*)

Botanical ingredients: Eugenol, carvacrol, Eugenol- methyl- ether.

Genus: *Ocimum basilicum*.

Family: Lamiaceae.

Kingdom: Plantae.

Roles: 1. Improve the health of aging skin.

Relieves eczema and other skin conditions.

Great for treating skin problems.

Marketed Formulation:



Extraction process: -

▪ **Preparation of Aloe vera Extract:** Fresh aloe vera leaves born from plants were captured and washed in a hot furnace with distilled water. The leaves are dissected longitudinal sterilization knife. Semi-enhanced aloe vera is collected. Removes fibers and contaminants. Aloe vera extract is preserved.

▪ **Preparation of turmeric extract:** Take 1 g turmeric powder in 10 ml distilled water And shaken in 250 ml volumetric flask heated in water bath at 80°C to 100°C for 5 to 10 minutes. Then filtered it and it and turmeric extract is obtained .

▪ **Preparation of tulsi extract:** Dry the tulsi leaves at room temperature and grind them Into a powder. Soak the powder in ethanol. The ratio of powder to ethanol can vary, But for example you can use 300 grams of powder to 1liter of ethanol. Let the powder Macerate in the ethanol. Filter the mixture through a filter paper.Use a rotary Evaporator to concentrate the extract. Dry the concentrated extract in a vaccum oven At a low temperature.

Take the liquid paraffin and bees wax in a borosilicate glass breaker at 75°C and maintain That heating temperatures (oil phase). In other beaker, dissolve borax and methyl paraben in Distilled water by maintaining Temperatures 75°C with water bath. Stir the solution with glass Rod until All solid particles get dissolve (Aqueous phase). The gently add heated aqueous Phase in heated oily phase with continue stirring . After mixing both phases, immediately add Aloe-vera extract, tulsi extract, and turmeric extract into it with continues mixing by glass Rod until it forms a smooth cream when cream is formed, then add rose oil as fragrance. Put This cream on the slab and add few drops of distilled water if necessary and mix the cream In a geometric manner on the slab to give a smooth texture to the cream and to mix all the ingredients properly. This method is called as slab technique or extemporaneous method of cream.

Formulation has the following composition as depicted in the following table:-

Formulation of Cream:

Table 1: Formulation Table

| Sr.No. | Ingredients | Quantity | | |
|--------|-----------------|----------|--------|--------|
| | | F1 | F2 | F3 |
| 1. | Aloe Vera | 1.5 ml | 1 ml | 1 ml |
| 2. | Turmeric | 0.5 ml | 0.2 ml | 0.4 ml |
| 3. | Tulsi | 1.5 ml | 1 ml | 1 ml |
| 4. | Bees wax | 3 g | 3.5 g | 3.2 g |
| 5. | Methyl paraben | 0.02 g | 0.04 g | 0.03 g |
| 6. | Liquid paraffin | 10 ml | 15 ml | 12 ml |
| 7. | Borax | 0.2 g | 0.4 g | 0.3 g |
| 8. | Distilled water | Q.S | Q.S | Q.S. |
| 9. | Rose oil | Q.S. | Q.S | Q.S |

Evaluation of Cream:

Evaluation of Herbal cream was following:

Physical Evaluation: Formulated herbal creams was further evaluated by using the



following physical parameter physical parameter colour, odour, consistency, and state of the Formulation.

Colour: The colour of the cream was observed by visual examination.

Odour: The odour of cream was found to be Characteristics.

State: The state was cream was examined visually. The cream was solid in state.

Consistency: The formulation was examined by rubbing cream on hand manually. The cream having smooth consistency.

Ph: Ph of prepared herbal cream was measured by using digital ph. meter. The solution of cream was prepared by using 100 ml of distilled water and set aside 2h. Ph was determined in three times for solution and the average value was calculated.

6) **Spreadability:** Spread ability of formulated cream was measured by placing sample in between two slides then compressed to uniform thickness by placing a definite weight for defined time. The specified time required to separate the two slides was measured as Spreadability. Lesser the time taken for separation of two slides results showed better

Spreadability

Spreadability was calculated by the following formula.

$$S = \frac{\text{Weight tide to} \times \text{Length of glass}}{\text{Time taken to separate slide (T) Upper slide (W) Slide (L)}}$$

7) **Washability:** Formulation was applied on the skin and then ease extends of washing with water was checked.

8) **Irritancy test:** An area of 1sq.cm is marked on the left-hand dorsal surface. Cover the designated area with cream and record time. For up to 24 hours, irritability, erythema and edema must be monitered and reported at regular intervals.

9) **Homogeneity:** The homogeneity of the formulation can be evaluated by touch and appearance

10) **After feel:** Emoliency slipperiness and amount of residue left after the application of the Fixed amount of cream was found to be good.

Results:

The present study was the formulation and evaluation of herbal cream. The evaluation parameters were coming Under results, like the physical evaluation of herbal Cream, PH of the cream, Spreadability, Washability, nonirritancy test, viscosity .The present work was the formulation and evaluation of herbal cream. This formulation was easily washed with Plane water after application. The prepared formulation was Good Spreadability. Viscosity and PH of the cream was Good. Cream does not show any type of pH as separation During storage. The cream was non-grassy in nature and easily removable after application. The formulation Was Nonirritant and not harm to the skin.

Evaluation Tests:

Table 2: Physical Evaluation

| Sr. No. | Characteristics | F1 | F2 | F3 |
|---------|-----------------|-----------------|-----------------|-----------------|
| 1. | Color | Yellowish green | Yellowish green | Yellowish green |
| 2. | Odour | Pleasant | Pleasant | Pleasant |



| | | | | |
|----|-------------|------------|------------|------------|
| 3. | State | Semi solid | Semi solid | Semi solid |
| 4. | Consistency | Smooth | Smooth | Smooth |

Table 3: Evaluation tests

| Sr. No. | Parameters | F1 | F2 | F3 |
|---------|----------------|-----------------|-----------------|-----------------|
| 1. | Ph | 6.1 | 6.5 | 6.2 |
| 2. | Spreadability | 2.18g.cm/s | 3.1g.cm/s | 2.5g.cm/s |
| 3. | Washability | Easily washable | Easily washable | Easily washable |
| 4. | Irritancy test | Non irritant | Non irritant | Non irritant |
| 5. | Homogeneity | Satisfied | Satisfied | Satisfied |
| 6. | After feel | Emollient | Emollient | Emollient |

Table 4: Results for Optimized formulation F2

| Sr. No. | Parameters | Results |
|---------|----------------|-----------------|
| 1. | Colour | Yellowish green |
| 2. | Odour | Pleasant smell |
| 3. | State | Semi solid |
| 4. | Consistency | Smooth |
| 5. | Ph | 6.5 |
| 6. | Spreadability | 3.1g.cm/s |
| 7. | Washability | Easily washable |
| 8. | Irritancy test | Non irritant |
| 9. | Homogeneity | Satisfied |
| 10. | After feel | Emollient |

(F2 is a better formulation than F1 and F3 formulation of herbal face cream.)

CONCLUSION:

Natural treatments are more popular because they are safer and have fewer side effects than synthetic treatments. Many herbs are seen to have different uses in creams. Herbal creams are considered a good and effective way to improve your skin. They also contain nutrients such as vitamins and minerals that make the skin healthy, radiant and glowing. Herbal medicine is used to increase blood circulation, restore muscle tone, help maintain skin elasticity and cleanse dirt from skin pores. Herbal formulations have become popular in the global market in the last few years and now play an important role in the cosmetic industry. More research efforts on the safety, efficacy and user compliance of these formulations will lead to more

demand for these formulations, which will allow them to reach the top of the global market.

ACKNOWLEDGEMENT:

I would like to express my heartfelt gratitude to my project guide, Prof. A. S. Sontakke for their invaluable support, guidance, and encouragement throughout the course of this project. Their expertise and insights were instrumental in shaping my understanding and execution of the work. I also wish to thank PRMSS Anuradha College of Pharmacy Chikhli for providing the resources and environment conducive to learning and growth. The facilities and support offered by the institution have greatly contributed to the successful completion of this project

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HOW TO CITE: A. S. Sontakke*, R. S. Dahiwal, S. S. Sontakke, S. S. Kharate, S. A. Borkar, S. C. Dhande, Dr. R. H. Kale, S. A. Borkar, S. C. Dhande, Dr. R. H. Kale, Development and Assessment of Herbal Facial Cream, *Int. J. of Pharm. Sci.*, 2025, Vol 3, Issue 5, 2235-2242 <https://doi.org/10.5281/zenodo.15401200>

