



FORMULATION AND EVALUATION OF HERBAL FACE CREAM

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ABSTRACT-

The skin on the face is the thinnest and most noticeable area of the body. Skin can be divided into four categories: combination, oily, dry, and normal. Similar to other types of skin, the skin of the face serves as a crucial barrier against the outside environment. The facial skin is quite more sensitive than the other skin of the body. In order to maintain good and healthy skin it is important to follow all the necessary steps and remedies. Skincare, also known as skin integrity support, is a collection of procedures meant to improve the appearance of the skin and help heal skin conditions. These may consist of proper diet, avoiding prolonged sun exposure, and applying emollients when needed. Face creams are used very efficiently on daily basis for maintenance of good facial skin.

Moreover, herbal face creams are used as safe and healthy skincare products. In the following article, we have focused on the formulation and evaluation of herbal face cream from tamarind seeds powder and rose petal powder. Tamarind seeds possess with anti-microbial, anti-inflammatory and anti-oxidizing properties which are found to be beneficial for skin. Rose petals are rich in various vitamins, minerals and anti-oxidants which help in maintaining good skin. Other ingredients such as orange peel powder, raisin extract, rose water and saffron were also used to enhance the properties of the herbal face cream.

The herbal face cream with moisturizing properties using all the above ingredients was prepared and evaluated using all the evaluation parameters.

KEYWORDS- Facial skin, herbal skin products, skincare, herbal face cream, anti-oxidants, moisturizing, anti-inflammatory, rejuvenate,

INTRODUCTION-

Skincare is a vital practice for preserving the appearance and health of the skin of your face and body. Facial skin care is the primary one amongst all skincare practices. In recent years, herbal formulations are becoming more and more popular because of their many benefits and few side effects. Herbal cosmetics, such as face wash, conditioner, soaps, creams, shampoos, and many others, are quite popular with the general public. The best part about herbal cosmetics is that they are made completely of herbs and shrubs, thus they provide only benefits and no side effects. For facial skincare, creams are mostly preferred routine products. Many cream products that are marketed as natural, organic, herbal or protected are readily found in the market. Today, most creams seen in the market include a basis consisting of synthetic polymers, thickeners, pigment, and semisolid emulsion that is intended for external application. There are two types available: oil in water (O/W) and water in oil (W/O). When applied to the outer layers of the skin, its main purpose is to remain at the application site for longer duration. Several types of face creams are available, including hydrating creams, moisturizing creams, anti-aging creams, day creams, night creams and many others.

Moisturizing creams are often used for preventing the drying and peeling of skin, thus inducing or providing moisture to the skin with minimum irritation. Moisturizing creams act as hydrating products and also provide lubrication to the skin, especially to the face and neck. Herbal cream along with the benefits of tamarind seeds, rose petals, orange peels, raisin extract and saffron can turn out to be an effective formulation for maintenance of healthy and moisturized skin.

Ideal properties of a FACE CREAM-

1. It should possess with pleasant and accepting colour and odour.
2. It should easily spread and provide a pleasant feeling during and after application to the facial skin.
3. The cream should provide protection from various environmental factors, including wind, temperature, UV-light, etc.
4. It should reduce the drying of skin and improve its dull appearance.
5. It should have the ability to smoothen and soften the skin.
6. The cream should be stable for a prolonged period of time.
7. It should be free from microbial contamination.
8. Should be non-allergenic and non-irritant to the skin.

Benefits of a FACE CREAM-

1. It deeply hydrates the facial skin without leaving it feeling greasy or oily.
2. Help to attract and retain the moisture.
3. Helps in preventing the premature ageing of the skin and provides radiance to it.
4. It helps in improving the texture of the skin.
5. It soothes irritation and redness, thus leaving the skin calm and comfortable.
6. It promotes an even skin tone, thus reducing the uneven pigmentation.
7. It helps in boosting the production of collagen which reduces sagging and gives a lifted appearance.
8. Avoids very oily skin without removing the skin's natural barrier of protection.

OBJECTIVE-

The purpose of preparation and evaluation of herbal face cream from tamarind seeds powder and rose petal powder was to study the **anti-bacterial, anti-inflammatory, anti-ageing** and **nourishing** properties. All the other natural ingredients such as orange peels, saffron and raisins were selected depending upon their properties of providing brightening, anti-inflammatory, anti-oxidant, glowing, sun protection and pigmentation treatment. All these ingredients were together selected in order to make a herbal face cream with all the necessary benefits required for maintenance of healthy skin.

MATERIALS AND METHODS-

INGREDIENTS:

a) Tamarind seeds powder:



- Tamarindus indica L., or tamarind, seeds are a rich source of minerals such as calcium, phosphate, and potassium, as well as vital fatty acids.
- It has been discovered that tamarind seeds are good for teeth. Powdered tamarind seeds can help those who smoke and drink a lot of soft drinks get rid of plaque and tartar deposits.
- Powdered tamarind seeds strengthen teeth, which lowers the chance of cavities forming and also helps to minimize oral infections.

b) Rose petals powder:



- Powdered rose petals offer the skin with a number of advantages. It can aid in skin hydration, irritation and redness reduction, dead skin cell exfoliation, and complexion brightening.
- Additionally, it contains astringent qualities that may aid in pore tightening and lowering excessive oil production.
- It contains calcium, potassium, magnesium, lactic acid, selenium, vitamin A, D, B6, and B12. These will all help to tackle wrinkles, dull, uneven skin, and acne.

c) Orange peels powder:



- Orange peels can aid in controlling excessive oil production, tightening pores, and giving off a cooling feeling.
- Orange peels' antioxidants can help shield the skin from free radical damage and early ageing, while their antibacterial qualities may help fight bacteria that cause acne.
- Powdered orange peel brightens the skin and improves the appearance.
- Citric acid, found in orange peel powder, aids in the removal of pigmentation, dark spots, and acne scars.

d) **Raisin extract:**



- Vitamins C, E, and beta-carotene are a few of the antioxidants found in raisins. These antioxidants may aid in protecting the skin from harm caused by free radicals.
- Being rich in natural sugars, raisins maintain skin moisturized and give it a beautiful, plump appearance.
- Raisins include vitamins A and E, they aid to lighten blemishes and dark marks and give the skin a more even tone.

e) **Saffron:**

- Antioxidants present in saffron including crocetin and safranal provide shield to the skin and prevent it from oxidative damage brought on by free radicals.
- Ascorbic acid, or vitamin C, found in saffron contributes to the brightening of skin tone.
- Vitamin C in saffron also facilitates wound healing, which helps avoid post-inflammatory hyperpigmentation. Additionally, it provides some protection against UV-induced damage.

f) **Borax:**

- Borax is used as a cleansing ingredient in skincare products, especially exfoliants and cleansers.
- It can help clear the skin of debris, extra oil, and pollutants.
- Borax can act as an emulsifier, supporting in the blend of oil and water-based ingredients in several skincare products such as creams and lotions.

g) **Liquid paraffin:**

- As a moisturizer, liquid paraffin helps to relieve or prevent mild skin irritations as well as dry, rough, scaly, and itchy skin.
- Additionally, it aids in the removal of dead skin cells, moisturizes the skin, and leaving the skin feeling softer and smoother.
- It gives the skin a moisturizing effect without making it oily.

h) **Bees wax:**

- It gives the skin a moisturizing effect without making it oily.
- Beeswax forms a protective layer on the surface of the skin, protecting the skin from environmental irritants and bad weather.
- Beeswax has **anti-allergenic, anti-inflammatory, anti-oxidant, anti-bacterial** properties. This makes beeswax particularly beneficial for those with sensitive skin as beeswax will unlikely cause skin irritation.

i) **Methyl paraben:**

- Methylparaben is most frequently used in cosmetic items as an antibacterial preservative.
- It occurs naturally in various fruits and can be utilized as an antifungal or food preservative.

j) **Rose oil:**

- Roses are wonderfully scented and have a powerful flowery scent.
- Rose oil has anti-ageing properties that help to prevent dry skin, treat acne, minimize the ageing and wrinkles also.

Formulation of HERBAL FACE CREAM:

Sr. No.	Ingredients	Quantity	Role
01.	Tamarind seeds powder	2 gm	Anti-bacterial
02.	Rose petals powder	2 gm	Exfoliant
03.	Orange peel powder	2 gm	Brightener

04.	Raisin extract	3 ml	Anti-oxidant
05.	Saffron	1 gm	Anti-oxidant
06.	Borax	1 gm	Cleanser, emulsifier
07.	Liquid paraffin	2 ml	Emollient
08.	Bees wax	5 gm	Humectant
09.	Methyl paraben	1 gm	Preservative
10.	Rose oil	1 ml	Odour

METHOD OF FORMULATION-

1. All the raw ingredients including tamarind seeds powder, orange peel powder, rose petals powder and saffron were triturated in a mortar pestle.
2. In a china dish, heat the liquid paraffin and beeswax to 75°C and maintain the temperature (Oil phase).
3. Dissolve borax and methyl paraben in distilled water in a different china dish. Heat the beaker to 75° C to dissolve the ingredients and produce a transparent solution (Phase of water).
4. Then, using a mortar and pestle, gradually add this watery phase to the oily phase while stirring in a single direction to prevent lumps.
5. Then add all the raw ingredients and raisin extract to the cream base and mix it. Add few drops of Rose oil as a fragrance to impart the aroma and mix all the ingredients properly.

EVALUATION PARAMETERS-

The formulated herbal cream was further evaluated by using the following evaluation parameters-

Physical evaluation includes the examination of colour, odour, consistency and state of formulation.

- a) **Colour:-**
 - The colour of the prepared cream was determined by means of visual examination.
- b) **Odour:-**
 - The cream was found to have a characteristic odour.
- c) **State:-**
 - The physical state of the cream was determined by visual examination.
 - The prepared cream was found to be semi-solid in appearance.
- d) **Consistency:-**
 - The final prepared formulation was examined by rubbing it on the hands manually.
 - The cream was observed to have a smooth consistency.
- e) **pH:-**
 - A digital pH meter was used to measure the pH of the prepared herbal face cream.
 - Using 100 ml of distilled water, the cream solution was made and left for two hours. For each solution, pH was found three times, and the average value was estimated.
- f) **Spreadability:-**
 - The spreadability of the cream formulation was assessed by placing sample between two slides and compressing it to an even layer using a specific weight for a certain period of time.
 - Spreadability was used to calculate the amount of time needed to divide the two slides.
 - Lesser the time taken for separation of two slides results showed better spreadability.
- g) **Non-irritancy test:-**
 - The herbal cream formulation was evaluated to determine the non-irritancy of the same.
 - The cream did not show any kind of redness or irritancy.
- h) **Washability:-**
 - Washability: the skin was treated with the formulation, and the ease with which it could be washed with water was assessed.

RESULT AND CONCLUSION-

Sr. No.	Parameters	Results
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01.	Colour	Reddish pink
02.	Odour	Characteristic
03.	State	Semi-solid
04.	Consistency	Smooth
05.	pH	7.1
06.	Spreadability	7.8 gm/cm
07.	Non-irritancy test	Non-irritant
08.	Washability	Easily washable

RESULTS-

The creation and assessment of a herbal cream was the focus of the current study. The evaluation parameters, which included the herbal face cream's viscosity and phase separation, non-irritancy test, spreadability, washability, pH, and physical evaluation, were listed under the results.

CONCLUSION-

Slab method was used to formulate the cream, and it was then assessed using a number of criteria, including its physical characteristics, PH, spreadability, washability, non-irritancy test, viscosity, and phase separation, all of which produced positive results.

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