

Formulation and Evaluation of Herbal Face Cream

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ABSTRACT

Herbal creams are mainly intended for beautification of skin. The main aim of the present research work is to prepare a face cream using different herbs and the prepared cream is evaluated for stability and anti bacterial activity. The herbs used in the formulation (F1, F2, and F3) are flowers of Jasmine, Tulsi, leaves of Neem. The formulated cream is evaluated for the various parameters like organoleptic properties, pH, stability, consistency, skin irritation, and antibacterial properties. F1 formulation has shown good stability and antibacterial properties compared to marketed cream. Aloe vera, Jasmine, Neem, Tulsi are medicinal plant they are used as traditionally from ancient year in various herbal medicines such Ayurveda, siddha, and Homeopathic. Cosmetic and some medicinal products are made up from the Mucilaginous tissue in the centre of aloe vera leaf and called Aloe vera gel. The herbal cream is basically water in oil type of emulsion. The natural ingredients chosen for preparation of herbal cream are turmeric, Jasmine, aloe-vera, Tulsi, and neem. The choice of these ingredients is based on their individual properties.

KEYWORDS: Aloe vera, jasmine, Tulsi, neem, leaves, face cream

I. INTRODUCTION

The word cosmetics was acquired from the Greek word kioskistikis meaning having the powder, order in decorating. Herbal cosmetics, here referred as products are formulated were permissible one or more herbal ingredients to form the Base in which defined cosmetics advantage only, it is called herbal cosmetics.(1)

The herbal cosmetics due to the availability of new ingredients to the reward for developing successfully product and it maintained of Quality standards. To the cosmetics and some medical products are made-up for the mucilaginous tissue for the centre of aloe vera leaf it called Aloe vera Gel. The Bioactive compound isolated from

cucumber includes Cucurbitacin's 1 and 2 of the coumarin. Aloe vera, allay and cucumber peel are medical plant are used as traditional from various herbal medicine such as cosmetics and some medicinal products are made-up from the mucilaginous tissue in the centre of aloe vera gel. Aloe vera contain 75 potentially active Constituents like vitamins, minerals, sugar, enzymes, amla contain amino acid etc. Protein, mineral like magnesium, potassium and silica. The silica is an essential compound to keep your muscles, bones and healthy. It also hydrated our skin, improve, complex ion and version.(2)

The herbal medicament is made from plant and their Extractive. Herbal formation to a dosage form consisting for a one or more herbs or processed herbs in specified quantities of provides definite nutritional, cosmetics and other health benefits that are means for diagnosis and treatment of diseases and to alter the structure or physiology. As it is natural and safe it provides solution to food health. Simple herbs, such as pepper mint, osmium, ginger, turmeric, coriander, etc can be cultivated at home, Herbal cosmetics are much popularity as they are safe and natural.

Herbal cream Benefits: -

The advantage of beauty cream is simple solution. By design, Beauty cream is supposed to topically moisturize the pores and skin, so any one trying to improve the hydration in their pores and skin can glow from the usage of this product. However, people with particular touchy pore and skin will maximum from the usage of it every day to enhance to feel and look in their complexion. These consequences are in all like the end of the beauty cream potential to assist repair the pores and skin effectiveness as an herbal barrier to the environment, some things this is misplaced while your pores and skin is simply too dry. (3)

Herbal Cream

They are free from all the harmful synthetic chemicals which are proven to be toxic for the skin of a person. Different parts of the plant and plant extracts are used in herbal products. They also consist of natural nutrients like Vitamins and minerals that keep skin healthy, glowing and lustrous. (4)

A face moisturizer is a lotion, or cream emulsion, ointment or balm formulated with emollients that help skin stay hydrated. Moisturizers hydrate the surface layers of the skin. Their main skin benefit is that they seal the skin, locking in moisture and nutrients, while protecting the skin from environmental irritants.(5,6)

Creams are semisolid dosage forms containing herb in hydrophilic base.

- Prepared by mixing powdered drug or extract in cream base.
- It has relatively short shelf life as compared to ointment.

Egg herbal fairness cream, baby cream, etc.

Uses

- Moisturizer
- Reduce acne
- Skin irritation
- Dry skin
- Wrinkles

II. MATERIAL AND METHOD

Ingredients of formulation

All natural materials are used for the present study. The details of the plant material used for the Formulation are mentioned below.

1. Bee wax
2. Rose water
3. Distilled water
4. Borax
5. Liquid paraffin
6. Aloe vera gel
7. Glycerine
8. Jasmine
9. Tulsi
10. Neem

Bee wax: -Ability to protect from irritants beeswax can also act as a layer of protection When applied to the skin. Bee wax is the substance that forms the structure of a honey Comb the bees secrete wax to build the honey combs. Protective properties the bee wax Is fact present within cosmetics and body product



Figure No. 1 Bee wax

Benefits and Uses

- Skin Enhancer
- Skin Moisturize
- Natural skin healing agent
- Rich source of Vitamin A & E
- Anti-inflammatory properties
- Nourishes and fortifies skin
- Easy to handle & melts quickly
- Pain Reliever & Anti-Inflammatory

Rose water: -The rose water is flavoured water made by steeping rose petals in water. It's is the hydrosol portion the distillate of rose petals, a by products of the production of rose oil for use in perfume. It is the antibacterial properties use in the Help of reduce acne. The anti- inflammatory property can reduce skin redness and puffiness. Rose water Maintain the skin natural PH Balance.



Figure No. 2 Rose water

Benefits and Uses

- Smooth skin irritation.
- Smooth sore throats.

Reduces skin redness.
Helps prevent and treats infections.
Contains antioxidants Enhances mood.
Enhances mood.

Borax: -Borax mixed with wax is used in lots of Beauty like cream, gel and cream. It's famously used in hand soap to assist wash off the oil or grease from the hands. Borax alkaline nature makes it a really perfect element in cleanser and toners. In borax is every so often used as an emulsifier buffering agent, or preservation for moisturizing merchandise, Cream, shampoos, gel, cream, scrubs. Borax is like wise an element mixed with glue and water to make slime a gooey cloth that many.



Figure no 3 Borax

Liquid paraffin: - Liquid paraffin is a hydrating and cleansing agent. Hence it is used in several cosmetics both for skin and hair products.



Figure No.4 Liquid paraffin

Benefits and Uses

1. Moisturizing Agent
2. Increases Elasticity of The Skin
3. Skin Softening
4. Reduces Swelling
5. Helps Remove Dead Skin Cells
6. Healing Properties

Aloe vera gel: -Aloe vera gel from the leaves of aloe plants. People have used it for thousands of years for healing and softening the skin. Aloe has also long been a folk treatment for many maladies, including constipation and skin disorder.(6)



Figure No. 5 Aloe vera gel

- **BOTANICAL NAME – Aloe miller**
- **FAMILY—Asphodelus**
- **MORPHOLOGY—**all four commercial forms compared below here of their morphological character
- Are distinguished by their transparency
- Opaque mass
- Have bitter and unpleasant • Yellowish brown to chocolate brown
- It is waxious

CHEMICAL CONSTITUENTS

- Anthracene glycosides
- Resins
- aloetic acid
- Barbaloin
- Aloesone
- Homonataloin

USES

- Soothing ice cube rub
- Shaving gel
- Eyebrow gel
- Treats sun burn
- Hair moisturiser
- Nourished dry skin

- Cures dandruff
- Aloe infused shampoo
- Anti inflammation
- Treats acne

Jasmine: -The exotic botanical extracts of the flower enrich skin with oil that hydrates and nurtures dry skin and lends it a youthful glow. Antioxidants in Jasmine revive the dead skin and reduce the stress induced dullness. And the soft, flowers stay on the skin relax and skin.



Figure No. 6 Jasmine powder

BOTANICAL NAME:- Jasminum

FAMILY:- Oleaceain

MORPHOLOGY:- The main reason jasmine is so famous is its strong fragrance. People adore the flower for its strong, sweet smell.

Uses

- Jasmine is inhaled to improve mood, reduce stress, and reduce food cravings.
- It's mild fragrances make and natural anti deodorant.
- It's help strength the roots of the hairs.
- Effective cure for scraps, wound and cuts
- Antiseptic properties help keep skin infection at bays.

Glycerine:- a thick sweet colourless liquid made from fats and oils and used in medicines, beauty products and explosive substances. Glycerol is a common ingredient in pharmaceutical and is used to improve smoothness and taste of medicines.



Figure No 7. Glycerin

BOTANICAL NAME:-Glycerol

It consist of sweet water and glycerin , from fats splitting process through this sweet .Water is obtained .

- Twitchell process
- pressure splitting batch , continuous and semi continuous
- Enzymatic splitting

Purification of sweet water to obtain Glycerin

- Sweet water
- Treatment
- Concentration
- Distillation
- Glycerine

Neem:- Neem is a natural herb that comes from the neem tree, other names for which include Azedarach indica and Indian lilac. The extract comes from the seeds of the tree and has many Different traditional uses. Neem is known for its pesticidal and insecticidal properties, but people Also use it in hair and dental products.(7,8)



Figure No. 8Neem

Biological name:- Azadirachtin

Family:- Mahogany

Morphology:- It is mainly evergreen but sometimes shed its leaves during the dry season. Neem has a deep taproot and is a mycorrhizal-dependent species.

Uses

1. Heals Scars
2. Fights Acne
3. Treats Pigmentation
4. Oil-control
5. Moisturize
6. Exfoliation
7. Clear And Glowing Skin
8. Treats Skin Infections
9. Anti-aging
10. Treats Scalp Infection

Method of preparation

- Heat the aggregate in water tub for melting purpose. Remove dish from the water tub
- Take the borax and distilled water in beaker.
- Heat this in water tub for approximately 750C
- This borax introduced dropwise in porcelain dish with non stop stirring. Add methyl paraben in porcelain dish dissolved it.
- Add neem oil and jasmine oil on this solution.
- Add fragrance for perfume.

Note – all the ingredients should be tested before and the face should be clean before applying. On skin, a patch test should be done before applying on the skin.

Table No. 1 Formulation Table of Herbal face cream

Name of Ingredients	Quantity
Borax	2 gm
Rose water	5 ml
Distilled water	2ml
Jasmine	10 gm
Neem	2gm
Tulsi	1gm
Aloe vera	3gm
Liquid paraffin	5ml
Bee wax	5gm

Application of Herbal face cream: -

Despite their supposed layout as facial moisture, bloodless lotion are certainly very flexible and May be utilized in a number of various

ways. First certainly considered one among its maximum Famous make use of is as a make up remover. The thick oils are capable of lightly melt make up and dust away, permitting it be eliminated with minimum damage rubbing or scrubbing, similarly few discover it powerful as a primer for a beauty foundation because it smooths the pores and Skin and lets in make up to be implemented greater evenly throughout the face. Since it Eliminated without water, Kelley says it even is a high -quality products to take tenting or on Road journey in which you all be far from your lastly bloodless lotions also can be powerful as Alip balm, frame lotions also, or maybe a shaving cream. Frame lotions, or maybe a shaving Cream. Like making use of a moisture bloodless likewise, making use of a moist bloodless cream on your frame the identically excessive hydration that the cream.(9,10)

EVALUATION PARAMETER

Organoleptic Evaluation

The Face Cream thus obtained was evaluated for its organoleptic properties like colour, odour and state. The appearance of the cream was judged by its colour and roughness and graded.

Test for microbial growth in formulated Cream

The Formulated Creams were inoculated on the plates of agar media by streak plate method and a Control was prepared by excluding the cream. The plates were placed into the incubator and are Incubated at 37°C for 24 hours. After the incubation period, plates were taken out and checked for the Microbial growth by comparing it with the control.

Stability Test

In the mechanical test cream samples were inserted into centrifuge tube at a speed of 3750 RPM for half an hour or 5000 to 10000 RPM for 15 Minutes then observed whether a separation exist or not.

Homogeneity

Homogeneity of the prepared creams was confirmed by the visual appearance and by touch.

Dye Test

Under Microscopic observation the disperse globules appear red in colour and the ground is colourless cream prepared is O/W type. The dye test confirms that all formulations were O/W colourless Cream.

Irritancy Test: - All formulations show no redness, edema, inflammation, and irritation. During irritancy studies, these formulations are found to be safe to use for the skin.

Stability Studies (Evaluation)

To assess the formulation stability, the stability studies were done. Each formulation was stored at 4°C room temperature and 40°C temperature for a month and observed for physical stability like colour (11)

Results

Particle size- 20µm to 25µm

Angle of repose – 60 degrees

Irritancy test – No irritancy was found

Bulk density- 4 g/cm³

Tapped density- 3.5g/cm³

III. DISCUSSION

The formulated herbal face cream, using ingredients like jasmine, neem, tulsi, and aloe vera, showed positive results in terms of stability, skin safety, and antibacterial properties. The F1 formulation, in particular, exhibited superior antibacterial activity compared to commercial creams, likely due to neem's strong antimicrobial effects and jasmine's antioxidants (12)

The stability tests confirmed the cream's resilience, with no phase separation or texture changes under stress. Additionally, the irritancy tests indicated that all formulations were safe for use on sensitive skin, showing no signs of redness or inflammation (13)

Overall, the herbal cream provided a natural, safe alternative to synthetic products, demonstrating better skin benefits and aligning with the growing demand for eco-friendly skincare solutions. Further research could explore additional herbal combinations to enhance these benefits (14)

IV. CONCLUSION

Multipurpose of herbal cream are the o/w type from the emulsified. This emulsion based on the cream was formulated using herbal extract and was evaluated. This work can be concluded that this cream can be used as a multipurpose herbal cream and the herbal cream and the extract of herbal cream produce a synthetic effect of the other. To prepare formulated should good antimicrobial activities, no evidence to the phase separation and consistently during study. Natural treatment is great appropriate with in side the fewer side effects that they are

more secure with that the artificial one. Herbal information has been developed with in side that global market. Herbal face packs are taken into consideration as maintaining and efficiency manner to boost the arrival of pores and skin. Herbal face pack or mask are used to stimulate blood circulation, rejuvenating the one muscle tissue and assist to preserve the pliability of the pores and skin and get rid of dust from pores and skin pores. This within side the work it formulated the herbal face pack containing natural available ingredients like neem. Amandla is for suggests that for the prepared formulation of the physico-chemical and microbiology (15)

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