

Formulation And Evaluation of Herbal Moisturizing Cream

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Abstract-

The herbal cosmetics are those when natural herbs and their products used for their aromatic value in cosmetic preparation among consumers for herbal products triggered the demand for natural products and natural extracts in cosmetics preparations. creams are liquid preparations meant for external application without friction. They are applied directly to skin with the help of some absorbent material, such as, cotton wool or gauze soaked in it. Formulation of aloe vera cream, formulation of menthol cream and aloe vera cream with arrow root powder is prepared using different composition. These formulations were evaluated with different evaluation parameters like Homogeneity, Appearance, After feel, Acid Value, pH measurement, Irritancy test, Viscosity, Accelerated stability testing, Subjective Properties, Spreadability Type of emulsion test, Sensitivity Test, Washability Test, statistical analysis, In vitro permeation studies, Test for thermal stability, Determination of total fatty matter, Determination of water content, Patch test. The objective of this review is to compile the information of different herbal formulations of cream and its evaluation. Herbal cream formulations studied by many researchers and this information can be used by many researchers for novel herbal cosmetic formulations with new herbs. The herbal cosmetics are those when natural herbs and their products used for their aromatic value in cosmetic Preparation among consumers for herbal products triggered the demand for natural products and natural Extracts in cosmetics preparations. cream are liquid preparations that is for external application without friction.

Keywords: Herbal Cosmetic, Herbal Cream, Aloe Vera, Coconut oil, Rose water.

INTRODUCTION:

Cream is defined as semisolid emulsions which are oil in water (o/w) or water in oil (w/o) type and these semisolid emulsions are intended for external application. Cream is classified as oil in water and water in oil emulsion. It is applied on outer part or superficial part of the skin and its main ability is to remain for a longer period of time at the site of application. The function of a skin cream is to protect the skin against different environmental condition, weather and gives soothing effect to the skin. The word Cosmetic derived from a Greek word – kosmesticos that means to adorn. From that time any Materials used to beautification or promoting appearance is known as cosmetic. The word “cosmetics” Actually stems from its use in Ancient Rome. They were typically produced by female slaves known as “cosmetic” which is where the word “cosmetics” stemmed from. Cosmetics are used to enhance appearance. Makeup has been around for many centuries. The first known people who used cosmetics to enhance their Beauty were the Egyptians. Makeup those days was just simple eye coloring or some material for the body. Now-a-days makeup plays an important role for both men and women. The importance of cosmetics has Increased as many people want to stay young and attractive. Cosmetics are readily available today in the formOf creams, lipstick, perfumes, eyeshadows, nail polishes, hair sprays etc. Other cosmetics like face powder Give glow to the skin after applying the base cream. Then we have lipsticks, which are applied by many women of all ages. They are made from wax and cocoa butter in the desired amount. Cosmetics like creams, gels, and colognes are used on a daily basis by both women and men. Creams act as a Cleanser for the face in many circumstances.

More recently anti- ageing creams have been manufactured which Can retain younger looking skin for many years. The best cleansing agents are cleansing cream, soap and Water. Cosmetic creams serve as a skin food for hard, dry and chapped skin. It mainly lubricates, softens and Removes unwanted dirt from the skin. Some popular fat creams that are used include Vaseline and Lanolin. Dry creams are used in the manufacture of soap and gelatin which is used as a base for the skin. Herbal Cosmetics, here referred as Products, are formulated, using various permissible cosmetic ingredients to form the base in which one or more herbal ingredients are used to provide defined cosmetic advantages only, shall be called as "Herbal Cosmetics". The herbal cosmetics are those when natural herbs and their products used for their aromatic value in cosmetic preparation among consumers for herbal products triggered the demand for natural products and natural extracts in cosmetics preparations. creams are liquid preparations meant for external application without friction.

DRUG AND EXCIPIENT

1. Bees wax:

- In cosmetics, wax hydrates, conditioners, Soothes and relaxes the skin.
- Exfoliates, repairs damage and heals the skin
- A restorative reduced look
- It counteracts the signs of aging, reduces itching and irritation and creates a long-lasting protective moisture barrier.
- Combating environmental pollutants Beeswax is also an ideal natural exfoliator.
- Removes dead skin cells.
- Keep skin soft and moisturized.
- Treats eczema, psoriasis and eczema.
- Beeswax is a great choice for many skin types



Figure no 1:- Bees wax

Botanical name:-cera alba

Synonym:-paraffin-wax

Biological source:- Bees wax is a naturally occurring wax produced in the bees hives by honey bees a mellifera

Family:- Apidae

Chemical constituents:- esters, hydrocarbon, free fatty acids and other_chemical Constitutes

2. Coconut oil:

- Coconut oil has a primarily anti-inflammatory and hydrating properties in the skin.
- Has a anti oxidant property .
- Coconut oil is excellent as a face moisturizer and soften
- Coconut oil acts as a great scrub .
- Coconut oil for dry skin can be used as a deep treatment to nourish dry and cracked skin, replenishing

lost moisture and strengthening the skin barrier to retain it.

- Coconut oil has also been found to help treat eczema and reduce its symptoms of dry, scaly and itchy skin that is prone to rashes.

Figure no 2:-Coconut oil



Botanical name:-cocos nucifera

Synonym:-argan oil

Biological source:- Coconut oil is the oil expressed from the dried solid part of endosperm of coconut, *Cocos nucifera* L., belonging to family *Palmae*

Family:- Arecaceae (Palm family)

Chemical constituents:-fatty acid, caprylic acid, stearic acid, oleic acid

3. Aloevera gel:

- Is used as a moisturizer, to reduce pimples And acne and also used for treatment of BurnWounds.
- s used as an antifungal and anti-Inflammatoryand it is also used to reduce scar, Pigmentation, redness and itching of the skin.
- In Addition to moisturizing the skin, aloe Vera gel can Ease or soothe conditions like. Forsibite.
- Aloe Vera Gel can help your skin in hot and frigid weather.
- If your skin is damaged from a mild case of frostbite, Aloe Vera gel may help your tissues regrow more Quickly and boost healing



Figure no 3:- Aloevera gel

Botanical name:- Aloe barbadensis miller

Synonym:- Aloe barbadensis Mill. Aloe barbadensis var. chinensis Haw

Biological source:- Aloes is obtained from the dried juice of the leaves of aloe barbadensis miller.

Family:- Liliaceae

Chemical constituents:- Barbaliin, Aloin, Isobarbaloin, aloe-emodin, and aloesone, Aloinoside A&B, resins.

Uses:

- Anti-inflammatory
- Anti-aging
- Treats dry skin
- Treats stretch mark.

cosmetological Importance Of Aloe:

Aloe vera has been used since ancient times for healing infection and burns. However with the improvement in cosmetology, it has been proved that Aloe vera is a very important component of cosmetics. It contains almost 20 amino acids, minerals like calcium, magnesium and sodium in sufficient quantities, enzymes, vitamins, polysaccharides, nitrogen and other components that make it a miracle beauty herb. Some of the most important applications of Aloe vera for purpose of Cosmetology are being explained here briefly.

➤ **Itching and Blisters:**

Aloe vera also provides relief from itching and also helps to treat blisters. Aloe contains vitamin B1, B2, B6, B12 and vitamin C that provide soothing and pleasing sensation to skin

➤ **Skin Aging:**

Aloe vera initiates the synthesis of elastin as well as collagen. These proteins are essential for preventing the aging of the skin

➤ **Acne:**

Aloe vera helps to eradicate acne scars by performing as an immune booster and an anti-inflammatory agent. Beauty products composed of Aloe vera may diminish the rigorousness of acne. It is also composed of the chemical ingredients which have the property to save the skin to initiate the acne

➤ **Freshness:**

Aloe vera impart the sensation freshness. It helps in increasing distribution of blood therefore providing easier oxygen exchange among the cells, hence giving them nourishment

➤ **Sun-burns:**

Aloe Vera has an outstanding possession in diminishing the hurting of sunburn. For this purpose, it is rubbed directly on skin. The fresh fluid from the plant or Aloe vera containing after-sun creams may be used for sun-burns

➤ **Moisturizing Agent:**

Aloe vera may also be used for softening and moisturizing the skin. There are so many products available in the market containing Aloe vera which may be used post-showering to obtain the skin in super soft shape. Aloe vera gel, cream or lotion applied on the face forms a delicious cover that helps to shield the skin from dust and other natural elements which may be injurious to the skin

➤ **Pigmentation:**

Melanin is a pigment which is responsible for the color of the human skin. Hyper pigmentation is a situation in which large amount of melanin is synthesized. This generally happens due to excess exposure of the skin to the sun. In reaction to UV rays in sunbeams, the skin cells called melanocytes initiate to synthesize melanin. This increased synthesis of melanin is responsible for the emergence of darkened patches on the skin. Aloe vera has the property of diminishing the pigmentation and dark spots on the face

➤ **Skin Eruption:**

Aloe vera containing creams are beneficial for skin eruptions. Aloe vera gels have been proved to be the best remedy for burns and wounds. Actually, cellular regeneration, anti-bacterial and anti-fungal activities of Aloe vera make it useful for skin eruption

4. Borax:

- Borax is used prophylactically or prophylactically in the cosmetics industry. This slows the growth of

bacteria in the humidifier Creams, shampoos, gels, lotions and body washes, Scrubs and bath salts.

- Cosmetics manufacturer Using borax as a buffer or emulsifier
- Prevent separation of product components
- Borax as raw material
- It kills skin bacteria and removes dead skin cells. And excess fat.
- Penetration Which makes it relatively safe for skin and limited use number.
- Borax is used in the cosmetics industry.
- Prevent or slow the growth of bacteria in humidifiers
- Products such as creams, shampoos, gels, lotions and body washes Bombs, scrubs and bath salts.
- My producer Borax cosmetics are used as a temporary remedy or emulsifiers to protect product ingredients It separates.



Figure no 4:- Borax

Botanical name:-sodium borate

Synonym:- borax decahydrate

Biological source:- The most commercially important deposits are found in Turkey; Boron, California; and Searles Lake, California. Also, borax has been found at many other locations in the Southwestern United States

Family:- boron

Chemical constituents:-sodium,

5. **Rose water:**

- Rose water can clam your skin
- It has anti aging property
- Rose water makes great facial mist
- It can be used to create fragrance
- Rose water is a powerful ingredient in a facial treatment
- May hydrates the skin
- May help balance skin pH level



Figure no 5:-Rose water

Botanical name:-rosa damascena

Synonym:- attar of roses

Biological source:- Rose water is extracted from the flowers of Rosa damascene.

Family:-rosaceae family

Chemical constituents:-phenylethanol, linalool, citronellol, nerol, geraniol

Role of ingredients:

Table No 1: Role of ingredients

Sr.No	Ingredients	Use
1.	Bees wax	Stiffening agent in cosmetics
2.	Coconut oil	Moisturizer with antiseptic effect
3.	Aelovera gel	Cooling property and is anti-inflammatory
4.	Borax	Antiseptic, anti-inflammatory
5.	Rose water	Vehicle

METHOD OF PREPARATION:

Dissolve borax in rose water at 70°C on a water bath



Melt the wax with coconut oil and aloe vera gel in another beaker on water bath



Keep the temperature at about 70°C Pour borax solution into molten wax at the same temperature with constant stirring



Stirr the mass constantly when the temperature drops to about 45°C



Pour the formulation in wide mouth container and label it.

Sr. No	Ingredients	F A	F B	F C	F D	F E
1.	Bees wax	2 gm	3 gm	4 gm	1 gm	2.5 gm
2.	Coconut oil	3 ml	4 ml	5 ml	6 ml	7 ml
3.	Alovera gel	0.59 gm	1 gm	2 gm	2 gm	1.5 gm
4.	Borax	0.1 gm	0.2 gm	1 gm	2 gm	2 gm
5.	Rose water	3 ml	4 ml	5 ml	4 ml	3 ml

Table No 2: Formulation of herbal moisturizing cream:

Five different formulations were prepared with varying concentrations of all ingredients named as F A to F E. Concentration of each ingredient was mentioned in Table 1. The accurate quantity of ingredients was weighed and ground into fine powder. Then all the ingredients were mixed uniformly. Then the prepared face pack was stored in an air tight container for evaluation of various parameter.



Figure no 6: herbal moisturizing cream

Evaluation of Heral Moisturizing cream:

1. Organoleptic character
2. Homogeneity
3. PH determination
4. Determination of spreadability
5. Irritancy test
6. Washability
7. viscosity

1. Organoleptic character:

The organoleptic properties such as color, odour, texture and state was observed and is shown in the table no 3

2. Homogeneity:

The formulation were tested for homogeneity by visual appearance and by touch.

3. PH determination:

5 g cream was taken and dispersed in 50 ml distilled water and then PH was measured by using digital PH meter.



Figure no 7:- Determination of ph by using digital Ph meter

4. Determination of Spreadability:

Sample was applied between two glass slides and was compressed to uniform thickness by placing 100gm weight for 5 minutes. Weight was added to the pan. The time required to separate the two slides, i.e. the time in which the upper glass slide moved over the lower slide was taken as measure of spreadability. It was Calculated using the formula:

$$\text{Spreadability} = \frac{MXL}{T}$$

M-Weight tide to upper slide,
 L- Length moved on the glass slide ,
 T-time taken



Figure no 8: Determination of spreadability

5. Irritancy test:

Mark the area (2 cm²) on the left-hand dorsal surface. Then the cream was applied to that area and the time was noted. Then it is checked for irritancy, erythema, and edema any for an interval up to 24 h and reported.



Figure no 9: Irritancy

6. Washability:

A portion of lotion was applied over the skin of hand and allowed to flow under the force of flowing tap water for 10 minutes. The time when the lotion completely removed was noted.

7. Viscosity:

Viscosity of cream was done by using Ostwald viscometer at a room temperature of 25 °C using L1 Spindle at 100 RPM. According to the results all the three formulations showed adequate viscosity

RESULT AND DISCUSSION:

1. Organoleptic character:

Herbal face cream was evaluated for organoleptic parameters showed in the table . the colour of prepared formulation was white. The odour of prepared formulation was pleasant. And good acceptable which is desirable to cosmetic formulations.

Table no 3: Organoleptic character

Sr.no	Parameter	Observations
1.	Colour	White
2.	Odour	Pleasant
3.	Texture	Smooth
4.	State	Semi-Solid

2. pH determination:

Table no 4: pH determination

Sr.No	Formulation	pH
1.	A	6.12
2.	B	6.41
3.	C	6.47
4.	D	6.35
5.	E	6.65

3. Determination of spreadability:

Table no 5: Determination of spreadability

Sr.No	Formulation	Time (sec)	Spreadability (gm*cm/sec)
1.	A	11	22.9

2.	B	14	15
3.	C	8	32.7
4.	D	18	20
5.	E	20	25

4. Irritancy test:

Table no 6: Irritancy test

Sr.No	Formulation	Irritancy effect	Erythema	Edema
1.	A	No	No	No
2.	B	No	No	No
3.	C	No	No	No
4.	D	No	No	No
5.	E	No	No	No

5. Viscosity:

Table no 7: viscosity test

Sr.No	viscosity
1.	4100
2.	4100
3.	4100

RESULT:

All the three formulations A, B, and C Showed good appearance, PH, Determination of Spreadability. Also, the Formulations A, B, and C showed no redness, Erythema and irritation during irritancy study and They were easily washable .

CONCLUSION:

The present work focus on the potential of herbal extracts from cosmetic purposes. The uses of cosmetic have been increased in many folds in personal care system. The Use of bioactive ingredient in cosmetic influence biological functions of skins and Provide nutrients necessary for the healthy skin. There are numerous herbs available naturally having different uses in cosmetic preparations for skincare as antioxidants. The present study revealed that herbal cosmetic are very safe and does not produce any toxic and adverse reactions compare to marketed cosmetics products. Herbal cream we will avoid skin problems. By using Aloe Vera gel, Coconut oil and Rose water the cream showed a multipurpose effect and all these herbal ingredients showed significant different activities. Based on results and discussion, the formulations F1, F2 and F3 were stable at room temperature and can be safely used on the skin.

Future Scope

Formulations gain market value in accordance with market analysis and environmental factors. By using a moisturizing cream, you may give your skin a softer, younger-looking appearance by making it more water-rich and less prone to evaporate. The nsecret omponent in moisturizers is thickeners which help to keep the skin hydrated. Only a few applications for moisturizing creams include skin care, tissue healing, anti-aging, and other functions. Worldwide concerns over environmental pollution- related skin illnesses and other health-related problems have raised demand for moisturizing creams. The benefits of the all- natural, multifunctional goods are increasing demand for them. Customer acknowledging the advantage. This is necessary for future generations.

According to market data and environmental conditions, formulations increase in value on the market. You can give your skin a softer, younger-looking appearance by applying a moisturising lotion to make it more water-rich and less likely to evaporate. Thickeners, which keep the skin moisturised, are the hidden ingredient in moisturisers. Skin care, tissue repair, anti-aging, and other uses for moisturising creams are among their limited uses. The demand for moisturising creams has increased due to global concerns over environmental

pollution-related skin diseases and other health-related issues. Demand for the all-natural, multipurpose products is rising as a result of their advantages. Customer recognising the benefit. Future generations will need this.

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