

FORMULATION AND EVALUATION OF HERBAL MOISTURIZING CREAM

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ABSTRACT

Marketed (Synthetic) available cold cream contains artificial ingredients that are bad for the skin, some negative effects.

Because consumers are now aware of the negative effects that synthetic products can have on their skin, hair, and eyes, they choose herbal products over synthetic ones.

The adverse effects of herbal products are nominal so herbal products over synthetic ones.

Herbal moisturizer cream is belonging to the cosmetic preparation using herbs and purpose of the skin products are prepared to eliminate excess oil, dirt, acne, and from the skin.

The main aim of the present study is to terminate and evaluate poly herbal moisturizer cream by using ingredient from the natural sources.

The herbs used in the process of the preparation moisturizer cream are Shata Dhatu Ghita (ghee), Neem gel (Azadirach indica), Aloe vera (Alne barbed, Butterfly pea flower (clitoral ternate).

The formulations were evaluated for physical appearance, pH, Irritancy test, was ability, Homogeneity, types of smears, texture, removal test, stability test, Spread ability, Dilution test, sensitivity test.

Stability studies were conducted for 1-2 months for the prepared moisturizer cream shows slight changes in their evaluation tests.

The use of herbs in the production of cosmetic products has significantly increased in the field of personal care in recent years in the system and the demand for herbal cosmetics is high.

Herbal products in cosmetics or medicinal plants. cosmetics can also be called products of botanical origin in cosmetics.

Cosmetics are substances that they are applied to the human body for purification, beautification, attractiveness and change appearance without harming body structure or function. Herbal cosmetics can be grouped into the following main categories.

- To improve the appearance of the facial skin.
- For hair growth and maintenance.
- For skin care, especially for teenagers (acne, pimples, skin care). Shampoos, soaps, powder and perfumes, etc.

➤ INTRODUCTION: -

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3. For skin care, especially for teenagers (acne, pimples, skin care)
4. Shampoos, soaps, powder and perfumes, etc.
5. Various products. Among the categories mentioned above, skin care will dominate cosmetic demand in the coming years especially for professional products used for cosmetic facial implants. Cosmetics like creams, gels and colognes are used daily by women and men.

Creams act as a cleanser to the face in many conditions. The purpose of moisturizing care is to maintain the integrity of the skin and well-being, providing a person with a healthy appearance.

• **Moisturizer:**

Moisturizer is a cosmetic product used to protect, moisturize and lubricate the skin and moisturizer is a liquid used to soften the skin, especially for naturally dry skin. They increase the water content of the skin, reducing evaporation.

Humidifiers are designed to give or restore hydration. There are different types of humidifiers on the market. Most moisturizers available use synthetic adhesives, emulsifiers, perfumes, pigments, surfactants and thickeners; base. The needs to replace the toxic synthetic substance with the use of natural herbs is widespread.

➤ MECHANISM OF ACTION: -

Water regularly evaporates from the deep skin layers of the human body, which is a well-known phenomenon. such as trans epidermal water loss.

Human skin naturally maintains a dry, easily removable surface that protects against viruses, debris or damage controls its water content preventing drying and brittleness inflexible the ability of corneocytes to retain moisture is determined by the lipid bilayer present between them.

Humidifiers change the evaporation of water and the active ingredients fall into two categories: occlusive and moisturizing agents.

- Occlusions form a layer on the surface of the skin that prevents moisture from escaping. More the more occlusive the composition, the stronger the effect.

Creams are more occlusive than aqueous creams that are more occlusive than lotions. Water loss through the skin is usually around 4-8g/(m²-h). With regular use, petroleum jelly can minimize this loss by 50-75% over several hours.

The human body naturally produces oils that moisturize during the same process.

- Humectants absorb moisture. If the humidity is above 70%, they can absorb this water air and moisten the skin, but more often they absorb water from the dermis into the skin epidermis, dries the skin.

Water is a common ingredient in moisturizers, and it acts as a short humidifier and channel for absorption and evaporation of some ingredients.

Humidifier Both women and men use cosmetic products such as creams, gels and colognes every day. Lubricants work a facial cleanser for many conditions.

Recently, anti-aging creams have been produced which can maintain a younger appearance for several years.

The best cleaning products are cleaning cream, soap and water Cosmetic creams act as skin nutrients for hard, dry and cracked skin.

Mainly lubricates, softens and removes unwanted dirt from the skin. Some popular degreasers used include petroleum jelly and lanolin.

Dry creams are used in the production of soap and gelatin, which is used as a base for the skin. The appearance and function of the skin is maintained by an important balance of water content cortex and skin surface lipids. The skin represents the most superficial layer of the body.

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➤ **ADVANTAGE: -**

- The main advantage of Herbal Moisturizer is that it enhances the skin dries without any said effects.
- It reduces the further chances of skin problems.
- Less greasy compared to other ointments.
- Moisturizing helps your skin stay young.
- With small quantity they are very effective as compare to synthetic cosmetic.
- Moisturizing can reduce the appearance of other Blemishes.
- Soothe sensitive skin Slow the signs of Aging.
- Help fight Acne.

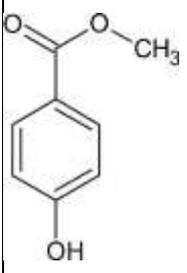
➤ **DISADVANTAGE: -**

- Herbal Drugs have slower effects as compare to allopathic dosage form it required long term therapy.
 - Most of herbal drugs are not easily available.
 - They are difficult to hide taste and Oduor.
 - Less stable as compare to ointments.
 - Over -Moisturization
 - Allergens
 - Fire risk
 - Stability is not as good as ointments.
 - They are Less Hydrophobic than other semisolid Preparation so risk of contamination is high than the others.
- Skin Irritation of contact dermatitis may occur due to the drug and / Excipients.

Table 1: Role of ingredients

Sl. No	Ingredients	Role
1	<p>Shata dhauta ghrita (ghee)</p> 	<p>Anti-inflammatory, Improved Skin Barrier, Enhanced Absorption and provides Soothing and Cooling effect.</p>
2	<p>Butterfly pea flowers</p> 	<p>Antioxidant Protection, enhance skin hydration and help maintain moisture levels</p>
3	<p>Aloe vera gel</p> 	<p>It promotes skin repair and regeneration, supporting the healing process of minor cuts or abrasions</p>
4	<p>Neem gel</p> 	<p>Antibacterial and antifungal properties, It helps and protects the skin against impurities and environmental pathogens that could lead to acne or infections.</p>
5		<p>Emulsifying agent, stabilizer, gives thickness to cream</p>

	<p>Beeswax</p>	
6	<p>Benzic acid</p>	<p>It helps to prevent the growth of bacteria, yeast, and molds, ensuring that the cream remains safe and uncontaminated over time.</p>
7	<p>Ascorbic acid</p>	<p>Antioxidant, brightens skin and helps fade hyperpigmentation</p>
8	<p>Cetostearyl alcohol</p>	<p>Emollient</p>
9	<p>Sodium phosphate</p>	<p>Helps regulate the pH level of moisturizing creams and other skincare products</p>

10	<p>Methyl paraben</p> 	Preservative
11	<p>Rose oil</p> 	Fragrance

➤ **SIDE EFFECT OF MOISTURIZERS: -**

- Most emollients can be used safely and effectively with no side effects. However, burning, stinging, redness, or irritation may occur.

If any of these effects last or get worse, tell your doctor or pharmacist promptly.

- If your doctor has prescribed this medication, remember that your doctor has judged that the benefit to you is greater than the risk of side effects.

Many people using this medication do not have serious side effects.

- Tell your doctor right away if you have any serious side effects, including.

unusual changes in the skin (such as turning white/soft/soggy from too much wetness), signs of skin infection

- A very serious allergic reaction to this drug is rare. However, get medical help right away if you notice any symptoms of a serious allergic reaction, including: rash, itching/swelling.



Research Through Innovation

Figure :- 01 Moisturizer Cream.

Material and methods

The Herbs including Aloe vera, Neem, Megara, are collected from the areas of the college and Passionflower are collected from garden of my home. Methyl paraben, bees wax, powder borax and coconut oil are collected from pharmaceutical lab.

1) Aloe vera:

Used for centuries in medicine, cosmetics, health, and skin care.

It also goes by the name "miracle plant." These days, dermatologists utilize aloe vera for a variety of purposes, including treating acne, achieving glowing skin, moisturizing the skin, and more.



Figure 02:- Aloe vera Synonyms - Aloe, Musab bar, Kumari.

Family —Liliaceae.

Biological source

aloes are dried juice obtained by transversely cut Leaves of various species of. Aloe barbadense Miller. Aloe perry Baker Aloe spicata Baker and Aloe Africana Miller.

Chemical constituents: - Anthracene glycosides, Barbaloin, Is barbaloin, aloe-emodin and aloes one. Resins Also contains Aloetic acid, homoantagonism etc.

2) Jasmine: -

Jasminum is a small shrub or vine growing up to 0.5 to 3 m (1.6 to 9.8 ft) in height. It is a fragrant and ornamental flowering plant.

Arabian jasmine extracts are an effective cure for many skin troubles and acne-prone, dry, and itchy skin.



Figure 03:-Jasmine

Synonyms: -*Jasminum amboynas*. **Biological source:** it is a genus of shrubs and vines in the olive family of Oleaceae.

Family: -Oleaceae.

3) **Neem:** -

The utilization of neem as a medicinal plant is quite prevalent. Neem leaves and their derivatives are commonly employed due to their antibacterial.

Active constituents such as nimbi din, imboiled, and azadirachtin, known for their medicinal efficacy, are present in neem and can be beneficial in addressing various skin and hair problems.

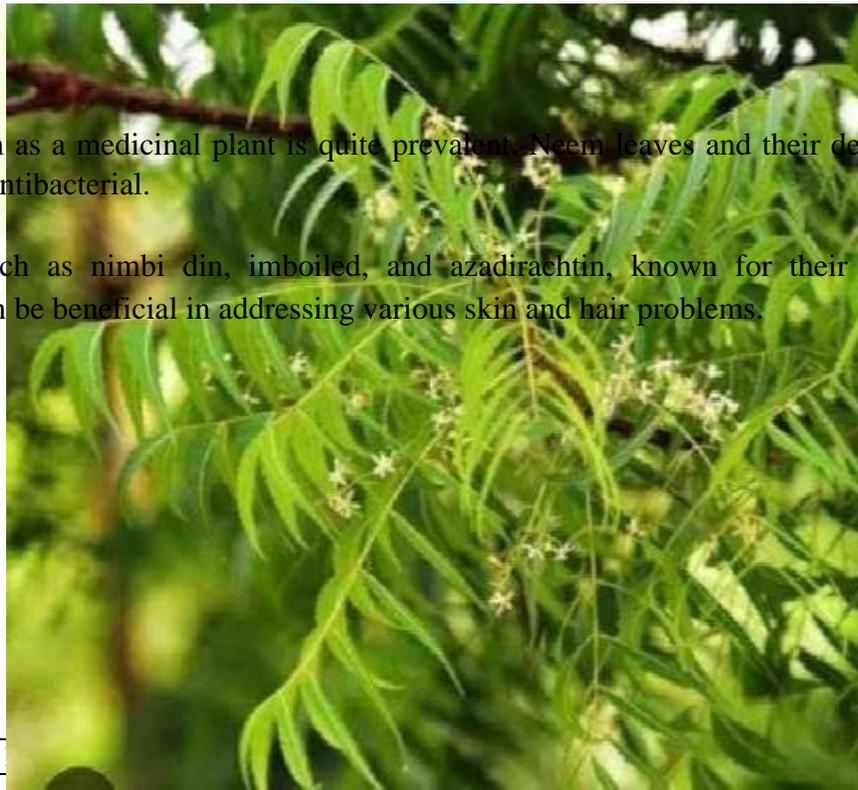


Figure 04:- Neem

Synonyms: —Neem, Nitrene, Margosa.

Family: —Meliaceous.

Biological source: —It is consisting of Leaves and other aerial parts Of Azadirachtolides.

Chemical constituents: nimidane imidoyl, Salinan, Quercetin etc.

Uses: —anti fungal, anti-bacterial, anti-inflammatory, antiarthritic, antipyretic. Hypoglycemic ant gastric Ulcer, and antitumor activities, etc.

4) Passion flower: -

Passiflora comes from Latin word "Passio" that was first time discovered by Spanish discoverers in 1529 and was described as a symbol.

"Passio" that was first time discovered by Spanish discoverers in 1529 and was described as a symbol for "Passion of Christ".

Passion flower (*Passiflora incarnata*) is a climbing vine with yellow and purple fruit.

These gorgeous blooms are three to five inches wide with a wavy fringe over five petals. The plant tallness is about 1.5 feet.





Figure 05:- Passion Flower With Fruit

Synonyms: -Passion fruit, grenadilla, grenadine, passionflower, purple granadilla, purple passion fruit.

Family: -Passifloraceae.

Anti-inflammatory, antioxidant, and therapeutic properties.

Biological source: -Passion is also known as passion fruit, or purple passion fruit native.

Native to southern Brazil Paraguay to northern Argentina.

Chemical constituents: -

It contains polyphenols like Hesperidin, Trans-citric acid, it also contains amino acid, and carotenoids.

Uses: passionflowers having antianxiety property, due to its calming effects.

passionflower is also used to improve sleep quality, they also have antioxidants and anti-inflammatory properties.

And protect skin cells from the aging effects of the sun.

The fruits hydrates and nourishes the skin. it helps improving skin to This remarkable herb rich.

EXTRACTION OF JASMINE:-

Separate the petals from the rest of the flower as only the petals are used in the extraction process.

Use a Clevenger-type apparatus or a similar hydro distillation set up. fill the distillation flask with water and add the jasmine petals. the typical flower-to- water ratio is between 1 to 5 Heat the water to generate steam at temperatures 110°C . Allow the steam to pass through the jasmine petals

which will carry the volatile oils from the petals. the steam and volatile oils are then cooled in a condenser, allowing them to condense into a liquid phase. Collect the condensed liquid in a separator. the oil, being less dense than water, will float on top.

After typically 4 hours of extraction, you can collect the essential oil.



Figure:-01

Evaluation Test

An evaluation test is a method of measuring a person knowledge, skill or a product quality to judge its effectiveness.

we were preparing three batches of formulation F 1, F2, F3 evaluation test are performed for all of herbal cream was following.

Physical Evaluation Formulated herbal creams was further Evaluated by using the following. Physical parameter physical parameter color, odors, consistency, and state of the formulation. To help you evaluate your practice you can obtain feedback and data.

- a) **Color:** The color of the cream was observed by visual examination.
 - b) **Oduor:** The odors of cream were found to be characteristics.
 - c) **State:** The state was cream was examined visually.
 - d) **consistency;** The formulation was examined by rubbing cream on hand manually. The cream having smooth.
- $^{\circ}$ C and at room temperature.
 - It was checked for any visual disturbances and phase separation from time to time over a period of 1 month.
 -
 - **Washability test:** -Wash ability test was carried out by applying a small amount of cream on the hand and then washing it with help of tap water.
 - **PH Test:** -Take 0.5 g of cream and dispersed it in 50 ml distilled water. Then Check it's by using digital pH meter.
 - **Spread ability Test:** - The spread ability test show that the formulated cream has good spread ability or not.
 - The less time take for the separation of both the slide better the spread ability.
 - **Phase Separation.** -Prepared cream is kept in tightly closed container at Room temperature away from sunlight and observed for 24 hours for phase.
 - **stability test:** Stability testing was carried out for batch 3 i., e F3 beekeeping formulation at 45. The various quality control parameters Like Physical Appearance/Visual Inspection, PH.
 - Check if asystem can maintain performance and functionally a period of specific number of operation.

The Formulation prepared was evaluated for the Color, Oduor and Consistency.

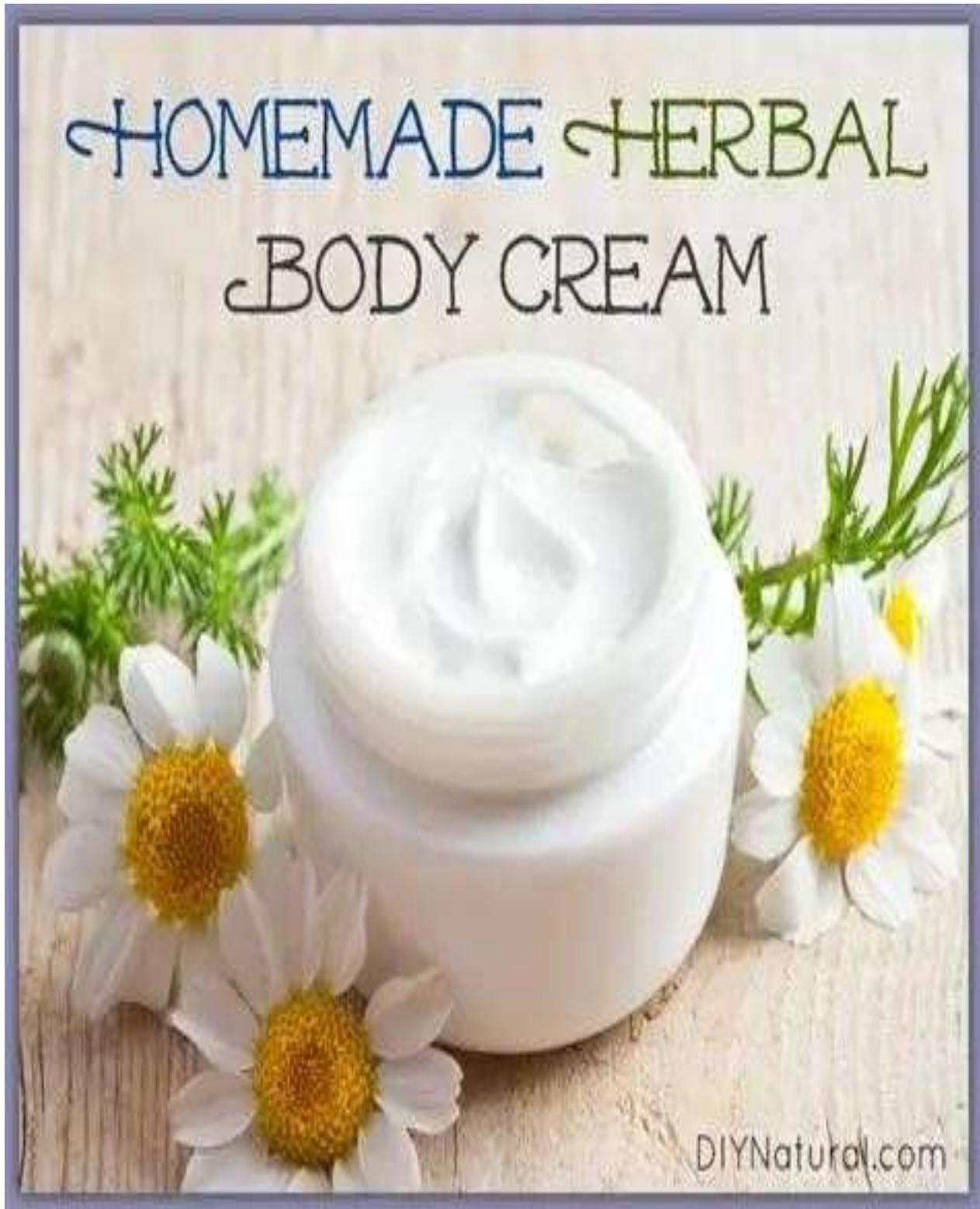
The Color of the cream was observed by visual examination which is faint green in Color. The Oduor of cream was found to be pleasant.

The State was cream was examined visually. The cream was semisolid in nature.

The formulation was examined by rubbing cream on hand manually.

Sr.no	Parameters			
1)	Color	green	Faint Reen	Faint Reen
2)	Oduor	Pleasant	Pleasant	Pleasant
3)	consistency	oil	Smooth	Smooth
4)	State	Semisolid	Semisolid	Semisolid





Result and discussion: -

The various quality control parameters Like Physical Appearance/Visual Inspection, PH,

Test. All parameter gives favorable result. The result obtained on present study shows that the active ingredients of these drugs when incorporated in Herbal cream gives more stable products with good aesthetic.

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