



Formulation and Evaluation of Herbal Moisturizing Cream

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Abstract :

Herbal cosmetics are preparations used to improve a person's appearance. The main goal of our work is to develop a herbal cream with multi-purpose effects, such as a moisturizer that reduces acne and skin irritation. An herb is a plant or part of a plant valued for its aromatic medicinal properties. Moisturizer is a semi-solid formulation used to reduce the possibility of skin problems and fight wrinkles. In our production, we used herbal ingredients such as Aloe Vera, Neem, Tulsi, Cucumber. The cream was made with beeswax, liquid paraffin, borax, methylparaben, distilled water, rose oil, dimethyl sulfoxide, neem, tulsi and cucumber extracts. Neem and Tulsi are known for their medicinal value in traditional Indian system of medicine.

Keywords : Herbal Moisturiser , Medicinal Plants , Hydration

Introduction : [1-6]

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.

1. To improve the appearance of the facial skin.
2. For hair growth and maintenance.
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 increases 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 need to replace the toxic synthetic substance with the use of natural herbs is widespread.

The ideal characteristics of a Moisturizer :

- It should not be irritating and poisonous.
- It should be non-inflammatory and non-allergenic.

- It should be easy to apply on the skin and give a pleasant feeling during application. It should be able to leave the skin soft rather than sticky.
- It should reduce dryness and improve the dull appearance of skin.

Mechanism of action :

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

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Advantages:

- The main advantage of Herbal Moisturizer is that it enhances the skin dryness without any side effects .
- It reduce the further chances of skin problems.
- Less greasy compared to other ointments .
- Moisturizing help 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.
- Protection from skin.

Disadvantages :

- 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 Odour .
- Less stable as compare to ointments .

- Over -Moiturization
- 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 Irritarion of contact dermatitis may occur due to the drug and / Exipients.

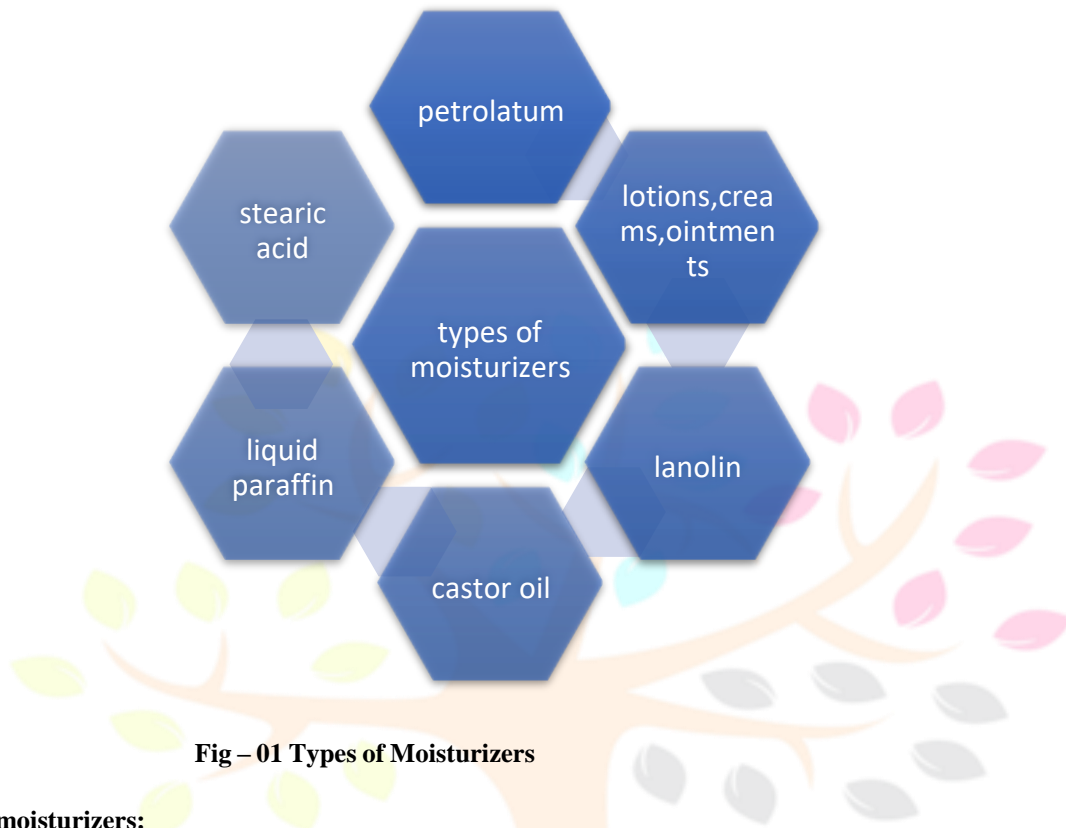


Fig – 01 Types of Moisturizers

Sides effects 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 .

Uses of moisturizers: ^[7]

- Moisturizers are used for certain skin conditions such as psoriasis, ichthyosis, xerosis and itching in atopic dermatitis. In most cases, these are the bases or tools of local medicines, as in Whitfield's Ointment. They are often combined with moisturizing agents such as salicylic acid and urea .
- Moisturizers are also widely used in sunscreens, antiperspirants, skin cleansers, shaving creams, after shave and hair tonics.
- Moisturizers are used in disposable wipes to prevent skin dryness and wipe dermatitis

History Of Moisturizer:^[8-15]

Although cosmetics have certainly been around for much longer, the first evidence of cosmetics dates back to about 6,000 years ago in Egypt. Among the Egyptians, aloe, myrrh and frankincense are common. The ancient Egyptians believed that these products, especially frankincense, have anti-aging properties and used them as an anti-wrinkle cream . Jain et al. also reported that men and women in Egypt

used scented oils and salves to clean and smooth their skin and cover body odor as early as 10,000 BC. Hygiene and well-being in Egypt were inextricably linked to cosmetics. Oils and salves were used to protect against the hot sun and dry wind Greeks and Romans imported and used Egyptian customs. Women commonly used crocodile excrement, white lead and chalk to improve the appearance of their skin. They also made face masks from starch and eggs, which are supposed to tighten the skin, reduce wrinkles and keep the face youthful. The term "cosmetics" comes from the Greek word "kosmetos" which means "ornament" or "ornament". At night, creams containing cypress, cedar and frankincense resin were applied. Lead acetate (white lead) and cinnabar were used to treat the skin (Hg). After the conquest of Carthage, figs (*Ficus carica* L.) became very common in Rome. They were combined with banana (*Musa* L.), oats (*Avena* L.) and rose water as a face cream. Galen is thought to have invented Frigus crepitus, the forerunner of today's cold cream. It is used as a skin protection containing almond oil, rose water and beeswax. In China, gels and ointments were used for skin whitening, especially during the Shang Dynasty (1760 AD). New fixing methods and techniques were developed and adopted as skin care reached Europe and the Middle East. The first antiviral cream was made from rose oil and water diluted with beeswax. Rupa was treated with mineral alum and dermatitis with olive lead. Creams, also known as topical formulas, have been a staple of cosmetic products since ancient civilizations. Creams are cosmetic or pharmaceutical products based on the techniques used. Non-medicated creams are widely used for a number of dermatological diseases. In ancient times salves were simply made by combining two or more ingredients with water as a solvent. Albert Kligman coined the term "cosmetics" (a combination of "cosmetics" and "drugs") in 1984 to provide a technical description of products that have both cosmetic and therapeutic value. As technology advances, new approaches are used to make the cream; therefore, the cosmetics industry is very different today very different from what was previously described. Surprisingly, there is no consensus on what constitutes a moisturizer, even though it has a deep history. The word is a neologism created by Madison Avenue advertisers to promote the simple notion that they hydrate the skin. The tendency to add oily substances to the skin is almost instinctive and can be traced back to the beginning of time. Natural substances such as honey, oils or lipids and fibers have been used as a topical treatment for wound healing since the ancient Egyptians. Moisturizers were once thought to prevent transepidermal water loss (TEWL) by occlusion, prevent dryness and maintain skin smoothness and elasticity.

Topical Drug Delivery:

In recent decades, drugs have been administered to the human body in many different ways, including oral, sublingual, rectal, parenteral, topical, inhalation, etc. to treat diseases. Topical administration means applying a drug-containing formulation to the skin to treat the skin symptoms of a disorder or common disease such as psoriasis that is targeted which includes the pharmacological action or activity of the drug on the surface of the skin or within the skin. Topical administration is dominated by semi-solid preparations in all their varieties, but foams, sprays, Medicinal powders, solutions and even medicated toothpastes can also be used.

Advantages of topical Drug Delivery: ^[17]

- Convenient and easy to use.
- Inhibit first-pass metabolism.
- An alternative to oral administration.
- Lower risk of gastrointestinal problems.
- Less risk of abuse

Basic structure of human skin: ^[18]

The skin is the largest organ of the body, occupying 16% of the body mass, with an area of 1.8 m². The skin has three structural layers: epidermis, dermis and subcutaneous tissue. hair, nails, sebaceous glands, sweat glands and apocrine glands are considered derivatives of the skin. The epidermis is the outer a layer that acts as a physical and chemical barrier between the internal body and the external environment; The dermis is the deeper layer that provides structural support to the skin, it is loose underneath connective tissue layer, subcutaneous or hypodermis, which is an important fat reserve.

Epidermis:

The epidermis is the most superficial layer of the skin, consisting of stratified keratinized squamous epithelium. which varies in thickness throughout the body. It is thickest on the palms and soles of the feet. The epidermis lacks blood vessels and nerve endings,

but its deeper layers are absorbed in the interstitial fluid. dermis, which supplies oxygen and nutrients and drains away as lymph nodes. Movement from below layer above **there are four layers of the epidermis:**

- **Basal layer (basal or germinativum cell layer)**
- **Spinal layer (spiny cell layer)**
- **Corneal layer (corneal layer) In the dermis:**

The dermis is tough and flexible. It consists of connective tissue and the matrix contains collagen fibers braided with elastic fibers. A tear in the elastic fibers occurs when the skin is stretched too far, resulting in permanent strains or strains that can occur with pregnancy and obesity. Collagen fibers bind water and give the skin its tensile strength, but when this ability weakens with age, wrinkles appear. fibroblasts, Macrophages and mast cells are the main cells found Dermis Beneath this deepest layer is areolar tissue and varying amounts of adipose tissue.

Subcutaneous Gland:^[19]

They consist of secretory epithelial cells that originate from the same tissue as the hair follicle. They secrete an oily substance, sebum, enters the hair follicle and is found in all parts of the body except in the palms of the hands and soles of the feet. They most often appear on the scalp, face, armpits and in the groin. In areas of transition from one type of superficial epithelium to another, such as the lips, eyelids, nipples, Labia and penis, they have sebaceous glands independent of hair follicles that secrete sebum Stratum Granulosum (Granular Cell Layer).

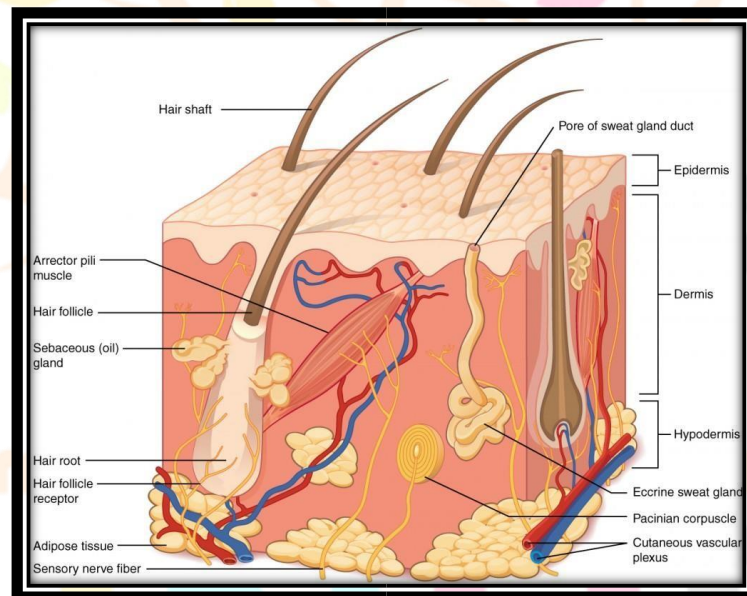


Fig 02. CROSS SECTION OF SKIN

FUNCTION OF SKIN:

- 1.Prevents moisture evaporation.
- 2.Provides a protective barrier against mechanical,thermal and physical damage and hazardous damage subjects.
- 3.Protection against infection and chemicals protections against ultraviolet radiation.
- 4.To maintain regular body temperature.
- 5.To recive stimuli from outside.
- 6.Absorbution and excretion.
- 7.Food and water conservation.

Skin diseases:**a) Vitiligo:**

Vitiligo is a condition where areas of the skin lose their normal pigmentation and thus turn white. It is common and it affects around one percent of the world's population. The pigment that gives the skin its normal color is melanin, produced by cells known as melanocytes.

b) scabies:

Scabies is a common and very itchy skin condition caused by human scabies. It can affect anyone age, but it most often occurs in young and old people. The mites that cause scabies are tiny, smaller parasites like a pinhead. The itchy rash is a mixture of scratches and red, scaly areas; later it can be done infection and small spots of pus appear.

c) Rosacea:

Rosacea is a common rash that occurs in the center of the face, usually in middle-aged people. Emon washes off easily, followed by persistent redness on cheeks, chin, forehead and nose. The cause of rosacea is not fully understood, but many believe that the fault lies in the blood vessels of the facial skin, which expands too easily.

d) psoriasis:

Psoriasis is a common skin problem that affects about 2% of the population. It occurs equally in men and women women, regardless of age and tend to come and go unpredictably. It is non-sticky and does not scar the skin. The skin is a complex organ made up of many different layers.

e) Melanoma:

Malignant melanoma of the skin is cancer of the pigment cells of the skin. If it is treated in time, there is a prospect is usually good. It is not contagious. The word "melanoma" comes from the Greek word "melas" meaning black Melanin is the dark pigment that gives the skin its natural color.

f) Eczema (atopic eczema):

Atopic eczema is an inflammatory skin disease. Atopic is the term used to describe such diseases such as eczema, asthma, seasonal rhinitis and hay fever, which often have a genetic basis. Eczema is the term used describe changes in the top layer of the skin that include redness, blisters, oozing, scaling, thickening and sometimes pigmentation.

CREAM: [20-22]

Ointments are topical preparations that can be applied to the skin. Ointments are defined as "viscous liquid" or semisolid emulsions, which are either oil-in-water or water-in-oil dosage forms, with different compositions oil and water. Creams are used for cosmetic purposes, such as cleaning, beautifying, improving appearance, protecting or for therapeutic action. These topical preparations are used to achieve a local effect drug into the skin or submucous layer. These products are intended for use topically, to better apply the drug to the skin in a sitespecific manner for the treatment of skin diseases. The creams are considered pharmaceutical products because they are manufactured using technologies developed in 2010 pharmaceutical industry; Non-medicated and medicated creams are widely used to treat various skin conditions diseases or dermatoses. Creams can be ayurvedic, herbal or allopathic which are used by humans for the needs of skin diseases. They contain one or more medicinal substances in dissolved or dispersed form proper basis. Creams can be classified as o/w or w/o type emulsions based on phases. Deadline "cream" has traditionally been used for a semi-solid substance prepared either as water in oil (eg cold cream) or as oil. in water (eg disappearing cream).

SKIN TYPES:[23-25]

They are divided into two types:

- **Oil in water (O/W):** creams consisting of small oil droplets dispersed in a continuous phase, and an emulsion in which the oil is dispersed in the form of droplets through the water phase is called oil in- water (O/W) emulsion.
- **Water in Oil (W/O):** Creams consisting of small water droplets dispersed in a continuous oil a step If the dispersed phase is water and the dispersion medium is oil, the emulsion is water-in- oil (W/O) type.

CLASSIFICATION OF CREAM: [25-29]

Lubricants according to function, properties and type of emulsion:

1. Foundation (oil/water emulsion):
 - a) fading creams.
 - b) Foundation creams.

2. Cleansing cream, cleansing milk, cleansing cream (without emulsion)
3. Winter cream (without emulsion):
 - a) Cold cream or moisturizing creams.
4. General creams and general creams.
5. Night cream and massage creams.
6. Skin protection cream.
7. Hand and body creams.

ACTIVE INGREDIENTS USED IN SKIN CREAMS: ^[30-37]

The following raw materials are used in the manufacture of skin creams:

1. Water: It is the most important and widely used raw material in all cream formulations. These are cheapest and easily available. Skin creams use water as a solvent to dissolve other ingredients. Ointments production uses water that does not contain toxins, pollutants, microbes, etc. Water can also form emulsions, it depends on how much water is used in formulation and is sometimes called an oil-in-water emulsion and sometimes water-in-oil emulsions depending on the amounts of oil phase and water phase used.

2. Oil, fats and waxes: Oil, fats and waxes and their derivatives form a significant part of ointments. Waxes act as emulsifiers, fats as thickeners and oils as aromas, preservative etc. according to its function. Oil can be of two types mineral and glyceride.

3. Mineral oil: Mineral oil consists of hydrocarbons derived from petroleum. Mineral oil is clear, odorless and highly refined oil widely used in cosmetics. Mineral oil rarely causes allergies reactions and it cannot solidify or block skin pores. It is light and affordable helps reduce water loss from the body and keeps the body hydrated. There are several mineral oils used in the production of cream.

Ex. Light liquid paraffin, Heavy liquid paraffin, Liquid oil

4. Glyceride oil: Glyceride oil is mostly vegetable oils. Examples of glyceride oils include almond oil, peanut oil, castor oil, coconut oil, olive oil etc.

5. vegetable oil: Form a protective film on the surface of the skin and slow down the evaporation of water, which helps to preserve skin fullness. Vegetable oils can also be used to increase the thickness of the lipid or oil portion in cream or personal care products. E.g. almond oil, germ oil, avocado oil, sunflower oil, etc.

6. waxes: Beeswax, carnauba wax, ceresin, spermacet, etc. used in the preparation of the cream. Waxes are used in cosmetics because they help keep the emulsion separate from oil and liquid components. These waxes also increase the thickness of the lipid layer and stick to the surface of the skin.

7. Fats: Various fats are used in the preparation of ointments. These materials can be purchased from animals, plants or minerals. Glyceride oils and fats can be of animal or vegetable origin. They consist of combinations of higher fatty acids and glycerin. During saponification, they form soap or fat acid and glycerin depending on the method used. The most common of these fatty acids are lauric, myristic, palmitic, stearic, saturated group. Oleic acid is a liquid and the most popular unsaturated fatty acid. In other cosmetics, the most commonly used oils are olive oil, almond oil and sea buckthorn oil. oil, peanut oil, cocoa butter, lamb fat, bacon and beef stearin.

8. Lanolin: It is derived from sheep wool fat. There are two types of lanolin - among them is an aqueous solution 25-30% water. Anhydrous lanolin has a temperature of 38°C to 42°C and has a slight odor. These ingredients act as a lubricant on the surface of the skin, giving the skin a soft and smooth appearance. Lanolin helps form an emulsion and mixes well with other substances used in cosmetic and personal care products.

9. Colors: Before the development of modern technology, colors mainly came from natural substances of natural origin like turmeric, saffron, indigo etc. After the 19th century, dyes began to be made in the laboratory and found to be much more stable and of greater color intensity. They might as well be produced without using plants harvested from the wild.

10. Emollients: Emollients, also called moisturizers, are products that help soften the skin or to treat dry skin. Most emollients are forms of oil or fat, such as mineral oil, squalene and lanolin. They work by increasing the skin's ability to bind water, providing the skin with a layer of oil to prevent water loss and lubricate the skin.

11. Humectants: They are essential multipurpose ingredients found in most skin care products.

Humectants are hygroscopic organic compounds. These are materials that can absorb or retain

moisture. These it has many benefits like moisturizing, exfoliating etc. Examples of humectants include glycerin, Hydroxyethyl urea, betaine, sodium PCA, sodium L-lactate, etc.

12.Perfumes: A perfume is a substance that imparts a smell or order, including a sweet and pleasant smell. Examples the natural perfumes used in the lotion are white flowers,pink dream , orange blossom .

13.vitamins: Vitamins play an important role in keeping the whole body in order and in the physiological functioning of the body skin Vitamins A, B, C and E etc are usually used to make cream.

14.Preservatives: The use of preservatives in cosmetics is necessary to prevent changes caused by microorganisms contamination during manufacture, transport, storage and consumer use. Antioxidants can also be used to protect against changes caused by exposure to oxygen. Using few synthetic preservatives the concentration preserves the products effectively.

15.Moisturizing cream: Moisturizer is a cosmetic product used for protection, moisturizing and lubrication skin These functions are usually performed by sebum produced by healthy skin. a word "to soften" is derived from the Latin verb mollire, to soften. The human body constantly has water evaporates from the deep layers of the skin through transepidermal water loss (TEWL). By regulating its water content, human skin maintains a naturally dry, easy-to-peel surface prevents pathogens, dirt or damage, protecting itself from drying out and changing. brittle and stiff. The ability to retain moisture depends on the lipid bilayer between the corneocytes. Humidifiers change the rate at which water evaporates, and the active ingredients in humidifiers fall into one of them. into two categories: occlusive and Humectants.

1. Occlusives to form a coating on the surface of the skin, preventing moisture from escaping. The more occlusive the greater the effect. Creams are more occlusive than water-based creams that are

more occlusive than lotion. Water loss through the skin is usually about 4-8 g/(m²h). the floor Vaseline applied to normal skin can reduce this loss by 50-75% over several hours. Oils, of course produced by the human body moisturizes through the same mechanism.

2. Humectants

Absorb water. They are able to absorb this water from the air and moisturize the skin when it is wet more than 70%, but more often they absorb water from the dermis into the epidermis, which they do skin dryer A 2001 study published in the journal Skin Research and Technology found no link moisturizing and moisturizing effect. In practical applications, they are almost always used combined with occlusions. Humidifiers often contain water to act as a temporary moisturizer and as a means of absorbing certain components and evaporating the moisturizer.

Excipients use in moisturizing cream:

Sr.No	Common Name	Botanical Name	Family	Chemical Constituents
1	Beal	Aegle Marmelos	Rutaceae	Coumarin, Marmeline, Imperatorin, Aegeline
2	Amla	Phyllanthus Emblica	Euphorbiaceae	Ellagic Acid, Gallic acid, Ascorbic Acid, Phyllembin Tannin, Emblicanin A&B
3	Turmeric	Curcuma Longa	Zingiberaceae	Phenolic Compounds, Terpenoids, Curcuminoids, Diarylpentanoids, Monoterpenes, Sesquiterpenes, Diterpenes, Triterpenoids, Alkaloids, Sterols
4	Neem	Azadirachta indica	Meliaceae	Nimbolinin, Nimbin, Nimbidin, Nimbidol, Triterpenes, Diterpenes.
5	Aloe Vera	Aloe barbadensis miller	Liliaceae	Aloins, Aloesin, Barbaloin, Emodin, Isobarbaloin, Chromone.
6	Tulsi	Ocimum tenuiflorum.	Lamiaceae	Cirsilineol , circimaritin, Isothymusin, Aapigenin, Eugenol, Euginal, Linalool.

7	Papaya	Carica Papaya Linn.	Caricaceae.	Papain, Chymopapain , Cystatin, Alkaloids, Glycosides, Tannins.
8	Sunflower	Helianthus annuus L.	Asteraceae.	Niacin ,Vitamins A,B &C. Minerals, iron, Proteins, Carbohydrates.
9	Cucumber	Cucumis Sativus.	Cucurbitaceae	Water, Protein, Lipids, Carbohydrates.
10	Bees wax	Cera alba	Apidae	Myricyl palmitate, Free cerotic acid, Melissic Acid, Aromatic Cerolin.
11	Rose oil	Rosa centifolia L.	Rosaceae	Geraniol, Citronellol, Farnesol, Nerol.
12	Borax	Sodium borate or Sodium tetraborate	Boron family	Sodium borate, Tincal, Tincar, Hydrated or Anhydrous borate.
13	Liquid Paraffin	Paraffinum Perliquidum	It is group of Alkanes.	Hydrocarbons, Paraffinum liquidum, Liquid Paraffin oil or Russian Mineral Oil.

1) Beal:[38-40]



Fig:03 Beal

Bael is known as one of the most important medicinal herbs in India. More than 100 phytochemicals compounds, namely phenols, flavonoids, alkaloids, cardio- glycosides, saponins, terpenoids, steroids and tannins. These compounds are well known to have biological properties and pharmaceutical activity against various chronic diseases such as cancer and cardiovascular disease gastrointestinal disorder. Antioxidant, anti-ulcer, anti-diabetic, anti-cancer, anti-inflammatory, anti-microbial The effects of the crude extract of this plant have been reported in several animal models. Every part of slow jams such as fruits, stems, bark and leaves has medicinal properties and it is used to treat various eye and skin infections.

Roles:

- Anti-bacterial
- Antifungal
- Anti-inflammatory

2) Amla:[41]**Fig:04 Amla**

Phyllanthus emblica is an important medicinal plant in Indian traditional medicine. The tree is 1-8 meters tall. The leaves are simple and closely spaced next to the branch leaves. The flowers are greenish-yellow in color. The fruit is almost round and hard looking

Roles:

- Anti-ageing
- Hydrates and protect the skin
- Anti-oxidant 3) **Turmeric:[41]**

**Fig: 05 Turmeric**

turmeric and curcumin can help improve skin tone irregularities such as blemishes, redness and unevenness. Some evidence even suggests that topical application of turmeric can help improve the appearance of dark spots and discoloration.

Roles:

- Anti-inflammatory
- Anti-oxidant
- Anti-microbial
- Anti-ageing

4)Neem:[41]**Fig :06 Neem**

Neem trees are commonly found in India, Africa and America. Thanks to its healing properties, it has been used in Ayurvedic medicine for 4000 years. It is a fast growing tree and can reach a height of 15-20 meters. The Sanskrit name of Neem is Arista. The US National Academy of Sciences recognized the importance of the neem tree and published a report in 1992, The Neem Tree for Solving Global Problems.

Leaves, bark and gum are wood products.

Roles:

- Promote wound healing
- Relieves skin Dryness
- Itching and Redness

5)Aloe vera:**Fig: 07 Aloe Vera**

Aloe Vera is a sensitized or very short stem plant that grows to a height of 60-100 centimeters. The leaves are thick and fleshy, grey-green. Aloevera is a species of aloe known primarily for its medicinal properties. Aloe species are common on the continents of Eastern Europe and spread almost everywhere in the world.

Roles:

- Soothes irritated skin
- Removes sign and ageing
- Fight acne and blemishes
- Treat sunburn

6) Tulsi:^[42]**Fig:08 Tulsi**

Tulsi is one of the best-known herbs in the Lamiaceae family, native to the Indian subcontinent and used in Ayurvedic medicine for over 3,000 years. Holy basil is an upright, 30-60 cm tall, branchy, hairy undershrub. The leaves are green or purple. Tulsi plant has many medicinal properties. Tulsi leaves are nervine tonic, nerve tonic and also sharpen the memory **Roles:**

- Natural immunity booster
- Good for skin health
- Fight acne
- Helping anti-aging

7) Papaya:^[42]**Fig: 9 Papaya**

Papaya can be a boon for those with dry skin. Using papaya face cream can make your skin soft and supple. Papaya enzymes can help heal and moisturize dry, scaly skin.

Roles

- It is used to the wrinkle reduction
- It is used to enzyme action
- Remove dead skin cell
- Hydrates dry skin

8) Sunflower:^[42]



Fig: 10 Sunflower

improves skin moisture and provides antioxidant protection. The linoleic acid contained in sunflower oil strengthens the protective layer of the skin. It helps reduce moisture loss from the skin's surface, improving overall hydration.

Roles:

- Helps to improve the protective function of the skin.
- Take care of hydration.
- Open the pores.
- Evens skin tone.
- Antioxidant

9) Cucumber:^[42]



Fig:11 Cucumber

Cucumber is great for dry skin because of its moisturizing effect properties and for oily skin due to its astringent properties. They are also suitable for sensitive or irritated skin. Fresh cucumbers can be used directly on the skin to tighten it. Cucumber extract is anti-inflammatory and soothes the skin. It can also help with dark circles under the eyes and swelling around the eyes. It is rich in minerals such as potassium can help tighten the skin, which can help reduce some marks Aging.

Roles:

- Anti-oxidant
- Soothing and cooling effects.
- Hydration.
- Moisturize the skin cells.

Evaluation Parameters:^[43-46]

- a. **Physical evaluation:** It is mainly used for cream color, smell, texture and stability

- b. Viscosity:** Basically, the purpose of this test is to determine how the cream ingredients work behave in real life. Its main purpose is to estimate power.
- c. Washability:** This method also tests the quality of the cream. Here is our first and foremost add a small amount of lotion that was used on the hands. Then we have to wash with tap water after that.
- d. Irritancy:** the cream was applied to the surface of the back of the left hand for 1 square cm and observed at equal intervals up to 24 hours for irritation, redness and swelling. Did not cause irritation or redness of the skin.
- e. Spreadability:** The lubricity test showed that the prepared cream has good lubricity property
- f. Greasiness:** This test is mostly used to determine whether a cream is greasy or oily in nature. U.S from the results it can be concluded that none of the formulations were greasy.
- g. pH test:** Basically we are talking about how acidic different compounds are. pH (cream)) the range is often between 4 and 7. Either a digital pH meter or pH paper was used for measurement the results of this test.
- h. Phase Separation:** This test is usually checked every 24-30 hours. That's what cream should be for heated to 30-80 °C in a covered container. Keep this mixture away from light.

Conclusion:

Herbs such as tulsi aids to enhance immunity naturally, neem promotes wound healing, and papaya reduces wrinkles and removes dead skin cells. Amla turmeric was found to exhibit antiaging and antioxidant properties. Aloe vera and cucumber extract are excellent moisturizers and increase skin hydration. Because it was created with simple ingredients and methods, the cream is affordable.

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