

**REVIEW ON FORMULATION AND EVALUATION OF MULTIPURPOSE HERBAL  
CREAM**

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Corresponding author Mail ID: [vijaychavan98219@gmail.com](mailto:vijaychavan98219@gmail.com)**ABSTRACT:**

*Herbal cosmetics are products used to improve a person's face. Current research shows that it can be used to treat various skin conditions and has benefits such as moisturizing, nourishing, whitening, etc. It aims to create herbal medicines that can be used for various purposes. There are many ingredients used to make herbs, including aloe vera (aloe vera leaves), basil (tulsi leaves), neem leaves (neem leaves), cucumber peel (Cucumis sativus), and tea (Camelia sinensis) (green tea). The herbal type of cosmetics is designed to protect and improve appearance. Moisturizer is a semi-chemical product that improves skin condition. Herbal medicines have many advantages over perfumed medicines. Most of the creams available in the market today to improve the skin are made from synthetically derived ingredients but they also have some side effects such as high and allergenic. This is a herbal skin cream for skin without flaws. The aim of this study includes the development and evaluation of a herbal moisturizer containing glycerin, rose water, vitamin E capsules and aloe vera gel. Measure the pH, viscosity, oiliness and other properties of the above herbs. Washability, color and uniformity are determined by visual and tactile cues.*

**Keywords:** Data analysis, operational planning, operational testing, evaluation.

**INTRODUCTION:**

Depending on the water/oil ratio, the cream can be miscible with water and easily removed, or it can be thick and solid. The most recommended medication is Medicinal plants that enhance beauty and beauty are increasingly used in cosmetology. Before the development of allopathic medical systems, ancient medical systems evolved over the years to maintain the health of the world. Because both its research and treatment are based on modern biology and chemistry, the latter method quickly gained acceptance among consumers and now dominates the field of treating pain. Cosmetics can be classified according to dosage form (creams, powders, soaps, pills, etc.) and the area on the body or body where they should be used (pharmaceutical makeup for skin, hair, nails, teeth). and mouth etc.) frequently stimulated by various environmental stimuli. Both exogenous and endogenous factors can affect this balance. The use of detergents, hand sanitizers. Disruption of the skin barrier can lead to many skin problems. The most common problem is dehydration, which causes the skin to dry out and causes symptoms such as roughness, flaking, cracking, redness and discomfort, often along with itching and stinging. Moisturizing treatment aims to protect the integrity and health of the skin by giving it a healthy appearance. Although most moisturizers are marketed as natural, safe, organic and herbal, all moisturizers have the same basic moisturizing, absorbent and emollient properties. Most moisturizers on the market use

artificial ingredients, emulsifiers, fragrances, pigments, surfactants and thickeners to create their bases. Essentially, dangerous synthetic drugs need to be replaced by natural ones. [one]

#### REVIEW OF LITERATURE

Ayurveda and Unani are two examples of medical systems in India. Mostly herbal medicines have been used for about three thousand years. The health of most of India's rural population is maintained by the rich tradition of indigenous medicinal herbs found in this medicine. History

[2]many plants were used as medicine. According to texts such as Charaka Samhita and Susruta, more than 700 different plants are used in Ayurvedic medicine. Medicinal plants are plants that contain compounds that can be used to treat diseases or relieve ailments. The rise in the cost of medications used to manage personal health and well-being, as well as the resurgence of bio-research into herbs as a medical aid, has led to interest in them. New drugs are obtained from plants (Lucy and Edgar, 1999).

[3]In addition to other factors such as trust in plants, knowledge of medicinal plants is also increasing (Kala, 2005). Rights to extract and develop drugs and chemotherapy from plants (UNESCO, 1998). According to Cowman (1999) and Adesokanet et al. (2008) state that phytochemicals in plants may have anti-inflammatory, antibacterial and antioxidant properties that contribute to their therapeutic value. The World Health Organization said that the best place for many medicines is herbs. Research is needed to better understand the properties, safety, and effectiveness of this herb (Nascimento et al., 2000.)[4]

#### AIM:

Medical plants in the world are a rich source for the treatment of many diseases. Herbs often combine many different types of plants. Medicines can treat the disease better due to their additional benefits. Now, by combining knowledge and experience in the field of herbal medicine with technical methods, it produces safe and stylish products that are accepted by the society. Herbal formulas will be created by combining herbal extracts in different proportions and their ability to heal wounds will be tested. Plants like Aloe vera Cucumis sativus (cucumber peel) and Camelia sinensis (green tea).

#### OBJECTIVES:

1. Reduce wrinkles, dry skin, skin diseases, itching and acne
2. Make face bright
3. Create and test herbal medicine containing aloe vera gel along with two active ingredients such as neem (*Azadirachta indica*) and tulsi (*Ocimum tenuiflorum*).
4. The main aim of our work is to create herbal medicines that have many benefits such as being moisturizing, reducing acne and blemishes, treating various skin diseases such as eczema, psoriasis, dry skin, wrinkles, rashes, etc. . It also adds shine to the face

#### PLAN OF WORK:

Collection and certification of plants.

b) Extraction of selected plants.

c) Herbal medicine productionØ

☞Color

☞odor

- ☞ pH value determination
- ☞ Viscosity determination
- ☞ Spreadability
- ☞ Irritation
- ☞ Washability
- ☞ Compatibility

**METHODOLOGY:****Table No 1: List Of Instruments**

Name	Model
Weighing Balance	Capsons
pH Meter	Systonic
Soxhlet Apparatus	Borosilicate Glass
Brookfield Viscometer	KU-3 Viscometer
Water Bath	ZEXTER

**Table No 2: List Of Chemical**

Sr No	Ingredient
1	Aloe Vera Gel
2	Tulasi
3	Neem
4	Green Tea
5	Cucumber peel
6	Bees Wax
7	Liquid Paraffin
8	Borax
9	Methyl Paraben
10	Rose Oil

## ALOE VERA GEL:

Value of Aloe Vera in Cosmetics Historically, people have used aloe vera to treat burns and infections in order to reduce their weight. On the other hand, with the advancement of beauty science, aloe vera has proven to be an important ingredient in cosmetics. It contains more than 20 kinds of amino acids, sufficient calcium, magnesium, sodium and other minerals, elements, making it a magic herb for beauty. Here's a brief description of its benefits. Blisters and Itching: Anti-itch and blister-healing properties of aloe vera

Aloe vera contains vitamin C, which ensures healthy and happy skin. Skin aging: The task of aloe vera is to produce elastin and collagen. Anti-aging skin depends on these proteins. Acne aloe vera helps remove acne scars by acting as an anti-inflammatory and anti-inflammatory. Using a lotion containing aloe vera 5vera can reduce acne formation.



**Fig no.1 Aloevera**

### **Benefits**

Helps relieve sunburn

☞ Helps moisturize the skin

☞ Supports wound healing

☞ Prevents skin aging

☞ Reduces acne and pimples

☞ Removes spots on the face

### **2.Cucumber Peel**

Cosmetic Value of Cucumber Peel Cucumber peel should not be thrown away because it is healthy. Some of the benefits include freedom from colds, constipation, bone and muscle pain, and blindness. Cucumber peels contain minerals such as magnesium, potassium and silica and are also rich in fiber. Silica is an important component for protecting muscles,

bones and muscles. Our skin, skin and eyesight are better than this. It is good for the skin. Cucumber peels can beautify the skin from the inside. Using a facial mask or cucumber slices seems to help reduce the signs of aging skin. It is also effective against acne, large pores, dark circles and other skin problems. Reverse Skin Tanning Effects Cucumbers may produce mild whitening effects. It helps you remove the tan from your skin. You can protect yourself from harmful UV rays by grating a cucumber and applying its juice to your face! It calms your mind. Cucumber has cooling properties that will relax your mind and make you happy in hot weather. To maintain the heat, all you need to do is mix water and some bark in a teapot. [7]



**Fig No 2: Cucumber Peel**

#### **BENEFITS:**

- ☞acne-prone skin
- ☞ Reduces puffiness and puffiness
- ☞ Helps prevent premature aging.
- ☞ Soothes irritations
- ☞ Provides the basis for moisturizing

#### **Beneficial for the eyes:**

Beta-carotene is a form of vitamin A found abundantly in cucumber peels. Main benefits of beta-carotene for eye health and vision. When you apply cucumber peel to your eyes for 15 minutes, its calming effect can help reduce puffiness and puffiness around the eyes.

#### **Helps prevent cancer**

Eating regularly can reduce the risk of ovarian cancer, prostate cancer and breast cancer.

#### **Reduces constipation:**



Cut some cucumber peel and add some honey. Drink this medicine on an empty stomach every day. Due to its many actions, this helps remove stool from the colon [8].

### 3) Neem

Evergreen tree native to India. Neem tree is adaptable and versatile and has great potential to produce non-wood health food. Neem has many therapeutic properties, including anti-inflammatory properties. Neem has been used in Ayurvedic medicine for over 4,000 years for its healing powers and is known as the "City of Pharmacy" in India for its healing properties. The main component of neem oil with antibacterial properties is azadirachtin 48. Additionally, neem extract has been shown to have preventive effects on many types of cancer, including those responsible for breast cancer. gynecological, colon, blood, prostate and skin. cancer. Neem contains many compounds, including neem, azadirachta, lettuce, azadirachtin (AZA), glycosides, and dihydrochalcone polyphenols.



**Fig No: 3 Neem**

#### **Benefits**

- ☞ Treats dry skin and wrinkles
- ☞ Supports collagen production
- ☞ Reduces scars
- ☞ Treats wounds
- ☞ Treats acne
- ☞ Reduces pimples and acne moles
- ☞ Antibacterial activity
- ☞ Anti-malaria effect
- ☞ Anti-fertility effect

☞ Anti-ulcer effect

#### 4 ) Tulsi

Tulsi has been used in cosmetics since ancient times including acne and blackheads, age spots, rashes, skin allergies, aging skin, wrinkles and white skin. Ayurveda, Siddha and Unani medicine have widely reported the beneficial properties of certain herbs, including aloe vera, neem, cherimoya, papaya, papaya, centella asiatica, turmeric, mango, moringa, holy basil and Phyllanthus Tulsi. It has also been shown to prevent mental stress and have an anxiolytic effect by improving memory and cognitive function, as well as combat stress by normalizing blood sugar, blood pressure and lipid levels. Tulsi's broad-spectrum antibacterial activity means it can be used as a hand sanitizer as it is potent against many diseases in humans and animals. The use of Tulsi in daily life is testament to the wisdom of Ayurveda and provides a case study of how ancient knowledge can solve modern problems. [11]



**Fig No:4 Tulsi**

#### **Benefits**

##### **Fever and Cold**

The leaves are used to treat many types of fever, including the common cold. as the leaves are boiled with tea and given to patients during the rainy season, when dengue fever and malaria fever spread very quickly in the region.

##### **Cough**

They are an important ingredient in many Ayurvedic cough syrups and other types of medicines as they help remove mucus from the respiratory system.

##### **Sore throat**

PainWhen people have a sore throat, boil the leaves of the plant and give them water. This extract can also be used as a mouthwash.

**Respiratory diseases:**

Tulsi is an excellent herb in the treatment of asthma and other swasa problems. All kinds of respiratory diseases and colds can be treated with khat, ginger and honey, which are effective and effective at home. This lavender and lavender extract provide instant relief from colds.

**Kidney Stones**

Tulsi is very useful and beneficial for the kidney. Using apple juice and honey for six months in a patient with kidney stones will help the patient's kidneys get rid of the stones.

**Heart disease:**

All kinds of heart diseases and "weakness" in the heart are treated by Tulsi.

**Skin Diseases**

Using tulsi water can help in treating fungal infections and other skin diseases. Vitiligo can also be treated with it. [12]5)

**Green Tea (Camellia sinensis):**

Many experts believe that emergence of many health problems. The polyphenol content in green tea helps prevent aging.



**Fig No:5 Green Tea**

**Effects on the skin**

☞ Tea has been used for a long time in the treatment of edema, burns and wounds. Green tea can be applied topically to insect bites to reduce swelling and itching, while warm compresses can reduce bleeding.

☞ Tea has antibacterial properties due to the tannins and flavonoids it contains.

☞ In addition to reducing itching, rashes, and insect bites. Additionally, tea tree oil is a shine-adding and rejuvenating ingredient in hair and skin care products. Scientists are still investigating green tea's potential as a natural sunscreen. Green tea ingredients can be used



topically to promote skin regeneration, wound healing, or healing. or treatment of epithelial diseases such as aphthous actinic keratosis, rosacea, psoriasis and ulcers.

☞ combination of induces bioenergetic production and DNA synthesis in old keratinocytes, possibly in preparation for reactivation of cell division. According to research, the main tea polyphenol epigallocatechin gallate (EGCG) growth and spread of skin cancer. EGCG May Help Reawaken Dying Skin study used human keratinocytes (skin cells) to examine skin growth and compare it to cell growth when exposed to EGCG. [14]

### **Experimental study:**

#### **Extraction of plant material**

##### **1] Neem and Tulasi**

Neem and Tulasi leaves are processed before drying After drying in the shade for four days, it is ground into a coarse powder. is brought and passed through a 22-free filter. Save the flour for further work. The oil of both Tulsi and Neem leaves was defatted with 60-40 petroleum ether and extracted with ethanol in a Soxhlet apparatus. During the three-hour extraction process, 100 g of plant material and 500 ml of ethanol were used. [15] Fig. Soxhlet remover



Fig No: 6 Soxhlet Apparatus

##### **2] Aloe Vera Gel**

Fresh, mature, healthy aloe vera leaves are collected and washed with distilled water. After drying the leaf in a hot air oven, separate the outer part of the leaf lengthwise using a sterile knife. Then cut off the discolored part with a sterile knife.

Parenchyma that forms aloe vera gel. To remove fibers and bacteria, then strain through muslin cloth. Then the filtrate is transparent aloe vera gel filtration material and the formula used is [16]



Fig No:7 Aloe Vera Gel

### 3] Green tea

Green tea extraction Soxhlet extraction 100 grams of defatted green tea powder is used for Soxhlet extraction using 200 ml ethanol weight. . The extraction process is carried out at 60-70°C until the tea powder is completely formed. [17]



Fig No.8 green tea

### Procedure

In a borosilicate glass container, heat liquid paraffin and beeswax and record the temperature. (Level of oil). Borax and methylparaben should be dissolved in distilled water in a different container, and the mixture should be heated to 75°C to produce a transparent solution. (Tank for water). Next, gradually add the water level to the oil level that has heated. Next, add the necessary amount of tulsi extract, aloe vera gel, neem extract, green tea extract, and cucumber peel. Mix well until you have a smooth cream. Then, for aroma, add a few drops of rose oil. As the mixture's temperature fluctuates, stir it continuously. Transfer the mixture into a container with a wide mouth.

## Formulation table

Table NO.3 : Formulation Of Cream

Sr No	Ingredient	Quantity taken	Uses
1	Aloe Vera Gel	2.5 ml	Anti-ageing, antiinflammatory, moisturizer, reduce acne and pimples.
2	Tulasi	2.5ml	Antibacterial, adds glow to the face
3	Neem	2.5ml	Promote wound healing, relieves skin dryness, itching and redness.
4	Green Tea	2.5ml	Reduce Wrinkle,,Hyperpigmentation.
5	Cucumber peel	2.5ml	Provide soothing effect,Reducing Swelling.
6	Bees Wax	3g	Emulsifying Agent
7	Liquid Paraffin	10 ml	Lubricating Agent
8	Borax	0.2g	Alkaline agent which reacts with emulsifying agent to form soap
9	Methyl Paraben	0.02g	Preservative
10	Rose Oil	q.s	Fragrance



Fig No :9 Formulation Of Herbal Cream

## Evaluation of the cream

### Physical evaluation

In this evaluation, the color, smell, texture and bitterness of the cream are evaluated.

### Irritation

Cover an area (1cm<sup>2</sup>) Then apply the adhesive to the surface and record the time. Then check and report itching every 24 hours. [19]

### Wash ability

Possible Apply a small amount of cream to your hands, then wash with tap water



Fig No:10 Viscometer

### Viscosity

No. Determined by phase separation using a Brookfield viscometer at 25°C using 1.63 mils at 2.5 RPM [8] Store the prepared adhesive in an airtight container at 25-°C. Protected from light at 100°C. The separation phase was controlled for 24 hours and continued for 30 days.

### Spread ability

When two slides are placed on the slides under a specific weight, the spread ability is expressed as the amount of time (measured in seconds) needed to slide the cream out. The transmission is better the faster the time it takes to switch between two slides. Make use of two big slide sets. Next, apply glue to a glass slide that is the same size. The arrangement is topped with another slide. In order to press the candy uniformly into a thin coating on the two slides, place a hefty object or load on the top slide. After that, the weight is taken off and any extra slide preparation is eliminated. Under the effect of gravity, the upper slider is free to slide. Keep a record

### Formula

For spread ability=  $m \times l/t$

Where,



$m$  = weight of the sample attached or placed on the slide (30 grams)

$l$  = Length of the slide (5 cm)  $t$  = elapsed time (in seconds).

#### **Greasiness:**

use the glue on the skin to check if the stain is oily or greasy.

#### **Phase Separation**

Put the prepared adhesive into a container that fits into its mouth. After waiting for 24 hours, the oil level and water level can be seen separately.

#### **Feel after:**

Feeling after use Moisturizing smoothness after applying a certain amount of cream and the remaining amount is good.<sup>[20]</sup>

Sr. No	Evaluation Parameter	Observation
1	Color	Faint green
2	Odour	Pleasant
3	Texture	Smooth
4	State	Semisolid
5	Irritancy Effect	Nil
6	Washability	Easily Washable
7	pH	7.4
8	Viscosity	21020
9	Spread Ability	22.8
10	Greasiness	Non-Greasy
11	Phase Separation	No Phase separation
12	After Feel	Emollient

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**CONCLUSION:**

The effectiveness of this cream has been shown using aloe vera gel, neem, cucumber, green tea and tulsi. This herbal ingredient shows a significant difference. According to the results and discussions, the formulation is stable at room temperature and can be used easily on the skin.

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