IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 2, June 2025
Impact Factor: 7.67

Formulation & Evaluation of Herbal Hair Oil

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Abstract: *Herbal plants contain various biologically active compounds that are useful for life enhancement and they are the main origins of modern and conventional herbal medicine for the prevention of diseases. The nature of different kind of life supporting voters of plants that have been studied by scientists for their applications. The purpose of the research was to devise a herbal mosquito repellent candle that would include the essentialoil of Levander oil , Rose water and The candle was tested for flammability, time for burning and Checked the repellency of mosquito. It may be attributed to the presence of the Different active constituents of the oils. The test showed that the manufactured poly herbal candle had become more effective,Cheaper and non-poisonous than the candle repellents currently available on the market based on chemical in fighting mosquitoes, scent consistency, etc.*

Keywords: Mosquitoes, mosquito repellent candle, Essential oil, economical

I. INTRODUCTION

Lemongrass popularly known as citronella grass is the member of poaceae family and belongs to the genus Cymbopogon. Astrong lemongrass a predominant features of this grass,is due to high citral content in its oil.the redolence of the oil enable its use in soap, detergent,and perfumes.

It also finds an application in the pharmaceutical industry.apart from the nutrients such as fat,protein,fibre and minerals.it also contains various bioactive compound which may be grouped into alkaloids ,phenol,saponin and tannin.According to WHO,herbal medicine is considered an important part of healthcare industry by more than ‘two-third population of countries.[1]

Now a days hair care beauty is delivered with herbs, and they're well recognized as compared with artificial ones. thoseyears, a part of the hair care out inside the use of hair oil is has been increasing and it's far because of their advantages in addressing the hair issues. Hair oils are formulated with each synthetic and natural component. artificial hair oils are those hair care merchandise which might be made by means of chemical or synthetic substances. they're used to offer shine and notable conditioning and they also helps to reduce frizz.

Taxonomical classification

Kingdom	Plantae
Division	Magnoliophyta
Class	Liliopsida
Order	Poales
Family	Poaceae
Genus	Poaceae
Species	citrates

Aim

To formulate and evaluate the Polyherbal hairoil.

DOI: 10.48175/IJARSCT-27451

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Objectives

- To promote the hair growth and smoothness of the hair.
- To supplement the hair with vital nutrients such as vitamins, and minerals.
- To prevent the dandruff, spit ends, and dull hair.

To provide an alternative source from hazardous chemicals.

Benefits of lemongrass

- Strengthen of hair follicles.
- Thickens your hair.
- Shine your hair naturally.
- Combats hair loss.
- Eliminates dandruff.

Arich source of iron, lemongrass assists in treating condition such as, Anaemia or other iron deficiencies which can lead to hair loss. [2]

Material and methods Collection of plant part

For the preparation of lemongrass hair oil various plant material were collected Viz, Lemongrass,Neem,Amla,Pudina,Coconut oil,Shatavari,Kapur,Brahmi,Til oil etc.

Formulation of lemongrass hair oil

The various ingredients used in the formulation of lemongrass hair oil in table 1.Accurately weigh dried leaves and stalks of lemongrass and other herbs such as,Neem,Amla,Pudina,Shatavari,Kapur and Brahmi were grinded in the mixture and was mixed in 2ml of til oil.The above content was boiled for 15 min.and was filtered through muslim cloth.To the filtrate coconut oil was added to make up the volume .Finally small amount of color and flavouring agent was added to the oil and it was placed in umber colored bottle.[10]

Evaluation of lemongrass hair oil

The formulated lemongrass hair oil was subjected to physical and biological evaluation.

Sensitivity test

The prepared lemongrass hair oil was applied on 1 cm skin of hand and exposed to sunlight for 4-5 min.

Acid value

preparation of 0.1 molar solution : weighed 0.56g KOH pellets and dissolved in 100 ml of distilled water and stirred continuously.The prepared 0.1 molar KOH solution was filled in a burette. Preparation of sample:Measured 10ml oil and dissolved in 25ml of ethanol and 25ml of ether mixture and shaked.Added 1ml of phenolphthalein solution and titrated with 0.1 molar KOH solution .[11]

Saponification value

Accurately weighed 1ml of oil into a 250ml of conical flask and 10 ml of ethanol:ether mixture[2:1] was added . To this flask 25ml of 0.5mL of 0.5 N alcoholic KOH was kept the flask for 30 min.and the flask was cooled.The cooled solution was titrated against 0.5 N HCL using phenolphthalein indicator.Similarly the blank titration was performed without taking oil [sample] . Amount of KOH in mg used in calculated.[12]

PH

The PH lemongrass hair oil was determined using PH meter.

Viscosity

The viscosity was determined using ostwalds viscometer.

Specific gravity

Take the specific gravity bottle, rinsed it with distilled water,dry it in oven for15 minutes , cool, closed it with cap and weight it,Now fill the same specific gravity bottle with the sample and closed it with cap and again weigh it . Determine the weight of sample per millimeter by substracting the weight.[13]

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Physical appearance:

The color and odor of the oil can be evaluated manually. pH:ApH meter can be used to determine the pH of the oil. Viscosity: A viscometer can be used to measure the viscosity of the oil at room temperature

Refractive index: Arefractometer can be used to determine the refractive index of the oil. Saponification value: Aconical flask can be used to determine the saponification value of the oil.

Sensitivity test: The oil can be applied to the skin and exposed to sunlight for a few minutes to check for any irritation.

Grittiness: The oil can be rubbed on the skin to determine if it is gritty. Sedimentation: The oil can be left aside overnight to check for sedimentation.

Specific gravity: Aspecific gravity bottle can be used to determine the specific gravity of the oil. Acid value: The acid value of the oil can be determined.

II. CONCLUSION

Lemongrass hair oil provide numerous essential nutrients required to maintain normal function of subcutaneous glands and promotes natural hair growth.hair oil is one of the most well organized hair treatment.The lemongrass hair oil prepared from various herb given in table.The various parameters like sensitivity test,viscosity,ph,irriatation test,saponification value and acid value of lemongrass hair oil was evaluated.then use of bioactive ingredients in cosmetic formulation have valuable effect on body features and provide nutrients which are essential for maintaining healthy and beautiful hairs.At least it can be concluded that,this lemongrass hair oil formulation has significant quality.

Sr.No.	Ingredients	Importance
1	Lemongrass	Antibacterial activity
2	Neem	Antimicrobial
3	Amla	Hair growth
4	Pudina	Flavouring agent
5	Shatavari	Hair growth
6	Kapur	Stimulating agent
7	Brahmi	Nervine tonic
8	Til oil	Vehicle

Table2: Role of herbs in lemongrass hair oil

Evaluation parameter	Inference
Sensitivity test	Non sensitivity
Irriatant test	Non irriatant
PH	6.4
Specific gravity	0.95
Saponification value	196.05
Acid value	4.6
Colour	Yellowish brown
odour	Aromatic

Table3: Evaluation of lemongrass hair oil

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