

# Formation and Preparation of Herbal Hair Tonic

Gayatri Rukshraj Munde, Dapkalwar Shrisha Ramesh,

Ankita Ankush Bhalerao, Dr. Lahu Hingane

Aditya Diploma Institute of Pharmacy, Beed Maharashtra, India

**Abstract:** Today, people are keenly interested in hair preparations and conditioner materials that includes shampoos, hair tonic, and conditioner formulation with herbal extracts. Hair tonic is the product which is used in styling hair. The objective of the present study involved the preparation of herbal hair tonic through the use of jojoba, tulsi, and coconut oil and its evaluation for antifungal and antibacterial activity. The final preparation of these ingredients is formulated in batches with change in concentration. Each formulation is tested for antibacterial and antifungal activity. The formulation of different concentrations was characterized for proximate analysis including moisture content, total ash, acid insoluble ash, water soluble ash, water insoluble ash, sulphated ash. It means for antifungal and antibacterial activity the formulation gives good results, the formulation having good consistency, good spread ability, homogeneity, appearance, and pH.

**Keywords:** Herbal Formulations, antifungal activity, antibacterial activity, hair tonic, jojoba oil.

## I. INTRODUCTION

Hair is one of the important parts of the body obtained from ectoderm of the skin, is protective appendages on the body and considered accessory structure of the integument along with sebaceous glands, sweat glands, and nails. The medical term for hair loss is alopecia. Alopecia may be either temporary or permanent. The most common type of hair loss is gradual and known as "androgenetic alopecia," meaning that a combination of hormones (androgens are male hormones) and heredity (genetics) is needed in order to develop the condition. Herbal formulations always attracted great attention due to their good activity and comparatively lesser or nil side effects with synthetic drugs. Cosmetics termed as products are prepared from a variety of permitted cosmetic ingredients to create the base in which one or more herbal ingredients are incorporated to offer only specific cosmetic benefits, shall be termed as "Herbal Cosmetics" or "Natural Cosmetics". In modern times, people are concerned with hair preparations and conditioner materials, like shampoos, Hair tonic and conditioner preparations that contain herbal extracts, towards preventing the loss of hair.

### 1.1 PROJECT AIM & OBJECTIVES

Preparation and Formulation of 30ml herbal hair tonic

#### Objectives:

- Hair tonic prevents hair from falling
- Hair tonic fights dandruff and enhances hair growth
- Hair tonic gives shining and smoothness to hair
- Side effect of hair tonic
- Treatment for multiple hair concerns such as dry hair dull hair and uncontrollable hair.
- Using the treatment of various hair disease
- Ability of Hair care product in suggesting a good color of hair

#### Benefits:

We live in a polluted world which is not hair-friendly. That is when herbal hair oil comes into practice. Herbal oil is a mixture of bhringraj, jatamansi, amla, hibiscus, rosemary, almond, and other herbs.

Their benefits are as follow:

- It provides natural goodness to hair. Herbal oil contains vitamins and micronutrients which acts as food for hair.

- Hair oil prevents hair loss and tames frizzy hair. Hair ends need special care and herbal oil pampers them throughout their nourishment.
- Problem of premature grey hair could be cured by regular use of hair oil of hair oils .
- Hydration of the scalp
- Hair growth is improved
- Dandruff is prevented

**Types of herbal hair tonic available in market:**

- Amla hair tonic
  - Coconut hair tonic
  - Bhringraj hair tonic
  - Jasmine hair tonic
  - Brahmi hair tonic
  - Cantharidin hair tonic
  - Onion hair tonic
- Structure of hair :



**Hairs types:**

Hair type depends primarily on hair's curl pattern. The degree of curl in the hair is determined by the hair follicle. Hair type is genetically predetermined. For decades, Andre walker has been known as Oprah winfreys personal stylist. He is credited to devise a system that categorizes hair based on one of four curl pattern.

Type 1: - Straight Type 2: - Wavy Type 3: - Curly Type 4: - Coily

**II. MATERIAL AND METHOD**

**1.Hibiscus**

Leaves are alternate, ovate to lanceolate, often having toothed or lobed margin. The flowers are large conspicuous, trumpet-shaped with five or more petals. This plant is widely cultivated as an ornamental plant in tropical and subtropical region. This plant is widely found throughout the tropics and is mainly grown as house plant across the world

Role:

- Inhibits hair fall
- Against premature graying
- Hair thickening and volumizing
- Treatment of dandruff



**2. coconut oil:**

This is extracted from the milk of the coconut palm fruit. Coconut oil is used as a source of meals oil besides being applied in several industrial applications concerning cosmetics and detergent production.

Role:

Masks hair

Moisturizes hair

Seal hair

Makes hair look shining



**3. Bringraj:**

Eclipta alba is an annual multibranched herbaceous plant. The height of plants is up to 3050cm. It is found in the tropical and subtropical region of the world such as South

America, Asia, and Africa at an altitude up to 2000 m. In the region of India it is mainly found in state of Bihar, Assam, Uttar Pradesh, and Manipur.

Role

1. Prevents hair fall 2. Promotes hair growth 3. Makes hair lustrous

4. Repairs hair damage 5. Treats baldness.



**4. Amla:**

Phyllanthus emblica is an important medicinal plant in Indian traditional system of medicine. The tree is of 1-8 meter in height. The leaves are simple and intently set alongside branchlets. The flowers are of greenish yellow colour. The fruit is nearly round in shape and having hard appearance.

Role

1. Condition your scalp.
2. Minimize greys
- Reduce dandruff
- Promote healthy hair growth.
5. Strengthen



**5. Tulsi:**

Tulsi is the most familiar herb from the Lamiaceae family, which is native to the Indian subcontinent and has been used in Ayurvedic medicine for more than 3000 years. Holy Basil is an erect, many-branched subshrub 30-60 cm tall with a hairy stem. Leaves are of green or purple color. The plant of tulsi contains several medicinal properties. Leaves of tulsi act as anerve tonic a nerve tonic and also sharpen memory.

Role

1. Coagent remedy for hair loss
  2. Hair loss treatment
- Strengthening the hair roots  
Prevent bacterial and fungal infection



**6. shikakai:**

Shikakai is a woody climber, shrub up to 5 metres tall. Leaves are bipinnate. Shikakai has a naturally mild pH that gently cleans the hair without stripping it of natural oil. The regions having dry hot weather like South India is best suited for

these trees. The extract from the bark, leaves, of shikakai is used as hair cleansing agent. Shikakai is traditionally used in shampoo preparations for the purpose of hair growth.

**Role:**

Makes hair soft and shiny

Heals scalp and prevents the agony of the dry scalp<sup>3</sup>. Boosts hair growth

Delaying greying of hair

Works as natural hair cleaner



### **7. onion:**

The onion, also known as the bulb onion or common onion is a vegetable that is the most widely cultivated species of genus *Allium*. The onion plant has been grown and selectively bred in cultivation for at least 7000 years. Modern varieties grow to a height of 15-45 cm. The leaves are yellowish to bluish green. They are hollow, cylindrical with one flattened side. Onion has been valued as a food and a medicine plant since ancient times.

**Role:**

1. Treats dandruff 2. Inhibits hair thinning

3. Fights scalp infection 4. Slows down premature greying 5. Nourishes dry or brittle hair



### **8. Aloe vera:**

Almost stemless to very short-stemmed plant growing to 60-100 centimetres tall, with thick and fleshy leaves, grey to green. Aloe vera is a species of Aloe that are particularly known for its medicinal properties. Aloe species are widely spread throughout the eastern European continents and are spread almost throughout the world.

**Role:**

Strengthen and repair hair strands

Deep cleans oily hair

Calms an itchy scalp



Formulation of herbal tonic

S. No.	Ingredients	Botanicalname	Part used	Formulation (%)
1	Virgin coconut oil	Cocos nucifera	Kernel/milk	70.0
2	Amla	Phyllanthusemblica	Fruit pulp	5.0
3	Hibiscus	Hibiscus rosa sinensis	Leaf (2.5) & flower(2.5)	5.0
4	Aloe vera pulp	Aloe vera	Leaf pulp	4.0
5	shikakai	Senegaliarugata	Bees	3.0
6	Bhringraj	Eclipta alba	leaves	2.5
7	Krishna Tulsi	Ocimumsanctum	leaves	2.5
8	Small onion(Shallots)	Allium cepavar. Aggregatum	whole fruit	1.5

Organoleptic properties of herbal hair tonic:

Colour – Dark green

Odour – Aromatic

Appearance – Less viscous

Texture – Smooth

Greasiness – Non greasy

Overall acceptability – Good

Quality evaluation of herbal hair tonic:

Sr. No.	Parameter	Inference
1	Moisture content	0.21
2	Acid value	1.60
3	Saponification value	256.08
4	Specific gravity	0.916
5	pH	6.6
6	Viscosity	0.966

Label – herbal tonic I.p.....30 mlHerbal tonic 30 ml

Rx Mfg Date. Apr 2024

hibiscus .....15gm Exp Date. Oct 2026

aloe vera.....15gm Mfg Lic NO : 30/04/24

bringraj.....10gm Batch No. 2542

onion.....10gm amla 15gm

shikakai... 5g coconut

oil... 30ml

tulsi... 5gm

SHAKE WELL BEFORE USE

**Category- As protective FOR EXTERNAL USE ONLY**

Helps to apply moisture and lock it in for long period of time

Hair's tonic tent to fall into two categories- moisturising oil & sealing oilStorage: Keep air tight bottle in the cool page

Mfg. By- Aditya diploma institute of pharmacy college, Beed.



### III. CONCLUSION:

These include herbs such as Shikakai, Amla, Curry leaves, Fenugreek seeds, Hibiscus, Almond oil, Coconut oil, and Neem oil which are added in the formulation of this herbal hair oil and are under research in this study. The aim of the study is to identify different constituents like minerals and amino acids present in herbal extracts responsible for remarkable action in hair growth besides any adverse effects as compared to synthetic medication.

#### Result:

The present research work has been done to formulate a topical hair tonic herbal preparation. Tulsi oil already established its antifungal & antibacterial activity while application on hair stimulates hair growth activity through various research groups' study and literature survey about jojoba oil. Therefore, the formulation development has been carried out to provide such pharmacological activities after topical application. In this formulation, all ingredients are oil in nature. So, there would be no problem of phase separation. It results in the homogeneous formulation with a good consistency, thereby thus formulated. Thus, the formulation was satisfactory with respect to pharmaceutical elegance. Thus, the results of antifungal and antimicrobial studies showed that overall activity of the formulation was comparable and even better.



**REFERENCES**

- [1]. T.Usha Kiran Reddy, S. Rajesh, G.Sindhu, B.Aruna, Herbs Used in Formulating Poly-herbal Hair Oil- A Review, Indo American Journal Of Pharmaceutical Sciences ISSN: - 2349-7750
- [2]. R.R Shah, S.A. Mohite, Preparation and evaluation of polyherbal hair oil- an effective cosmetic, Asian Journal of Pharmaceutical Research, ISSN: 2231-5691
- [3]. X. Fatima Grace, S. Rahul Raj, S.Shanmughanathan, D. Chamundeeshwari, Preparation And Evaluation of Polyherbal Hair Oil, ISSN: 2394-2789
- [4]. Mr. Shrikant M. Madhekar, Mrs. Surekha S. Tayade, Ms. Vaishali N. Tidke, Formulation And Evaluation of Poly-herbal Anti-dandruff Hair Oil: A Hair
- [5]. Care Preparation, Journal of Emerging Technologies and Innovative Research, ISSN: 23495162
- [6]. Swarnlata Saraf, Manjusha Jharaniya, Herbal Hair Cosmetics: Advancement and Recent Findings, World Journal of Pharmaceutical Research, ISSN:
- [7]. 2277-71051 3 4 6 46. B. Ramya Kuber, Ch. Lavanya, Ch. Naga Haritha, S. Preethi, G. Rosa, Preparation and evaluation of poly herbal oil, Journal of Drug Delivery and Therapeutics, 2019; 9(1):68;73
- [8]. Rahathunnisa begum and Afzalunnisa begum, Preparation and Evaluation of Herbal Oil, International Journal of Research and Analytical Reviews, E ISSN: 2349-5318
- [9]. Omkar V. Narule, Manohar D. Kengar, Pranali P. Mulik, Sohel I. Nadaf, Bhagyashree A. Mote, D. dudhagaonkar, Formulation and Evaluation of Poly Herbal Oil. Research J.Topical