



# “FORMULATION AND EVALUATION OF HERBAL ANTI-DANDRUFF HAIR MASK”

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**Abstract:** The goal of this study is to prepare a herbal hair mask that fights dandruff by utilizing a variety of herbs, including Jatamansi, Amla, Shikakai, Hibiscus, Ginger, and Aritha. The direct mixing approach was utilized to prepare the mask. The herbal mask's formulation was assessed using a number of criteria, including stability studies, pH, and antimicrobial activity. The final product's evaluation parameters were discovered to be within allowable bounds. Therefore, it can be said that using a prepared hair mask helps to prevent dandruff and promote healthy hair development.

**Keywords:** Amla, Jatamansi, Hibiscus, Ginger, Aritha, Antimicrobial activity evaluation, Herbal Anti-dandruff hair mask.

## 1. INTRODUCTION

### 1.1 Anti-dandruff hair mask

Hair care products include herbal hair masks, which are used for washing, altering the texture, changing the color, revitalizing stressed hair, nourishing the hair, and giving the hair a healthy appearance. Dandruff is a serious and widespread issue these days, and it is caused by these items used on a daily basis. The primary cause of dandruff is not readily apparent, but there are a number of contributing causes, including bad hygiene, an oily scalp that can lead to fungal infections, and a growing trend of not washing hair for a week. There are several varieties of hair, including dry, oily, and normal hair. Due to dandruff's high level of irritation, it can lead to hair loss and shame in public places on the skin in numerous regions.

### 1.2 Steps and Duration

To stop the spread of illness, the US Centers for Disease Control and Prevention (CDC) advises taking the following actions after washing your hands. Take a mask and dilute it with a little water to create a thick paste. Taking into account the length and density of the hair, take the right amount of the mask. Apply to the entire length of your scalp and damp hair. Give it a good five to ten minutes before rinsing it off. It works on the scalp of the hair to make it smoother. The hair mask can aid in regulating how splits form. Additionally, it protects us from UV radiation. It also helps to increase blood flow and significantly improves the health of your hair.

### 1.3 Importance of hair mask

By reducing dandruff, a herbal anti-dandruff hair mask helps you achieve an itchy-free, healthy scalp and nourished hairs. It also smoothes out your irritated, oily, and flaky scalp. Dandruff is a serious hair issue that a chemical product cannot completely resolve. Use a hair mask to unclog hair follicles and remove dead skin cells from your scalp. Add water to an anti-dandruff hair mask and leave it on for ten to fifteen minutes. This can moisturize your hair and help shield it from bacteria that cause dandruff.

### 1.4 When should you mask your hair

- Use your mask before conditioner rather than after, as essential oils and bacteria can seep into your hair and remain there if they aren't removed. Because shampooing opens up the hair follicles, applying a mask right after will greatly aid in the penetration of the conditioning agents.
- We wouldn't advise lasting more than three or four days without using a hair mask because regular shampooing and hair masking are still necessary to maintain a clean and healthy scalp environment, even if the hair does not feel oily.
- Use a hair mask first, then conditioner. A hair mask not only smoothes and relaxes you by increasing blood circulation, but it also delivers a concentrated dosage of nutrients and repair for hair. Additionally, it fortifies roots, promoting the growth of healthy hair. Frequently cut hair.

## 2. INGREDIENTS USED IN FORMULATION

Sr. No	Ingredients	Benefits of Ingredients
1	Jatamansi	Anti-dandruff properties Improve Blood circulation Promote Hair Growth
2	Amla	Prevents hair fall Cleanses Scalp Increases Hair Growth
3	Shiakakai	Antifungal properties Prevents split ends Boosts hair growth Fights dandruff
4	Ginger	Improve blood circulation Hair fall control
5	Hibiscus	Conditioning agent
6	Reetha	Cleansing properties that can help to remove dirt and oil.

### 3. EXPRIMENTAL METHOD

#### 3.1 Method of Formulation

Composition of 100gm formulation of herbal anti-dandruff hair mask :-

Sr. No.	Ingredient	Quantity	Action
1	Reetha	18gm	Cleansing
2	Hibiscus	12gm	Conditioning
3	Jatamansi	26gm	Anti-dandruff
4	Ginger	14gm	Antimicrobial
5	Shikakai	20gm	Antifungal
6	Amla	10gm	Antibacterial

#### 3.2 Method of preparation of Anti-dandruff hair mask

1. All the herbal ingredients (Jatamansi, Amla, Ginger, Hibiscus, Shikakai, Reetha) are in dry form and grinded to make fine powder.
2. All the required herbal powders for hair mask preparation were accurately weighed individually by using digital balance.
3. All these fine ingredients were mixed thoroughly by mixer to form ahomogenous fine powder.
4. The fine powder was passed through sieve no, 80 to get the sufficient quantity of fine powder.
5. The powder mixture was collected and stored in suitable plastic container and used for doing evaluation parameters.

### 4. EVALUATION OF ANTI-DANDRUFF HAIR MASK

#### 4.1 Physical properties

- **Colour:** A visual analysis was conducted on the hair mask's color.
- **Odor:** The formulation was smelled in order to assess its odor.
- **pH:** One milliliter of a herbal hair mask sample was obtained and dissolved in fifty milliliters of distilled water. Using a previously standardized digital pH meter, the pH of the solution was measured.

#### 4.2 Stability:

A determined amount of herbal hand wash liquid was kept at room temperature for a week in order to test its stability. No color shift or phase separation was seen during stability tests.

**4.3 Consistency:** A manual determination was made.

#### 4.4 Antimicrobial:

- Cup Plate method: Often referred to as the agar well diffusion method, the cup plate method is a commonly employed approach to evaluate the antibacterial activity of formulations. This is a general description of how the antibacterial activity and formulation can be determined using the cup plate method.
- Agar plate preparation: Make a nutritional agar medium and transfer it to sterile Petridishes to harden. Verify that the agar plates have fully solidified before continuing.

### 5. RESULT AND DISCUSSION

#### 5.1 Evaluation parameter:

Sr. No.	Parameters	Observation
1	Colour	Brown
2	Odour	Pleasant
3	Stability	Stable
4	Consistency	Powder
5	pH	7
6	Teaxture	Coarse texture

### 6. CONCLUSION

- A herbal hair mask is a very simple way to cure hair dandruff. Cosmetics with a herbal component are well-liked since they are non-toxic.
- This hair mask aids in nourishing the scalp's skin. It cures dandruff by clearing the scalp of extra oil. Regular usage of this mask results in hair that is healthy and free of dandruff.
- This study demonstrates that the prepared herbal anti-dandruff hair mask formulation is just as safe to use as the cosmetic.
- It gets rid of extra oil from the scalp to treat dandruff. Dandruff in the hair is caused by an oily scalp and bad hygiene. Regular usage of this mask results in hair that is healthy and free of dandruff.
- The stability study guarantees the herbal anti-dandruff hair mask's shelf life. A variety of factors, including pH, loss of drying, texture, color, odor, stability studies, and microbial assay, are used in the evaluation process to produce meaningful results.
- The evaluation study on amla and shikakai demonstrates their anti-dandruff properties. This study demonstrates the safety and efficacy of using a prepared herbal anti-dandruff hair mask as a cosmeceutical.



Fig: Formulated product

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