

# Preparation and Evaluation of Herbal Antidandruff Shampoo

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**Abstract:** *The major objective of research work is to prepare and evaluate Herbal shampoo for Antidandruff purpose from various herbal ingredients. Preparation of Herbal shampoo using the extract of Amla powder, Hibiscus (leaf & flower) powder, Bhringraj, Reetha, Neem, Tulsi leaves, Sikakai and Aloe gel etc... in different quantity. Evaluation of herbal shampoo carried out with Organoleptic and physico- chemical properties. Prepared herbal shampoo is also used to cleansing of hair conditioning, smoothing of hair surface, and good health of hair.*

**Keywords:** Herbal Shampoo, Antidandruff, Amla, Hibiscus, Bhringraj

## 1. Introduction: [1-8]

Herbal shampoo is most probably utilized herbal cosmetic which commonly used for cleaning hair and scalp in daily routine life. Now a days, Herbal plants and formulations are widely used for herbal cosmetics. Prepared Herbal shampoo is applied on wet scalp surface, massaging into hair, and

cleansed by rinsing with water. Dandruff is also most commonly caused for Hair fall. It is necessary to remove from scalp. Main purpose of Herbal shampoo is to remove dandruff from hair scalp. Herbal formulations are most commonly used in development as well as developing countries as health care aid. [1-5]



Figure 1: Herbal ingredients for Hair care <sup>8</sup>

### Herbal Ingredients for used in Herbal hair care formulations: [5-6]

There are many herbal ingredients which are widely utilized in hair care formulations like- Herbal shampoo, Herbal Hair oil, Herbal Conditioner, Herbal hair colour, etc... Herbal ingredients includes Amla, Methi, Bhringraj, Reetha, Hibiscus, Onion, Neem, Brahmi, Aloe vera, Reetha, Sikakai,

Heena, Tea extract, Coffee, etc.. are finding for good care of hair health. [12-14]

### Benefits of Herbal Shampoo [7-8]

- Less Hair loss
- Prevent Hair scalp from dandruff
- More hair shine

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- No chemicals
- Strong hair follicle
- No irritation on skin and(or) scalp
- Darkening Hair colour








**2. Material and Methods**


Following herbal Ingredients are used in the formulation of herbal Shampoo.

**Table 1:** List of Herbal Ingredients

Sr. No.	Ingredients
1.	Amla Extract
2.	Bhringraj Extract
3.	Reetha Extract
4.	Hibiscus (Leaf and flower)
5.	Neem Extract
6.	Tulsi Extract
7.	Aloe gel
8.	Rose oil
9.	Gelatine

**Table 2:** Description of Herbal ingredients of Herbal shampoo

Sr. No.	Herbal Ingredients	Biological Source (Family)	Uses	Picture
1.	Amla	Dried ripe fruits of Embelica officinalis (Euphorbiaceae)	Makes hair softer & Darker, Hair Growth promoter	
2.	Bhringraj	Dried leaf and flower of Eclipta alba (Asteraceae)	Hair Growth promoter, Prevent Alopecia of Hair	
3.	Reetha	Dried fruits of Sapindus mukorossi (Sapindaceae)	It helps control hairfall by removing dandruff from the scalp.	
4.	Hibiscus	Dried leaves and flower of Hibiscus rosea (Malvaceae)	Conditioning agent, Anti dandruff, Hair growth promoter, Colouring agent	
5.	Neem	Dried leaves of Azadirachta indica (Meliaceae)	Antidandruff	
6.	Tulsi	Fresh leaves of Ocimum sanctum (Lamiaceae)	Rejuvenating the hair follicles, Strong the hair roots	
7.	Aloe	Dried latex of leaves of Aloe vera (Liliaceae)	Hair Growth promoter, Conditioning agent	

8.	Rose oil	Distillation of Fresh pellets of Rosa centifolia (Rosaceae)	Strengthen the hair follicles, Provide moisture and soothe the scalp	
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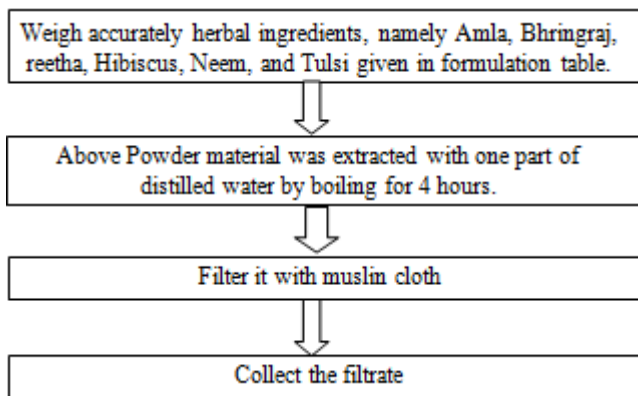
**Formulation Table:**

**Table 3:** Formulation table for herbal Shampoo

Sr. No.	Ingredient	Part of Plant Used	Quantity Taken (For 100 ml)
1.	Amla Extract	Powder	10 gm
2.	Bhringraj Extract	Leaf and flower	5 gm
3.	Reetha Extract	Powder	20 gm
4.	Hibiscus Extract	Leaf and flower	10 gm
5.	Neem Extract	Leaf	10 gm
6.	Tulsi Extract	Leaf	5 gm
7.	Aloe gel	Leaf	20 gm
8.	Rose oil	Flower	q.s.
9.	Gelatine	---	q.s.

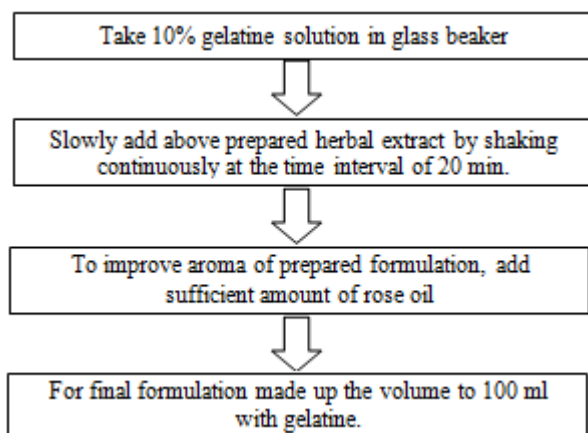
**3. Preparation of Herbal Shampoo**

**A. Method of preparation of Extract:**



**Chart 1:** Method of preparation of Herbal extract

**B. Method of preparation of Final Herbal shampoo:**



**Chart 2:** Method of preparation of final Herbal shampoo



**Figure 2:** Final Herbal shampoo formulation

**Final Herbal shampoo evaluation parameters are as follow:**

Evaluation of prepared herbal formulation was carried out with visual examination and various physicochemical parameters.

**Table 4:** Evaluation parameters of Herbal shampoo

S. No.	Test	Procedure
1	Colour examination	Colour of Herbal Shampoo was observed by naked eyes.
2	Physical evaluation/ Visual examination	Prepared formulation was evaluated in terms of Clarity.
3	pH determination	Prepared Shampoo solution in distilled water was determined at Room temperature by using pH paper.
4	Determination of % Solid content	% Solid content was determined by weighing about 4 gm of prepared herbal shampoo in a dry, clean, and evaporating dish. The liquid portion of the shampoo was evaporated in a dish by placing on hot plate. The percentage and the weight of the solid contents present in the shampoo were calculated after drying completely.
5	Viscosity	Viscosity of herbal shampoo was measured using viscometer. 10 ml of shampoo is taken in a beaker and spindle is dipped in it for about 5min. and then reading is taken.
6	Dirt dispersion	Two drops of shampoo were added in large test tube contain 10 ml of distilled water. One drop of ink was added in the test tube, was stopped and shakes for ten times. The amount of ink in the foam was estimated as none, light, moderate or heavy.
7	Skin irritation test	This test is performed on human skin and checks whether it irritation on skin or not.
8	Foaming ability and Foaming stability	Foam stability is one of the important needs of a shampoo. Important parameter that was considered in the shampoo evaluation was determination of foaming stability. The foam volume produced by the formulated shampoo is above 50 ml. The foam volume remains same throughout the period of about 5 min showing that the generated foam by the shampoo has good stability and the prepared shampoo exhibits higher foam property.

#### 4. Result

**Table 5:** Evaluation of formulated medicated herbal Lozenges

S. No.	Parameters	Observed Value
1.	Colour	Dark-Brown
2.	Clarity	Clear and Good
3.	pH	6
4.	% Solid content	22.75
5.	Viscosity	1.22
6.	Dirt dispersion	Light
7.	Skin irritation test	No irritation on skin
8.	Foaming ability and Foaming stability	50 ml

#### 5. Conclusion

The present study was carried out with the aim of preparing the herbal shampoo that reduces dandruff from scalp and safer than the chemical containing agent as well as prevent hair fall. The main purpose behind this investigation was to develop a stable and functionally effective shampoo by excluding all types of synthetic additives, which are normally incorporated in such formulations. To evaluate for good product performance of the prepared shampoo, many tests were performed. All results were found to be satisfactory.

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