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## Research Article

# Formulation & Evaluation Of Herbal Blood Purifier Syrup

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### ABSTRACT

Blood is a connective tissue that safeguards our body from various issues. Without blood, the body cannot function, and blood does not self-purify. When blood does not purify itself, the kidney, liver, and lymphatic system collaborate to assist in the purification process. Factors contributing to blood impurities include modern lifestyle choices, consumption of junk food, and alcohol intake. Impure blood can lead to various problems, such as acne, rashes, and allergic reactions. Conventional synthetic medications are not available for blood impurities. Herbal formulations are the primary treatment option for blood purification. This review article explores the market formulations and various plants utilized in them, along with their respective activities that aid in blood purification and offer protection against other ailments. Safi Blood Purifier is a herbal remedy with a long history of use, purported to cleanse the blood and promote skin health. This review paper aims to analyze the scientific evidence supporting the efficacy and safety of Safi, examining its ingredients, mechanisms of action, clinical studies, and potential side effects.

### INTRODUCTION

Blood is a vital fluid in our bodies that transports essential substances like nutrients, hormones, and oxygen to cells while removing metabolic waste products and toxins. It plays a crucial role in protecting us from illnesses, infections, and aiding in the healing of cuts, scrapes, and wounds. The

blood's extracellular matrix, known as blood plasma, suspends various cells and cell fragments. While the body has mechanisms to purify blood, sometimes it requires additional support. The kidneys, liver, and lymphatic system work together to eliminate unwanted toxins and impurities from the body. However, when these

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systems are overwhelmed, toxins can accumulate, negatively impacting the blood and muscle tissues. If the liver does not function properly, digestion can become impaired, and the blood-making process can be compromised, leading to impurities in the blood. Safi Blood Purifier is a polyherbal formulation comprising extracts from various medicinal plants, including neem (*Azadirachta indica*), tulsi (*Ocimum sanctum*), chiretta (*Swertia chirata*), and senna (*Cassia angustifolia*). Traditionally used in Ayurveda and Unani systems of medicine, this formulation aims to detoxify the blood and improve skin conditions like acne and eczema. Safi Blood Purifier is designed to support the vital process of blood purification, essential for overall health. It aids in this process through the combined action of its herbal components.

## MATERIAL & METHODOLOGY

### Plant profile:

Neem

### Botanical name:

*Azadirachta indica*



Fig no 1 Neem

### Common Name:

- Marathi –Kadunimb
- Hindi – Nim
- English- Indian Lilac

### Kingdom:

Plantae

### Kingdom:

Plantae

### Phylum:

Vascular Plant

### Class:

Dicotyledons

### Order:

Sapindales

### Family:

Meliaceae

### Genus:

*Azadirachta*

### Species:

*Indica*

### Popular name. –

Nimba tree.

### Habitats: -

Dry deciduous forests, also widely planted

#### 1. Cultivation:

In arid region Neem planted along the canals are watered for the first 5-7 years. The rate of growth of Neem in plantation varies with the quality of soil. It is fairly rapid upto the age of 5 years after which it slows down. The plant attains a height of 4 m at 5 years and 10 m at 25 years

#### 2.Nutritional Content:

Main analysis	Unit	Avg
Calcium	g/kg DM	18.3
Phosphorus	g/kg DM	2.5
Magnesium	g/kg DM	3.1
Zinc	mg/kg DM	114

#### 3. Neem Leaves:

Neem leaves contain a range of compounds including nimbin, nimbidin, nimbinin, nimbolide, and quercetin. These constituents impart neem's bitter taste and potent medicinal properties.

#### 4. Uses:

Neem leaves are used in traditional medicine for their antifungal, antibacterial, antiviral, and anti-inflammatory properties. They are often used in skincare products for conditions like acne, eczema, and psoriasis. Additionally, neem leaf extracts are used as a natural pesticide and insect repellent.

#### 5. Neem Bark:



The bark of the neem tree contains tannins, flavonoids, and triterpenes.

**6. Uses:**

Neem bark has been traditionally used for its astringent, anti-inflammatory, and antimicrobial properties. It's often used to treat oral health issues like gingivitis and plaque buildup. Additionally, neem bark extracts are used in some herbal supplements and skincare products.

**7. Neem Seeds**

Neem seeds contain various active compounds, including azadirachtin, nimbin, salannin, and meliantriol.

**8. Uses:**

Neem seed extracts are widely used as biopesticides due to their insecticidal properties. They are effective against a broad range of pests but are relatively safe for non-target organisms and the environment when used correctly. Neem seed oil is also used in cosmetics, soaps, and hair care products for its moisturizing and conditioning.

**9. Neem Oil:**

**Methodology:**

Neem oil is derived from the seeds of the neem tree and contains various bioactive compounds, including triglycerides, steroids, and terpenoids.

**10. Uses:**

Neem oil is popular for its pesticidal properties and is used in organic farming as a natural alternative to synthetic pesticides. It's also used in skincare products for its moisturizing and antibacterial properties. Neem oil is sometimes added to shampoos to treat dandruff and soothe the scalp.

**11. Neem Flowers and Fruits :**

Neem flowers and fruits contain various bioactive compounds, including flavonoids and triterpenoids.

**12. Uses:**

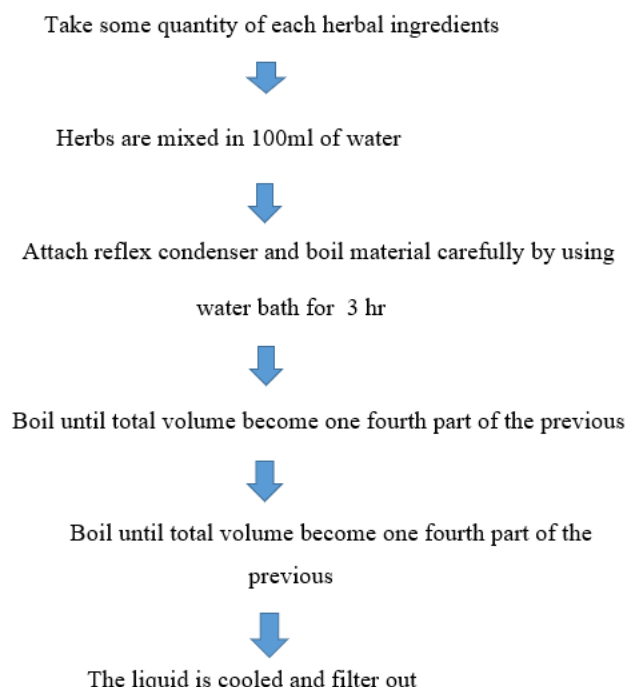
Neem flowers and fruits are less commonly utilized compared to other parts of the neem tree. However, they are sometimes used in traditional medicine for their antimicrobial and anti-inflammatory properties. Additionally, neem fruit extracts are used in some cosmetic formulations for their skin-nourishing benefits.

Sr. No.	Ingredients	Formula 1	Formula 2	Formula 3
1	Neem	2 gm	2gm	2gm
2	Yashtimadhu	4gm	4gm	4gm
3	Green Tea	3gm	3gm	3gm
4	Amla	2gm	2gm	1gm
5	Guduchi	2gm	2gm	2gm
6	Honey	35%	40%	45%
7	Black salt	1gm	1gm	1gm

**Procedure**



**Fig no 1 : Formulation of herbal syrup**



### Evaluation parameter:

#### 1. Physical evaluation of the formulation

The formulation were inspected visually for their appearance , colour , odour.

#### 2. Measurement of pH

The pH was measured using a pH meter, which was calibrated before each use with standard buffer solutions at pH 4, 7, 9. The electrode was inserted into the sample 10 minutes prior to taking the reading at room temperature.

#### 3. Viscosity

The viscosity of the formulations was checked using a Brookfield Viscometer (DV-I PRIME, USA). The lip balm were rotated at 0.3, 0.6, 1.5 rotations per minute. The viscosity of the gel was obtained by multiplying the corresponding dial reading with the factor given in the Brookfield Viscometer catalogue.

#### 4. Spreadability

Begin spreading the lip balm by using gentle pressure and smooth motions. Pay attention to how easily the lip balm spreads across the surface of your skin. Note any resistance, dragging, or uneven distribution. Assess the ability of the lip balm to cover the entire test area uniformly without leaving clumps or patches.

Spreadability Calculated by,

$$S = M.L / T$$

where,

M = wt tied to upper slide

L = length of glass slides

T = time taken to separate the slides

#### 5. Stability

Analyze the stability of active herbal ingredients and other components. Test for degradation or loss of potency of herbal extracts due to exposure to light, oxygen, or temperature fluctuations. Assess compatibility between the lip balm base and herbal ingredients to prevent interactions that could lead to degradation.

### RESULT & DISCUSSION

Sr No.	Parameter	F1	F2	F3
1.	Density	1.05gm	1.04gm	1.05gm
2.	Specific gravity	0.512	0.501	0.509
3.	Viscosity	3.60cp.	3.50cp.	3.55cp
4.	pH Determination			
	a.pH paper	Neutral	Neutral	Neutral
	b.pH meter	6.0	5.43	6.22
5.	Organoleptic Characters			
	1.Color	Brownish Yellow	Brownish Yellow	Brownish Yellow
	2.Odour	Aromatic	Aromatic	Aromatic



	3.Taste	Sweet	Sweet	Sweet
	4.Appearance	Turbid	Turbid	Clear

## CONCLUSION

Herbal blood purifier syrups are formulated to cleanse the blood and support overall health. Here's a detailed conclusion about their effectiveness:

## ACKNOWLEDGEMENT

Acknowledging the use of herbal blood purifier syrup is essential for understanding its potential benefits and effects. It's crucial to recognize that herbal remedies can have varying impacts on individuals and may interact with other medications or conditions. Always consult with a healthcare professional before starting any new supplement or medication.

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