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Research Article

FORMULATION AND EVALUATION OF HERBAL SOAP**Mansi, Madhavi porwal , Rishabh Yadav , Dr. Shailesh Kumar Ghatuary*, Varsha singh**
Shri RLT Institute of Pharmaceutical Science and Technology Ekdil (Etawah)**Article Received:** December 2022 **Accepted:** December 2022 **Published:** January 2023**Abstract-**

The leaf and bark extract of *Azadirachta indica*, *Ocimum tenuiflorum*, *Sapindus mukorossi*, and powdered *Acacia concinna* were used to create a herbal soap.

The natural ingredients found in plants are what give ayurvedic cosmetics its other name, "herbal cosmetics." has no negative effects on the body of humans. The majority of herbal supplements are made from a combination of botanical components that have a long history of use in traditional or folk medicine of the many botanical compounds that are currently on the market. Cosmetics by themselves are insufficient to take care of skin and other body parts due to the numerous chemical poisons and microorganisms that can damage and infect skin. Neem (*Azadirachta indica*) tree has gained prominence throughout the world due to its extensive array of therapeutic benefits.

Keywords: Herbal soap formulation, Hand sanitizer, *Azadirachta indica*, *Ocimum tenuiflorum*

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INTRODUCTION:

Natural herbs and substances that are healthy for the skin are used to make organic items like herbal soap. Since the beginning of time, people have employed medicinal plants as a form of treatment. As a natural therapy for treating a variety of dry skin, extracts from the leaves of different medicinal plants have been used. The safety and effectiveness of Ayurvedic products have set standards, despite the fact that many plant-based treatments have been supplanted by synthetic chemicals. The active ingredients that provide these substances their medical benefits are applied topically as creams, soaps, oils, and ointments to treat skin conditions like acne, wounds, eczemas, and ringworm. In general, a natural soap can be separated.

Soaps are needed to stay clean and fresh, yet using chemical soap can result in dry skin, skin damage, and skin conditions. Chemically produced soaps also cause a lot of ailments and skin issues. They block skin pores and prevent the cells from being able to breathe.

Herbal soaps are often created by hand and contain only organic components, which are excellent for the skin and the environment.

Some plants are effective at giving your products a natural hue. Some plants are excellent for unwinding and relieving tension. Other herbal ingredients will assist the skin by decreasing acne or relaxing inflammation.

Herbal soap preparation is a medicine or drug; it contains antibacterial and antifungal chemicals; it mostly uses plant parts, like leaves, to cure wounds or

promote health. This product, which has antibacterial properties, can be applied topically and is sold as soap.

MATERIALS AND METHODS:

Samples of *Azadirachta indica* and *Aloe barbadensis*, *Rosa rubiginosa*, *Santalum album* were collected from the Shri RLT institute of Pharmaceutical Science and technology, Ekdil (Etawah). Glycerine, Stearic acid, EDTA etc.

1. Preparation of neem extract-

Fresh Neem leaves are collected and dried for few days. Dried leaves were then powdered using mortar and pestle. The powdered Neem leaves are weighed and extracted by the Soxhlet apparatus using 70 ml of ethanol and 30 ml of ethanol upto 72 cycles. Then the extract was collected.

2. Preparation of aloe vera extract-

Fresh aloe vera was collected and was kept in water for 30 minutes. Then it was scraped off by the help of knife. Then the gel was collected and filtered.

3. Formulation of herbal Soap-

Glycerin was melted on the specific temperature on heating mantle and stirrer continuously. then mixed stearic acid, then Desired quantity of herbal oil, flavorant, colorant was added to the above formulation. The formulated soap was filled in suitable mould and stored at cool and dry place.

Table 1: Formulation of Herbal Soap (100 gm)

s.no.	ingredients	F1	F2	F3	F4
1	Aloe extract	2 ml	2 ml	2 ml	2 ml
2	Neem extract	6 ml	6 ml	6 ml	6 ml
3	Rose Extract	5ml	4ml	6ml	5ml
4	Glycerin	70gm	64gm	68gm	66gm
5	Stearic acid	.20gm	.20gm	.20gm	.20gm

EVALUATION:**physical evaluation:-**

- i) **Appearance:-**It was determined visually.
- ii) **PH :-** The ph was determined using digital ph meter and the ph of herbal soap was found to be 7.80 – 8.85.

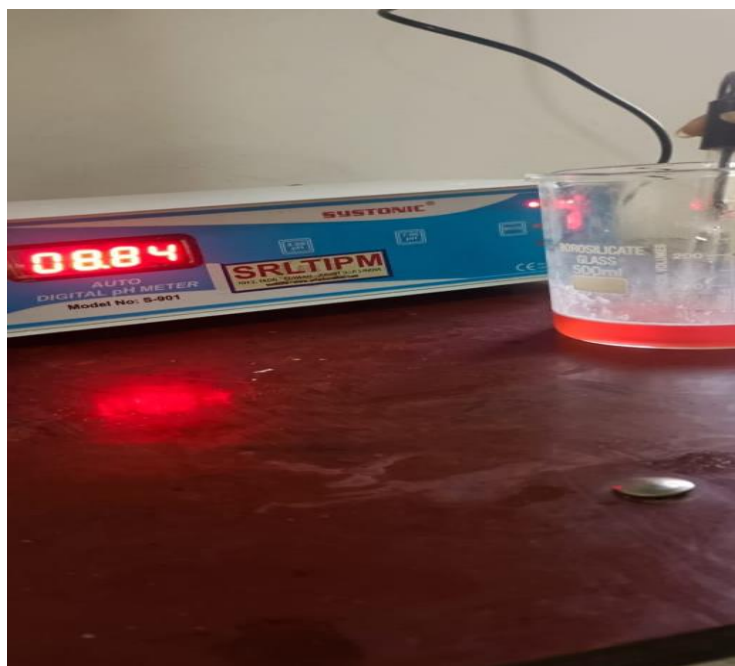
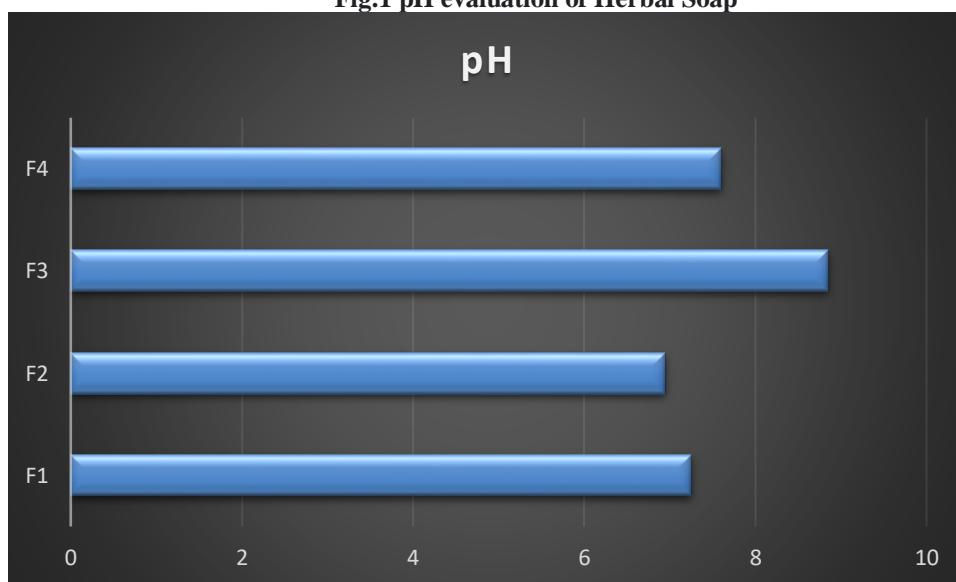


Fig.1 pH evaluation of Herbal Soap

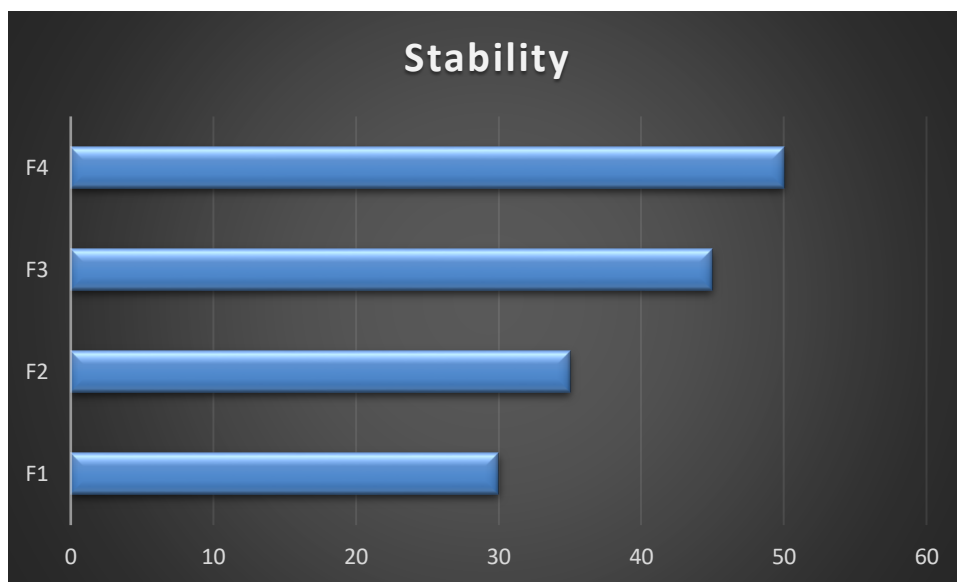


Curve.1 pH of Herbal Soap

iii) **Colour:-** It was determined visually.

IV) **Odour :-** it was determined manually.

V) **Stability studies:-** The stability of herbal soap was carried out by storing measured amount of at different temperature I.e. 30°C,35°C,45°C,50°C for one month. During stability studies no change in colour and no phase separation were observed in the formulated soap.



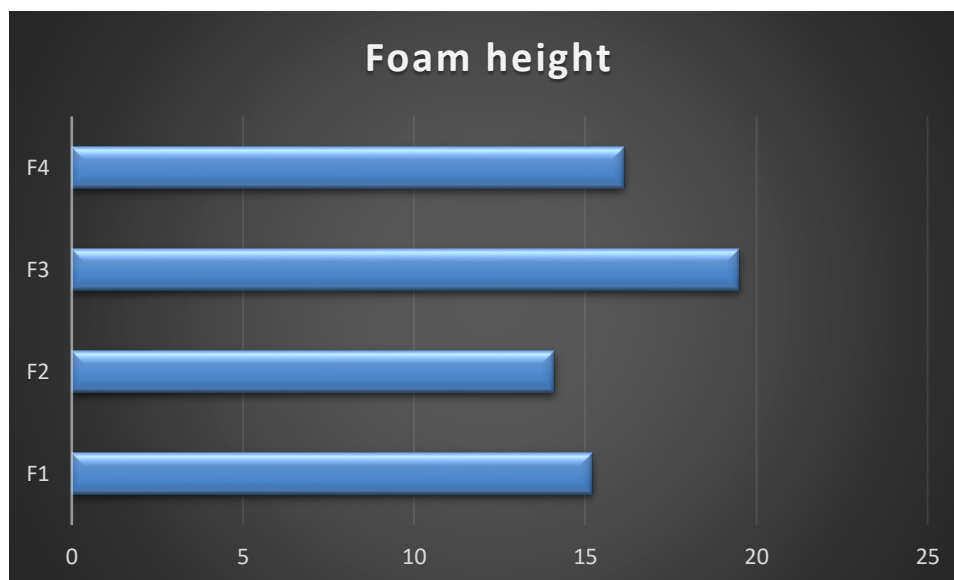
Curve.2 Stability of Herbal Soap

Foam height:-

- 1) 20ml of sample of herbal soap taken and dispersed in 100ml distilled water.
- 2) then transferred it into 500ml stoppers measuring cylinder, volume make up to 250ml with water.
- 3) 19.5 stroke was given and stand till aqueous volume measured upto 250ml and measured the foam height.



Fig.2 Foam Height evaluation of Herbal soap



Curve.3 Foam height of Herbal soap

Foam Retention: - 20ml of herbal soap was taken into a 250ml graduated cylinder and shaken ten times. The volume of foam at 2 minute interval for minute was recorded foam Retention should be stable at least 5 min.

RESULT AND DISCUSSION:

Aloe Vera, Neem, Chandan, are just a few of the elements in soap that have therapeutic properties. Natural antioxidant, antiseptic, and antibacterial capabilities are abundant in them. Nimbolinin, a green-colored substance found in neem plants, is used to alleviate skin inflammation brought on by radiation therapy and have antifungal and antibacterial. The synthesised formulation's various physicochemical properties were assessed, and positive outcomes were found.

CONCLUSION:

Herbal soaps significantly affect the skin's ability to be soft, smooth, and supple. Contrarily, chemical soaps are loaded with harmful ingredients that can be bad for both your health and your skin. Herbal soaps are a great option for better skin care and overall wellness because of their many advantages. Herbal soap has many healing, soothing, and rejuvenating effects on the skin, from the scent to the therapeutic value and aromatic advantages to the medicinal components.

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