



Formulation and Evaluation of Rice Scrub

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ABSTRACT

Since ancient times, rice has been used to treat skin conditions. Rice is the cuticle between the rice and the paddy husk and is made up of the embryo and endosperm of seeds *Oryza sativa* from the family Graminae. Rice water is a byproduct of food processing that could formulas for cosmetics to contain it. However, no scientific Their inclusion in skincare products is supported by evidence. The goal of the project is to create a rice water-containing formulation and to assess its biological attributes, specifically the anti-aging and rice water's anti-inflammatory qualities Rice water was displayed in antioxidant activity and elastase inhibitory action in vitro. The formulation with 96% rice water was skin-friendly for people and presented appropriate cosmetic qualities.

Introduction

Rice water is the result of draining boiled rice or boiling rice until it completely dissolves into the water, creating a suspension of starch. It might be served to invalids as a weak gruel. It is especially effective in the treatment of diarrhoea such as that arising in cholera or gastroenteritis Rice bran phytochemicals (flavonoids, tannins, sterols, tocopherols & amino acids) are known for several pharmacological properties such as antioxidant, anticancer, antitumor, antimutagenic, antidiabetic, ocular, impairment, anti-aging & anti-inflammatory Rice water is a milky liquid which is left after washing rice. It has been used traditionally in The treatment of skin and hair. Rice water has vitamin B, C, E, and minerals, which help in tightening skin and shrinkage of open pores on face. Additionally, it slows down the aging process, increases blood flow, and encourages the formation of skin cells. Huangluo, a Chinese village in the Guinness Book of World Records, is home to native Red Yao women. Book of Records as the 'world's longest hair village'. The women here boast long, lustrous and healthy hair that is consistently maintained. The villagers see it as a representation of good fortune, longevity, and wealth. So is the key to their immaculately styled hair—rice water, an age-old yet incredibly straightforward Chinese cure. It is obvious that this miracle concoction, which has been used for ages as a natural shampoo and rinse, works wonders. In actuality, women typically don't begin to gray until they are nearly eighty years old. However, rice water isn't exclusive to China. Rice water was utilized by Japanese women, particularly those who belonged to the Imperial Court, to wash their faces and rinse their hair approximately 1,200 years ago. This solution was highly acclaimed and termed 'Yu-Su-Ru'. Geishas in particular utilized it to maintain their skin supple, even-toned, and silky.

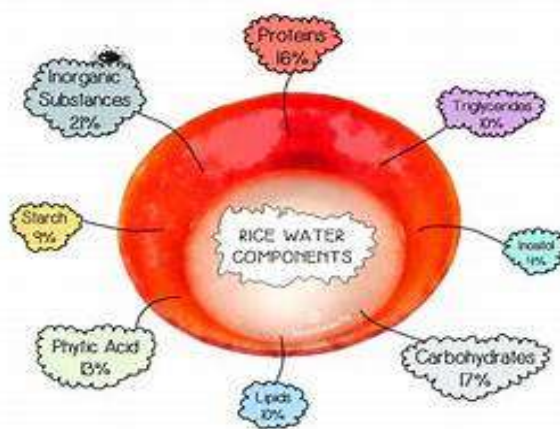


Fig.1. Components of Rice Water

Rice water has long been used as a vital beauty supplement, even in South East Asian nations like Thailand, Cambodia, and Indonesia, and even in Korea, which has recently witnessed a resurgence of ancient beauty practices. There are several nutrients in rice water that are beneficial to the skin and hair.

Around 16 percent of these are proteins, the building blocks essential to cell health. Ten percent of the content of rice water is made up of lipids and triglycerides, and nine percent is starch extract that is still utilized in Japanese cosmetics. Rice water can be used as a face rinse, skin mask, or toner twice a day. It can also be used once daily, can also be used as a last rinse or as a shampoo as often as you shampoo your hair. Additional ingredients in rice water include inositol, carbohydrates, phytic acid, and inorganic materials. This is what you get when you boil an average handful of white rice in t

Nutritional Value of Rice

Determination	Broken
Proteins	7.50%
Lipids	0.36%
Carbohydrates	80.16%
Dietary Fibers	1.06%
Tannins	18.40mg/100g
Ashes	0.24%
Riboflavin	0.03mg/100g

Table 1. Nutritional value of Rice

Drug Profile

Kingdom: Plantae

Class : Liliopsida

Order : Poales

Family : Gramineae o Poaceae

Genus : Oryza

Species : sativa

Rice has two main species

Oryza sativa – Asian rice (more common)

Oryza glaberrima – African rice (less common)

Chemical Constituents of Rice

1. Triglycerides:

2. Lipids:

3. Starch:

4. Carbohydrates:

Physical Properties

Grain size, hardness, friction between grains, density, and thermal characteristics are some of its physical characteristics. Understanding these characteristics is crucial for managing, preserving, and processing rice. The degree of grinding, moisture content, and variation all affect physical qualities. The most effective method for classifying rice dimensions is to use either normalized grain weight or surface area per unit weight. While the density of paddy fluctuates from 1.16 to 1.24 g/ml due to changing air space inside the husk, the density of milled rice varieties remains consistent at roughly 1.45 g/ml. Grain shape has an impact on bulk density; the more thin the grain, the higher the porosity and lower the bulk density. Density and bulk density in milled rice decrease with increasing moisture content, but paddy density increases. The latter is brought about by the empty space that remains inside the husk. The coefficient of friction rises as the moisture content rises.

Benefits

If you suffer from problems like dull skin, blemishes, or uneven skin tone, fermented rice water can really help you. Your skin will produce more collagen as a result, leaving your complexion more radiant and supple. Apart from this, it also helps fade blemishes, lighten scars, and pigmented patches

Uses

- skin brightening
- anti-aging
- soothes sun damage
- boosts skin barrier health

Ingredient Table

Ingredient	Weight/Volume
Aloe Vera	5thb
Rice Powder	1tbs
Vitamin E	1gm
Sodium Benzoate	1/2tbs

Formulation of Rice Face Scrub

- Take 1 cup of Rice.
- Wash with water till the water looks clear
- After Washing rice, leave in water for few hours
- After few hours drain the water and put the rice into blender.
- Collect the rice powder and allow them to sun dry till the water separated from powder.
- Add 5tbs aloe vera gel
- Add 1tbs rice powder
- Add ½ tbs sodium benzoate which act as preservative.
- Add 1gm Vitamin-E capsules
- Mix this ingredient well with the help of stirrer.
- The Rice Face scrub is Ready.
- Now transfer it into container/sachet.
- Use this scrub Once in a week.

Spread ability Test

The Spread ability test perform as below.

We Have Taken petri dish for performing the test

The Cream Sample is applied on petri dish the Cream Spread Easily on petri dish

Before

After



Fig 2. Spread ability Test

Irritability Test

The test is Performe on Hands as given below.

The Cream Sample is applied on Hands it suspect that the test

Substance is not Corrosive or not irrittable

So test is passed

Before

After



Fig 3. Irritability Test

Conclusion

• I will talk about the advantages of rice for skin and hair in this study.

We produced rice water by different methods. After the rice was boiled, the water that was left behind showed notable elastase inhibitory activity as well as in vitro biological antioxidant activity similar to that of ascorbic acid.

- Due to its inclusion in hair cosmetic formulations such as hair masks, shampoos, and conditioners, a semisolid dosage form appropriate for hair application has been developed. application and with adequate cosmetic properties. For the use of rice flour to
- create or develop face packs for skin polishing and whitening. Determining the element or group of chemicals in charge of the antioxidant action would be crucial.
- The potential application of such antioxidant activity to enhance skin antioxidant capacity is another significance of rice water.
- Rice should be thus considered as an anti-aging ingredient to be used in skincare product

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