

Cynodon Dactylon Herbal Face Cleanser Formulation

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Abstract: *Cynodon Dactylon (Bermuda Grass) is a parental grass distributed all over the world. It is used in skin problems as well as heat problems. It helps to keep the skin's spores clean and clear of dirt, sweat, and bacteria. For this some medicinal plants are used which are very useful for skin problems like acne, pimples, hyper pigmentation, oily skin, open pores etc. Cynodon dactylon, Rosa indica, Holy basil, Citrica limon. All these ingredients are very useful and reduce all face problems and it has the least side effects. All plants are medicinal. It shows instant results on our skin. Formulation is evaluated pH, Viscosity, Spreadability, and for the irritation test. The optimized batch shows better results after the evaluation Cynodon dactylon (Bermuda Grass) is a parental grass.*

Keywords: cynodon dactylon, face cleanser, medicinal properties of cynodon dactylon, herbal face cleanser

I. INTRODUCTION

A common grass is Cynodon dactylon, sometimes referred to as Bermuda grass. It is indigenous to large portions of Asia, Australia, and Europe. To the Americas it has been introduced. Bermuda has a large number of this invasive species even though it is not native to Bermuda. Crabgrass has been the name given to it in Bermuda (also a name for Digitaria sanguinalis). Dhoob is also known by the names drv grass, ethana grass, dubo, dog grass, dog's teeth grass, Bahama grass, crab grass, devil's grass, couch grass, Indian doab, arugampul, grama, wiregrass, and scutch grass. This research is focused on cosmetic uses of cynodon dactylon in the form of face cleanser. This face cleanser is totally made from herbal sources with highlighting the uses of cynodon dactylon.

1.1 Cynodon Dactylon

A perennial grass known as C. dactylon (L.) Pers. has numerous therapeutic uses. All over the tropics and subtropics, it is grown. The whole plant, including the root stalk, is utilized for decoration, and other uses. In addition to its considerable applications, the species is a natural resource and should be investigated. In order to achieve this goal, this review is provided to give sufficient up to date information about the pharmacognostic characteristics, traditional uses, chemical constituents, and summary of various pharmacognostic and pharmacological activities of C. dactylon, which may be used as a useful tool for researchers to properly evaluate the plant in order to explore the hidden areas and their practical clinical applications, which can be used for the welfare of mankind.



Figure 1: Cynodon dactylon

1.2 Citrus Limon

Lemons have a high acidic content and can be used as an efficient remedy to remove dark spots, clear up acne, and prevent early symptoms of aging, among other things. It is a traditional home cure for a variety of skin issues. Lemon can, however, have negative side effects on your skin, particularly if you have sensitive skin, such as burning, inflammation, etc. Therefore, before adding lemon to your skincare routine, see a doctor.



Figure 2: Citrus limon peel

1.3 Rosa Indica

The benefits of roses for the skin are among the most well known. It has anti-inflammatory qualities that can help to lessen the redness of inflamed skin in the form of Rose water or Rose Hydrolate. Being naturally astringent, it aids in pore closure, skin toning, and the promotion of a beautiful, radiant complexion. Along with helping to cure and smooth the skin, free radical-fighting antioxidants in rose water also aid to decrease wrinkles and fine lines and maintain the skin's delicate pH balance.



Figure 3: Rosa indica flower

1.4 Ocimum Sanctum

The Lamiaceae family includes the well-known herb tulsi, sometimes known as holy basil. It is widely planted throughout Southeast Asia and is indigenous to India. Tulsi has shown to be quite helpful in defending our bodies against a variety of infections and illnesses affecting the liver, skin, kidneys, etc. It is one of the finest heart-healthy foods because it includes potent antioxidants that can help keep your blood pressure and cholesterol levels under control. Due to its hypoglycemic qualities, which are known to help lower blood sugar levels, it is also beneficial for diabetes. Tulsi is advised to be a part of your diabetic diet plan. Tulsi is aptly referred to as the "Queen of Herbs" due to the many health advantages it offers.



Figure 4: basil/ tulsi leaves

1.5 Benefits of Natural Cosmetics Over Synthetic or Conventional Cosmetics

A. Eco-friendly

Conventional cosmetics or beauty products typically rely on a wide range of different chemicals for their building and exploit petroleum-based ingredients. These items typically consist of abrasive materials like lead, aluminum, and petroleum, each of which necessitates extensive mining.

In fact, aluminum, which has been linked to the development of breast cancer and Alzheimer's disease, is a key ingredient in several commonly used cosmetic products, including all antiperspirants and hair dyes. Despite this, extensive tracts of South American rainforest have been destroyed due to aluminum mining. One of the greatest ways to prevent exposure to this substance is to use antiperspirants without aluminum. Absence of harmful compounds conventional Cosmetics may be effective for improving the external appearance.

B. Budget

conventional cosmetics, herbal cosmetics are moderately priced and traditional goods. The World Health Organization (WHO) estimated that due to adverse effects and the higher cost of manufactured medicines, almost 80% of the world's population relies on herbal products for their healthcare. WHO currently suggests and advises the use of natural goods on a wider scale due to their accessibility and safer use as herbal cosmetics at a reduced cost. In order to benefit such things at lower prices with greater esteem and safety, WHO are organizing medical services, projects. Protection from early maturing A natural mineral-based on cosmetic often provides a clear measure.

C. Lack of Harsh Chemicals

For the time being, traditional cosmetics may be effective in improving the appearance, however some of the chemicals in conventional Cosmetics frequently cause adverse reactions in people, including allergic reactions and skin irritation. In addition, a few of the ingredients in conventional cosmetics may be toxic to the posterior pituitary gland (endocrine system). Conventional cosmetics frequently contain phthalates and parabens, both of which have been linked to cancer and type II diabetes.

D. Nutrition Rich

Certain substances can be absorbed by our skin. However, the stratum corneum (outer layer of epidermis), a protective barrier, is able to keep dangerous substances out of the skin to a certain extent. Despite the fact that research indicates that using skincare or cosmetics topically (externally) might injure the skin and other bodily systems and pose major health risks. An efficient natural moisturizer, cocoa butter provides the vital fatty acids needed for nourished and healthy skin. Healthy and smooth skin is provided by herbal cosmetics, primarily liquid foundation made of cocoa butter or similar ingredients. Extracts from apricots, green tea, pomegranate seeds, and grapes have antioxidant properties and may inhibit the enzymes elastase and collagenase, which break down the elasticity and structural integrity of connective tissues.

E. No Animal Testing

To make sure they are safe and effective to use, several cosmetics are initially tested on animals or humans. However, it is not necessary to test natural cosmetics on animals. Experts evaluate these natural concoctions in labs using cutting-edge machinery without using any animals.

F. No Side Effects

Your skin may become irritated and break out from using synthetic beauty products. Your skin may become dry or oily as a result of them clogging your pores. One need not be concerned about them with natural cosmetics. The use of natural components ensures that there are no adverse effects; they can be applied wherever and whenever. For instance, herbal cosmetics don't contain parabens, the most common preservative in cosmetics that can permeate the skin.

G. Formulation of Face Cleanser

To accomplish antibacterial effects in our composition, we included active ingredients *Cynodon dactylon* extract. We use *Ocimum sanctum* for its antioxidant properties.

Citrus limon was used as preservative to ensure good stability as well as *Rosa cymosa* was used as a moisturizing agent and perfuming agent. *Apis mellifera* was used as a pore cleanser and gentle exfoliator. *Mentha spicata* was used for hydrating skin.

Formulation table for herbal face cleanser-

INGREDIENTS	QUANTITY	PROPERTIES
<i>Cynodon dactylon</i>	10gm	Heat absorbent
<i>Ocimum sanctum</i>	7gm	Antibacterial
<i>Citrus limon</i>	3ml	Preservative
<i>Rosa cymosa</i>	10ml	Perfuming agent
<i>Apis mellifera</i>	2-3 drops	Moisturizer
<i>Mentha spicata</i>	5gm	Hydrating agent
Distilled water	200ml	vehicle

Preparation

1. Firstly, grind all the ingredients to its powder form.
2. Take 200 ml of distilled water in a beaker.
3. Add all the ingredients in the water.
4. Boil it till the volume becomes 100ml so that it will mix properly.
5. Filter the solution by using Whatman filter paper.
6. Transfer in a suitable container.
7. Perform the evaluation tests.



Fig. No. 5



Fig. No. 6



Fig. No. 7

Evaluation tests .

1. **Color:** The formulation of the face wash was visually inspected for uniformity in color.
2. **Odor:** The formulation is inspected for any unpleasant odor.
3. **Consistency:** The result was manually determined.
4. **pH:** the pH of the preparation (for 1% solution) should be NMT 6.5 and NLT 4.5 .
5. **Viscosity** - NMT 0.02 Poise

II. CONCLUSION

We prepared a natural face cleanser using cynodon dactylon and other herbal ingredients. This face cleanser has very less side effects and this is suitable for all skin types. Skin problems like acne, pimples, pigmentation can be prevented by using this face cleanser. This is a chemical free product which means it is eco friendly and it is based on old Indian skincare practice. All plants are medicinal. It shows instant results on our skin.

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