FORMULATION & EVALUATION OF FACE PACK FROM MORINGA OLEIFERA LEAVES

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1. Abstract

In this project work discuss about moringa leaves face pack .it is also known as” Drumstick tree”or’Horseradish tree” It is small size tree with approximately 5-10m height. This is incredible miracle tree could help to cure 300 diseases , including osteoporosis and high blood pressure. Moringa also contains calcium and phosphorus which help to keep bones healthy and strong. It demonstrated as antidiabetic and antidyslipidaemic activities. Moringa is multipurpose medicinal plant used as human food and medicinal purpose. It is herbal plant and used as a antioxidants, antibiotics. Moringa all part used as a nutrition. Moringa contain a 92 nutrients including vitamins, sterols, flavonoids, alcohol, fats, amino acid, ketones and acids. It also contains 18 amino acids, 36 anti inflammatory , 46 antioxidants and 9 essential amino acids. Moringa also used to treat both Type 1 and Type 2 diabetes . It also has many beauty benefits which help in nourishing moisturizing conditioning our skin along with providing vitamins and antioxidants rich properties. The facts about moringa is also one of kind as its leaves are rich in essential amino acids which are not usually found in plants . it is rich in protein and is a source of good cholesterol.

Keywords; Herbal face pack, Skin, Antibacterial, Antioxidant
2. Introduction

Moringa is tropical or subtropical plant belonging to a diverse genus native to Africa and Southern Asia. Moringa oleifera popularly known in Brazil, as moringa and quiabo-de-quina. The flowers, seeds, leaves, pods of moringa tree considered the food source of nutrition in the African continent and other countries particularly in India, Pakistan and Philippines. Moringa oleifera is native to Northern India, But it is widely distributed in the America, Europe, Asia, Africa, Oceania. Moringa is a fast growing drought resistant tree of the family Moringaceae. It is scientific name is moringa oleifera. Brassicales is a order. Moringa grows easily and amazingly fast and is almost entirely edible by humans or farm animals. The moringa has antifungal, antiviral, anti-depressant and anti-inflammatory properties. It is also extremely low in fats and contains no harmful cholesterol.

It contains high vitamin B content helps with smooth and efficient digestion. India is the largest producer of moringa, with an annual production of 1.2 millions tonnes of fruits from an area of 380 km. Moringa is also actively by the world vegetable centre in Taiwan a centre for vegetable research. It can be propagated from seed or cutting. It’s also used to beauty skin. It is antibacterial properties. Moringa helps full in removing blemishes, dark spots, pimples and black heads. It sometimes directly applied to the skin. Moringa has many nutrients healthy for your skin including vitamin A, vitamin C. As stated earlier, moringa or drumsticks may help improve your preventing blemished and give you an even tone, when applied topically. It brings out the natural glow of your skin. It aptly named the tree of life. It also contain protein, which means it is helpful in protecting skin cell from damage. It can also successful in curing skin infections and sores.

Moringa also used for many disease like cancer, constipation, seizures, headache, kidney, ulcer, arthritis etc. Moringa is good to take every day. It’s daily dose should be limited to the 70 grams of moringa leaves. The moringa product give at least one month to give good result. Moringa leaves of antinutrients which can reduce the absorption of mine rats and protein so it also bad for you. Moringa is help to reduce weight gain, fatigue and improve energy levels, prevent inflammation and lower the cholesterol and blood pressure etc. It contains protein, vitamins and minerals. It contains many healthful compound such as potassium, riboflavin (B2), niacin (B3,B-6), zinc, vitamin A and thiamine. It is pungent in taste and slightly bitter. The best time to consuming moringa is in winters season. It’s slightly dry in nature.
Moringa may possess antifertility qualities. It is not recommended for pregnant women. In this plant, 46 powerful antioxidants agents. The properties of moringa is its warm in nature. It contains high levels of antioxidants so that might aid toxicity levels in the kidneys. Moringa leaves contain all of the essential amino acids, more iron than spinach, more calcium than milk, more vitamins A than carrots and their seeds have been shown to purify water. In Philippines it’s known as ‘mother best friend ‘ because it’s utilization to increase women’s milk production. Moringa oleifera is often referred as a panacea. Moringa bad for you because it leaves may also contain high levels of antinutrients, which can reduce the absorption of minerals and protein. Another thing to keep in mind is that taking moringa oleifera supplements in capsules won’t supply a large number of nutrients.

3. Material & These properties:

These herbs were collected from "Aditya medicinal plant garden" & they verify to determine of pharmacognosy of Aditya pharmacy college. All the ingredient were washed, dried. The materials used in the present study that is moringa leaves, Turmeric powder, Neem powder, Multani mitti, Aloe vera, Orange juice, Rose water.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Part Used</th>
<th>Figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moringa Oleifera</td>
<td>Leaves</td>
<td><img src="image" alt="Moringa Oleifera Leaves" /></td>
</tr>
<tr>
<td>Turmeric</td>
<td>Rhizome</td>
<td><img src="image" alt="Turmeric Rhizome" /></td>
</tr>
<tr>
<td>Neem</td>
<td>Leaves</td>
<td><img src="image" alt="Neem Leaves" /></td>
</tr>
<tr>
<td>Orange</td>
<td>Endocarp</td>
<td><img src="image" alt="Orange Endocarp" /></td>
</tr>
<tr>
<td>Rose</td>
<td>Petals</td>
<td><img src="image" alt="Rose Petals" /></td>
</tr>
</tbody>
</table>
There are following ingredient used for preparation:

A. Turmeric:

Synonym: Cardamon

Family: Zingiberaceae

It is used to cure of skin disease like wrinkles and blackspots. It has also properties like antibacterial, antiseptic and anti-inflammatory. It provide effects against pimples and breakouts to provide youthflow glow to your skin. It cure the skin diseases occurring due to blood impurities. It cures pigmentation, uneven skin tone and dull skin. It is a natural antiseptic and has natural antimicrobial properties, which help provide relief from rashes on your skin.

Procedure: -

- Fresh Turmeric needs to be cured before it can be dried and powdered
- It is boiled and dried in the sun.
- After complete dried its powder
B. Neem

Synonym:- Azadirachta Indica

Family:- Meliaceae

Biological source:- Neem consist of the fresh or dried leaves and seed oil of Azadirachta Indica

It is commonly used in antibacterial agent. It is highly beneficial for oily and prone skin. An antiacne effect is due to antimicrobial, anti-inflammatory and anti-oxidant activates of different chemical constituents. Neem powder effectively cleanses the skin from dirt, oils, and impurities. The antioxidants present in neem powder also help to reduce blemishes and hyperpigmentation and promote even skin tone.

Procedure:

- Pluck all the leaves
- Dry them directly under sun to remove moisture
- Grind them into a fine powder
- Again keep powder under direct sun light to remove the remaining moisture
- And pass through the sieve 120
C. Orange Juice

Synonym: - Salmon, Coral, Peach, Titian

Family: Rutaceae

It is citrus fruit which contains different nutritional source such as vitamin c, potassium, calcium, magnesium. It prevents the skin hydration and oxidative stress. Drinking orange juice daily could do wonders for your skin. Orange juice is oozing with antioxidants. Free radical activity could make your skin dull and also promote wrinkles and ageing. It is free from cholesterol, gluten, sodium, low fat, low in saturated fat.

It is best to limit yourself to no more than 8 ounces (240ml) per day. Even better, if you can, opt for whole orange over juice whenever possible.

Procedure:

- First, you need to peel the fruits and after that, dispose the seeds. Put the orange flesh into the blender.
- Second, add the ice cubes or the shaved ice inside. Put it with the sugar and boiled water.
- Blend it for about 3 minutes in order to make it quite well.
- Serve by using a beautiful glass and the juice is ready.
D. Multani Mitti OR Fuller’s Earth

**Synonym:-** Bleaching Clay  
**Family:** Euphoribaceae  
**Biological source:-** Deposits of volcanic ash of cretaceous and younger

It helps to remove the impurities in the form of dead skin cells. Multani mitti is rich in magnesium chloride. It gives a glowing effect to the skin as they contain healthy nutrients. Multani mitti is used as a natural cleanser and astringent, offering a host of benefits for the skin. It is used as a natural cleanser and astringent.

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E. Rose Water

**Synonym :** Rosettes  
**Family :** Rosaceae  
**Biological source :** Rose petals

It is flavoured water made by steeping rose petals in water. It is the hydrosol portion of the distillate of rose petals, a byproduct of the production of rose oil for use in the perfume. Rose oil may be used effectively to reduce anxiety, stress, depression, and pain. It protects against harmful bacteria and fungi. Rose has a variety of vitamins, antioxidants, and minerals. Rose oil is fantastic for tracking dry skin.
**Procedure:-**

- Take one fourth cup of dried or half cup fresh rose petals in a sauce pan.
- Then pour one and a half cup of water in it.
- Cover the sauce pan with a lid and bring the water to a boil.
- After water boil, lower the flame and allow the water to simmer and soak up the colour the and essence of the rose petals.

![Image of rose petals](image-url)

**Moringa leaves Extract preparation:-**

The moringa leaves were cleaned by using water. It is dried with warm air at [40 degree] for two days and made a dry powder by using mortar and pestle. It mashed to produce it’s powder. The all extract preperation about 10.00 gram.

**Methods of preparation:-**

For the formulation of face pack the ingredient is given. The Moringa leaves extract was added Turmeric powder, neem powder and multani mitti as per requirement and mixed them. The accurate quantity ingredients were weighed and ground into fine powder by using sieve *120. then this mixed powder add 1ml of orange juice, 2ml rose water and mixed well. Then all the ingredients were mixed geometrically by serial dilution method for uniform mixing. Then prepared face pack was collected into container, labelled and used for further studies.
Ingredients Name:-

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moringa Powder</td>
<td>2.75mg</td>
</tr>
<tr>
<td>Turmeric Powder</td>
<td>1.25mg</td>
</tr>
<tr>
<td>Neem Powder</td>
<td>1.00mg</td>
</tr>
<tr>
<td>Multani Mitti</td>
<td>1.00mg</td>
</tr>
<tr>
<td>Orange Juice</td>
<td>1ml</td>
</tr>
<tr>
<td>Rose Water</td>
<td>2ml</td>
</tr>
</tbody>
</table>

Procedure of face pack Application:-

- Take prepared face pack powder in a bowl.
- Face pack cover the acne & blemishes spots.
- Then face pack apply over the facial skin & kept as it is.
- Drying for 20-25 minute then wash with cold water.

Evaluation of face pack :-

1] Orangoleptic Evaluation
   The orangoleptic parameters include it’s nature, color, odor, feel and consistency which were evaluated manually for it’s physical properties.

2] Physicochemical Evaluation
   Physicochemical parameters were determined including the determination of extractive value, ash value, PH and moisture content.

3] Physical Evaluation
   The particle size was tested by microscopy method. The flow property of the dried powder of combined form was evaluated by performing angle of response by funnel method, bulk density by Tapping method.

4] Irritancy Method
   Mark an area [1 sq.cm] left hand dorsal surface. Definities quantities of prepared face pack were applied to the specified area and time was noted. Irritancy, erythema, edema was
checked if any for regular interval up to 24 hrs and reported.

5] Stability Studies

Stability testing of prepared formulations was conducted for formulation by storing at different temperature condition for period of one month. The packed glass vials for formulations stored at different temperature[ 35 degree]and [45 degree] and were evaluated for physical parameters like color, odor, PH consistency and feel.

**Phytochemical screening result of moringa leaves extract**

<table>
<thead>
<tr>
<th>Compound Groups</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkoloids</td>
<td>+</td>
</tr>
<tr>
<td>Flavonoids</td>
<td>+</td>
</tr>
<tr>
<td>Phenolic</td>
<td>-</td>
</tr>
<tr>
<td>Tanin</td>
<td>+</td>
</tr>
<tr>
<td>Saponin</td>
<td>-</td>
</tr>
<tr>
<td>Triterpenoid and steroids</td>
<td>+</td>
</tr>
</tbody>
</table>

**Stability studies of Herbal formulation**

<table>
<thead>
<tr>
<th>Sr</th>
<th>Parameter</th>
<th>1 month</th>
<th>2 month</th>
<th>3 month</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Visual Appearance</td>
<td>Clear</td>
<td>Clear</td>
<td>Clear</td>
</tr>
<tr>
<td>2</td>
<td>PH</td>
<td>6.3</td>
<td>6.3</td>
<td>6.3</td>
</tr>
<tr>
<td>3</td>
<td>Solid content</td>
<td>24g</td>
<td>24g</td>
<td>24g</td>
</tr>
<tr>
<td>4</td>
<td>Surface tension</td>
<td>33.52+-0.42</td>
<td>32.52+-0.02</td>
<td>35.20+-0.02</td>
</tr>
<tr>
<td>5</td>
<td>Detergence ability</td>
<td>52.12+-0.1</td>
<td>57.10+-0.1</td>
<td>54.50+-0.1</td>
</tr>
</tbody>
</table>
Result:-
In this study the herbal face pack was prepared by using moringa extract.

Benefits of moringa:
Moringa is believed to have many benefits & its uses range from health & beauty to helping prevent & cure diseases. The benefits of moringa include:

1) Protecting & nourishing skin & hair
   Moringa seed oil is beneficial for protecting hair because it contains antioxidants & fatty acids, making it a moisturizing, anti-inflammatory option for skin, nails & hair.

2) Treating edema:
   Edema is a painful condition. The anti-inflammatory properties of moringa may be effective in preventing edema for developing.

3) Protecting the liver:
   It protects the liver against damage caused by anti-tubercular drugs.

4) Preventing & treating cancer:
   It helps to prevent cancer developing.

5) Treating Stomach complaints:
   Moringa extract helps to treat some stomach disorders such as constipation, ulcer colitis & gastritis.

6) Fighting against bacterial diseases:
   Antibacterial, antifungal & antimicrobial properties. Moringa extracts might combat infections caused by Salmonella, Rhizopus & E. Coli.
Conclusion:

In the present study, people need cure for various skin problems without side effect. The moringa oleifera leaves to treat common medical condition but a few use if for preventing and treating malnutrition. The moringa leaves face Pack are more acceptable in the belief that they are safer with fewer side effects than the synthetic ones. Herbal formulations have growing demand in the world market. It is very good attempt to establish the herbal face pack containing different powders of plants. The herbal face pack is used to maintain the elasticity of the skin. Remove adhere dirt particles and improve the blood attempt to formulate the herbal face pack containing naturally available ingredients like turmeric, aloe vera, orange juice, moringa leaves, neem powder. The presence of phytochemicals indicates possible preventive and curative properties of moringa oleifera leaves. It is face pack used in the treatment of acne, pimple, scars and marks and provides a soothing, calming and cooling effect on the skin. Herbal ingredient opened the way to formulate cosmetics without any harmful effect. The face pack of moringa is used to controlling premature aging to the skin, wrinkles, fine lines and loosing of skin. The herbal face pack is non-toxic in nature. It gives natural glow of skin in the optimum time period. The pollution and harsh climates badly affect the skin and these effects can be countered by the regular usage of face pack. There are remarkable number of non-approved product for treating skin problems available in market without any scientific evidence. A number of skin diseases are believed to be associated with oxidative stress, including psoriasis and acne. The moringa leaf extract which had the highest general preference level. Moreover the face pack produced have PH, specific gravity, emulsion stability and total microbial contamination evaluation parameters were performed to ensure superiority of prepared face pack for formulation was done for it's organoleptic and physiochemical. This study shows that our formulation has suitable effect.

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