

Formulation and Evaluation of Harbal Face Cream

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Abstract:

Aloe vera, Amla, sandalwood, neem, turmeric and cucumber peel are medicinal plant they are used as traditionally from ancient year in various herbal medicines such Ayurveda, siddha, and Homeopathic. Cosmetics and some medicinal products are made up from the mucilaginous tissue in the centre of aloe vera leaf and called Aloe vera gel. Aloe vera gel contains no Antraquinone. Which are Responsible for the strong laxative affects of aloes. However, total leaf extract may contain Antraquinone. Aloe vera contains 75 potentially active constituents like Vitamines, Enzymes, Minerals, Sugars, Saponis, Amino acids. Amla contain Amino acid like glutamic acid, proline, And Aspartic acids etc. Protein, Minerals. Cucumber peels are rich in fiber and contain minerals like magnesium potassium, and silica. The silica is an essential component to keep you muscles, bones, and tendons healthy. It also hydrates our skin, improves complexion and vision.

Keyword: Aloe vera, Amla, Cucumber peels, neem, sandalwood, turmeric, face cream, Evaluation.

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1. Introduction:

The Demand of herbal cosmetics due to the availability of new ingredients the financial rewards for developing successful products and maintained of quality standard. Cosmetics are the products applying on the body. Face cream are used as cosmetic for softening and cleansing action. The Ayurvedic system of medicine was one of the most important systems that uses herbal plant and extract of the treatment of management of various Diseases state Cosmetology is the study and application of beauty treatment. Branches include hairstyling, skin care, cosmetics, manicures/pedicures, non-permanent hair removal such as waxing and sugaring, and permanent hair removal processes such as electrolysis and intense pulsed light (IPL). Cosmetologists are trained and licensed to perform cosmetic treatments to the hair, skin, and nails. This can be expanded into multiple parts including cutting and chemically treating hair, chemical hair removal, fashion trends, wigs, nails and skin care, skin and hair analysis; relaxation techniques including head, neck, scalp, hand and feet basic massage and aroma therapies; plus ability to expertly apply makeup applications to cover up dark spots or promote and can expand into further specialties such as reflexology; theatrical applications; cosmetics and others as listed below.

2. Aloe Vera:

Aloe vera Synonyms-Aloe Barbadensi Belong To Family- Liliaceae, which having 300 specie, Aloe vera is cactus like plant that grow readily in hot, dry climates, and Aloe vera cultivated in very large Quantities. Cosmetics and some medicinal products are made up from the mucilaginous tissue in the centre of aloe vera leaf and called Aloe vera gel. Aloe vera gel contains no Antraquinone. Which are Responsible for the strong laxative affects of aloes. However, total leaf extract may contain Antraquinone. Aloe vera contains 75 potentially active constituents like Vitamines, Enzymes, Minerals, Sugars, Saponis, Amino acids. Amla, Synonyms- Emblica Officinalis. Family- Euphorbiaceae. Which also known as Indian gooseberry. It contains Vitamin C considered important to slow the ageing radicals. Vitamins C is a Scavenger

of free radicals which break them down. And also contain Amino acid like glutamic acid, proline, And Aspartic acids etc. Protein, Minerals. Amla having show Antioxidant, Anti-cancer, Antibacterial

Cucumber (*Cucumis sativus* L.) belongs to Cucurbitaceae family such as melon, watermelon, pumpkin and zucchini. It is widely consumed fresh in salads or fermented (pickles) or as a cooked vegetable. They are widely used for various skin problems including swelling under the eyes and sunburn. It is believed that they promote refreshing, cooling, healing, soothing, emollient and anti-itching effect to irritated skin. The nutrient profile of *Cucumis sativus* L. includes water (96.4%), protein (0.4%), fat (0.1%), carbohydrate (2.8%), mineral (0.3%), calcium (0.01%), phosphorus (0.03%), iron (1.5 mg/100 g) and vitamin B (30 IU/100 g). Ascorbic acid and Enzyme such as crepsin, proteolytic enzyme, oxidase, succinic, malic dehydrogenase have also been reported in the fruits. The bioactive compounds isolated from cucumber includes cucurbitacins, cucumegastigmanes I and II, cucumerin A and B, vitexin, orientin, isoscoparin 2''-O-(6'''-(E)- p-coumaroyl) glucoside, apigenin 7- O-(6''-O-pcoumaroyl)glucoside).

3. Cosmetological Importance Of Aloe:

Aloe vera has been used since ancient times for healing infection and burns. However with the improvement in cosmetology, it has been proved that Aloe vera is a very important component of cosmetics. It contains almost 20 amino acids, minerals like calcium, magnesium and sodium in sufficient quantities, enzymes, vitamins, polysaccharides, nitrogen and other components that make it a miracle beauty herb. Some of the most important applications of Aloe vera for purpose of Cosmetology are being explained here briefly.



Fig No.1 Aloe Vera

4. Amla:

Phyllanthus emblica, also known as emblic, emblic myrobalan, myrobalan, Indian gooseberry, Malacca tree, or amla, from the Sanskrit amalaki, is a deciduous tree of the family Phyllanthaceae.

The amla fruit is eaten raw or cooked into various dishes, such as dal (a lentil preparation) and amle ka murabbah, a sweet dish made by soaking the berries in sugar syrup until they are candied. It is traditionally consumed after meals.[citation needed]. In the Batak area of Sumatra, Indonesia, the inner bark is used to impart an astringent, bitter taste to the broth of a traditional fish soup known as holat.

Chemical constituents

These fruits contain high amounts of ascorbic acid (vitamin C), and have a bitter taste that may derive from a high density of ellagitannins, such as emblicanin A (37%), emblicanin B (33%), punigluconin (12%), and pedunculagin (14%). Amla also contains punicafolin and phyllanemblinin A, phyllanemblinin other polyphenols, such as flavonoids, kaempferol, ellagic acid, and gallic acid.



Fig No.2 Amla

5. Cosmetological Importance of Amla:

Well, you must be wondering how gooseberry can be used to your skin. You can consume it with honey or you can also apply it on your skin directly and reap its benefits. If you are finding it hard to consume this sour fruit, then try making juice out of it and consume it. This will do good for your skin. Here are some health benefits of gooseberry for your skin.

6. Cucumber Peels:

Cucumber (*Cucumis sativus*) is a widely-cultivated creeping vine plant in the Cucurbitaceae family that bears usually cylindrical fruits, which are used as vegetables. Considered an annual plant, there are three main varieties of cucumber slicing, pickling, and burpless/seedless within which several cultivars have been created. The cucumber originates from South Asia, but now grows on most continents, as many different types of cucumber are traded on the global market. In North America, the term wild cucumber refers to plants in the genera *Echinocystis* and *Marah*, though the two are not closely related.

Raw cucumber (with peel) is 95% water, 4% carbohydrates, 1% protein, and contains negligible fat. A 100-gm (3+1/2-ounce) reference serving provides 67 KJ. (16 kilocalories) of food energy. It has a low content of micronutrients: it is notable only for vitamin K, at 16% of the Daily Value.

Depending on variety, cucumbers may have a mild melon aroma and flavor, in part resulting from unsaturated aldehydes, such as (E,Z)-nona-2,6-dienal, and the cis- and trans- isomers of 2-nonenal. The slightly bitter taste of cucumber rind results from cucurbitacins.



Fig No.3 Cucumber Peels

7. Cosmetological Importance of Cucumber Peels:

Do not discard cucumber peel it has many health benefits. The benefits include its beneficial effects in eye disorders, vitamin A& C deficiency, constipation and bones and muscles disorder. Cucumber peels are rich in fiber and contain minerals like magnesium, potassium, and silica. The silica is an essential component to keep your muscles, bones, and tendons healthy. It also hydrates our skin, improves complexion and vision.

8. Neem:

Neem is a fast-growing tree that can reach a height of 15–20 m (49–66 ft), and rarely 35–40 m (115–131 ft). It is deciduous, shedding many of its leaves during the dry winter months. The branches are wide and spreading. The fairly dense crown is roundish and may reach a diameter of 20–25 m (66–82 ft). The neem tree is similar in appearance to its relative, the chinaberry (*Melia azedarach*).

The neem tree is noted for its drought resistance. Normally it thrives in areas with sub-arid to sub-humid conditions, with an annual rainfall of 400–1,200 mm (16–47 in). It can grow in regions with an annual rainfall below 400 mm, but in such cases it depends largely on ground water levels. Neem can grow in many different types of soil, but it thrives best on well drained deep and sandy soils. It is a typical tropical to subtropical tree and exists at annual mean temperatures of 21–32 °C (70– 90 °F). It can tolerate high to very high temperatures and does not tolerate temperature below 5 °C (41 °F).

Neem Leaves mainly yield quercetin (flavonoid) and nimboesterol (β - sitosterol) as well as number of liminoids (nimbin and its derivatives). Quercetin (a polyphenolic flavonoid) is known to have antibacterial and antifungal properties.



Fig No.4 Neem Leaves

9. Cosmetological Importance Of Neem:

- A.) Benefits of neem for skin
- B.) Benefits of Neem for hair

10. Sandalwood:

Sandalwood is a class of woods from trees in the genus *Santalum*. The woods are heavy, yellow, and fine-grained, and, unlike many other aromatic woods, they retain their fragrance for decades. Sandalwood oil is extracted from the woods for use. Sandalwood is often cited as one of the most expensive woods in the world. Both the wood and the oil produce a distinctive fragrance that has been highly valued for centuries. Consequently, some species of these slow-growing trees have suffered over-harvesting in the past.



Fig No.5 Sandalwood

11. Cosmetological Importance of Sandalwood:

Benefits of Sandalwood for skin:

- i.) Scarring
- ii.) Wrinkles
- iii.) Acne

12. Turmeric:

Turmeric is a flowering plant, *Curcuma longa*, of the ginger family, Zingiberaceae, the rhizomes of which are used in cooking. The plant is a perennial, rhizomatous, herbaceous plant native to the Indian subcontinent and Southeast Asia that requires temperatures between 20 and 30 °C (68 and 86 °F) and a considerable amount of annual rainfall to thrive. Plants are gathered each year for their rhizomes, some for propagation in the following season and some for consumption.



Fig No.6 Turmeric

13. Cosmetological Importance of Turmeric:

Benefits of Turmeric for skin:

i.) Could Help Heal Acne

This works on several levels. First, turmeric prevents skin cells from clumping together and clogging the pores. Since it's antiseptic and antibacterial, it may effectively stop the growth of acne-causing bacteria. Additionally, its anti-inflammatory properties promote quicker healing by calming areas that are already inflamed.

ii.) Lightens Hyperpigmentation

Turmeric inhibits the production of melanin, the pigment responsible for dark spots and other kinds of hyperpigmentation. With regular use, a turmeric-based product can help these blemishes fade away naturally to give skin a more even-toned appearance!

iii.) Deals With Dull Skin

Congested, inflamed or damaged skin is rarely smooth and radiant, which is why turmeric's purifying, anti-inflammatory and antioxidant powers can be seriously glow-inducing. Turning up the turmeric in your skincare regimen can also boost microcirculation within the skin, leaving your complexion feeling stronger and suppler.

14. MATERIAL AND METHODS:

Plant materials: The proposed study of Aloe vera, Amla, Cucumber peel, neem leaves, sandalwood & turmeric. Collected from the local area.

Preparation of Extract: Air dried and coarsely powdered Aloe vera, Amla and cucumber peel. Were placed in Soxhlet separately, using petroleum ether and then successively with Ethanol. The extract was then concentrated to dryness under reduced pressure and controlled Temperature, and they were preserved in a Refrigerator.

SR.NO.	INGREDIENTS	QUANTITY
1	Aloe vera	1 gm
2	Amla	1 gm
3	cucumber peels	0.6 gm
4	Neem	0.4 gm
5	Sandalwood	1 gm
6	Turmeric	0.6 gm
7	Bees wax	3.2 gm
8	White soft paraffin	9 ml
9	Methyl paraben	0.3ml
10	Distilled water	q.s.
11	Menthol	0.2ml
12	Glycerine	1 ml
13	Propylene glycol	1 ml
14	Zinc oxide	0.7gm
15	Sodium benzoate	0.1gm

Table no.1 Formula of cream formulation

EVALUATION OF CREAM

Evaluation of herbal cream was following. Physical Evaluation

Formulated herbal creams was further Evaluated by using the following physical parameter physical parameter colour, odour, consistency, and state of the formulation.

- a) **Colour**
- b) **Odour**
- c) **State**
- d) **Consistency**
- e) **pH**
- f) **Spredability**
- g) **Washability**
- h) **Non- irritancy test**
- D) **Viscosity**
- j) **Phase separation**
- k) **After**

Sr.No.	Parameter	Results
1	Colour	White green
2	Odour	characteristics
3	State	Semisolid
4	Consistency	Smooth
5	Ph	6.7
6	Spredability	7.4 g.cm/cm
7	Washability	Easy washable
8	Non- irritancy test	Non-irritant
9	Viscosity	39015
10	Phase separation	No phase separation
11	After feel	Emollient

Table 2: Results of polyherbal cream

15. RESULT:

The present research was the formulation and evaluation of polyherbal cream. The evaluation parameters were coming under results, like the physical evaluation of polyherbal cream, pH of the cream, Spreadability, Washability, non-irritancy test, viscosity and phase separation of the polyherbal pain relieving cream was shown in table 2.

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