



## Research Article

# Formulation and Evaluation of Polyherbal Facial Scrub

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### ABSTRACT

Creating a Polyherbal scrub was the major goal of the current Investigation. To live a happy and confident life, cosmetics have today become an integral aspect of daily life for both men and women. Many commercially available skin care products, when used over time, lead to skin dryness, which shortens the lifespan of skin conditions including acne and redness. Scrubs made entirely of herbal elements that promote skin's cleansing, softening, moisturizing and fairness are the best solution for this issue. Cosmetics are the safest thing to use on a regular basis because they have no side effects, and they affect how the skin functions biologically. The prepared scrub was evaluated for various parameters such as appearance, pH, viscosity, spreadability, washability, irritability and found to be satisfied with all required characterization thus the developed formulation can be used as an effective scrub for using it to a healthy and glowing skin.


### INTRODUCTION

Today, herbal cosmetics are in high demand due to their ability to act as cosmetics and medicine. Skin care products are an important factor in improving people's self-confidence. Women used to be the biggest consumers of skin care products, but in today's situation, men are just as concerned about their appearance. <sup>1</sup> The blessings of natural beauty and cosmetics help to bring out and enhance one's beauty and personality. People today prefer natural foods, herbal medicines and natural treatments for healthy living. Herbal cosmetics are compounds with various plant-derived phytochemicals that

regulate skin function and provide healthy skin with important nutrients. Herbal cosmetics are natural plants and products made from them that are used in cosmetics for their aromatic value. Since chemical-based cosmetics are generally believed to be harmful, herbal products have created a desire to use natural products and natural extracts in cosmetics. <sup>2</sup>A facial scrub is a cosmetic or beauty product or treatment that cleanses and exfoliates the skin of the face or body. Face scrubs are useful for removing dirt, dead skin cells and sebum or sebum, black and white. It helps

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maintain the appearance of the skin. <sup>3</sup> There are three types of skin, oily skin, sensitive skin and dry skin. For dry skin, you should use a facial that contains moisturizing and hydrating ingredients. If a person has sensitive skin, they should use a gentle exfoliator. And people with oily skin should use an exfoliant to prevent darkening and cracking of acne and help control oiliness. With regular exfoliation, the skin becomes brighter and smoother as dead skin cells are removed, revealing new skin cells. A mild abrasive is one of the most

important ingredients in facial exfoliation. The peeling cream can be applied directly to the skin or with a small cosmetic pad. When applying the peeling gel, it is recommended to use a gentle massage to help improve blood circulation and increase oxygen supply to all skin surfaces.

### METHOD AND MATERIAL

All the natural materials used in the study were purchased from the local market in a dried powder form. The details of the plant material used in the formulation are mentioned in Table 1.

**Table No.1: Plant Material Used In Formulation**

Name of herbal drug	Botanical name	Chemical constituents	Cosmetic Uses
Aloe vera	Aloe berbadensis	Betacarotene, Aloe emodin, Aloin	Soothe sunburn
Multani mitti	Bentonite clay	Hydrous aluminium silicates, Calcite	Fight acne and pimple
Amla powder	Phyllanthus emlica	Ellagic acid, Gallic acid	Anti-aging
Liquorice powder	Glycyrrhiza glabra	Glycyrrhizin, Liquirtin	Brightness skin
Neem powder	Azardicachta indica	Azadirachtin, Nimbin	Treat dry skin
Turmeric powder	Curcuma longa	Curcuminoides	Anti-oxidant
Sandalwood power	Santalum alba	Alpha santalol, Beta santalol	Anti septic

### Formulation of Facial Scrub:

- Collection and extraction of herbal drug
- Use a mortar and pestle to combine all the herbal powders, such as amla, neem, and sandal wood powder, that have been precisely weighed and sieved through size #120.
- Weigh Multani mitti and licorice powder precisely, then blend them into a smooth

paste using a triturator. To get a face scrub with a consistent medication strength, add previously produced herbal drug and triturate to that combination.

- Aloe Vera gel was added to a mortar and pestle along with all of the herbal powder, which was triturated to create a paste-like consistency. Rose water was also added for fragrance.

**Table No.2: List of Ingredients**

Sr. no.	Ingredients	Quantity	Category
1	Aloe vera	2.2ml	Antioxidants
2	Multani mitti	2.5 g	Anti-acne, anti-inflammatory
3	Turmeric powder	2 g	Antiseptic
4	Amla powder	1 g	Antioxidants
5	Neem powder	0.3 g	Antiseptic
6	Liquorice powder	1g	Anti-inflammatory, soothing effect
7	Sandal wood powder	1 g	Antiseptic

**Table No.3: Formulation of Facial scrub**

Sr. No.	Name of Ingredients	Quantity of sample for 10 gm			
		D1	D2	D3	D4
1	Aloe vera	2.5	2.2	3	2.5
2	Multani mitti	2.5	2.5	3	2
3	Turmeric powder	1	2	2	1
4	Amla powder	1	1	0.5	1.5
5	Neem powder	0.5	0.3	0.3	0.5
6	Liquorice powder	1.5	1	0.5	1
7	Sandalwood powder	1	1	0.5	1.5

**Benefits of Ingredients:****Aloe vera**

Aloe vera is used to soften and moisturise skin. It gives the skin a layer of protection and aids in moisture retention. Aloe is abundant in nutrients and antioxidants that might hasten the healing process. On the skin, aloe vera has a cooling effect. It aids in the renewal of ageing skin.<sup>2</sup>

**Multani mitti**

Numerous benefits of multani mitti include pore reduction and blackhead removal. Improving the blood flow. As they contain vital nutrients, they help to lessen acne and give skin a healthy glow. Magnesium chloride is abundant in Multani Mitti.

**Turmeric powder**

A common condiment and colouring ingredient is turmeric. The major purpose of turmeric is to revitalise the skin. It has additional qualities like antibacterial, antimicrobial, and anti-inflammatory effects in addition to delaying ageing symptoms like wrinkles. The best source of a blood purifier.<sup>11</sup> Is there. On skin that is afflicted by conditions, turmeric can do miracles. It can soothe skin conditions like eczema and rosacea and lessen the redness caused by pimples.

**Amla**

It has lots of antioxidants and vitamin C, which reduces hyperpigmentation and dark spots.<sup>12 13</sup> The antioxidant and other polyphenols in amla help to naturally lighten your skin by scavenging free radicals in your skin cells.

## Neem



Neem leaves are used to treat skin sores and leprosy. It has antibacterial and antioxidant characteristics that filter into the skin and eliminate all dirt and microbes. Some of its health-improving properties are useful for acne, rashes, and skin infections.

## Liquorice



Additionally, it might aid in minimising age spots and dark under-eye circles. Additionally, the extract contains potent antioxidants that shield the skin from external stresses.<sup>14</sup>

## Sandalwood



With good reason, sandalwood oil has been used for many years to treat skin issues. Regular use of this antibacterial powder can minimise the appearance of wrinkles and dry skin, combat germs that cause acne, exfoliate the skin, treat

sunburn, and eliminate suntan. Sandalwood keeps the skin cool, fair, and healthy while protecting it from the effects of environmental pollutants.

## Rose water



Rose water uses for different purposes like helps soothe skin irritation, Soothes sore throats, reduces skin redness, helps prevent and treats infections, contains antioxidants, heals cuts, scars, and burns, enhances mood, relieves headaches, it has anti-aging properties, soothes digestion problems.<sup>15</sup>

## EVALUATION

**Colour:** yellowish colour of scrub was observed by visual examination.

**Odour:** odour found to be aromatic

**State:** semisolid state of scrub was observed visually

**Consistency:** consistency was found to be smooth with visual examination.

**pH:** pH of prepared scrub formulation was determined by using digital pH meter.

**Washability:** little quantity of scrub was applied on the skin and wash with water. It is easily washable.

**Grittiness:** small gritty particles was found

**Irritability:** small amount of scrub applied on skin and kept for few minutes and found to be non irritabile.

**Spreadability:** The Spreadability is very much important as shows the behaviour of scrub that comes out from the tube. It is used to identify the extent of Spreadability by the Scrub on skin.

**Table No.4: Evaluation of Polyherbal Facial Scrub:**

Sr. No.	Parameters	Result
1	Colour	Yellowish
2	Odour	Aromatic
3	State	Semisolid
4	Consistency	Smooth
5	pH	4-6
6	Washability	Easily washable
7	Grittiness	Small gritty particles
8	Irritability	No irritation
9	Spreadability	Easily spread

**Table no.5: Organoleptic Properties**

Sr. No.	Parameters	Observations			
		D1	D2	D3	D4
1	Appearance	Semisolid paste	Semisolid paste	Semisolid paste	Semisolid paste
2	Colour	Buff Green	Yellow	Yellow	Yellow
3	Odour	Aromatic	Aromatic	Aromatic	Aromatic
4	Texture	Shiny	Shiny	Shiny	Shiny
5	Smoothness	Small Gritty particles	Small Gritty particles	Small Gritty particles	Small Gritty particles

**Table No.6: Irritancy Test**

Sr. No.	Parameters	Formulation			
		D1	D2	D3	D4
1	Irritant	+	NIL	+	+
2	Erythema	NIL	NIL	NIL	NIL
3	Edema	NIL	NIL	NIL	NIL

**RESULT AND DISCUSSION**

The polyherbal facial scrub was formulated and evaluated. The grading of evaluation parameters were observed at room temperature (Table 7).

are contented in Table 4. The stability studies shows slight change in pH of Formulation which was stored at 40°C and no changes

**Table No.7: Result of Stability studies**

Days	Parameters		
	Colour	Odour	pH
Day 1	Yellow	Aromatic and pleasant	6.81± 0.1
Day 2	Yellow	Aromatic and pleasant	6.66± 0.2
Day 3	Yellow	Aromatic and pleasant	6.42± 0.1
Day 4	Yellow	Aromatic and pleasant	6.38± 0.1

**CONCLUSION**

From the present research, it can be concluded that a successful formulation of Polyherbal scrub of Aloe Vera can be formulated using Turmeric,

Sandalwood, Amla, rosewater, Multani Mitti, Neem, Liquorice etc.



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