

Formulation and Evaluation of Facial Scrub

Pramod chikkodi¹, Madhavi potdar²

^{1,2}Nootan college of pharmacy kavathe mahankal

Abstract: -

Making herbal scrub was the primary goal of the current investigation. These days, cosmetics play a significant role in helping both men and women live happy, self-assured lives. We decided to create and test a herbal face scrub to avoid acne, scars, tanning, wrinkles, aging, and redness while keeping in mind that the cosmetic should not contain any artificial chemicals or drugs. Herbs with antioxidant, antiseptic, antibacterial, skin-brightening, permanent mark-diminishing, and inflammation-reducing qualities are present in this face scrub. The skin area has to be cleaned often to get rid of dead cells, crusts, applied makeup as well, sebum, and other secretions in order to be healthy and attractive. We used various herbal powders to create the herbal face scrub including red lentils, flaxseed, rice flour, potato starch powder, lavender oil, moringa powder, aloe vera gel, sandalwood, rose water and more. Appearance and smoothness were among the metrics used to evaluate the scrub. The scrub has good results on oily skin and good results on normal and dry skin.

Keywords: -

Red lentils, flaxseed, rice flour, potato starch powder, lavender oil, moringa powder, aloe vera gel, sandalwood, rose water.

1. Introduction: -

The biggest organ in the body, the skin covers the whole outside of the body and provides protection from a variety of threats. 1.5–2 m² is the surface area. The body's first line of defense against infections, UV rays, toxins, and mechanical damage is the skin. It also controls the volume of water discharged into the surroundings and the degree of humidity. Acne is sometimes referred to as pimples, acne vulgaris, etc. It is among the most prevalent long-term inflammatory conditions affecting pilosebaceous units, which are skin hair follicles connected to an oil gland.

Seborrhea (excess oil), inflammatory lesions (papules and pustules), non-inflammatory lesions (open and closed comedones), and varying degrees of scarring are all components of acne. Acne is seen on the face, neck, arms, back, and upper chest. Acne in men as well as women throughout adolescence is frequently caused by an increase in hormones like testosterone. The bacterium's rapid expansion is a common contributing element. The bacteria *Propionibacterium acnes* is often found on the skin. Males often have more serious acne. The species *vulgaris*, although girls are more likely to have it during puberty. Females are more likely than men to have acne.

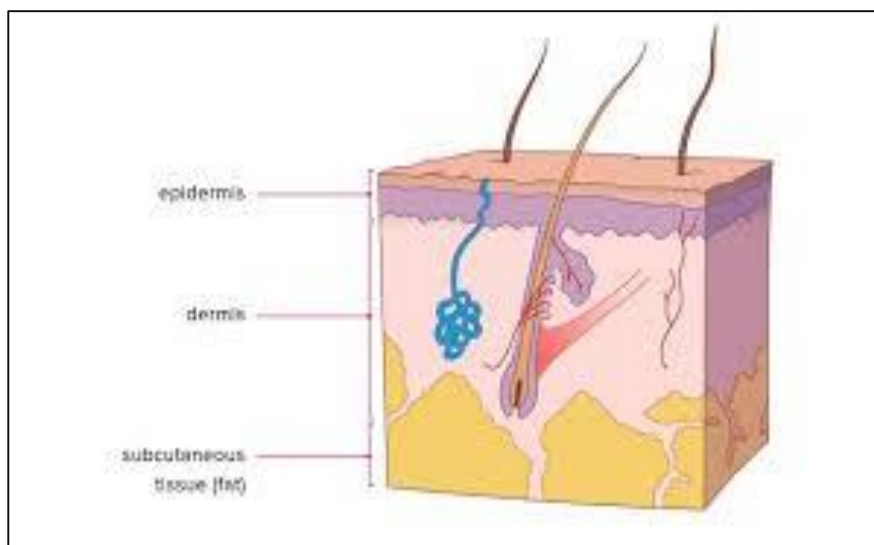


Fig no.1 diagram of skin

The term 'cosmetic' derives from Greek and refers to substances meant for skin application to enhance its beauty and health. It serves multiple functions, including cleansing, enhancing glow, protection, moisturizing, softening, whitening, and more. Herbal cosmetics are highly sought after today because they can nourish the skin with everything it needs, without causing any side effects. Various kinds of herbal topical cosmetic products are available in the market, including facial masks, peeloff treatments, sunscreen gels, and facial scrubs.

The wellbeing, routines, work schedule, climatic conditions, and upkeep were suitable for the beauty of people's skin and hair. Excessive exposure to heat will dehydrate the skin during summer, leading to wrinkles, spots, blemishes, pigmentation issues, and sunburns. Skin and hair can suffer damage from severe winter conditions, manifesting as cracks, cuts, maceration, infections, and hair loss. Skin diseases are prevalent across all age groups and can result from exposure to organisms, chemical agents, and biological toxins in the environment, with some cases exacerbated by malnutrition. The only aspect they could depend on was the information and data about nature compiled within Ayurveda.

Ideal Properties of Scrub: -

- Not harmful
- Contains tiny crusty micro particles
- Gentle rough
- Does not cause irritation
- Non-adhesive
- Can eliminate dead skin cells





Why scrub essential: -

- To summarize, lipids are the natural fats found in skin.
- They are vital elements of the skin and are instrumental in upholding the strength of the skin's protective barrier, which retains moisture, shields the skin from harm, and prevents dirt and

contaminants from entering. The skin's barrier function relies heavily on keratinocyte-derived lipids in the epidermis.

- These lipids serve as a barrier to the movement of water and electrolytes, as well as to the entry of microorganisms.
- The synthesis of cholesterol, ceramides, and fatty acids is highly active in the epidermis.

Table No .1- Ingredients used in formulation

Sr. No	Ingredie nts	Biological source	Family	Uses	Images
1.	Red lentils	Seeds of The legume Lens culinaris	Fabaceae	exfoliation, brightening, Exfoliation, Oilcontrol, Scrubing agent.	
2.	Flax seed	seeds of the Linum usitatissimu m	Linaceae	hydration, reduction of inflammation potentially even aiding in antiaging effects ,omega-3 fatty acid	
3	Rice Flour	Oryza sativa L.	Poaceae	Scrubbing agent, Enhances skin elasticity, skin whitening, prevent sun damage	
4.	potato dry starch powder	Solanum tuberosum	Solanacea e	vitamin C, Reducing Tan, Reducing Dark Circles, Skin Lightening.	

5.	Lavender oil	Lavandula genus	Mint family	Wound Healing, Insect Repellent, Detoxification.	
6.	Moringa powder	Moringa oleifera	Moringaceae	Antibacterial, Preservative, Nourishment, Acne prevention.	
7.	Sandalwood	Santalum album tree	Santalaceae	rejuvenating effects, Pore Unclogging.	
8.	Aloe Vera	Aloe barbadensis Miller	Liliaceae	provide relief from sunburns, Moisturizing, Healing, Soothing, Cooling effect.	
9.	Rose water	flowering plant of the genus Rosa,	Rosaceae	Cleansing, Balancing Natural Oils, Protecting the Skin	

Method Preparation-

1. Weigh all ingredients with the help of weighing balance and then grind it.
2. And pass them through sieve no 120.
3. Mixed all the ingredients in mortar with the help of pestle add rose water for fragrance and used it as vehicle.
4. triturate it and prepare homogenous mixture.
5. add few drops of lavender oil use it as perfume and for fragrance.

6.final product is packed in close tight plastic container.



Fig no.2 Prepared face scrub



Fig no.3 final product

Table No. 2-Formulation table

Sr. No	Ingredients	F1	F2	F3
1.	Red lentils	2gm	2 gm	2gm
2.	Flaxseed	3gm	3 gm	3gm
3.	Rice Flour	2gm	2 .5gm	3 gm

4.	Potato dry starch powder	1 gm	1.5 gm	2 gm
5.	Lavender oil	0.3 ml	0.3ml	0.3ml
6.	Moringa powder	0.35gm	0.40gm	0.45gm
7.	Sandalwood powder	2gm	2gm	2gm
8.	Aloe Vera Gel	1ml	2ml	2.5ml
9.	Rose water	QS	QS	QS

Evaluation test face scrub –

Organoleptic properties include:

- Colour
- Smell
- Texture
- Consistency
- pH – 1 gm of sample dissolved in 50 ml of water and check Ph
- Grittiness -This test is performed to check the presence of small gritty particles in the formulated scrub
- Wash ability- The scrub was applied on the skin and rinsed with normal water
- Irritability -Small amount of the scrub can be applied on the skin and kept for few minutes and found to be non- irritant

Table No. 3 – Evaluation Table

Sr. No	Parameters	F1	F2	F3
1.	Colour	Pale Yellow	Pale Yellow	Pale Yellow
2.	Odour	Characteristic	Characteristic	Characteristic
3.	Consistency	Smooth	Smooth	Smooth

4.	State/Nature	Semi -solid	Semi -solid	Semi -solid
5.	Homogeneity	Smooth consistence	Smooth consistence	Smooth consistence
6.	Spread ability	Uniform	Uniform	Uniform
7.	pH	4-6	4-6	4-6
8.	Irritability	Non-irritant	Non-irritant	Non-irritant
9.	Grittiness	Non-irritant	Non-irritant	Non-irritant
10.	Foam ability	No foam	No foam	No foam
11.	Wash ability	Easily washable	Easily washable	Easily washable

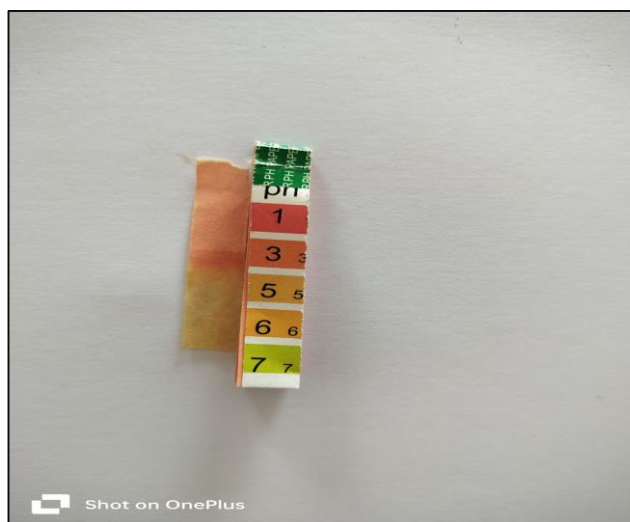


Fig no.4 -pH4 to 6



Fig no. 5-application of scrub



Before



After

2. Result: -

Every ingredient utilized in this herbal facial scrub is part of our food offerings. Thus, the likelihood of its side effects occurring is lower. This herbal facial scrub can be used to achieve the best results for oily skin. It can also be used on dry and normal skin

Conclusion: -

This formulated herbal facial scrub reduces acne, Dark Circles, pimple, inflammation, sunburns and promote skin clear and glowing also increase blood circulation and remove dead skin, so this scrub safe for face.

References:

1. Glaser DA, Anti-ageing products and cosmeceuticals. *Facial Plast Surg, Clin N Am*, 2004; 12(4): 363-372.
2. Draelos ZD, Topical Anti inflammatory agents, *Cosmetic Dermatol*, 2003; 16(10): 4142.
3. Rousseaux CG and Schachter H, Regulatory issues concerning the safety, efficacy and quality of herbal remedies. *Birth Defects Res. B, Dev Reprod Toxicol*, 2003; 68(6): 505-510
4. Pandey Shivanand, Meshya Nilam, D.Viral, Herbs Play an Important Role in the Field of Cosmetics, *International Journal of Pharm Tech Research*, 2010; 2(1): 632- 639. 5) V P Kapoor, Herbal cosmetics for skin and hair care, *Indian Journal of Natural Products and Resources (IJNPR)* [Formerly Natural Product Radiance (NPR)], 2005; 4(4): 306-314. 6) Draelos ZD, Botanical antioxidants, *Cosmetic Dermatol*, 2003; 16(10): 41-42.
7. <https://www.slideshare.net/rahimbrave/herbal-cosmetics-69811712>
8. "Formulation and evaluation of herbal scrub using tamarind peel" Ghadage P. K.*1 , Mahamuni S. S.1 , Kachare D. S.2
9. Kokate C.K., Purohit A.P., Gokhale S.B., "Pharmacognosy" Nirali Prakashan, 52nd edition. Page no. 19.1-19.2, 14.21, 14.91, and 14.132
10. "Formulation and evaluation of herbal scrub using tamarind peel" Ghadage P. K.*1 , Mahamuni S. S.1 , Kachare D. S.2 [https://en.wikipedia.org/wiki/Exfoliation_\(cosmetology\)](https://en.wikipedia.org/wiki/Exfoliation_(cosmetology))
11. Kokate C.K., Purohit A.P., Gokhale S.B., "Pharmacognosy" Nirali Prakashan, 52nd edition. Page no. 19.1-19.2, 14.21, 14.91, and 14.132
12. Dureja H, Kaushik D, Gupata M, Kumar V, Lather V. Cosmeceuticals: An Emerging Concept. *Indian Journal of Pharmacology*. 2005; 37 (3): 155-159
13. Itoh Y, Ninomiya Y, Tajima S, Ishibashi A. Photodynamic therapy of acne vulgaris with topical delta-aminolaevulinic acid and incoherent light in Japanese patients. *Br J Dermatol*. 2001; 144: 575–579.
14. premiumarticles.biz/beauty/why-should-you-use-face-scrubs-and-not-chemical-scrubs/
15. REVIEW ON HERBAL COSMETICS Saudagar R. B.* 1 and Sisodiya M. H. 2
16. <https://helloglow.co/homemade-face-scrubs/>
17. <https://www.hisomedical.com/scrub-manufacturers-us/>
18. Abeshu M, Geleta B. Medicinal Uses of Honey. *Biology and Medicine*, 2016; 8(2): 279.
19. Pal M. Lemon: A Versatile Fruit of Multiple Uses. *Agriculture World*, 2017; 3: 52-54.
20. Tripathy S, Das M. Guar Gum: Present Status and Applications. *J. pharm. sci. innov*, 2013; 4(4): 24-28.
21. Paul T, Taylor T, Babu A. Sodium Lauryl Sulphate. *Br. Dent. J.*, 2019; 227(12): 1012.
22. Schroeder K, Oh W. Glycerin. *Baileys industrial oil and fat products*, 2020; 1-31.
23. Christaki E, Florou-Paneri P. Aloe vera: A plant for many uses. *JFAE*, 2010; 8(2).
24. Evans, W.C., "Pharmacognosy", Edn. 15th, By Saunders publications, U.K., 2002, 44.
25. 11. Kokate, C.K., Purohit, A. P., Gokhale, S.B., "Pharmacognosy", Edn.. 28th, By Nirali Prakashan, Pune, 2004, 400-402.
26. Rawat, S., Nijwante S. L., Jaiswal, L., "Indian journal and Natural production," 2005, 32.
27. Ali, M., "Textbook of Pharmacognosy", Edn. 2nd, By C B S Publishers and distributors,



30. Delhi, 380-381 www.google.com <http://www.dermaessentia.com/bluges/detan-natural-home-remedies>
31. Zinnia, Ayurvedic face pack for glowing skin, style craze, Feb 2017(cited 2017 Apr24).
32. Indian standard, Face scrub specifications, IS 15153:2002, August 2002 (cited Aug05).