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## Preparation and Evaluation of Polyherbal Facial Scrub



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### ABSTRACT

In cosmeceuticals herbal product usually contain the herbal ingredients which possess antimicrobial, anti-inflammatory, antioxidant and anti aging properties. Herbal cosmetics one of the safest product can be used in daily routine no side effects, so the main objective of present study was to prepare a polyherbal facial scrub by using natural ingredients to protect and fight against various skin problem i.e acne, pimple, wrinkle, dark spot, black head, dark circles etc. and also to control oil secretion on the surface of skin is known as herbal cosmetics. Many cosmetic products when applied on the skin causes skin dryness, rashes. To cure this all problems the solution is use of scrub which consist all natural ingredients which increases cleansing, softening, moisturizing, fairness of skin. Cosmeceuticals are the product that improve the function of skin. Orange peel powder and multani mitti used as active ingradient and incorporated into the polyherbal scrub along with sodium lauryl sulfate into the formulation. The evaluation polyherbal scrub is done by various parameter such as appearance, pH, viscosity, spreadability, washability, irritability, and found to be satisfactory result. Thus, the prepared formulation can be used as an effective scrub which promote healthy and glowing skin.



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## INTRODUCTION

Cosmetics product are mixture of chemical composition obtained from either its natural or synthetical sources used for cleansing, beautifying, attractiveness Skin indicates the health of individual<sup>[1]</sup>. On regular use of scrubs, skin become glowing, smooth, soft and healthy because dead cells of skin are removed and exposing new skin cell<sup>[2]</sup>. Mild abrasive agent is one of the key ingredient in facial scrub formulation<sup>[3]</sup>. Scrub can be directly applied onto the skin or can be applied with small cosmetic pad and gently massage is recommended on application of the scrub which helps to improve blood circulation and increase oxygen supply to all surface of the skin<sup>[3-4]</sup>. Nowday's acne, and pimples are major problem of skin and dry skin, wrinkle and dark spot are second most problem. Scrub is used to remove all this skin problem of any type of skin.<sup>[5]</sup>

Herbal and natural ingredients are cleansing formula for any type of skin problem which exfoliate old and dead skin<sup>[6]</sup>. Orange peel powder is main ingredient of this preparation which are rich in vitamin C and also anti microbial, anti oxidant properties<sup>[7-10]</sup>. Grittiness of powder helps to cleans the pores of skin and remove dead skin. Another active ingredients i.e. Multani mitti or fuller's earth used as a natural cleanser and astringent offering benefits for the skin including reducing oil, fight against acne, balancing and brightening skin tone, reducing pigmentation etc<sup>[11]</sup>. Sandalwood powder having healing properties helps in soothing inflammatory skin, getting rid of scars, it removes skin impurities to give even tone<sup>[12]</sup>. Turmeric is antioxidant may provide glow and luster to the skin. Honey has antibacterial and antiseptic abilities, it may benefit for oily and acne-prone skin and act as natural humectant, so helps to keep the skin moist. Also hydrating agents like Aloe vera gel is made up of 80% water, couple with lot of vitamins, nutrient and mineral work to make skin appear really soft and glowing. Glycerine can increase skin hydration, relives dryness, and refresh the skin's surface<sup>[12]</sup>.

## MATERIALS AND METHOD

### Preparation of mixture:

The mixture was prepared by simple mixing method i.e. by trituration method. orange peel was dried and grinded in fine powder by using grinder. Bees wax melted by double boiler method, melted bees wax and orange peel powder mixed in mortar pestle. Added measured quantity of aloe vera gel, turmeric powder and multani mitti in mortar and continuously

mixed with pestle. Rose oil added in that as quantity sufficient. Methyl paraben is weighed and dissolved in beaker containing water and added in preparation as a preservative. Then prepared face scrub was packed in well closed container, labeled and used for further study.

**TABLE 1. FORMULATION TABLE OF POLYHERBAL SCRUB**

COMMONNAME	CATEGORY	QUANTITY (%)
Orange peel powder	Anti-inflammatory, fight against wrinkle, dark spot, fine lines.	0.5
Bees wax	Natural exfoliator.	0.3
Multani mitti	Remove black heads and white heads.	0.25
Sandalwood powder	Smoothing, cooling effect and improve fairness.	0.2
Turmeric powder	Antiseptic and glowing skin.	0.05
Aloe vera gel	Skin moisturizer.	0.3
Honey	Antioxidant, Antiseptic.	0.2
Sodium lauryl sulfate	Foaming agent.	0.4
Methylparaben	Preservative.	0.4
Glycerin	Skin hydration, softness and relives dryness.	0.2
Rose oil	Vehicle and smelling agent.	Q.S

## EVALUATION PARAMETERS

To evaluate prepared scrub following tests were performed i.e appearance, pH, consistency, spreadability, extrudability, viscosity, irritability, washability, grittiness and foamability.

## RESULTS AND DISCUSSION

### Appearance

For colour and odour prepared scrub was evaluated. The colour was found to be yellowish brown and odour was found to be pleasant and characteristic.

## **pH**

The prepared scrub was evaluated for its pH by using calibrated digital pH meter at constant temperature of 1gm of product and it found to be 5.7.

## **Washability**

The product applied on skin, by washing with water it was easily removed were checked manually.

## **Spreadability**

On the glass slide small amount of scrub place and another slide was placed on the scrub. The spreadability of scrub was also checked by manually and after applied scrub on skin with gentle rub and it was easily spreadable.

## **Viscosity**

By using Brookfield viscometer with spindle no. 62 the viscosity of scrub was determined.<sup>[1-2]</sup>

## **Consistency**

The consistency was determined manually. It was found to be solid by visual observation.

## **Sensitivity and irritability**

The preparation of scrub applied on human volunteers and kept for few minutes and observed for side effect. It was observed nonirritant.

## **Grittiness**

In Scrub few small gritty particles were observed.

## **Foamability**

The foamability was measured by small amount of scrub was shake with water in graduated measuring cylinder.<sup>[13]</sup>

### Extrudability

The extrudability was checked by taking small amount of scrub into a collapsible ointment tube. One end opened and other end kept closed and on the closed side slight pressure was applied. The time taken to extrude it and the amount of scrub extruded was noted.<sup>[14-15]</sup> .

**TABLE 2: EVALUATION OF POLYHERBAL FACE SCRUB**

SR.NO.	PARAMETERS	OBSERVATION
1	Colour	Yellowish brown
2	Odour	Pleasant and characteristic
3	pH	5.7
4	Consistency	Good
5	Viscosity	1.4580poise
6	Spreadability	5.73g.cm/sec
7	Washability	Easily washable
8	Grittiness	Small gritty particle
9	Irritancy	Nonirritant
10	Foamability	Foamvolume100mlat6minutes
11	Extrudability	Easily extruded

### CONCLUSION

The study was done to prepare and evaluate a polyherbal face scrub. The prepared scrub was evaluated by using various parameters and was found to be satisfactory and good for the application on the skin to make healthy and glowing without any side effect. The prepared scrub is planned to carry out with *in vivo* studies for its irritancy and adverse effects.

### REFERENCES

1. Aglawe SB, Gayke AU, Khurde A, Mehta D, Mohare T, Pangavane A, Kandalkar S. Preparation and evaluation of polyherbal facial scrub. *Journal of Drug Delivery and Therapeutics*. 2019 Mar 15;9(2):61-3.
2. Mahajan S, Gayakwad D, Tiwari A, Darwhekar GN. Formulation and Evaluation of Herbo-Mineral Facial Scrub. *Journal of Drug Delivery and Therapeutics*. 2020 May 15;10(3):195-7.
3. Ghode DS, Chatur VM, Ghode DP, Shaha N, Prajapati S, Thorave A. Formulation And Evaluation Of Facial Scrub Containing Sunflower Seeds And Other Natural Ingredients. *World Journal of Pharmaceutical Research*. 2019 Jun 20;8(9):1772-81.
4. Somwanshi SB, Kudale KS, Dolas RT, Kotade KB. [www.ijrap.net](http://www.ijrap.net).

5. Aglawe SB, Gayke AU, Khurde A, Mehta D, Mohare T, Pangavane A, Kandalkar S. Preparation and evaluation of polyherbal facial scrub. *Journal of Drug Delivery and Therapeutics*. 2019 Mar 15;9(2):61-3.
6. Packianathan N, Kandasamy R. Skin care with herbal exfoliants. *Functional Plant Science and Biotechnology*. 2011;5(1):94-7.
7. Kumar, A., S. Barbo. ota, S.P. Agarwal, J.Ali, A.Ahuja, Treatment of acne with special emphasis on herbal remedies expert. *Rev. Dermatol.*, 2008;
8. Sumit K, Vivek S, Sujata S, Ashish B. Herbal cosmetics: used for skin and hair. *Inven. J.* 2012 Oct 10;2012:1-7.
9. Yerou KO, Ibri K, Bouhadi D, Hariri A, Meddah B, Touil AT. The use of orange (citrus sinensis) peel as antimicrobial and anti-oxidant agents. *Journal of Fundamental and Applied Sciences*. 2017 Sep 14;9(3):1351-7.
10. KumarLandVermaR, In-vitro evaluation of topical gel prepared using natural polymer. *Int J Drug delivery*, 2010; 2: 58-63.
11. . Michelle O'Sullivan, Turmeric is an effective homemade face pack ingredient to help open pores, Nov 2016 [cited 2016 Dec 13]. Available from: <http://newswire.net/newsroom/pr/00094136>.
12. Best Benefits of Turmeric (Haldi) For Skin, Hair, And Health-No.4 Is The Best Nov 2016, Available from: <http://www.stylecraze.com/articles/turmerichistory-how-to-use-benefits>.
13. Pawar DN, Pawar AP, Dalvi YV. Formulation and Evaluation of Herbal Scrub Gel. *Research Journal of Topical and Cosmetic Sciences*. 2019;10(1):13-8.
14. Talpekar P, Borikar M. Formulation, development and comparative study of facial scrub using synthetic and natural exfoliant. *Research Journal of Topical and Cosmetic Sciences*. 2016 Jun 28;7(1):1-8.
15. Mary P. Lupo. Antioxidants and Vitamins in Cosmetics. *Clin Dermatol* 2001;19:467-473. Garg, A., Agarwal, D. and Garg, S. Spreading of semisolid formulation. *PharmTech*. 2002;9:89-105.

