

## Formulation and Evaluation of Onion Scrub

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### ABSTRACT

Nowadays cosmetic have become an important part in the day to day life for both men & women to lead a happy & confident life. To remain healthy and of good appearance, the skin surface requires frequent cleansing to remove grime, sebum and other secretions, dead cells, crusts and applied make-ups. Keeping in the mind that the cosmetic should be free from synthetic chemicals, so we came on conclusion to prepare & evaluate a herbal scrub to prevent Acne, Tanning, Wrinkles. This facial scrub content herb which shows Antioxidants, Antiseptic, Skin brightener & reducing inflammation properties.

In the present work we have formulated the herbal scrub by using a different herbal powders such as turmeric, orange peels, aloe vera, gram flour etc. & Onion juice. The scrub was evaluated by using the parameters like Appearance, Smoothness and effect on acne, Effect on white and black heads, spread ability, Irritation. The scrub shows excellent effects on oily skin, and satisfactory effects of normal and dry skin. All the ingredients use in this herbal scrub is of our food ingredient. So, the chances for its side effects are less.

**KEYWORDS:** Onion Juice, Turmeric, Anti-inflammatory action, Antioxidant, Acne, Exfoliant.

### I. INTRODUCTION

The demand for herbal cosmetics is high nowadays due to its ability to act as cosmetics and drugs. Skin care products are important factor to improve the confidence in individuals. Women are the larger consumer of skin care products but in the present scenario men are equally concern about their look. This concept about the beauty, look and attractiveness leads to the boom in this field. The cosmetic companies produce their product based on the skin texture like men require special

type of products due to the roughness of their skin than women. Cosmetics are used universally to enhance beauty and are available in different forms. Various types of skin products are formulated like skin protective, sunscreen, anti-acne, anti-wrinkle for beautifying skin. From ancient era people use herbs for cleansing, beautifying, acne, blackheads, pimples, and dark circles. According to Ayurveda, impurities present in blood are major cause of skin problems.

Skin becomes dull, non-glowing due to various causes and these can effectively be overcome with the application of scrubs. There are two types of scrub being used on the skin such as facial scrub and body scrub. These two are different only with the ratios of oil and sugar added in each. Use of oil is high in facial scrub due to which it is less abrasive. It removes the dead skin cell and exfoliates the skin. Face scrubs exfoliate and stimulate blood circulation and promote skin glow by removing dead skin cells and adherent cells in the stratum corneum. Scrub cleanses the skin, removes dirt, remove oil from pores, maintain the elasticity and accelerates the renewal of skin cells.

Herbal Cosmetics, here referred as Items, are formulated, using different permissible cosmetic ingredients to form the base in which one or more herbal ingredients are utilized to supply characterized corrective preferences as it were, might be called as "Herbal Cosmetics" Starting 1990's cosmetic manufacturer update a term 'cosmeceuticals' to describe the OTC skin care items that claims therapeutic advantage by addition of plant based active ingredient such as alpha-hydroxy acid, retinoic acid, ascorbic acid and coenzyme. These active ingredients serve numerous purposes viz. increase in skin flexibility, delay in skin aging by decreasing the wrinkles, protection against UV radiation by antioxidant

property and to check degradation of collagen respectively.

The word cosmetic was obtained from the Greek word “kosm tikos” meaning having the power, order, and ability in decorating. The birth of beauty care products forms a continuous narrative throughout the history of man as they created. The man in old times 3000BC used colours for the enrichment to charm the creatures that he wished to chase additionally the man survived assault from the equal by colouring his skin and embellished his

body for assurance to incite fear in an enemy (whether man or animal).

Onions give flawless skin owing to their rich nutrition profile. It is rich in vitamins such as A, C and E. It also contains antioxidants and minerals to keep skin woes at a bay. SKIN DETOX when applied to the skin, onion scrub remove toxins and gives purified and bright skin.

Here are some onion scrubs are available in market are



## OBJECTIVE

To formulate scrub using onion and other herbal products.

To Predicts shelf life of scrub.

To prepare scrub using WHO guidelines.

## II. LITERATURE REVIEW

J. Prathyusha, N. S. Yamani (2019) Cosmetics play a vital role for everyone to have a joyful and sanguine life. In present scenario herbal cosmeceuticals have more demand because they have no side effects. People having oily skin suffer from acne, whiteheads and blackheads quite often so scrubbing become more essential. In our present study we formulated 3 different formulations F1, F2, F3 in gel form for oily skin by using turmeric, aloe vera, cinnamon, potato starch, activated charcoal powder, honey, green tea, lemon juice, onion, walnut shell, coconut oil, beet root juice powder, sodium lauryl sulphate, water and evaluated by using various parameters such as physical appearance, viscosity, pH, Spreadability, irritability, washability, stability studies and got fruitful results with all the tests. The scrub F2 was found to show excellent effects on controlling oil secretion, and preventing formation of new pimples. The herbal formulation F2 was having characteristic odour, reddish brown in color having, light, non-irritant to the skin and quite elegant. The powder was smooth to touch and in gel form it spreads satisfactorily. Thus the formulated scrub F2 can be utilized efficaciously without a side effect which exfoliates and makes glowing skin.

Vidya Keshav Kakad (2022) Many of the marketed products when applied on the skin cause dryness of skin after its long-term use which results less life of skin problems of acne and redness. Solution for this problem is use of scrub which consist all herbal ingredients which increases cleansing, softening, moisturizing, fairness of skin. The use of natural ingredients to fight against acne, wrinkle and also to control secretion of oil is known as natural or herbal cosmetics. Herbal cosmeceuticals usually contain the plant parts which possess antimicrobial, antioxidant and anti-aging properties. Herbal cosmetics are the safest product to use routine with no side effects and cosmaceuticals are the product which influences the biological function of skin.

Exfoliation is the process of removal of removing the old, dead skin cells that cling to the skin's outermost surface. The two types of exfoliation are mechanical and chemical. People's opportunities for seeking dermatological

assistance for a myriad of conditions, including acne, rosacea, striae, photodamage, and skin cancers have increased in recent years. Chronological aging is a process of intrinsic normal aging of the skin. Chronic exposure to ultraviolet (UV) light leads to photodamage of the skin, which is the leading cause of extrinsic aging, or alteration of the skin due to environmental exposure. Management options for photodamaged skin include alpha hydroxy acids, antioxidants, antiandrogens, moisturizers and exfoliants. Many treatments are available to reverse the damage, but their efficacy remains to be proven and they may also produce unwanted side effects. Herbal Exfoliant is a cleansing formula and treatment mask that detoxifies the skin and stimulates its metabolism. It enhances absorption and retention of moisturizing agents and restores the skin's own natural moisture factor. Skin exfoliation improves the quality and tone of skin by assisting in the removal of dead skin cells from the surface. Herbal Exfoliant produces soft, supple, re-energized skin and prevents premature skin aging.

The main objective of present study was to prepare a polyherbal scrub incorporated into gel. The use of natural ingredients to fight against acne, wrinkle and also to control secretion of oil is known as natural or herbal cosmetics. Herbal cosmeceuticals usually contain the plant parts which possess antimicrobial, antioxidant and anti-aging properties. Herbal cosmetics are the safest product to use routine with no side effects and cosmeceuticals are the product which influences the biological function of skin. In this preparation Green apple, cinnamon, Millet, Sandalwood, Neem, Turmeric and honey is used as active ingredients and incorporated into the gel which is prepared with carbopol of different grades. Other ingredients like propylene glycol, Triethanolamine; methyl parahydroxy benzoate was added along with sodium lauryl sulfate into the gel. The prepared gel was evaluated for various parameters such as appearance, pH, viscosity, Spreadability, washability, irritability and found to be satisfied with all required characterizations. Thus, the developed formulation can be used as an effective scrub for using it to bear a healthy and glowing skin.

## III. MATERIALS AND METHODS

All ingredients were obtained in their crude form from a local distributor (Beed.) All the ingredients were powdered and sieved through sieve no.24. The Onion juice is obtained by

grinding method. Cut the onion in small slice & grind them in mixer until the juice is form. All powdered ingredients were packed in moisture resistant, well closed containers. The different

ingredients and their key uses are enlisted in table no.1.

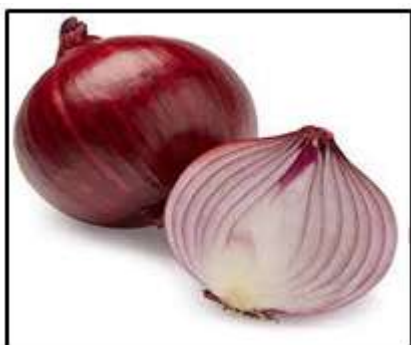
Formulation of scrub

**Table 1:** Formulation of herbal scrub

Sr. No.	Ingredients	Quantity
1.	Onion Juice	5 ml
2.	Turmeric	2 gm.
3.	Aloe Vera	2 gm.
4.	Orange Peels	2 gm.
5.	Gram Flour	2 gm.
6.	Multani Mitti	As per Requirement
7.	Khus-Khus	2 gm.
8.	Methyl Paraben	2 ml
9.	Guar Gum	2 gm.
10.	Rose Oil	4-5 drops

**Benefits of ingredients**

**Onion**



**Fig. 2:** Onion

It protects from sun. Onion is a great source of flavonoids as well as an antioxidant vitamin such as A, C and E. nourishes the skin. Prevents skin infection.

**Aloe vera**



**Fig. 3:** Aloe vera.

The word aloe Vera means "aloe meaning shining bitter substance while "vera" means true. Aloe Vera contains vitamin A and C and it is also shows anti-inflammatory properties. Aloe Vera belongs to family "Liliaceae and commonly known as Ghritkumari. Aloe Vera used as moisturizing and softening agent on skin. The aloe gel gives cooling effect on skin it has role in rejuvenation of aging skin, Aloe Vera has been used for variety of medicinal purpose. Aloe Vera also be used as a moisturizer.

**Turmeric**



**Fig. 4:** Turmeric

Turmeric is mainly used to rejuvenate the skin. It delays the signs of aging like wrinkles and also possesses other properties like antibacterial, antiseptic and anti-inflammatory. It is effective in treatment of acne due to its antiseptic and antibacterial properties that fight pimples and provide a glow to your skin. It also reduces the oil secretion by the sebaceous glands. Turmeric widely

used condiment and colouring agent. The yellow root Turmeric shows anti-inflammatory property.

#### Orange peels



Fig. 5: Orange peels

Orange is a citrus fruit which contains different nutritional source like vitamin C. It also contain calcium, potassium and magnesium. It prevents the skin from free radical damage, skin hydration and oxidative stress. Also it has instant glow property, prevent acne, wrinkles and aging.

#### Gram flour



Fig. 6: Gram flour

Gram flour is good for acne-prone skin and can help to lighten any acne scars. It can also be applied all over the body to remove dark spots. It has been used as a base in preparation of herbal scrub.

#### Multani mitti



Fig. 6: Multani mitti

Multani mitti helps skin in different ways like minimise pore sizes, removing blackheads and whiteheads, cleansing skin, improving blood circulation, reducing acne and gives a glowing effect to a skin as they contain healthy nutrients. Multani mitti is rich magnesium chloride.

#### KhusKhus

KhusKhus is an oilseed obtained from the poppy flower. Poppy seeds (KhusKhus) have strong anti-inflammatory ability, and thus actively used in Ayurvedic preparations for treating inflammation. This magical seed treats sleep disorders like insomnia. If insomnia occurs due to emotional issues such as anger or distress, these can also be treated with Khus Khus. It scores high on several accounts like dietary fibre, minerals (calcium and iron), vitamins, and omega-6 fatty acids. This herb has medicinal properties and thus used in bath soaps for external application.



Fig. 7: KhusKhus

#### Methyl paraben

Methyl Paraben is antibacterial since it's a preservative. It is effective at preventing microbial

growth and germs such as bacteria and mold in skincare and cosmetic formulations.

#### Guar gum

With its usage it makes your skin smoother Adding guar gum as an ingredient increases the life of products. It brings natural moisture to the skin. By the usage of guar gum products your scalp and hair is protected by dryness.

#### 2.3 Preparation of scrub

- Weigh accurately all the herbal ingredients & sieve through sieve no.24 & mix them together to form a uniform mixture in mortar & pestle.
- Measure accurately Onion juice in another mortar. Weigh Aloe vera then add to mortar. Add methyl paraben & guar gum.
- Mix all herbal powders & triturate them until the proper consistency occurred.
- Add Rose oil for fragrance.

#### 2.4 Ideal properties of scrub

- Non toxic
- Possess small gritty particles
- Mild abrasive
- Non irritating
- Non sticky
- Able to remove dead skin cells.[17]

#### 3. Advantages of scrubbing on skin

- 1) Rejuvenation of the skin- Regular scrubbing causes the elimination of dead skin cells, dirt and impurities from your skin.
- 2) Removes dead skin- Since scrubbing is an exfoliation process, the beads or the granules of the scrub upon cleansing and massaging removes the dead cells of the skin.
- 3) Removes scar- Every ingredient in your scrub formulation has their own property. Therefore, applying scrub rich in vitamin E & C helps in lightening of the scars and dark patches over time.
- 4) Imparts glow to the skin - Dead skin cells impart dullness to your skin. So, scrubbing your face and body regularly gives it a nice glow and adds brightness to it as well.

#### 4. Disadvantages of scrubbing on skin

- 1) Hard scrubbing motions and hard scrubbing chemicals may cause skin irritation including redness, inflammation.
- 2) Over scrubbing can result in open pores which are exposed to pollution and UV rays at the same time.

#### Why the onion scrub?

Herbal medicine has prolonged history of use and better patient tolerance as well as acceptance. Medicinal plants have a renewable source, which is our only hope for sustainable supplies of in- expensive medicines for the world growing population.

Onion face scrub will not only be safe to use but it will also exfoliate your skin, making it look healthier and more glowing. You can buy these instead of chemical ones because Face scrubs that contain natural ingredients have no side effects and are absolutely safe to use. However, you must avoid exfoliating your skin with a face scrub on a daily basis. This is because when the skin gets exfoliated on a daily basis with scrubs, the cells can get damaged and that will result in rough skin. So, you should know how to use it and what things you need to prevent. By using an herbal Face scrub through an exfoliation method, you can stimulate the collagen production on your skin and that will help your skin look smoother and give a radiant look to your skin. You can also save your skin from breakouts by using an herbal face scrub. You should make sure that your skin is not coming into contact with harmful chemical scrubs, so it's better to go with herbal face scrubs than chemical ones.

#### 5. Evaluation parameter for scrub

- 1 Colour: Yellowish orange colour of scrub was observed by visual examination
- 2 Odour: Odour found to be aromatic.
- 3 State: Solid state of scrub observed by visually.
- 4 pH: pH of the prepared scrub evaluated by using pH paper. Small amount of scrub applied on pH paper. pH was found in the range of 5.5-6.
- 5 Wash ability: Small quantity of scrub applied on the skin and wash with water. It is easily washable.
- 6 Irritability: Small amount of scrub applied on skin and kept for few minutes and found to be non-irritable.

#### IV. RESULTS AND DISCUSSION

Table 2: Result of evaluation test of Onion scrub.

Sr. No.	Parameters	Result
1	Colour	Yellowish Orange
2	Odour	Aromatic
3	pH	5.5-6
4	Washability	Easily washable
5	Stability	Stable
6	Grittiness	Small grittey
7	Irritability	No irritation
8	Feel on application	Greasy
9	Removal	Easily removal

Formulation F1, F2, F3 was tested using various evaluation parameters. Spreadability, viscosity and pH of F2 formulation was found very good when compared to F1 and F2. Stability studies of F2 formulation gives good results.

All the ingredients used in this onion facial scrub are our food ingredients. So, the chances for its side effects are less. F2 is more effective than F1 and F3. We can use this herbal facial scrub for getting best results for oily skin. The efforts are on to reformulate the scrub in a gel form in order to achieve better spreadability along imparting emollient and smoothing action.

#### V. CONCLUSION

All the ingredients use in this herbal scrub is our food ingredient. So, the chances for its Side effects are less. We can use this herbal scrub for its best result for oily skin. It can also be used dry and normal skin. The efforts are on to reformulate the scrub in a powder base. In order to achieve better stability & spread ability along imparting emollient and smoothing action of the scrub. The prepared scrub was evaluated using various parameters and was found to be satisfied for the application on the skin to make it healthy and glowing without any side effects.

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