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Formulation and Evaluation of Polyherbal Face Fack

Sakshi B Rongate* **and Pratiksha R Pawar**

Department of Pharmacognosy, SMBT College of Pharmacy, Nashik, India

Abstract

The goal of these project it assesses besides create a natural face pack designed to promote a healthy and vibrant complexion using natural ingredients. The demand for herbal cosmetics has been on the rise globally and among the diverse range of herbal products, the herbal face pack stands out. The popularity and utilization of herbal products are consistently growing, driven by an increasing preference for natural alternatives.

The natural herbal face pack serves the purpose of enhancing skin health by delivering essential nutrients. Presently, a majority of women opt for natural products over chemical ones for their skincare routines, aiming to enhance their beauty. Herbal products gain approval for being free from synthetic chemicals. The use of a natural herbal face pack has been found effective in addressing various skin ailments.

In this study, herbal components such as wheatgrass powder, sariva, shastishali rice, nutmeg, turmeric, neem orange peel, Kapoor Kachri, karchoor, manjishta, amargandhi haridra were employed in dried powder form. Careful sieving of these components using sieve no: 180 ensured uniformity. Accurate weighing and thorough mixing of these natural powders resulted in a combined dried powder with favorable flow properties suitable for an herbal face pack.

This formulation not only addresses specific skin issues but also nourishes facial skin, promotes blood circulation, maintains skin elasticity and aids in removing dirt. The work concludes that the herbal face pack exhibits positive properties, emphasizing the need for further optimization studies. Ongoing research is crucial to uncover the practical and significant benefits of the herbal face pack in human cosmetic products, including its impact on facial skin, promotion of blood circulation, preservation of skin elasticity and non-toxic nature. While the current findings highlight the good qualities of the herbal face pack, additional optimization research is necessary to fully understand and leverage its practical advantages in human cosmetic products.

Keywords: Food and Drug Administration (FDA) • Food and Agriculture Organization (FAO) • Wheatgrass (WG) • Vitamin K (Vit K) • *Tritium aestivium* (TA)

Introduction

Due to this, herbal products are highly sought after worldwide. These days, people are more drawn to herbal formulations because they think they are safer and have fewer side effects than synthetic ones. Some people even think that because synthetic formulations can cause redness, itching, swelling, pimples and skin pigmentation, young people are more likely to use them after learning about the advantages of herbal formulations and choosing to use poly herbal face packs.

Because they are safe for the skin and have no side effects, natural medications are becoming more and more in demand. The fact that herbal cosmetics only contain herbs and shrubs, guaranteeing no negative effects, is what makes them so enticing. Natural components found [1].

Benefits of herbal face pack

- Herbal face masks provide skin nourishment.
- Use of herbal face packs can reduce acne, zits, scars and blemishes; the efficiency of these packs relies on the herbal substances they include.
- Exfoliating dead skin cells is a well-known benefit of face packs.
- After applying these face masks, the skin feels calmed and relaxed.
- They help bring back the skin's lost luster and brightness swiftly.

***Address for Correspondence:** Sakshi B Rongate, Department of Pharmacognosy, SMBT College of Pharmacy, Nashik, India; E-mail: sakshirongate1217@gmail.com*

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- They benefit from preventing premature aging of the skin.
- Skin looks beautiful and youthful after using a natural face mask.
- It preserves the suppleness of the skin.
- Regular application of natural face masks restores the skin's tone and consistency, leaving the skin looking radiant.
- The detrimental effects of pollution and dangerous weather can be mitigated by using face packs wisely.

Advantages of herbal face pack

- Leaves the skin feeling hydrated. as well as provide skin with the nutrition it needs.
- Helps to lessen the appearance of pimples, acne and skin imperfections.
- Face packs usually exfoliate the skin's deteriorating cells.
- The skin feels calmer and more relaxed after using these varied face packs.
- They have the benefit of quickly regaining the natural shine and shimmer of the skin.
- Using an organic face pack on a regular basis offers skin a more youthful appearance and enhances consistency.
- Provide skin with vital nutrients and maintain skin health.

In addition to reducing wrinkles, acne, breakouts and dark bags under the eyes, facial packs are designed to improve the skin's neutrality and smoothness. A face pack is a smooth powder that is used to apply makeup to one's face. When applied as liquids or pastes, these preparations help to tighten, stretch and cleanse the skin. Afterward, they are allowed to solidify and lose moisture.

To ensure that all of the water evaporates from the skin, they are usually administered for ten to thirty minutes. This results in the film that can be easily removed, hardened or constricted. Using a face pack causes the warmth band to become more tightly wrapped. The intended effects on our skin, such as hydrating, smoothing, brightness and the removal of dead skin cells, are achieved when skin debris is eventually removed from the applied face pack and deposited.

As an active ingredient in the prepared formulation, wheat grass (*Triticum aestivium*) powder is combined with orange peel, nutmeg, turmeric, neem, sariva, shastishali rice, karchoor, manjishta and amargandhi haridra [2].

The Poaceae family of plants includes wheat grass (*Triticum aestivium*), which is used to promote the healing of burns, radiation and skin irritation. It also functions as an antioxidant and is high in vitamins A and E, which are good for our skin because they reduce fine lines and wrinkles, reduce hyperpigmentation and provide moisturizing properties to the skin. *Citrus x aurantium* or orange peel powder, is a member of the rutaceae family and is beneficial for lightening acne scars and dark spots. As a member of the Asclepiadaceae family, sariva powder (also known as Indian sarsaparilla) helps maintain bright, radiant and spotless skin. Uses for Shastishali rice powder (Navara rice) include skin whitening and skin brightening. Myristica powder, a member of the Myristiacaceae family of nutmeg, is helpful for removing dead skin cells and exposing smoother.

The plant neem (*Azadirachta indica*), which is a member of the Meleaceae family, helps to treat acne and pimples. The *Zingiberaceae* family plant kapoor kachri (*Hedychium spicatum*) has anti-blackhead properties. Karchoor or *Carcuma zedoaria*, is a member of the *Zingiberaceae* family and is beneficial because it purges the pores of pollutants. *Rubia cordifolia*, also known as manjishta, is a member of the Rubiaceae family and is beneficial for skin complexation. As a member of the *Zingiberaceae* family, amargandi haridra (*Carcuma amada* roxb) has anti-inflammatory properties (Table 1) [3].

Sr. no	Name of ingredients	Scientific name	Family	Uses
1	Wheat grass powder	*Triticum aestivium*	*Poaceae*	Induced skin irritation ,antioxidant
2	Sariva	*Indian sarsaparilla*	*Asclepiaae*	Glowing and blemish skin
3	Shashtishali rice	Navara rice	-	Skin whitening and brighten skin
4	Nutmeg	*Myristica*	*Myristiacace*	Remove dead skin cell
5	Turmeric	*Carcuma longa*	*Zingiberacee*	Skin whitening
6	Neem	*Azadirachta indica*	*Meliaceae*	Useful for fights acne and pimples
7	Orange peel	*Citrus xaurantium*	*Rutaceae*	Lighten dark spon or acne scars
8	Kapoor kachri	*Hedychium spicatum*	*Zingiberacee*	Prevent blackheads
9	Karchoor	*Carcuma zeodoaria*	*Zingiberacee*	Free the pores from impurities
10	Manjishta	*Rubia cordfolia*	*Rubiaceae*	Complexation of skin
11	Amargandhi haridra	*Carcuma amada* roxb	*Zingiberacee*	Healing inflammation

Table 1. Ingredient and uses.

Aim and objective

To formulate a natural polyherbal based face pack and evaluate its efficacy.

Objective:

- To create a poly herbal face pack using natural ingredients for cosmetic preparation.
- To assess the created poly herbal face pack's powder properties.
- To produce a product devoid of synthetic additives and hazardous substances.
- To guarantee that consumers with sensitive skin are not irritated or allergic to the formulation.
- To ascertain whether the herbal face pack can effectively treat common skin conditions including dryness, blemishes or acne.

Plant profile

Triticum aestivium commonly known as wheat grass belonging to family *Poaceae* (Table 2 and Figure 1).

Kingdom	Plantae
Division	Magnoliophyta
Class	Liliopsida
Order	Poales
Family	*Poaceace*(gramineae)
Subfamily	Pooideae
Tribe	Triticeae
Genus	Triticum
Species	*Triticum aestivium*

Table 2. Taxonomical classification.

Figure 1. Natural polyherbal.

Triticum species, a member of the Gramineae (Poaceae) family, is the world's most palatable grain, cereal or grass crop. It is now known to scientists that when compared to grain products or seed kernels of the mature cereal plant, wheatgrass a kind of fresh grass related to wheat has a far higher nutritious content than vitamins, minerals and proteins [4-5].

Chemical constituents

List of nutrients with amount:

- Nutrient content 361 ± 5.65 g of carbohydrates A total of 17.75 ± 1.06 sugars.
- Cutting down on sugar 13 ± 0.707 alkalinity (%) 0.25 ± 0.0.014.
- Brix reading 3.0 ± 0.05.
- The percentage of ash (14 ± 0.283).
- The percentage of moisture content (3.5 ± 0.071) and fats (5.545 ± 0.212).
- Proportion of crude protein (%) 21.87 ± 1.252 1.4 ± 0.085 fibers (%),

This material is rich in proteins, carbohydrates, alkaloids, flavonoids, saponins and other nutrients. It is capable of addressing a wide range of medical conditions. Antioxidant phytochemical substances found in large quantities in plants include lignin and vitamins [6].

Conventional uses

The herb is found in the organization of traditional medicine for colitis, acidity and subsequently the Pitta and Kapha doshas. The multipurpose applications encompass functions such as immune stimulation, antidiabetic, laxative, diuretic, astringent and antioxidant. In the past, watery wheatgrass Ayurveda and conventional medicine employ extract as a tonic for wellness. Menstrual abnormalities can be effectively treated using preparation made from *Triticum aestivum*. Folk medicine practitioners utilized it to treat cystitis, gout, rheumatic pain, chronic skin problems and constipation.

Important nutrient content in wheatgrass

Vitamin A: It makes the skin glow, fights sickness and ignites the epidermis. It improves vision and eliminates black spots on the skin and dark circles behind the eyes. Additionally, it protects against ailments of the throat, nose and eyes. It not only protects against harmful contaminants but also promotes hair growth. For proper growth, reproduction and vision, it is necessary.

B vitamins: They facilitate digestion. It aids in the treatment of peptic and psychiatric diseases, anorexia, insomnia, depression and early aging [7-8].

Vitamin C: Packed with proteins, carbohydrates, alkaloids, flavonoids, saponins and other nutrients. It is capable of addressing a wide range of medical conditions. Alkaloids, minerals, cellulose, tannins, phenolics, flavonoids, quinines, terpenoids and other metabolites are among the many phytochemical substances having antioxidant qualities found in plants.

Vitamin E: Its deficiency results in infections, muscular atrophy and slowed wound healing. It is loaded in antioxidants. It is crucial for treating impotence, diabetes, cancer, dysmenorrhea and heart health during pregnancy. It also helps to avoid abortions.

Vitamin K and the vitamin B complex: These nutrients help the body heal damaged lung cells and prevent cancer. For the blood to coagulate, vitamin K is necessary. The body's metabolism, anemia and early aging are all fought against by B complex vitamins.

MSM: Alle living things have this sulfur containing substance, but processed food destroys it. In addition to increasing the body's oxygen capacity and aiding in detoxification, MSM also lessens inflammation, allergies and skin irritations.

Proteins: are the body's building blocks and are necessary for both muscular power and physical grace. Amino acids are also involved. Proteins are the source of hormones, antibodies and plasma. Amino acids aid in the production of blood, digestion and heart health. The aids for dyspepsia are enzymes. They strengthen the body, enhance digestion and delay the onset of aging.

Zinc: Is useful for healthy hair and helpful in prostate gland issues.

Calcium: Is necessary for healthy teeth and bones and for preserving the blood's pH. Diseases can be treated using it.

Magnesium: plays an essential role in both healthy bowel movements and muscular function. It facilitates the body's process of detoxification.

Sodium: It controls the equilibrium between acid and base and the ECF volume. The body's electrolyte and water balance is preserved by it.

Plan of work

Decided of plant: Select of plant for the experiment.

Collection of plant: Collect the plant leaves (wheat grass) for experiment.

Authentication: The authentication was done by Dr. Darshan M. Kokate head Dept. of Botany KSKW ASC College CIDCO Nashik.

Preparation of powder: Wheat grass is drying five days after drying gride into fine powder.

Formulation of face pack: Based on Table 3, we developed four unique formulations, designated as F1 through F4. These formulations varied in the amount of the listed substances. The dehydrated organic components were sieved through a #180 mesh screen, carefully weighed and mixed to create a uniform mixture. An airtight container was used to preserve the mixture safely once it was created. We then carried out an evaluation of many factors in order to ensure the caliber of the created face pack.

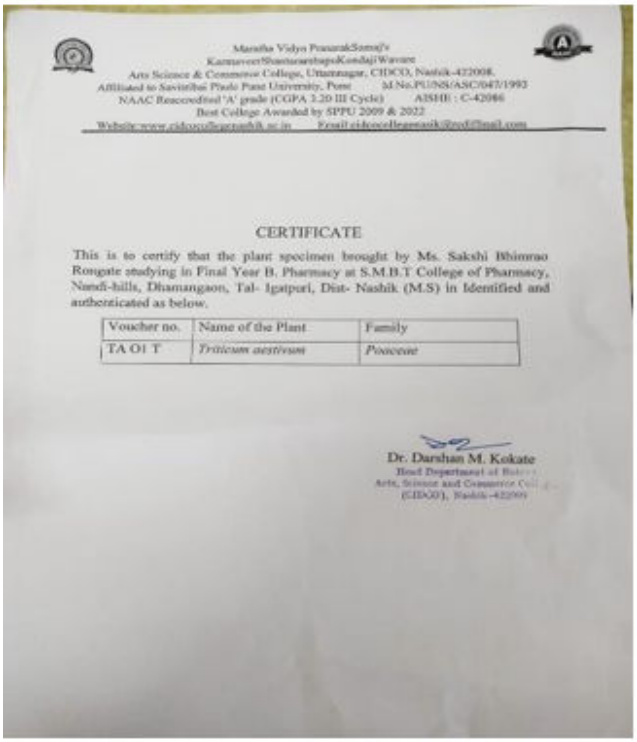
Evaluation test

- Organoleptic estimation.
- Physicochemical estimation.
- Physical estimation.
- Hytochemicals estimation.
- Irritancy test.
- Stability study.

Collection of plant

Experimental work, the plant material was collected from local farm in kawddhara, District Nashik, Maharashtra. Following picture of the farm from where the plant was collected (Figures 2 and 3) [9,10].

Figure 2. Collection of plant.



Maratha Vidya Prasarak Samaj's
Karmaveer Shantarambapu Kondaji Wavare
Arts Science & Commerce College, Uttamnagar, CIDCO, Nashik-422008.
Affiliated to Savitribai Phule Pune University, Pune M.No.PU/NS/ASC/047/1993
NAAC Reaccredited 'A' grade (CGPA 3.20 III Cycle) AISHE : C-42066
Best College Awarded by SPPU 2009 & 2022
Website: www.cidcocollegenashik.ac.in Email:cidcocollegenasik@rediffmail.com

CERTIFICATE

This is to certify that the plant specimen brought by Ms. Sakshi Bhimrao Rongate studying in Final Year B. Pharmacy at S.M.B.T College of Pharmacy, Nandi-hills, Dhamangaon, Tal- Igatpuri, Dist- Nashik (M.S) is Identified and authenticated as below.

Voucher no.	Name of the Plant	Family
TA 01 T	*Triticum aestivum*	*Poaceae*

Dr. Darshan M. Kokate
Head Department of Botany
Arts, Science and Commerce College
(CIDCO), Nashik-422009

Figure 3. Certificate.

Materials and Methods

Wheat grass powder: It is used to help treat burns, skin irritation and radiation injuries. It has a high content of vitamins A and E, which are beneficial to our skin since they minimize wrinkles and fine lines, lessen hyperpigmentation and hydrate the skin. It also serves as an antioxidant (Figure 4) [11].

Figure 4. Wheat grass powder.

Sariva powder: Native to all of India, sariva, often known as Indian sarsaparilla, is well-known in conventional medicine. Sariva has been utilized in Ayurveda for thousands of years as a blood cleanser and as a remedy for a wide range of illnesses. The terpenoidal fraction derived from the serial extraction of *Hemidesmus indicus* roots has been shown by Kumar and colleagues to have strong free radical scavenging activity. The official component of Sariva is its roots. The root is considered alterative, diuretic and tonic. The infusion of roots is beneficial for skin conditions, syphilis, elephantiasis, anorexia, blood purification and renal and urinary illnesses.

Neem powder (*Indica azadirachta*): Neem is an excellent remedy for greasy and acne-prone skin since it is antibacterial and anti-inflammatory. The antimicrobial, anti-inflammatory and anti-oxidant properties of several chemical ingredients provide an anti-acne effect. Neem leaves are mostly composed of protein, carbohydrates, minerals, calcium, phosphorus, vitamin C, triterpenoids, flavonoids, alkaloids and carotene. Neem possesses antimicrobial, anti-inflammatory, antifungal and other qualities. Neem leaf powder helps to lessen skin conditions including psoriasis and eczema. Additionally, aids in the healing of scars, prickly acne spots, boils and other skin issues.

Nutmeg powder (*Fragrans myristica*): Due to its analgesic, anti-inflammatory, antiseptic and antibacterial properties, nutmeg is frequently utilized. It aids in the reduction of fine lines, wrinkles and other aging symptoms. It also aids in lowering acne.

Orange peel powder: Citrus *Aurantium dulcis* is made from orange peel extract that is further cooked to remove scars and lessen their visibility. Orange to powder consistency. It has a lot of antioxidants, including vitamin C. Vitamin C protects skin from UV radiation damage and oxidative stress caused by free radicals. Additionally, has the ability to provide skin an immediate shine, brighten skin, minimize wrinkles, blemishes and acne and lessen sunburn and aging indications. Orange peel powder furthermore contains calcium, potassium and magnesium. Pectin, cellulose and hemicelluloses are also present, which support the hydration and strengthening of skin cells. Orange peel extract also helps with acne treatment, blackhead removal and pore cleaning [12].

Lodhra powder: The cornerstones of therapy consist of tyrosine inhibitors, topical steroids and empirical science. By preventing melanocytes from producing melanin, the goal is to stop the creation of new pigment. However, the procedure can cause sensitive skin to develop irritating contact dermatitis, which would lead to post-inflammatory pigmentation. Many medications are mentioned in Ayurveda for skin care. Kushtagna, Kandughna, Varnya, Rasayana, Twak prasadaka and Raktashodhaka possessed Dravyas aid in management *via* inducing cutaneous depigmentation [13].

Turmeric powder: *Curuma longa* the primary application of turmeric is skin rejuvenation. In addition to having antibacterial, antiseptic and anti-inflammatory qualities, it also postpones the appearance of wrinkles and other indicators of aging. It is the finest source of purifying blood. Because of its antiseptic and antibacterial qualities, which combat breakouts and pimples and give your skin a young look, it is beneficial in treating acne. Additionally, it lessens the sebaceous glands' production of oil [14].

Shashtishali rice: There are multiple advantages to using this powder for skin care. Its fine texture makes it a great natural exfoliant, removing dead skin cells and impurities to leave the skin smooth and radiant. It can also help to moisturize and hydrate the skin. People

with oily or acne-prone skin can benefit from this powder's ability to complex and even out skin tone, giving their skin a more youthful appearance [15].

Kapoor kachli: Its antibacterial qualities aid in maintaining clean skin and warding off infections. It also relieves inflammatory skin conditions like eczema and acne. Additionally, it has skin brightening qualities. Its antioxidant qualities help prevent premature aging by shielding the skin from harm caused by free radicals. They can also increase blood flow, which supports healthier skin [16].

Manjishta: It lessens hyperpigmentation, uneven skin tone and dark patches to encourage a brighter complexation. It cleanses the blood and eliminates toxins, leaving behind brighter, healthier-looking skin. It also helps to prevent bacterial infections and enhance general skin health. It supports quicker wound healing and skin cell regeneration [17].

Karchoor: antioxidants in karchoor have the potential to tighten skin, which can help reduce the appearance of fine lines and wrinkles, promote faster healing and skin cell regeneration and regulate oil production for more balanced complexion. Antioxidants also help shield the skin from damage caused by free radicals, preventing premature aging and maintaining skin health [18].

Amargandhi turmeric: Curcumin, a powerful anti-inflammatory found in amargandhi turmeric, can help relieve inflammatory skin disorders including acne, eczema, psoriasis and rosacea. It also shields the skin from oxidative stress brought on by free radicals. This maintains the skin appearing young and healthy and helps prevent premature aging [19,20].

Using Table 3 constituent concentrations as a guide, we created four distinct formulations, denoted F1 through F4. To guarantee consistency, each component was precisely measured, sifted through a #180 mesh and properly combined. After that, the mixture was kept in an airtight container. After that, we evaluated a number of parameters to confirm the created face pack's quality (Table 4).

Ingredients	F1	F2	F3	F4
Triticum aestivium powder	4 gm	3 gm	5 gm	6 gm
Sariva powder	4 gm	5 gm	3 gm	2 gm
Shastishali rice powder	0.4 gm	1 gm	3.2 gm	0.4 gm
Jatiphal powder	1 gm	2 gm	0.4 gm	0.4 gm
Turmeric powder	3.2 gm	0.4 gm	0.4 gm	2 gm
Neemb powder	0.4 gm	1 gm	1 gm	1 gm
Orange peel powder	2 gm	0.4 gm	1 gm	3.2 gm
Amargandhi turmeric	1 gm	3.2 gm	1 gm	1 gm
Manjista powder	1 gm	1 gm	2 gm	1 gm
Lodhra powder	1 gm	1 gm	1 gm	1 gm
Kapoorkachli powder	1 gm	1 gm	1 gm	1 gm
Karchoor	1 gm	1 gm	1 gm	1 gm

Table 4. Formulation composition of herbal face pack.

Procedure

Take the required quantity of face pack and combine it with rose water in a dish to make a paste that is the right thickness. Use a brush to apply the paste to the face, then wait 15 to 20 minutes for it to fully dry. Use a damp sponge or a cold water rinse afterwards.

Safety measures to consider when applying face pack

- Select a face pack according to your skin type. If you have severe skin issues, it is recommended to speak with a skincare expert or a natural professional before using any face packs.
- After 15 to 20 minutes, the face pack must be removed.
- It might result in noticeable pores, sagging skin and wrinkles if you wear it for an extended period of time.
- Use the face pack once every seven days.
- Do not peel or scratch the face pack that has dried.

Evaluation of formulation

Organoleptic evaluation: Parameter, which comprised appearance, texture, smoothness, color and smell. The exterior features of the formulation were evaluated by applying the described approach.

Physicochemical evaluation: In order to identify and evaluate the physical and chemical characteristics, the extraction value, ash value, pH and moisture content were all evaluated.

pH testing: The extraction value, ash value, pH and moisture content were all assessed in order to determine and assess the physical and chemical features.

Moisture content: The moisture content and Loss on Drying (LOD) of plant based products are important considerations. Inadequate drying of these components may lead to the enzymatic breakdown of active principles. The moisture content of the preparation was determined using the LOD techniques. A pre-measured petriplate (W1) was filled with three grams of the sample, which was carefully weighed. The sample's weight in the petridish (W2) was recorded. The sample was then brought to a consistent weight by heating the petri dish in a hot air oven to a temperature of between 100 and 108 degrees Celsius.

Ash value: The term "ash value" refers to the leftovers that are left over after the powdered sample has burnt entirely. It is employed to assess or determine the purity of the medicine. A notable high ash value is sometimes an indication of adulteration, contamination or replacement during the product preparation process. The steps involved in calculating ash values are outlined below.

Total ash value: The total ash value is crucial for figuring out whether the drug includes an excessive amount of sand or earthy material, as well as for identifying whether items are low-grade or exhausted. Before adding 2-4 grams of the powdered sample to a crucible, it was first lit and tarred. Once the material had been distributed uniformly inside the crucible, the heat was applied gradually until a white powder free of carbon was created. After allowing the sample to cool in a desiccator, it was weighed. Next, the air-dried sample was used as a reference to calculate the percentage of total ash.

Acid insoluble ash value: The total ash value is essential for figuring out whether the drug has too much earthy or sandy stuff in it. It is used to identify low-grade or exhausted items. A crucible that had previously been lighted and tarred was carefully filled with the two to four grams of powdered material. Once the material was dispersed equally throughout the crucible, the temperature was raised little by bit until a white, carbon-free powder was formed. After letting the sample cool in a desiccator, it was weighed and the percentage of total ash was calculated in comparison to the sample that had been air-dried.

By doing this, the weight difference between the whole amount of ash and the residue that remains after the entire amount of ash has been treated with water is calculated. It is employed to ascertain whether the substance has been diminished by water. After adding 25 millilitres' of water to the crucible with all of the ash, it was allowed to boil for five minutes. Following a hot water wash and the collection of the insoluble material on ash-free filter paper, the mixture was burned for 15 minutes at a temperature not to exceed 450°C. The sample was weighed after cooling and the ratio of the water-soluble ash to the air dried sample was calculated.

Physical evaluation: The particle size was measured using the microscope approach. and the tapping method was used to compute the dried powder's bulk density, tapped density and angle of repose in order to evaluate the flow property

Angle of repose: A 6 cm height was used to set the funnel and the required amount of sample was set to fall out. For future computations, the radius and height of the heap were observed. The following formula can be used to determine the angle of repose (θ):

Formula: Angle of repose (θ)=tan (h/r)

Where, θ: Angle of repose, h: Height of the heap, r: Radius of the base

Bulk density: It computed using the powder's bulk volume divided by its given mass. determined by filling the graduated cylinder with 25 grams of precisely weighed powder sample.

Bulk density=Mass of sample

Volume of sample

Tapped density: A known quantity of powder sample (10 gm) is placed within a graduated cylinder for measurement. After the sample's initial volume was recorded, the sample was put on a machine that measured tap density and for ten to fifteen minutes, the sample was repeatedly tapped within the measuring cylinder. The following formula was used to determine the ratio of powder mass to tapped volume, which yielded the value of tapped density.

Tapped density=mass of sample/tapped of sample

Housner's ratio: The Housner ratio can be used to assess a powder's flow ability. It essentially the ratio of the powder's bulk density to its tapped density.

Housner's ratio=Tapped density

Bulk density

Percent compressibility: Another method for measuring the powder flow attribute is to use what is also known as Carr's index. It directly affects the particle size flow rates and relative cohesiveness. The compressibility index % may be computed using the formula below.

% Compressibility =Tapped density-bulk density

Tap density

Phytochemicals evaluation: Using standard protocols, the herbal face pack's aqueous extract was assessed to determine which different plant nutrients were providing.

An evaluation of the organoleptic properties of the herbal face pack showed The colors of the created herbal natural formulation were The produced herbal mixture had a pleasant scent. It was permissible as long as the texture and smoothness complied with the requirements of the cosmetic formulation.

Results and Discussion

Organoleptic evaluation as shown in Table 6.

Parameter	Observation			
	F1	F2	F3	F4
Colour	Slightly green	Green	Green	Green
Odour	Pleasant	Pleasant	Pleasant	Pleasant
Apperance	Fine powder	Fine powder	Fine powder	Fine powder
Texture	Fine	Fine	Fine	Fine
Smoothness	Smooth	Smooth	Smooth	Smooth

Table 6. Phytochemicals evaluation of herbal formulation.

Phytochemicals evaluation

The phytochemical parameters of the herbal face pack were assessed; phytoconstituents like carbohydrates, glycosides, tannins and volatile oils were discovered and they functioned well to nourish the skin as shown in Table 7.

Phytoconstituent	Observation			
	F1	F2	F3	F4
Alkaloids	Positive	positive	Positive	Positive
Carbohydrates	Positive	positive	Positive	Positive
Tannins	Positive	positive	Positive	positive
Glycosides	Positive	positive	Positive	positive
Volatile oil	Positive	positive	Positive	positive

Table 7. Phytochemicals evaluation.

Physicochemical evaluation: The determination and evaluation of physicochemical parameters encompassed the assessment of extractive value, ash value, pH and moisture content as shown in Tables 8-10.

Sr no	Parameter	F1	F2	F3	F4
1	pH	6.8	6.5	6.4	6.8

Table 8. pH.

Sr no	Parameter	F1	F2	F3	F4
1	Moisture content	39.7% w/w	48.0%w/w	39.6 %w/w	49.1%w/w

Table 9. Moisture content.

Sr no	Parameter	F1	F2	F3	F4
1	Ash value	3.37 gm	3.45 gm	2.23 gm	2.57 gm

Table 10. Ash value.

- Total ash value
- Water soluble
- Acid soluble

Physical evaluation

The method of microscopy was used to test the particle size. and the bulk density, tapped density and angle of repose of the dried powder in combined form were calculated using the tapping method to assess the flow property as shown in Tables 11-18.

Sr no	Parameter	F1	F2	F3	F4
1	Angle of repose	45	45	44	43

Table 11. Angle of Repose.

Sr no	Parameter	F1	F2	F3	F4
1	Tapped density	0.3 g/mL	0.4 g/Ml	0.5 g/mL	.6 g/mL

Table 12. Tapped density.

Sr no	Parameter	F1	F2	F3	F4
1	Bulk density	0.31 g/mL	0.36 g/mL	0.27 g/mL	0.28 g/mL

Table13. Bulk density.

Sr no	Parameter	F1	F2	F3	F4
1	Housner's ratio	1.3 g/mL	1.4 g/mL	2.5 g/mL	.5 g/mL

Table 14. Housner's ratio.

Sr no	Parameter	F1	F2	F3	F4
1	Carrs index	0.3 g/mL	2.4 g/mL	2.6 g/mL	3.5 g/mL

Table 15. Carrs index.

Sr no	Parameter	F1	F2	F3	F4
1	Irritant	No irritation	No irritation	No irritation	No irritation
2	Erythema	No irritation	No irritation	No irritation	No irritation
3	Edema	No irritation	No irritation	No irritation	No irritation

Table 16. Irritancy test.

Sr no	Parameter	Room temperature				35°c			
		F1	F2	F3	F4	F1	F2	F3	F4
1	Colour	Slightly	No	No	No	No chance	No chance	No	No
2	Odor pH	Chance	Chance	Chance	Chance	Slightly chance	No chance	No	No
3	Texture	Chance	Chance	Chance	Chance	No	No	No	No
4	pH	Chance	Chance	Chance	Chance	No	No	No	No

Table 17. Stability studies.

Sr no	Parameter	F1	F2	F3	F4
1	Washability	Easily washable	Easily washable	Easily washable	Easily washable

Table 18. Washability.

Conclusion

People today require a remedy for a variety of skin diseases that does not cause negative effects. Herbal components made it possible to create cosmetics that were not hazardous. Herbal face packs are thought to be a sustainable and effective technique to improve the appearance of skin. Thus, the current effort is very good attempt to construct an herbal face pack incorporating naturally available substances such as Tritium aestivium. As API as well as sariva, shashtishali rice, nutmeg, turmeric, been orange peel, amargandhi turmeric, manjishta, lodhra, kappokachli, karch. It is suggested that the developed formulation F3 was found physic chemically and microbiologically stable, with properties similar to a conventional cosmeceuticals formulation for skincare.

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