



A Review Of Herbal Poly Face Pack With The Help Of *Banana Peel*...

Name: Pingale Jyoti Baban* Mhaske Bhagyashri, Pote Gayatri, Mandole Rohit

Address: At Lahit BK, Post- Lingdev, Tal- Akole, Dist-Ahmednagar 422610 (MH)

Affiliation: Dr. Naikwadi Collage of B. Pharmacy, Jamgaon, Sinnar Nashik 422103 (MH)

Abstract:

The main objective for this work is to prepare a best and test poly herbal fruit banana face pack for cosmetic purpose. With the help of Fresh banana peel, turmeric powder, aloe vera, almonds floor, coconut powder, tomato and rose water. All these products were purchased from local market and dried under observation with perfectly suitable condition. All raw material for face pack is accurately measured and stored in each airtight container until using for preparation. All this Ingredients were formulated according to in pharmaceutical lab with accurate measurement without losing its natural content and properties.

Banana tree is mostly found in southern part of Asia. Banana face pack is used for every skin but mostly used for dried skin. This face pack is rich in potassium, protein, *anthoninos* tanning, flavonoids, hemicellulose, anti-oxidants, anti-inflammatory, anti-ageing, smoothing and anti-moisturizing.

Keyword:

Herbal ingredients, anti-bacterial, antioxidant, natural formulation evolution face pack.

Introduction:

Since from ancient time people were aware of this herbal plant is used in cosmetics field to glow and moisturize skin.¹ This belongs to Musaceae family also gems of *Musa sapientiam*. this tropical plant is originally come from Malaysia and now its largest herbaceous plant globally grown in large quantity in developed countries with various varieties.² To prevent dehydrating of skin this pack has antioxidant, smoothing, moisturizing and anti-inflammatory which protect the skin.³ Not every face packs are not giving benefits but this face pack give additional benefit to different types of skin. Herbal face pack always decrease wrinkles, pimples, acne dark circles and spots. Those benefits are fairness, smoothness and also increases in their confidence. Only Ayurveda is most powerful and successful achieving mean purpose.⁴

It is present in chemical contents like amino acids, lipids and carbohydrates etc. thus balanced nutrition is required for skin to keep clear glossy and healthy. In herbal language herbal paste is called *mukha lepa* used in facial therapy.⁵ there are some disadvantages of this face pack. Not every skin is same from one person to another. Sometime it takes unusual time for facial packing to dry. It may cause irritation or redness in the skin. It not easy to apply on dry skin.⁶

Table no – 1

Name	Botanical name	Family	Genus
Turmeric	Curcuma longa	Zingiberaceae	Curcuma [7]
Red sandalwood	Pterocarpus santalinus	Fabaceae	Pterocarpus [7]
Aloe vera	Aloe barbadensis miller	Aloaceae	Aloe [7]
Banana peel	Musa acuminata	Moraceae	Musa [8]
Almond	Prunus dulcis	Rosaceae	Prunus
Lemon peel	Citrus limon	Rutaceae	Citrus
Tomato	Solanum lycopersicum	Solanaceae	Solanum
Rose water	Rosa damascene mill L.	Rosaceae	Rosa.L

Herbal ingredients

1. Turmeric:-



Figure no 1- Turmeric rhizome and powder. 9

Turmeric is chiefly used to make skin youthful again. It postponed sign of aging like wrinkles and also own other qualities like germicidal, antiseptic and anti-inflammatory. It is the excellent source of blood purifier. It is productive in treatment of acne due to its antibacterial and gems free properties that reacts with pimple and outbreak supply a rejuvenate shine to your skin. It also decreases the oil secretion from sebaceous gland.^{10,11}

Scientific Classification	
Synonyms	<i>Curcuma domestica</i> Valetton
Kingdom	Plantae
Clade	Tracheophytes
Clade	Angiosperms
Clade	Monocots
Clade	Commelinids
Order	Zingiberales
Family	Zingiberaceae
Genus	<i>Curcuma</i>
Species	<i>C. Longa</i>
Binomial Name	<i>Curcuma Longa</i>

2. Red Sandalwood :-



Figure no- 2 Red Sandalwood Powder 9

Red sandalwood is also known as *rakt-chanadan* in traditional language. It is rich in anti-tanning and anti-ageing. It supports to skin in multiple ways like toning effects, smoothing the skin, preventing from bacteria calming astringent, softening and wound healing property.¹² Red sandalwood is used in traditional as well as herbal medicine having some antipyretic, tonic, hemorrhage, dysentery, anti-hyperglycaemic, anthelmintic also diaphoretic. ^{43,44}

Scientific Classification	
Binomial Name	<i>Pterocarpus santalinus</i>
Kingdom	<i>Plantae</i>
Clade	<i>Tracheophytes</i>
Clade	<i>Angiosperms</i>
Clade	<i>Eudicots</i>
Clade	<i>Rosids</i>
Order	<i>Fabales</i>
Family	<i>Fabaceae</i>
Subfamily	<i>Faboideae</i>
Genus	<i>Pterocarpus</i>
Species	<i>P. santalinus</i>

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3. Aloe vera:-



Figure no.3 – Aloe Vera 9

Aloe vera is most useful for skin because of moisturizing. Aloe vera contains vitamins and antioxidants that benefits for skin. It is softening and skin glowing agent. Aloe vera is applied on skin that helps skin hydration, stop developing of wrinkles, upgrades elasticity also using of aloe vera on sunburn, small heals helps for quick healing.¹³

Scientific Classification	
Binomial name	<i>Aloe vera</i>
Kingdom	<i>Plantae</i>
Clade	<i>Tracheophytes</i>
Clade	<i>Angiosperms</i>
Clade	<i>Monocots</i>
Order	<i>Asparagales</i>
Family	<i>Asphodelaceae</i>
Subfamily	<i>Asphodeloideae</i>
Genus	<i>Aloe</i>
Species	<i>A.vera</i>

57,58

4. Banana Peels :-



Figure no 4- Banana peel 9

Peel of banana fruit contains 10% crude fat, 3% starch, metabolites 50% of dietary fiber, 7% crude proteins, amino acids, polyunsaturated fatty acid, micronutrients (calcium, iron, magnesium, potassium, zinc), 10 to 20% pectin, 6-9% hemicellulose, 6-12% lignin. It also has anti-bacterial activity, anti-cancer, anti-diabetic, anti-fungal, anti-inflammatory, anti-microbial also anti-psoriatic activities etc.¹⁴

Scientific Classification	
Type species	<i>Musa acuminata</i>
Kingdom	<i>Plantae</i>
Clade	<i>Tracheophytes</i>
Clade	<i>Angiosperms</i>
Clade	<i>Monocots</i>

Clade	<i>Commelinids</i>
Order	<i>Zingiberales</i>
Family	<i>Musaceae</i>
Genus	<i>Musa</i>

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5. Almonds:



Figure no 5. Almond flour or powder 9

Almonds are used in face packs from ancient times known as old beauty recipes. This flour contains anti-aging, skin lightening and nourishing properties. It helps to reduce wrinkles and fine lines from the face. Almonds are rich source containing vitamin E and retinol which chiefly known for making skin soft, flexible and smooth.¹⁵

Scientific Classification

Binomial	<i>Prunus amygdalus</i>
Kingdom	<i>Plantae</i>
Clade	<i>Tracheophytes</i>
Clade	<i>Angiosperms</i>
Clade	<i>Eudicots</i>
Clade	<i>Rosids</i>
Order	<i>Rosales</i>
Family	<i>Rosaceae</i>
Genus	<i>Prunus</i>
Subgenus	<i>Prunus subg. Amygdalus</i>
Species	<i>P. amygdalus</i>

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6. Lemon Peel Powder:



Figure no 5. Lemon peel powder 9

Lemon peel powder is herbal skin glowing agent that supports to clean the marks, blemishes and black dots pigmentation. This peel powder is rich in vitamin C and it helps to remove dead skin from face, it effects increase fairness towards skin in most perfect herbal manner. 16

Scientific Classification	
Binomial name	<i>Citrus x limon</i>
Kingdom	<i>Plantae</i>
Clade	<i>Tracheophytes</i>
Clade	<i>Angiosperms</i>
Clade	<i>Eudicots</i>
Clade	<i>Rosids</i>
Order	<i>Sapindales</i>
Family	<i>Rutaceae</i>
Genus	<i>Citrus</i>
Species	<i>C. x limon</i>

7. Tomato:



Figure no 6. Tomato 9

Tomato belongs to Solanaceae family is used as bleaching agent. Each and every part of tomato is useful for skin. This fruit work as an anti-oxidants, anti-ageing and antiseptic agent. It is rich in vitamin C and maximum contents of potassium. Tomato have lycopene which is an antioxidants that helping fight radicals. Open pores and blackheads So unwanted toxic from skin. Tomato is used to prevent from skin cancer, it reacts with cell containing cancer. It reduces risk of sunburns when applied in skin. Tomato is also used to treat wound healing process, softening of dry skin, removes dead skin cells, also act with cellular damage, having anti-ageing properties. Tomato is also a food and fruit having cooking and non-cooking available. 17

ITEM	NEEDED
Binomial name	<i>Solanum lycopersicum</i>
Kingdom	<i>Plantae</i>
Clade	<i>Tracheophytes</i>
Clade	<i>Angiosperms</i>
Clade	<i>Eudicots</i>
Clade	<i>Asterids</i>
Order	<i>Solanales</i>
Family	<i>Solanaceae</i>
Genus	<i>Solanum</i>
Species	<i>S.Lycopersicum</i>

8.Rose water:

Figure no.8 Rose water

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Rose water is good for skin protecting from skin irritation. Rose water is also in beauty product from ancient times reduces skin redness, improves fair complexion also help to prevent and treats infection. When we add some drops of rosewater in our eyes it helps to treat conjunctivitis cases like antiseptic and analgesic helps to treat ocular diseases. Rose water contains antioxidants that makes our skin younger, smooth. Rose water is helpful during cut, scars and burns because it is rich in antiseptic and antibacterial that protects cells from damage. when we use rosewater in face pack it is mixed very properly and increases concentration level of each ingredient and keeps its original value contents.⁴²

Scientific classification of Rose

Kingdom	<i>Plantae</i>
Clade	<i>Tracheophytes</i>
Clade	<i>Angiosperms</i>
Clade	<i>Eudicots</i>
Clade	<i>Rosids</i>
Order	<i>Rosales</i>
Family	<i>Rosaceae</i>
Subfamily	<i>Rosoideae</i>
Tribe	<i>Roseae</i>
Genus	<i>Rosa</i>

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Descriptions:

1. Almonds:

Botanically almonds are described as *Prunus Dulcis*. The plant is indigenous to south asia and middle east. Almond tree bears edible seed name as Almonds. It is harvested in many places.

The almond tree which is of the *Prunus* genus belongs to the classification of peach which is of the subordinate type of *Amygdalus*, quite different from the additional subgenera on accord of its corrugated shell called endocarp, which envelops the seed.³⁰

There are multiple benefits of almonds for our health in our day life. Eating of almonds daily provide good for our heart, it reduces bad cholesterol, regulates sugar level in our blood, almonds are rich in nutrients also rich in Vitamin E also making good vision to our eyes.

2. Whole Banana:

Banana plant is largest herbaceous flowering plant. Size of plant is normally tall also fairly sturdy same like an any normal medium size tree. It is also known as fastest growing plant, daily growth rate of this plant is almost 1.4 to 1.6 sq met.³¹ Almost grown in multiple varieties of soil, but soil should be deep almost 2 ft deep. Banana plant leaves are composed stalk and a blade. Most are around 5 m (16 ft) tall, with a range from 'Dwarf Cavendish' plants at around 3 m (10 ft) to 'Gros Michel' at 7 m (23 ft) or more. In India banana leaf is used to serve food when they are having day or evening meal.³²

Banana helps to make bone strong, may improves digestion and kidney health, heart health, reduces bloating, feel fuller to stomach. Also rich in vitamin A and E.

3. Aloe vera:

Aloe vera is a plant which is stemless or short stemmed plant. Size is 60-95 cm (24le soil to 37 inches) height, spreading by offsets.³³ Thickly and fleshy leaves color green to grey green, some different varieties appearance upper and lower stem surface shows white flecks.³⁴ Leaves containing phytochemical for study as bioactivity lignans, phytosterols, polyphenols, acetylated mannans, polymannans, anthraquinones C-glycosides, anthrones, and other anthraquinones, such as emodin and various lectins.³⁵

Aloe vera is good our digestive system, detox to our body, maintain sugar level in blood, good for silky hair and having antioxidants which helps to repair skin cell also treatment for psoriasis.

4. Lemon:

Rich source of Vitamin C is lemon. It is mainly produced in India, China, Mexico some part of Africa.³⁶ In USA San diego is a country where "Bonnie Brae" which is seedless, smooth and thin-skinned.³⁷ Eureka is grown year-round and abundantly. It is famous as supermarket lemon and fore season lemon. Appearance of colour is green and yellow variegated outer skin.³⁸ Juice of Lemon is Extracted from lemon to make soft drinks, cocktails and lemonade. It is used marinades fish acids amines in fish, they are converted into nonvolatile ammonium salt. In meat the acid partially hydrolyzes tough collagen fibers, tenderizing.³⁹ Lemon peel powder for face pack helps to tone firm skin, eliminates dullness and give glowing skin. lemon peel powder is rich in anti-oxidants, powder keeps your skin firm and flexible. This powder helps in loss weight also improves health of bone. This powder is used for whitening the skin repairs dead skin cells and erase tanned skin always said 100% Safe and Pure dried lemon peel powder that has very less side effects and is suitable on all skin.⁴⁰

5. Turmeric:

Perennial herbaceous plant is an turmeric plant that grows upto1 met tallit is highly branch, from yellow to orange, aromatic rhizomes, cylendrical. leaves are arranged into two rows in alternate form.⁴⁸ Turmeric is the key ingredients used mostly in Indian dishes. Turmeric leaf are used in special sweet dishes. ⁴⁹ according to studies curcumin is used in various clinical trials for human diseases and conditions with good quality evidence of some health benefits. But there is no any scientific evidence that curcumin decreases inflammation in 2020.⁵⁰ Turmeric is used for pain relief such as reduction pain and muscle damage when working for physical exercise.⁵¹ There is good evidence that turmeric is an allergen.⁵⁶ daily one cup of turmeric extract lowers your

cholesterol, aids fat metabolism, boosts brain function also fights with inflammations and prevents progression of Alzheimer.⁵²

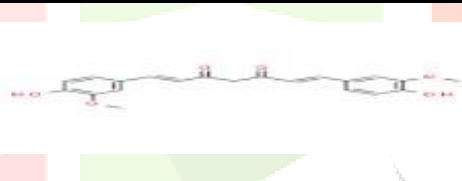
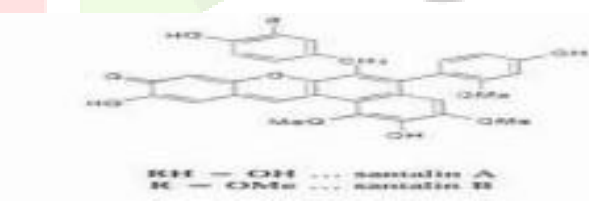
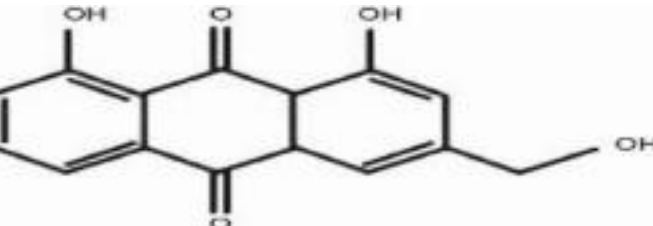
6. Tomato:


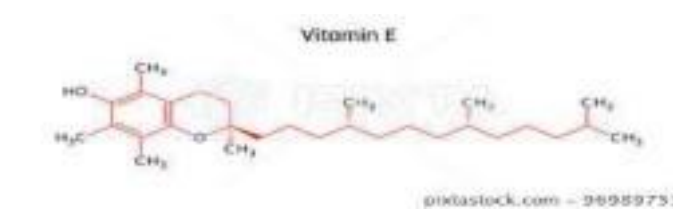
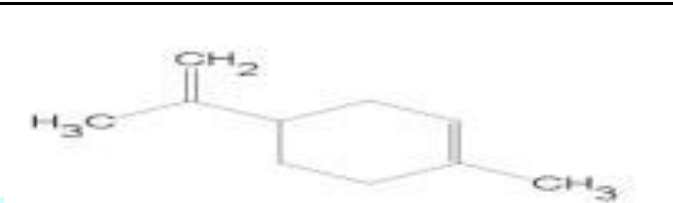
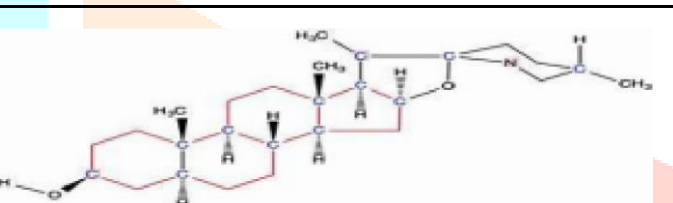
Tomato plants are vines, initially decumbent, typically growing 180 cm (6 ft) or more above the ground if supported, although erect bush varieties have been bred, generally 100 cm (3 ft 3 in) tall or shorter. Indeterminate types are "tender" perennials, dying annually in temperate climates (they are originally native to tropical highlands), although they can live up to three years in a greenhouse in some cases. Determinate types are annual in all climate. The leaves are 10–25 cm (4–10 in) long, odd pinnate, with five to nine leaflets on petioles.⁵³ Botanically, a tomato is a fruit—a berry, consisting of the ovary, together with its seeds, of a flowering plant.⁵⁴

7. Red Sandalwood Powder:

The common name for red sandalwood is also known as *red sanders*, *red saunder*, *yeera chandanam*, *chencheandanam*, *red sandalwood*, *rakta Chandan* and *saunderswood*.⁴⁵ The colour of the trees wood is red. The tree mostly grown in southern India. Red sandalwood is grown on shale subsoil.⁴⁶ The altitudes is around 750 meters approx. 2460 ft. grown in semi-arid climate has distinctive wavy grain margin. A grade margin is graded as lumber pieces with wavy grain. Red sandalwood is found on trees of sandalwood bottom side of stem around one ft above from soil or ground. Whole tree is said as sandalwood tree but only some parts are used as sandal.⁴⁷

Table no 2

Ingredients	Main chemical constitute	Structure	Activity
Turmeric	Curcuma		Anti bacterial, Anti-septic, improve skin colour
Red sandalwood	Santalol santanol santenore	 R ₁ H = OH ... Santalin A R = OMe ... Santalin B	Reduce acne, remove dark spot, pigmentation
Aloe vera	Aloin emodin		Anti-gestic, anti bacterial, antiviral, smoothing moisturizing

Banana peel	Lignin pectin, hemirell Cose (Mg, K, NO, P)		Anti in-flanmentory, Antimicrobial, Anti-cancer
Almonds	Vitamin-E, ca, cu, mg, ribofiavin		Anti-oxidant
Lemon peel powder	Limone ne 90%		Skin Elasticity
Tomato	Lycopene Carotenoid		Colouring Agent

Preparation of poly herbal banana face pack:

Every Ingredients are herbal base and in dry conditions and grided to make small particles like a fine powder with the help of size reduction mill. All herbal powder is measured for preparing face pack of banana peel with all other ingredients are measured differently by using digital weight machine. The composition and quantity are listed below.

Mixing-

Above all ingredients are combined thoroughly with the help of mixer to comparable fine powder.

Sieving-

After mixing of fine powder this powder is passed by sieve no 40 to get the tolerable quantity of fine powder.

Storage and Collection-

Composition on those powders is gathered and stored in suitable air tight glass container and used to measure evaluation parameters.

EVALUATIONS

Prepared face pack was evaluated using following parameters to ensure supremacy of prepared face pack.

Organoleptic Evaluation:

The final face pack has Organoleptic evaluation parameters like colour, odour and texture are processed out. Colour and texture are evaluated with good vision and touch sensation respectively. With odour evaluation a group of 6 sensitive persons were pointed.

Physiochemical evaluation:

1. pH-

The pH was calculated with the help of latest digital pH meter. The formulation of pH was detected as neutral.¹⁸

2. Moisture content

Moisture contents is very needful for drug plant because insufficient drying can cause to some possible enzymatic deterioration of working principles. Near about 3 gm of drug powder has taken in petri dish kept in hot air oven and weight was measured for 25 min, after cooling process the dish was actual weight.¹⁹

3. Odour

It was Inspected physically

4. Total Ash

Ash value was measured to verify the inorganic substance those characteristic for hurb. Near about 3 gm of drug powder is used in dish of silicon before ignited and measured weight. Increase in temperature is gradually raising the heat not exceeding to colour red. After burning process ash was cooled was measurement is weight.^{20,21}

5. General powder evaluation

Characteristic of general powder includes evaluation of those parameters which will be affecting external properties (like flow, appearance, properties packaging process etc) for preparation, evaluation is under some characteristics some sections like particle size, bulk and taped density and angle of repose.^{22,23}

6. Particle size

It is a parameter that affect multiple properties like ability of spreading, grittiness etc. to determine particle size with the method of sieving with the help of I.P Standard sieves by physical 10 min shaking.²⁴

7. Angle of repose:- Angle of repose is defined by the maximum angle is possible between the surface of pile of powder towards horizontal flow.

8. Open-ended cylinder method :-

Needed amount of dried powder is poured in cylindrical tube. Open at both ends is kept on horizontal surface. Then the funnel should be to form the heap. There is record of height and radius of the heap is noted. For above

method, angle of response (θ) can be measured with the help of formula $\theta = \tan^{-1}(h/r)$ where θ - Angle of response, h- height of heap, r-radius of base.²⁵

9. Bulk density:-

It is ratio between given mass of powder and bulk volume. Needed amount of powder is dried and poured in 50 ml of measuring cylinder till 50 ml mark. On hard wood cylinder is dropped from 1 inch of height at 2 sec of intervals. Then the volume of powder is measured and weighted. This process is repeated to get the average values. The bulk density is calculated by the given below formula.²⁶

$$\text{Bulk density} = \text{Mass} / \text{Volume}$$

10. Tapped density:-

This density is raising bulk density attain after physically tapping the container contains powder sample. After the observation of initial powder volume or mass, the measuring cylinder is is physically tapped for 1 min and mass reading are noted until normal further volume or mass change is detected.

Conclusion :-

Herbal Formulations are very effective if it is believed that they are safer with nominal side effects than the chemical base. Herbs are having much demand in global market. Poly herbal face pack contains various types of powder of fruit which we use in our day-to-day life. Every ingredients have multiple activities that helps to adjust in every human body. Thus it is always said that India is a hub of herbs and from ancient times herbs are used for making face packs. Herbs are good in formulation having anti-gestic, anti-bacterial, anti-viral, anti-inflammatory, anti-microbial, anti-cancer, anti-oxidant etc... activities are performed that makes our skin smooth removes black spots and wrinkles and makes our skin healthy and young.

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