



Preparation of sandalwood beauty products

Aim: To preparation of sandalwood beauty products

Author Name: Samiksha Bachkar , Pratiksha Sonawane

Collage Name: DKIOP Kolpewadi, Tal – Kopergoan Dist. - Ahmdnager

Corresponding Author- Samiksha Bhaurao Bachkar

Abstract:

Sandalwood oil has been utilizing for a variety of purposes throughout history, with its integration into foods, cosmetics, and pharmaceutical products. It's now being increasingly recognized for effects on wrinkle skin. Face pack was formulated with different natural ingredients which are reach sources of vitamins and minerals that are essential for the health and glow of the skin. The herbal antioxidant face cream which is made by the ethanol extract of Nardostachys jatamansi. To formulate a stable W/O herbal cream wherein light liquid paraffin constituted the oily phase and aloe Vera gel and turmeric extract were incorporated in the aqueous phase and were mixed together with continuous stirring to form a homogeneous polyhedral cream.

Keywords: Heartwood, Sunders oil, Hawaiian Archipelago, aromatherapy, intellectual

Background:

The effectiveness of a turmeric and sandalwood oil containing cream on radiodermatitis in patients with head and neck cancer undergoing radiotherapy/ chemoradiotherapy were enrolled in the study. Whether it's a tried – and- true skin care regimen, how often you wash your hair, or the cosmetics you're curious about, beauty is personal.

Introduction: Sandalwood refers to the wood (heartwood) from tree special belonging to the family Santalaceae and genus Santalum. [1]

Scientific Name: Santalum album

Common Name : Santal oil, white Saunders oil, white or yellow sandalwood oil, & East Indian Sandalwood oil

Family: Santalaceae

Genus: Santalum

Kingdom: Plantae

The wood from these trees has a characteristic aromatic fragrance. There are many species of trees that fall under this genus of which the Indian sandalwood (santalum album) and Australian sandalwood (S. spicatum) are the most prominent. The Indian sandalwood grows up to 30 feet in height and is a small evergreen tree, the wood is fragrant

with yellow to maroon flowers, oval leaves and dark red –black fruit. [2] It is a tropical tree found all over the country. With the majority growing in Karnataka and Tamil Nadu. The other states where they grow are Maharashtra, Rajasthan, Uttar Pradesh, Bihar, Kerala, Andhra Pradesh, Orissa, Manipur, and Madhya Pradesh. [1] The natural distribution of sandalwood extends from 30°N to 40°S from Indonesia in the east to Juan Fernandez Islands (Chile) in the west and from Hawaiian Archipelago in the north to New Zealand in the South. [3] The aroma of the oil and the wood is esteemed by people belonging to three major religions of the world Hinduism, Buddhism and Islam. According to Vamana Purana, the wood is recommended for worshipping Good Shiva. Goddess Lakshmi is believed to reside in the sandalwood tree. [4]

Scientific research on sandalwood started in the period of 1945-50. It was commenced with the silvicultural trials because that was the time the sandalwood, especially *S. album* was started to introduce to countries like Australia from its native range of existence. From that era, research evolved from silvicultural studies, ecological studies to oil chemistry and genetics. [5] The oils are extracted from the wood and used in perfumes, soaps, candles, and folk medicines. Powdered sandalwood is used in sachets for scenting clothes. [6]



The nomenclature and the taxonomy of the genus are derived from the this species historical and widespread use. Etymologically it is ultimately derived from Sanskrit Chandana, meaning “wood for burning incense to candrah, shining, glowing and the Latin candere, to shine or glow. [7]

Other Names of Sandalwood

- Agarugandha, Bavanna, Chandala, Bhadrasri in Kannada,
- Chandanam, cagabdaba-mutti in Malayalam
- Gandhachakoda in Maratahi
- Valgaka in Oriya
- Anukkam, Asam, and Sandhanam in Tamil
- Sandal and Safaid in Urdu, etc. [8]

Properties of Sandalwood:

- The beneficial properties of sandalwood are listed in the section below.
- It may be used due to its antioxidant activity
- It may have anti-inflammatory properties
- It may have anti-proliferative (inhibit cell growth) activity
- It may show anti-microbial properties. [9]

Uses of Sandalwood

Potential use of Sandalwood for:

Treatment of

1. Psoriasis
2. Wrinkles, Scars & Skin Darkening
3. Wounds
4. Eczema
5. Acne
6. Brain
7. Cancer
8. Ulcers
9. Heart
10. Diabetes
11. Fever [10]

Precautions to Take With Sandalwood

1. Pregnancy
2. Kidney disease [11]

Types of Sandalwood

1. White Sandalwood
2. Indian Sandalwood
3. Australian Sandalwood
4. Hawaiian Sandalwood

5. Fiji Sandalwood
6. Red Sandalwood [12]

Methodology:

Sandalwood Moisturizing (Skin Cream)

Sandalwood is a much-loved fragrance across the world, often evoking soft breezes, restful spaces, and a sense of peace and calm. [13] It's used in sacred ceremonies, as rosary beads, as incense, and as a decorative, cleansing paste. [14] Ancient Ayurvedic texts and Traditional Chinese Medicine praise sandalwood for its many medicinal uses, and there's plenty of scientific evidence to support this. [15] Skin is a highly flexible self-repairable covering that provides a protective barrier to the internal organs/ tissues/cells from the external environmental and stress factors. It requires moisture to stay smooth and supple in order to perform its physiological function effectively.



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Benefits for Skin

- Anti-inflammatory
- Antimicrobial
- Antiproliferative, or inhibits undesirable cell growth
- Antiviral
- Antiseptic
- Fever-reducing
- Scabies inhibiting [16]

Chandanam Face Oil

Sandalwood essential oil benefits might make you want to use it. Many countries export his oil as a valuable commodity, and it is treasured for its fragrance and therapeutic properties. [17] It has anti-inflammatory, antimicrobial,

antiviral and antioxidant properties. It may also reduce blood sugar levels. [18] Sandalwood oil is used in traditional Chinese and Ayurvedic medicines to address various conditions. [19] Sandalwood oil is also readily available and very popular. It's often promoted as a way to help claim the mind and induce sleep. "Using aromatherapy with sandalwood oil can promote calmness, lower stress, and improve sleep quality. [20] Sandalwood oil has antiseptic properties that prevent the development of microbes on the skin including bacteria that causes inflammation/acne and other dermatological problems. [21]

Sandalwood oil may help with:

- Scarring
- Wrinkles
- Inflammation
- Eczema
- Psoriasis
- Wound healing
- Acne
- Even Skin Tone or Skin Whitening [22]

Sandalwood Face Pack Powder

This herbal paste smeared on face to treat acne, pimple, scars, marks and pigments. Face Pack is a similar formulation as it is a smooth powder, which is applied on the face in the form of liquid or pastes and allowed to dry and set to form film giving tightening. Strengthening and cleansing effect to the skin. They are usually left on the skin for fifteen to thirty minutes to allow all the water to evaporate, the resulting films thus contracts and hardens and can easily be removed with water. The scrubbing and tightening effect produced by the application of face pack results into rejuvenation of face skin. There are various kinds of face packs described in Ayurveda which have nourishing. Healing, cleaning, astringent and antiseptic properties. They increase the glow and smoothness of the skin as by reducing wrinkles, pimples, acne and dark patches. [23]

Benefits of Sandalwood Face Pack Powder:

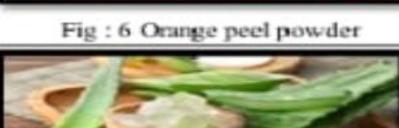
1. Nourishes the skin as provides essential nutrients to skin.
2. Helps to reduce, acne, pimple, scars and marks from the skin.
3. Face packs usually remove dead cells of the skin.

4. Face packs provide a soothing and relaxing effect to the skin.
5. They help to restore the lost glow of skin in short span of time.
6. Regular use natural face packs bring glow to skin, improve skin texture and complexion.
7. The harmful effects of pollution and harsh climates can be effectively combated with judicious use of face packs.
8. They help to prevent premature aging of skin.
9. Formation of wrinkles, fine lines and sagging of skin can be effectively controlled by using natural face packs.
10. Natural face packs make the face skin look young and healthy. [25]

[24]

II. MATERIAL AND METHOD

Table 1: Material Table

Sr. no.	Name	Figure	Medical Use
1.	Fuller's earth (Multani mitti) <i>Calcium Bentonite</i> <i>Euphorbiaceae</i>	 Fig : 1 Multani mitti	Removes extra sebum and oil, cleanses skin by removing dirt and impurities. Evens out skin tone and brightens complexion.
2.	Coffee <i>Coffea Arabica</i> <i>Rubiaceae</i>	 Fig : 2 Coffee	Cellulite reduction. Calming effects., Anti-aging benefits. Reduced inflammation., Acne treatment, Dark circles ,After-sun care.
3.	Sandal wood powder <i>Santalum album L.</i> <i>Santalaceae</i>	 Fig. : 3 Sandal wood powder	Anti-tanning property. Anti-aging Property. Skin softening effect, Pimple and Acne treatment, Clear Complexion.
4.	Turmeric Powder <i>Curcuma longa L.,</i> <i>Zingiberaceae</i>	 Fig : 4 Turmeric	Antibacterial. antifungal, also adds glow to the skin
5.	Neem leaves <i>Azadirachta indica</i> <i>A.Juss.,</i> <i>Meliaceae</i>	 Fig : 5 Neem powder	Antibacterial, antifungal, anti septic.
6.	Orange peel powder <i>Citrus reticulata</i> <i>Rutaceae</i>	 Fig : 6 Orange peel powder	Anti-Allergenic. Anti-Inflammatory. Cleansing your skin and fighting acne.
7.	Aloe vera powder <i>Aloe barbadensis</i> <i>Asphodelaceae</i>	 Fig : 7 Aloe vera	Anti-inflammatory, Anti-microbial property protects the skin from the damaging effects of radiation therapy, cooling effect on rashes or sunburns.

Methods of Evaluation of Pack Powder:

1. Organoleptic Evaluation
2. Rheological Evaluation
3. Physicochemical Evaluation
4. Stability Studies [26]

Sandalwood Soap:

In the early 20th century. The Mysore Kingdom in India was one of the largest producers of sandalwood in the world. It was also one of the major exporters of the wood, most of which was exported to Europe. During the First World War, large reserves of sandalwood were, left over because they could not be exported due to the war. To make good use of these reserves. Nalvadi Krishnaraja Wodeyar, the king of Mysore, established by Government Soap Factory in Bangalore.



Mysore Sandal Soap is a brand of soap manufactured by the Karnataka Soaps and Detergents Limited (KSDL), a company owned by the government of Karnataka in India. This soap has been manufactured since 1916, when Krishna Raja Wadiyar IV, the king of Mysore, set up the Government Soap Factory in Bangalore. [27] Mysore Sandal Soap is the only soap in the world made from 100% pure Sandalwood oil. KSDL owns a proprietary geographical indication tag on the soap, which gives it intellectual property rights to use the brand name, to ensure quality, and to prevent piracy and unauthorized use by other manufacturers. [28] In 2006, Mahendra Singh Dhoni, the Indian cricketer was selected as the first brand ambassador of the Mysore Sandal Soap. [29] This factory, which was set up in 1916, started manufacturing soaps under the brand name Mysore Sandal Soap using sandalwood oil as the main ingredient. [30]

The company celebrated its centennial on 10 May 2016. It planned a celebration to commemorate the year, and included plans to introduce a Mysore Sandal Centennial Soap to mark the occasion. Karnataka Soaps had an event on 10 May 2016 to commemorate the 100th year. [31]

Chandanam Cold Cream:

Since the ancient times women have started to dress themselves because they wanted to increase their own beauty. Even today, people especially in rural areas, choose natural remedies for traditional cosmetics. Cosmetic are products which are used to purify and beautiful the skin. [32] There is now, however, an increased scientific evidence that plants possess a vast and complex arsenal of active ingredients which have the ability to calm or smooth the skin but also to restore actively. Heal and protect the skin. [33]

Cream Formulation:

Oil in water (O/W) emulsion-based cream was formulated. The emulsifier (Stearic Acid) and other oil soluble components (Acetyl alcohol, almond oil) were dissolved in the oil phase and heated to 75°C the preservatives and other water soluble components (methyl paraben, propyl paraben, triethanolamine, propylene glycol and ethanol extract of *N. jatamansi*) were dissolved in the aqueous phase was added in portions to the oil phase with continues stirring. Perfume was added when the temperature dropped to (45+₋ 50) °C. The Formula for the cream is given in table [34]

Ingredients	F1	F2	F3	F4	F5	F6
Ethanol extract	0.200	0.500	0.500	0.500	0.500	0.500
Stearic acid	1.000	1.000	1.000	1.200	1.000	1.200
Triethanolamine	0.135	0.135	0.135	0.160	0.160	0.165
Rose water	0.300	0.300	0.300	0.400	0.400	0.400
Paraffin oil	0.350	0.350	0.350	0.300	0.300	0.300
Moisturizer conditioner	1.000	1.000	1.000	1.200	1.200	1.200
Cetyl alcohol	–	0.250	0.200	0.150	0.100	0.100
Methyl paraben	0.018	0.018	0.018	0.018	0.018	0.018
Propyl paraben	0.002	0.002	0.002	0.002	0.002	0.002
Ethylene diamine tetraacetic acid	0.010	0.010	0.010	0.010	0.010	0.010
Water	Qs	Qs	Qs	Qs	Qs	Qs



[35]

Result:

The DPPH radical scavenging activities of the ethanol extract of *N. jalamansi* were assessed. DPPH radicals react with suitable reducing agents which lose color stoichiometrically and the number of electrons consumed was measured spectrophotometrically at 517 nm. An ethanol fraction analyzed from a sample of *N. jatamansi* showed a significant antioxidant activity. Prepared formulation was pale green in color. It has pleasant odor and smooth texture.

Discussion:

Sandalwood oil is widely used and can be used in natural medicine, specially in aromatherapy. Moreover, modern science has demonstrated the benefits of its application in dermatology, cosmetology, and even oncology. Sandalwood oil can be used by professionals but also commonly, without specialist preparation, for ex, in saunas or for air aromatization. Essential oil sellers should provide a good-quality product and basic information for safe use. The use of essential oils is associated with the risk of allergic reactions, irritation, or photosensitization, especially if they are used incorrectly, for example, in undiluted form.

Conclusions:

Topical applications of sandalwood oil may have different effect on the skin according to their composition. The constituents of sandalwood oil may restore. And rejuvenate wrinkle skin by several mechanisms: 1) antioxidative activities; 2) anti-inflammatory properties; 3) Nitric Oxide (NO) scavenging activities 4) metabolic properties.

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