



# A Research Paper On: Formulation And Evaluation Of Natural Sesame Oil Based Herbal Vanishing Cream

Dipali Bolde(pharm.D)<sup>1</sup> ,Dr. Balkrishna Tiwari ,<sup>2</sup>

Kaveri Borse<sup>3</sup>, Monika Boddhul<sup>4</sup>, Gayatri charate<sup>5</sup>, Sneha Ade<sup>6</sup>

## Abstract:

This study is aimed to create a new herbal vanishing cream using natural oils. The bulk of existing creams are made from synthetic medications and provide extra fairness to the face, but they have a number of negative effects, including itching and allergic reactions. Creams of synthetic origin available on the market bring a glow to the skin but have adverse effects. Herbal cream has various advantages over manufactured creams. Herbal creams have none of these adverse effects; without them, they nourish the skin. The current study attempted to produce a vanishing cream by using natural oil and extracts from natural sources instead of using other chemicals generated from synthetic origin. This disappearing cream soothes and moisturises the skin without irritating it. The vanishing cream was made using natural extracts of sandalwood and turmeric, which are rich in vitamins, minerals, and have extremely few chances of harm.

**Keywords:** Herbal cream, vanishing cream, sesame oil based cream.

## Introduction:

The largest organ in the body, the skin accounts about 15% of an adult's total weight. Skin has a surface area of about 2 m<sup>2</sup>. Usually, the skin is incredibly smooth. However, people's skin may become thicker and rougher as they age and are subjected to many environmental elements including heat, cold, sun, pressure, abrasion, dust, bacteria, infections, etc. instead of being smooth. The skin is one of the human body's most accessible organs. Human skin is divided into two categories: skin with hair and sebaceous glands, which is found on the arms and face, and skin without hair, which is found on the palms of hands and soles of feet. Its constituent parts, which include hair, nails, and glands <sup>[1]</sup>.

Skin structure consists of the following layers:

- Epidermis,
- Dermal epidermal junction,
- Epidermal appendages,
- Dermis, and
- Subcutaneous fat.

Creams are topical medicines for the skin. Creams are characterised as "viscous liquid or semi-solid emulsions of either the oil-in-water or water-in-oil type" dosage forms, with the

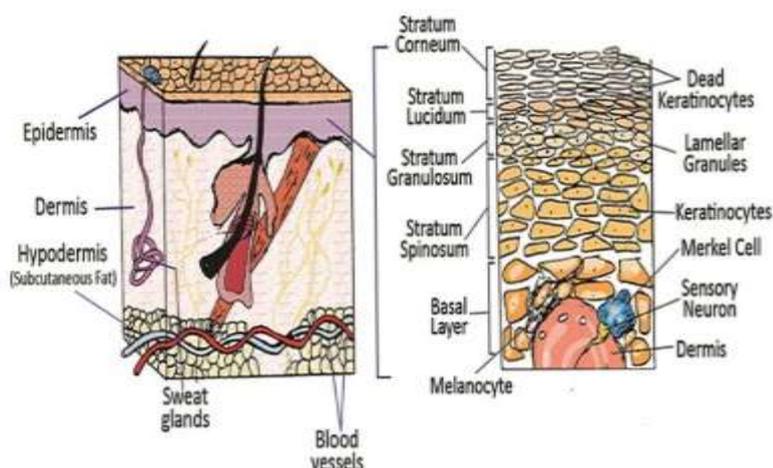


Fig no :01 structure of the skin

Consistency varying depending on the oil and water. Creams are used in cosmetics for many purposes such as cleaning, beautifying, improving appearance, protecting, and healing. These topical treatments are designed to deliver medications locally, into the mucous membrane or the skin's underlying layers. These therapies are designed to be used topically to increase medicine delivery to the skin for certain skin disorders. There are two types of creams: water-in-oil and oil-in-water emulsions. It is applied externally or on the face, and its long-lasting properties allow it to remain in place for an extended period of time. Skin creams' principal functions are to protect the skin from numerous environmental aggressors and weather patterns while also providing a soothing effect. Cold, purifying, vanishing, foundation, massage, and body creams are prominent types.

Vanishing creams are emulsions that consist of oil and water. When applied to the skin's surface, they form a thin, oil-free film that is invisible to the human eye. Hence, they are referred to as vanishing cream<sup>[1]</sup>. They are so named because they leave no visible residue on the skin's surface after application and rubbing. Following the drainage of water, which gives the skin a non-glossy appearance, it forms a thin, undetectable, and imperceptible layer (Saraf and Saraf, 2019). These creams often contain stearic acid, an alkali (to make soap), a polyol (to soften the skin), and water in an o/w emulsion. Burroughs Welcome introduced Hazline Snow, the first vanishing cream, in 1892 (Ugandar and Deivi, 2013). Glycerin, a nontoxic polyol molecule, is commonly utilised to smooth and lubricate pharmaceutical formulations. Stearic acid, a saturated fatty acid, is used to make detergents, soap, and cosmetics. The majority of present vanishing creams made from synthetic sources provide fairness while having little side effects, like as tingling or adverse allergic reactions. Perhaps creams made from natural and herbal ingredients are free of the aforementioned negative effects<sup>[2]</sup>.

Herbal cosmetics are cosmetic products that address bodily demands such as healing, brightening, strengthening, and healing in the same way that plant species do. Cosmetics are products that clean, beautify, enhance attractiveness, and alter the human body without compromising its structure or function. The Rigveda, Yajurveda, Ayurveda, Unani, and homoeopathic medicine traditions all had a strong influence on

cosmetic philosophy. Herbal products are utilised in either raw or extracted form. The plants have antiseptic, antibacterial, emollient, anti-seborrheic, anti-keratolytic, and antibacterial properties. It should have numerous features. Herbal medicine can effectively protect the skin without leaving any hazardous residue or causing irritation, even when used regularly<sup>[3]</sup>.

### **Benefits of herbal creams include:**

1. Herbal creams offer several advantages, including no allergic reactions or negative side effects, easy skin absorption, and superior efficacy compared to synthetic cosmetics when used in moderation.
2. Plant extracts can minimise bulk in cosmetics and offer pharmacological benefits.
3. High-quality, widely available, easy to create, and cost-effective.
4. Herbal creams do not create allergic reactions or negative side effects.
5. They blend readily into the skin. 8. When used in little amounts, they are more effective than synthetic cosmetics.
6. Plant extract decreases cosmetic bulk and provides effective pharmacological benefits.
7. High quality and widespread availability. Simple to make.

### **Disadvantages of herbal cream:**

1. Slower effects compared to allopathic dosages. It also requires long-term therapy.
2. It is challenging to conceal flavour and odour. • Herbal medications are not widely available.
3. The manufacturing process is time-consuming and complex.
4. There is no pharmacopoeia that specifies the ingredients or procedures for herbal cosmetics.

The availability of herbal cosmetics is the primary factor driving rising cosmetic demand.. Herbal formulations are gaining popularity in the public due to their high quality characteristics and low adverse effects. It also gives the skin with essential nutrients and moisture<sup>[26]</sup>. Long-term use of synthetic chemicals has proven to be extremely detrimental to both youngsters and the environment. Various synthetic substances, chemicals, dyes, and their derivatives have been shown to cause a wide range of skin illnesses with multiple side effects. The value of herbs in cosmeceutical production has greatly increased in the personal care system, and there is a high demand for herbal cosmetics. Thus, we use herbal cosmetics as much as feasible<sup>[27]</sup>.

### **Literature Survey:**

[1]Nived Krishnan et al. developed and tested a herbal vanishing cream with an O/w type emulsion base made from natural components. Because turmeric and neem are incorporated, the designed vanishing cream has better antibacterial properties and keeps skin moisturised. When applied to the skin's surface, it forms a thin, oil-free film that is undetectable to the naked eye.

[2]Mohd Fahad Uddin et al. (2019) prepared and evaluated a polyherbal vanishing cream based on an ethanolic extract of crude medicines. The current study focuses on the possibilities of combining diverse components to have a multifunctional effect on the skin for cosmetic objectives. The produced formulation is free of phase separation activity and shown good spreadability and consistency throughout the study period. These results indicate that the polyherbal composition of the extract and base of vanishing cream is stable and safe, with no negative effects related to the presence of several natural ingredients[2]

[3] R. E. Ugandar et al: Formulation and Evaluation of Natural Palm Oil Based Vanishing Cream: Along with traditional vanishing cream containing stearic acid, vanishing cream with a natural foundation of palm oil and palm kern oil was developed. The cream was a water-in-oil emulsion with the right ratios of oil phase, aqueous phase, and ingredient. Based on a comparison of numerous formulations, the study found that vanishing cream containing natural palm oil would work well as a skin moisturiser. The results indicated that disappearing cream might be created with a basis of natural palm oil. Patient compliance rose because the

resulting disappearing cream, which contained natural palm oil, was extremely pleasant to use, spreadable, and extrudable.

[4] shinde Prajakta et al. (2020): Formulation and Evaluation of Vanishing Herbal Cream for Crude Drugs. The plant material is collected, identified, and prepared using an alcoholic extract of crude medications such as coffinale, turmeric, nutmeg, and cinnamon. This preparation technique includes the alcoholic extraction of crude medications, the separation of the alpha and aqueous phases, and the addition of the aqueous phase to the oil phase. In addition to evaluating the physicochemical properties of this disappearing cream, stability and antibacterial activity studies are being done. The cream's antibacterial and antioxidant capabilities were utilised.

[5] Seema Y. Mendhekar et al. (2017): Formulation and evaluation of polyherbal vanishing creams. Herbal disappearing cream was created by combining alcoholic extracts of crude medications. It was prepared using an emulsion of oil and water. This composition contains the following raw ingredients: drumstick bark, peppermint, green tea leaves, clove buds, ginger, mustard, turmeric, cinnamon, cumin, and nutmeg. As a consequence, the prepared herbal cream was the best in terms of quality and nutrient density. Furthermore, due of its antioxidant and antibacterial characteristics, it slows the emergence of wrinkles and pimples on the face. After mixing the three components together, it is feasible to identify that this cream has numerous functions and that the combination of the substances can have a synergistic.

[6] Bhavana D Tambe et al. (2021): Formulation and evaluation of disappearing herbal cream including crude medicines. A natural ingredient-based o/w emulsion cream was developed and tested. It is feasible to conclude that this cream can be used for a variety of purposes and that the ingredients can work together to provide a synergistic effect. This work focuses on the use of bioactive components and the potential of herbal extracts for cosmetic purposes. Cosmetics improve the skin's biological processes and provide the nutrients required for strong, healthy skin or hair.

[7] Vishal Lad et al.: Formulation and Evaluation of Vanishing Herbal Cream for Crude Drugs. A herbal disappearing cream was developed and tested with a variety of crude medications, including clove buds, nagarmotha fruit leaves, nutmeg fruits, jawas or linseed, wheat grains, urid and harbhara cereals, and neem leaf. The herbal formulation demonstrated good homogeneity, pH, spreadibility, consistency, non-greasy texture, and the absence of phase separation. The lotion containing the herbal extract effectively reduced skin pigmentation while improving hydration and suppleness.

[8] Ashwini S Dhase et al. (2014): Formulation and evaluation of disappearing herbal cream including crude medicines. The goal of the study was to develop and test disappearing herbal cream. This cream provides fairness to the skin. The herbal cream includes antioxidant and antibacterial properties. This cream offers the best characteristics and nutritional benefits <sup>[28, 1]</sup>.

#### **AUTHENTICATION:**

Dr. S.D. Randive and Prof. Dr. M.N. Jagtap of D.B.F. Dayanand College, Solapur, accurately identified and validated the plant material gathered using the Herbarium and e-herbarium at the Department of Botany and Research Centre.

**Materials and Methods:**

Ingredients	Role.	Uses
1) Sesame oil.	Main Ingredient.	Offers a natural base for cream.
2) Beeswax	Emulsifying agent	It emulsifies and stabilises the cream while also controlling its consistency
3) Cocoa butter	Nourishment	It hydrates and nourishes the skin while adding a rich texture to cream.
4) Glycerin	Humectant	It acts as a humectant, preventing cream from drying out.
5) Xanthan gum	Thickening agent	It is a thickening agent. Emulsifies and thickens cream.
6) Distilled water	Vehicle	Distilled water in an aqueous base. Provides the cream's aqueous basis.
7) Neem oil	Preservative	Used as a preservative. Improves shelf life and prevents degradation.
8)rose oil	Perfuming agent	Use rose oil in perfume for scent

**Botanical description of sandalwood:****Description:**

Fig no:02 sandalwood tree.



Fig no :03 Sandalwood oil

The genus' nomenclature and taxonomy are based on the species' history and extensive use. The name is derived from the Sanskrit word चन्दन Chandana (čandana), which means "wood for burning incense" and is related to the words candrah, "shining, glowing," and candere, meaning to shine or glow. It was introduced to English in the 14th or 15th century via Late Greek, Mediaeval Latin, and Old French<sup>[8],[9]</sup>.

**Biological source:** Santalum album. Sandalwood oil is traditionally derived from a small tropical tree known as Indian sandalwood. It is native to Southern India and Southeast Asia. Santalum album is an evergreen tree that grows between 4 and 9 metres (13 to 30 feet).<sup>[9],[10]</sup> **Synonyms:** Santalum album, sandalwood, Chandan, Indian sandalwood.

**Scientific name:** Santalum album.

**Family:** Santalaceae.

**Skin Benefits:** Sandalwood album oil (SAO) provides a variety of skin-friendly properties. It is reported to be anti-inflammatory, antibacterial, antiproliferative (or suppresses undesired cell development), antiviral, antiseptic, and fever-reducing. <sup>[11]</sup>

Turmeric is a key skin lightening component in Ayurveda. Turmeric, also known as curcuma longa, has been used as an Ayurvedic skincare cure for more than 4000 years. The name turmeric is derived from the Latin phrase Terra merita (meritorious earth), which refers to the colour of ground turmeric, which is similar to a mineral pigment. Turmeric is mostly used to revitalise the skin. It is used to treat skin disorders such as wrinkles and blackheads, and it also possesses antibacterial, antiseptic, and anti-inflammatory qualities. Its best supply of blood purifier, usually used in the treatment of skin diseases because of its antiseptic and antibacterial qualities that provide effects against pimples and breakouts to supply a young glow to your skin. It also lowers black spots and dark circles while controlling melanin production and greasy secretion from the sebaceous gland <sup>[19]</sup>.

### Description

Turmeric is a perennial herbaceous plant that grows up to 1 metre (3 feet 3 inches) tall. It has extremely branching rhizomes that are yellow to orange, cylindrical, and aromatic [12],[13]. The leaves are alternating and placed in two rows. They are classified into leaf sheaths, petioles, and leaf blades. The leaf sheaths form a fake stem. The petiole is 50–115 cm (20–45 in) long. The simple leaf blades are typically 76 to 115 cm (30-45 in) long, but can reach 230 cm (7 ft 7 in) on rare occasions. They range in breadth from 38 to 45 cm (15 to 17+1/2 in) and are oblong to elliptical, tapering at the tip <sup>[12], [13]</sup>.



Fig :04 Dried rhizomes of Turmeric

**Common names** include turmeric, turmeric root, and Indian saffron. Synonyms: curcumin, curcuminoids

**Scientific name:** Curcuma longa

**Biological source:** Curcumin, also known as curcuminoids, is a diarylhepnoide chemical extracted from dried turmeric rhizomes.

Curcumas are perennial plants from Southern Asia. They grow in warm, humid climates and flourish only at temperatures over 60°F. India, Sri Lanka, east India, Fiji, and Queensland all have conditions suitable for cultivating turmeric <sup>[1],[12]</sup>.

**Morphology:**

- Young rhizomes are pale yellow to brown-orange in color.
- Old rhizomes are scaly and brown

Taste: strong and harsh. Surface features are soft and delicate, with a cylindrical shape <sup>[1]</sup>.

**Uses of turmeric:**

Turmeric is used as a condiment, spice, and colouring agent, particularly in ointments and lotions. Chemically, it is used to detect boric acid. It has antibacterial and anti-inflammatory properties. Curcumin is also a strong antioxidant <sup>[1], [13], and [14]</sup>.

**Identification test <sup>[29]</sup>:**

1. Sulphuric acid reacts with powdered drugs, resulting in a crimson blue.



Fig no 05

2. Aqueous turmeric solution with boric acid turns crimson, but when alkali is added, it changes to greenish blue. Figure no: 06 Figure no: 07 12.



Fig no: 06.

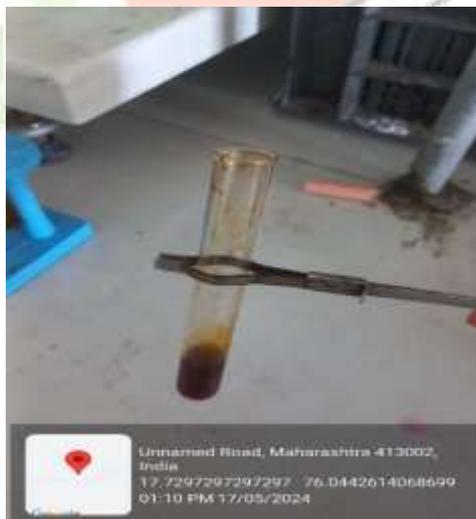


Fig no: 07

3. When combined with acetic anhydride and strong sulfuric acid, it produces violet colour. Figure no:08



Fig no: 8

### Method of preparation <sup>[1],[4],[6]</sup> :

Methods for Making Turmeric Ethanolic Extract:

Take 5 grams of turmeric powder and place it in an iodine flask. Add 100 cc of ethanol and macerate for 5 days, shaking every 6 hours. After five days, the ethanolic solution is filtered. The filtered solution is boiled in a water bath at 50°C until a concentrated solution is produced. Fig. 05: Ethanolic Extraction of Turmeric by Maceration

**Oil phase:** To prepare the oil phase, combine sesame oil, beeswax, and cocoa butter in a beaker and thoroughly mix.

**Aqueous phase:** prepare the aqueous phase in a separate beaker. Add the distilled water, glycerine, and herbal extracts and stir thoroughly.

### Procedure:

1. Heat both phases in a water bath until all ingredients melt and reach 70°C.
2. Keep heating until all ingredients are melted and mixed.
3. Gradually add the aqueous phase to the oil phase, stirring continuously.
4. Stir until the mixture thickens and forms emulsions.
5. Once cooled to roughly 40°C, add natural preservative and optional essential oils. Stir thoroughly for even distribution.

**Preparation table:**

Ingredients	Quantity
Sesame oil	7 ml
Sandalwood oil	1 ml
Cocca butter	5 g
Bees wax	4 g
Turmeric extract	0.5-1 ml
Distilled water	30 ml
Rose oil	0.1%
Xanthan gum	1-2%
Neem oil	0.1%

**Storage:**

To store, keep in a well-closed container at no higher than 25°C and in a cool environment.

**Evaluation Studies:**

The following parameters must be addressed when evaluating produced herbal vanishing cream:

1. Determination of Organoleptic Properties.
2. Determination of pH.
3. Spread ability Test
4. Homogeneity test
5. Irritancy Test
6. Wash ability

1. Determination of organoleptic properties: The cream's appearance was assessed based on colour, pearlescence, and roughness [5], [22].

2. Determination of pH: pH paper was dipped into the cream to check the pH of cream.

3. Spared ability:

Spread ability is an important criteria for semisolid dose forms since it determines their therapeutic effectiveness. It is described as the area on the skin where the cream spreads when applied. Spread ability is measured in seconds. It is done by placing the cream between two slides and allowing them to slip apart under a specific strain. A good cream formulation will require less time for separation [15], [16], [17], and [18].

First, two slides were collected, and 1gm of sample was placed between them. The slides were then pushed together to achieve consistent film thickness by applying 100 gm of weight for 5 minutes. The time when the cream is entirely spread up to the side end of the slide is recorded, and the spread ability is computed using the following formula:

$$S = m \times L / T$$

The following variables are used

S = spread ability

M= weight affixed to the upper glass slide.

L= length moved on glass slide, and

T= time taken <sup>[19]</sup>.

4. Homogeneity :

Homogeneity was determined through visual and tactile testing of the formulations.

5. Irritancy test:

To conduct an irritancy test, a 1sq.cm cream was applied to the left hand dorsal side area and monitored for irritancy, redness, and edoema every 24 hours <sup>[5], [25]</sup>.

6. Washability:

To remove the cream applied to the skin, wash it under tap water with minimal effort.

## Result and Discussions:

The herbal disappearing cream was made with an o/w emulsion of turmeric alcoholic extract and sandalwood essential oil, with sesame oil serving as a natural foundation. Three formulations were created employing these ingredients: B1, B2, and B3. However, only B3 passed all evaluation tests.

### Determination of Organoleptic properties:

Parameters	Result
Colour	Pale yellow
Odour	Pleasant sandalwood scent
Homogeneity	Smooth and consistent

### Determination of pH:

pH	5.4
----	-----



Fig. no: 09

**Spread ability:**

The cream was found easily spreadable and spread ability was found 20 g.cm/min.



Fig. no: 10

**Washability:**

Washability	Easily washable
-------------	-----------------

**Irritancy test:**

The formulated cream was found non-irritant.



Fig no: 11 :Before and after application of cream, no redness or odema was observed

**Conclusion:**

The goal is to create an herbal vanishing cream with beneficial characteristics and nutritional value that can be made with minimal equipment. The herbal cream's antioxidant and antibacterial properties help prevent ageing and pimples on the face. More research is needed for this vanishing herbal cream. This formulation of disappearing herbal cream was not previously prepared. Natural ingredients were used to create an oil-in-water emulsion cream, which was tested. Combining these substances results in a cream that is both moisturising and nourishing. Additional research can be conducted on the stability and skin irritancy test. Combining these substances creates a versatile cream with a synergistic impact amongst them. Additional research could focus on the cream's stability and skin irritancy.

## References:

- 1) Krishnan N., et al. "Formulation and evaluation of herbal vanishing cream.
- 2) Fahad M. U., Kaleem M. U., Ahmed M. A., Samreen S. and Habeeb (2020). Preparation and Evaluation of Polyherbal Vanishing Cream of Ethanolic Extract of Crude Drugs.
- 3) Akash Jayaprakash, Ahalya. S. S, Arya Babu, V. F. Sony, Vishnu Narayanan, Dr. Prasobh. G. R, Varsha. V. R, Formulation and Evaluation of Multipurpose Herbal Cream, Int. J. in Pharm. Sci., 2023, Vol 1, Issue 7, 211-219.
- 4) Ugandar RE and Deivi KS. Formulation and evaluation of natural palm oil-based vanishing cream. International Journal of Pharmaceutical Science and Research.2013; 4(9):3375-3380.
- 5) Prajakta S. & Shahu K.", Formulation and Evaluation of Vanishing Herbal Cream of Crude Drugs, 'Asian Journal of pharmaceutical research and Development', vol 8.
- 6) Seema Y. Mendhekar, Rajanigandha R. Jori, Komal R. Shinde, Jadhav S.L. and Gaikwad D.D" Formulation and Evaluation of polyherbal vanishing plus expert cream world, 'Journal of Pharmacy and Pharmaceutical Science', vol. 06, Issue 12.
- 7) Nikhil Nitin Navindgikar, K. A. Kamalapurkar, Prashant. S. Chavan: Formulation and evaluation of multipurpose herbal cream; International Journal of Current Pharmaceutical Research. March 2020, Volume 12, Issue 3, 25- 30.
- 8) "Sandalwood (n.)". *Online Etymology Dictionary*. Retrieved 19 September 2020
- 9) <https://en.wikipedia.org/wiki/Sandalwood>
- 10) atima, Tanzeem; Srivastava, Ashutosh; Somashekar, P. V.; Hanur, Vageeshbabu S.; Rao, M. Srinivasa; Bisht, Surendra Singh (July 2019). "Assessment of morphological and genetic variability through genic microsatellite markers for essential oil in Sandalwood (*Santalum album L.*)". *3 Biotech*. 9 (7): 252. doi:10.1007/s13205-019-17589. ISSN 2190-572X. PMC 6555841. PMID 31192077.
- 11) <https://www.healthline.com/health/beauty-skin-care/sandalwood-benefits-for-skin#ethics>.
- 12) "Curcuma longa L." *Plants of the World Online*. Royal Botanic Gardens, Kew. Retrieved 26 March 2018
- 13) <https://en.wikipedia.org/wiki/Turmeric>.
- 14) C. K. Kokate, A. P. Purohit, S. B. Gokhle, Pharmacognosy, NiraliPrakashan, 45th edition, vol. 1, page no. 2. 1, 1. 113.
- 15) Sahu Alakh N., et al. "Formulation and Evaluation of Curcuminoid Based Herbal Face Cream". *Indo-Global Journal of Pharmaceutical Sciences* 1.1 (2012): 77-84
- 16) Moghimipour E., et al. "Clinical trial of a herbal topical cream in treatment of Acne vulgaris". *American Journal of Pharmatech Research* (2014)
- 17) Sujith S Nair., et al. "Formulation and Evaluation of Herbal Cream containing Curcuma longa". *International Journal of Pharmaceutical and Chemical Sciences* 1.4 (2012)
- 18) Gyanesh Kumar Sahu., et al. "Development and Characterization of Vanishing Cream"
- 19) Mr. Kunal Anil Suryawanshi et al. "Formulation and Evaluation Of Herbal Vanishing Cream for Anti-Melanin Effect".
- 20) A Premkumar., et al. "Formulation and Evaluation of Cream Containing Antifungal Agents". *Antibacterial Agents and Corticosteroids; Hygeia. J.D. Med.*, October 6.2 (2014): 5-16
- 21) Ashish Aswal., et al. "Preparation and evaluation of polyherbal cosmetic cream". *Der Pharmacia Lettre* 5.1 (2013): 83-88.
- 22) Sahu AN, Jha SB, Dubey SD. Formulation & Evaluation of Curcuminoid Based Herbal Face Cream. *Indo-Global Journal of Pharmaceutical Sciences*, 2011;1(1):77-84
- 23) Akhtar N et al; 'Evaluation of various functional skin parameters using a topical cream of IAJPS 2018, 05 (05), 4121-4128 Vishal Lad et al ISSN 2349-7750 w w w . i a j p s . c o m Page 4128 Calendula officinalis extract, *African Journal of Pharmacy and Pharmacology* Vol. 5(2), February 2011 pp. 199-206.

- 24) Vishal Lad et al., Formulation and Evaluation of Vanishing Herbal Cream of Crude Drugs, Indo Am. J. P. Sci, 2018; 05(05).
- 25) Ashish A, Mohini K, Abhiram R. Preparation and evaluation of polyherbal cosmetic cream. Der Pharmacia Lettre, 2013; 5(1):83-88.
- 26) Mali AS, Karekar P, Yadav AV. Formulation and evaluation of multi-purpose herbal cream. Int J Sci Res. 2015; 4(11): 1495-149.
- 27) Bhavana D Tambe, formulation and Evaluation of Vanishing Herbal Cream of Crude Drugs, volume 08, issue 04, international journal of information research and review, April 2021; 7237-7241.
- 28) Ashwini SD, Somishwar SK, Shweta SS. Formulation and Evaluation of Vanishing Herbal Cream of Crude Drugs. American Journal of Ethnomedicine, 2014; 1(5): 313-318
- 29) A Textbook Of Pharmacognosy 1<sup>st</sup> year D.pharm as Per PCI Education Regulation by DR.C.K .kokate, S.B.Gokhle,Dr.S.J.surana ,Dr.M.G.Kalaskar.

