iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 14 **Issue:** V **Month of publication:** May 2026

DOI: https://doi.org/10.22214/ijraset.2026.83234

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 14 Issue V May 2026- Available at www.ijraset.com

Moisturizing Activity of Herbal Cold Cream for Skin Dryness

Arindar Gaikwad[1], Akanksha Adhav[2], Sakshi Gadhave[3], Pranav Thombare[4], Sonali Kodalkar[5]
Mandesh Institute of Pharmaceutical Science and Research Centre, Mhaswad

Abstract: Peeling, itching, and cracking of the skin are unpleasant symptoms of dry skin. It becomes dry when it loses water too quickly. Stated differently, the root cause of the issue is dehydration.
Moisturizing Creams used for dry skin to prevent and cure it. They can also conceal flaws, enhance skin tone and texture, and shield delicate skin. The cream slows evaporation of water and provides a cooling and relaxing effect to the herbal extract incorporating cold cream. Since they create an oily barrier that stops water loss from the stratum corneum, the skin's outermost layer, cold creams are more hydrating. Herbal remedies or their extracts have been marketed as cosmetics and topical preparations. It might be a viable natural remedy for the problem of dry skin.
The study begins with an overview of the properties and benefits of herbal extract in skincare.
Keywords: Dehydration, Moisturizing cream, Herbal remedies

I. INTRODUCTION

The emulsion of water and oil is known as cold cream. Compared to other semisolid dosage forms or formulations, cold cream provides a longer contact time at the application site. They make the skin appear elegant and less oily. The function of the cold cream is for restoring moisture to dry skin. Owing to the oil phase, providing the skin with emollience. Restoring moisture to dry skin is the purpose of the cold cream.[1] It cools the body and enables waste products to be removed from the pores. It is simple to wash by water and to remove.When applied to the skin, they cause no irritation. In the water phase, additional protection of the skin. At body temperature, it melts. It enters the skin through the epidermis.[2]

The purpose of this study was to create and evaluate a herbal cold cream recipe that included a natural ingredient.[3] This formulation's goal was to produce a cold cream that would offer a brightening and cooling impact on the skin, while steering clear of any possible negative outcomes. To assess the effectiveness and safety of the cream, a number of factors were regarded.[4] These comprised viscosity, pH, and microbiological development, spreadability, and irritation acid value, homogeneity, and thermal stability value of saponification, quick stability tests, patch testing, dye tests, and physical properties.[5]

Herbs encourage skin regeneration, but they don't always take the place of your NMF (Natural moisturizing Factor).[6] The combination of free amino acids, PCA, lactates, urea, inorganic salts and sugars, and trace amounts of glycerol and hyaluronic acid is known as Natural Moisturizing Factor, which enables your skin to draw in and hold onto moisture.[7]

People have been utilizing herbs for dry skin for years to moisturize skin naturally and relieve itching and irritation. Science is now demonstrating that there's a reason these all-natural remedies for dry skin have remained popular. [8] Plants yielding seeds without woody stalks are classified as herbs. Plants are often employed for their leaves, seeds, flowers, and roots, which are also used to flavor food, make medicines, skincare products, and perfumes. Every plant has its own set of advantages from these tiny multitaskers.[9] To reap the full therapeutic advantages of these herbal miracles for dry skin, a high-quality extraction is required. Restoring your skin's comfort and radiance can be achieved by incorporating the best herbs for dry and irritated skin.[10]

Table No.1:- Medicinal plants used in herbal cold cream

Sr. No.	Botanical Name	Family	Local Name	Part used	Mode of use
1.	Helianthus annuus	Daisy	Sunflower	Seed	Hydration was enhanced by sunflower seed oil. It is applied to the arms as a moisturizer.

©IJRASET: All Rights are Reserved

2.	Cocos nucifera	Arecaceae	Coconut	Coconut oil	It increases the amount of lipids (fats) on the skin's surface and improves skin moisture.
3.	Poaceae	Avena sativa	Oatmeal bath	Oatmeal	In addition to its anti-inflammatory and antioxidant qualities, oatmeal can be used as a treatment for dry skin.
4.	-	Apidae	Honey	Honey	Hydrating, restorative, and anti-inflammatory
5.	Aloe barbadensis	Liliaceae	Aloevera	Leaves	It assists in relieving dry skin.
6.	Matricaria	Asteraceae	Chamomile	Leaves	Its antiseptic, antibacterial, and anti-inflammatory properties help offset skin irritants.
7.	Withania somnifera	Solanaceae	Ashwagandha	Root	It can balance skin moisture and is calming and rejuvenating for the skin.
8.	Bacopa monnieri	Scrophularia ceae	Brahmi	Leaves	It functions as a disinfectant and medicinal herb, hastening the skin's healing process.
9.	Centella asiatica	Apiaceae	Gotu kola	Leaves & steam	It is a powerful anti-aging treatment that firms, moisturizes, and tightens your skin.
10.	Azadirachta indica. A	Mahogany	Neem	Leaves	It aids in the healing of a variety of skin conditions, including boils, blemishes, rashes, inflammation, bacterial infections, and pimples.
11.	Ocimum tenuiflorum	Lamiaceae	Holy basil or tulsi	Leaves	It can assist in calming, repairing, and revitalizing the skin.
12.	Curcuma longa	Zingiberacea e	Turmeric	Rhizome	Skin disorders including rosacea and eczema can be relieved by it.
13.	Mentha piperita	Lamiaceae	Pippermint	Leaves	It contains vitamins A and C and omega 3 fatty acids, which improve dull skin and lessen oil production in oily skin.
14.	Equisetum arvense	Equisetaceae	Horse tail	Green leaf	It contains silica, skin remains radiant and youthful

15.	Petroselinum crispum	Apiaceae	Parsley	Root and leaves	It contains a magical plant that can prevent skin discoloration, reduce inflammation, and balance oil production.
16.	Calendula officinalis	Asteraceae	Calendula	Flower or petals	It is the best herb for treating irritated, inflamed, and chapped skin.
17.	Glycyrrhiza glabra	Fabaceae	Liquorice	Root	Topical application of licorice herbal extract is useful for dry, itchy, and painful skin disorders such as psoriasis and eczema.
18.	Astragalus membranace us	Legumes	Astragalus	Root	In addition to having a relaxing impact on the skin, herbs can help treat dry, itchy skin and promote the proliferation and differentiation of skin cells.
19.	Bursera linanoe	Lamiaceae	Lavender	Flower	It gives impressive ingredients which promoting healthy and glowing skin
20.	Althaea officinalis	Malvaceae	Marshmallow	Root	. Its polysaccharides provide a mucilage that nourishes dry skin deeply and organically
21.	Prunus Amygdalus	Rosaceae	Almond	Seed	An excellent emollient that calms and softens skin is sweet almond oil.
22.	Theobroma Cacao	Malvaceae	Cocoa	Cocoa butter	It promotes skin healing and shields it from drying out and breaking.
23.	Vitis Vinifera	Vitaceae	Grape	Seed	It is incredibly helpful and efficient as a skin moisturizer due to its capacity to retain moisture and regenerate tissue.
24.	Garcinia Indica	Clusiaceae	Cockum (colum oil)	Fruit	Colum oil is high in essential fatty acids, which are vital for the efficient assimilation of nutrition, it is used to nourish the skin.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

25.	Mangifera Indica	Anacardiacea e	Mango	Fruit	In particular, mango oil works wonders as a moisturizer for dry, older, or sun-damaged skin. Additionally, it relieves dry skin, particularly that caused by psoriasis and eczema.
26.	Triticum sativum	Triticeae	Wheat	Wheat germ	An excellent treatment for fine lines around the eyes, stretch marks, and dry skin on the face.
27.	Carica papaya	Caricaceae	Papaya	Fruit	Papaya is a great source of antioxidants and vitamins A, C, and E, which assist to keep the skin hydrated and healthy.
28.	Butyrosperm um parkii	Sapotaceae	Shea	Nut	It is an excellent natural skin care product for dry, cracked, and flabby skin because it improves the texture and elasticity of dry skin when used regularly.
29.	Cucurbita pepo	Cucurbitacea e	Pumpkin	Seed	It effectively moisturizes dry skin and aids in the skin's ability to hold onto moisture.

A. Calendula

From Europe to India, calendula is widely recognized as a skin-calming component that helps lessen the irritation and upset that come with having dry skin. This seemingly straightforward herbal component has a powerful effect on dry, sensitive skin.[24] Calendula is an excellent source of phytonutrients for treating dry skin. It contains a variety of compounds such as triterpene glycosides, carotenoids, phenolic acids, sterols, amino acids, and more. There are several ways that calendula might show up in skin care products for dry skin because it includes both water- and oil-soluble active components. It could appear as a water-based infusion, a hydrosol, an infused oil, or an oil-based CO2 extract. All these ingredients are helpful to treat skin dryness .[15]



Fig.1 Calendula flower.

B. Aloevera

Aloe Vera's hydrating, softening, and deep moisturizing characteristics nourish the skin wonderfully and act as a natural UV inhibitor, protecting it from the sun's rays. The key to your skin's full appearance and structure is its natural moisture retention, which aloe vera helps your skin retain.[12]

Aloe vera gel can be applied to dry hands or feet, and the affected region can be covered with a sock or glove. It might be more convenient for people to apply the gel right before bed and leave it there all night.[17]



Fig.2 Aloe Vera.

C. Chamomile

Antibacterial, anti-inflammatory, and antiseptic properties found in chamomile can offset irritations to the skin. Alpha-bisabolol, a potent compound found in the herb, has the potential to enhance the skin's innate healing mechanism. A steam facial performed at home with chamomile tea leaves in a basin of hot water can help to improve the moisture content of your skin. Chamomile can diminish the development of wrinkles. It also heals skin irritations like burns and acne faster.[23]



Fig.3 Chamomile flower.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

D. Ashwagandha

In Ayurvedic medicine, winter cherry, or ashwagandha, is frequently utilized as a medicinal herb. It can balance skin moisture and is calming and rejuvenating for the skin. Its strong antioxidant content helps to maintain the vibrancy of your complexion while shielding it from free radical damage. To maintain your skin hydrated and healthy, mix one teaspoon of ashwagandha powder with rosewater and apply it to your skin! It penetrates the skin during massages and nourishes it from the inside out.[19]



Fig.4 Ashwagandha root

E. Papaya

Due to the presence of papain, a naturally occurring enzyme that stimulates skin regeneration and cell growth, papaya is a main component of skin-whitening solutions. Its healing effects help to soften the skin and stimulate the growth of new cells by exfoliating the skin.

Papayas are high in antioxidants and vitamins A, C, and E, which assist to hydrate and shield the skin. Furthermore, the nutrients in papaya fruit aid in fortifying the skin.[16]



Fig.5 Papaya.

F. Shea

Shea butter is a fat extracted from the nut of the African shea tree. It is a fantastic option for the maintenance of dry skin because of its nourishing and protecting properties. Shea butter's nutrient-rich wetness causes dry skin to respond immediately, becoming more elastic and capable of retaining moisture. Shea butter is an excellent natural skin care product for dry, cracked, and flabby skin because it improves the texture and elasticity of dry skin when used regularly. Both babies and children can use this oil as a great moisturizer for delicate skin.[20]

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |



Fig.6 Shea nuts.

G. Wheat Germ Oil

Wheat germ oil is full of minerals and is especially high in vitamin E, a potent antioxidant found naturally. Because wheat germ oil has a high mineral and vitamin content (A, B, C, D, and E), it helps to alleviate dry skin.[14]

To soften and revitalize the skin, it is frequently added to facial massage oils. An excellent treatment for fine lines around the eyes, stretch marks, and dry skin on the face. Additionally, eczema and psoriasis redness and irritation can be reduced with the use of wheat germ oil. It also encourages the formation of new cells and lessens irritation.[25]



Fig.7 Wheat germs.

H. Peppermint

Pippermint is a world's oldest remedy used for numerous skin conditions. It is Rich in Omega 3 fatty acids and vitamins A and C, it helps to eliminate excess oil from oily skin and nourish dull skin. A cooling effect is left on the skin when menthol is present.[21]

Peppermint oil makes your skin appear more radiant, healthy, and youthful. Menthol, which is included in peppermint essential oil, has an instantaneous calming effect that is ideal for treating rosacea, greasy skin, puffiness, and inflammation.[22]



Fig.8 Peppermint oil.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 14 Issue V May 2026- Available at www.ijraset.com

I. Coconut Oil

Coconut oil can assist in forming a thin, protective layer that stops moisture evaporation and has a noticeable softening effect. The sagging skin and wrinkles that typically come with age can be treated with the oil. Additionally, dermatitis, eczema, and psoriasis are among the skin conditions that cocos nucifera aids in treating.[11] Coconut oil may cure dry skin just as safely and effectively as petroleum jelly. It was discovered to considerably raise the quantity of lipids (fats) on the skin's surface and enhance skin moisture.Saturated fatty acids found in coconut oil offer moisturizing qualities. Emollients are fats or oils that smooth out and fill in the crevices in dry skin to function as a moisturizer.[18]



Fig.9 Coconut.

J. Sunflower Seed Oil

Vitamins A, C, D, and E are abundantly present in sunflower seed oil. It effectively aids in moisture retention in the skin and can function as a natural barrier to ward off germs and other irritants that might otherwise lead to pigmentation. Using sunflower seed oil as a moisturizer increases moisture. It appears that not all natural oils are appropriate for use as moisturizers because the same study discovered that olive oil actually harmed the skin's barrier.[13]It is safe to use to hydrate skin without triggering outbreaks or acne. Prevents sun damage to the skin: Sunflower oil has a high concentration of vitamin E, a naturally occurring sunblock. It can delay the signs of premature aging and shield the skin from the harmful UV rays of the sun.[18]



Fig.10 Sunflower seeds.

II. SUMMARY

There are several skin conditions that can cause dry skin, such as asteatotic eczema, ichthyosis, irritant contact dermatitis, psoriasis, and atopic dermatitis/eczema. This is evident in healthy people as well as, it is greater in older than in younger population patients as well as possible external influences, usage of strong detergents, regular washing, and air that is not very humid . Certain elements may influence moisturizing research, hence in this investigation, various clinical menopause, among other cyclical and habitual variables, showering routines and other people's skin care experiences, the baseline evaluations will cover illnesses as well. Despite the fact that dry skin is not a fatal illness, the symptom seems unpleasant and can lower one's quality of life, which should also be taken into account when researching moisturizers. Consequently, in addition to the principal result and secondary results that were measured with tools, the EQ-Self-reported metrics such the DLQI, HUI-III, and 5D were included to investigate alterations in the overall and illness particular standard of living.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

The primary focus of earlier research on moisturizers was measured outcomes in the short run, since it is possible for sensible skin health to be enhanced by a variety of herbs and vegetable oils. There are numerous moisturizers that increase skin elasticity and deter the formation of fine lines and wrinkles, but some of the most well-liked ones include almond oil, cocoa butter, and shea butter. Herbal oils naturally repair and shield the skin from drying out and breaking while replenishing its moisture and fullness. The skin barrier that shields you from toxins and germs, among other things, may be strengthened with the correct oils.

III. CONCLUSION

Due to the perception that natural treatments have fewer adverse effects than synthetic ones, the usage of natural remedies in personal care products is growing. The demand for herbal cosmetics in the market has increased as a result. The study's overall findings underscore the possible advantages of utilizing plant extracts in cosmetic formulations and stress the significance of natural remedies. As a result, if you still don't use oils for skin care, give one of the suggested ones a try to find the best fit for your skin type.

IV. ACKNOWLEDGEMENT

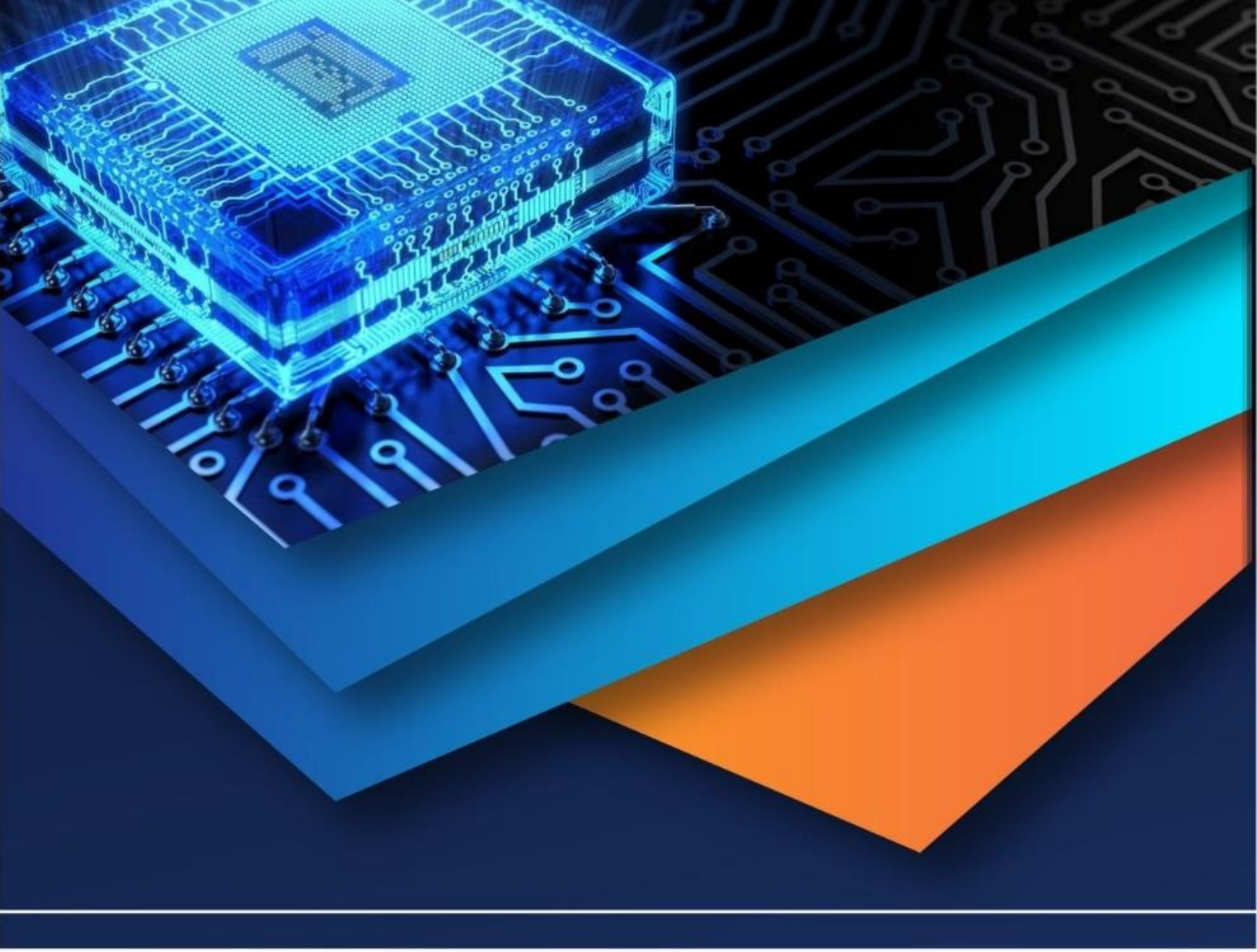
My sincere gratitude goes out to Dr. Y.B.Raut . Fabtech College of Pharmacy, Sangola. (Maharashtra) for supporting and encouraging their studies and providing other necessary facilities to write. This informative evaluation works on moisturizing activity of herbal cold cream for skin dryness.

REFERENCES

[1] Sirsat SV, Rathi NM, Hiwale AS, Shelke PB. A review on preparation and evaluation of herbal cold cream. World Journal of Pharmaceutical Research. 2022 Mar 8;11(5):690-697.
[2] Moore, J.B., "On Cold Cream," American Journal of Pharmacy, Philadelphia College of Pharmacy, 54–60.
[3] Skin cream as Topical Drug Delivery System: Sahu T, Patel T, Sahu S, Gidwani B; Review, Journal of Pharmaceutical and Biological Sciences, Scientific Sciences,2016; 149–154.
[4] Kapoor V P, National Botanical Research Institute, Volume 4, July–August 2016, 306-314, Herbal/AoppforskinandHaircare.
[5] Skin cream as Topical Drug Delivery System: Sahu T, Patel T, Sahu S, Gidwani B; Review, Journal of Pharmaceutical and Biological Sciences, Scientific Sciences,2016; Pages 149–154.
[6] The 2014 edition of Kokate, Purohit, and Gokhale's Textbook of Pharmacognosy. 50th edition of Nirali Prakashan, 9.1
[7] MV Vishvanathan, PM Unnikrishaan, Hirotoshi Fushimi, and Kalsuko Komatsu discuss medicine and some of its issues with IndianJTrading. Page No. 159–69, Itional Knowledge 2003.
[8] A Handbook of Cosmetics, B.M. Methal and N. Shah, Vallabh Prakashan, 2006.
[9] Rudikoff D: Dryness's impact on skin. Clin Dermatol. 1998; 16(1):99–107;.
[10] Tan SN, Yong JW, Ng YF, and Ge L. The biological characteristics and chemical makeup of coconut (Cocos nucifera L.) water, in Molecules 2009 Dec 9;14(12):5144–5164
[11] Dal'Belo SE, Gaspar LR, Maia Campos PM: Skin bioengineering techniques evaluated the moisturizing efficacy of cosmetic formulations using Aloe vera extract at varying doses. Skin Res Technol. (2006) 12(4): 246–241.
[12] Whipker BE, Dole JM, and Pallez LC. 446 The production and postharvest study of potted sunflowers. Accessed June 1, 2000; 35(3):470E-.
[13] Arslan FN, Arslan D, Demir MK, and Acar A. Examination of the properties of wheat germ and oil in relation to various stabilization methods. 58(3):348–55; Food technology and biotechnology, Oct. 30, 2020.
[14] Hassan EF, Abbas IS, and Alsaraf KM. Flower cream made from Calendula officinalis L. extracted and used clinically. InI OP Conference Series: Materials Science and Engineering 2019. 571. (1), 1
[15] Singh RK, Verma PK, Mathan SV, Tomar MS, Singh SP, Kumar S, Singh RP, Acharya A, and Kumar A. Papaya leaf extract from Carica used therapeutically to treat illnesses in people. DARU Journal of Pharmaceutical Sciences,2020 Dec;28:735–44;.
[16] Aloe vera extract topical cream formulation and moisturizing effects: Akhtar N, Khan BA, Khan MS, Mahmood T, Khan HM, Iqbal M, Bashir S. 41:172–9. World Academy of Science, Engineering, and Technology, 2011.Mar. 21,
[17] Topical application of certain plant oils can have anti-inflammatory and skin barrier-repairing benefits, according to Lin International Journal of Molecular Sciences,TK, Zhong L, and Santiago JL. 2017 December 27;19(1):70;
[18] Cream cf, fissures st. Pharmaceutical sciences. Goreja WG. Shea butter: the moisturizing qualities of nature's best-kept beauty secret in Africa. International TNC Inc.; 2004.
[19] Yang H, Tang S, Guo C, Liu M, Tao Q, Ming T, Xu H, Zhao H, Ren S. The phytochemistry, biological activity, pharmacological impact, and uses of peppermint essential oil. Pharmacotherapy & Biomedicine. 2022 Oct 1;154:113559.
[20] Savic VL, Cvetkovic DJ, Kolarevic A, Marjanovic-Balaban Z, Nikolic LB, Stanojevic JS, LP, and Stanojevic JS. The chemical makeup, in vitro antioxidant activity, and in vivo skin irritation assessment of peppermint and basil essential oils. Journal of Essential Oil-Bearing Plants, 22(4), 979–93, July 4, 2019.
[21] Zeković Z, Mašković P, Mašković Z, Petronijević M, Radojković M, Cvetanović A. The effects of multidirectional techniques on auto fermented chamomile ligulate blossoms include cytotoxicity, enzyme inhibition, antioxidant, and antibacterial properties. Journal of Botany in South Africa. 2019 Jan 1; 120:112-118
[22] Zaman SU, Khan BA, Ahmad M, Rasool F, Mahmood T, Rasul A, Haji M, Khan S, and Akhtar N. Assessment of different functional skin parameters using a topical Calendula officinalis extract cream. African Journal of Pharmacy and Pharmacology, .2011 Feb 1;5(2):199-206;

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

[23] Ghafoor K, Özcan MM, Babıker EE, Sarker ZI, Ahmed IA, Ahmed MA, AL-Juhaımı F. Review of the nutritional makeup, extraction process, and application of wheat germ oil. European Journal of Lipid Science and Technology,2017 July;119(7):1600160;
[24] Sanjay K Bais Kharade Siddhant Bhauso Review on Quality Aspects of Herbal Drug and its Formulations International Journal of Advanced Research in Science Communication and Technology,February 2023 3(2) 161
[25] Monika Shinde SK Bais Diptee Devmare Review on Standardization of Herbal Drug and Formulation International Journal of Pharmacognosy and Life Science Volume-4 Issu 1 January 2023 ISSN (Online) 2707-2835 P-ISSN 2707-2827 , 20-24.



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)