IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 2, October 2025
Impact Factor: 7.67

Review on Polyherbal Lipstick

Ram Birudev Gore[1], Tushar Sambhaji Deshmukh[2],Gauri Dhairyashambho Solat[3], Ms.Vidya R Anap[4]
Students, Department of Pharmacy[1,2,3.]
Guide, Department of Pharmacy[4]
Mrs. Saraswati Wani College of Pharmacy, Ganegaon, Maharashtra
Affiliated to Dr Babasaheb Aambedkar Technological University, Lonore, Raigad

Abstract: *Cosmetic formulations derived from natural sources are gaining significant attention due to their safety, biocompatibility, and multifunctional benefits. Among these, herbal lipsticks have emerged as sustainable alternatives to conventional products that often contain synthetic and potentially harmful ingredients [1].*

This review highlights the growing potential of polyherbal lipsticks, focusing particularly on Hippophae rhamnoides (sea buckthorn berry) as a key bioactive ingredient. Sea buckthorn is rich in carotenoids, flavonoids, vitamins (C, E, K), and essential fatty acids, which impart antioxidant, anti-inflammatory, and skin-protective properties, making it an ideal natural component for lip care formulations [2,3].

The inclusion of natural colorants such as beetroot, turmeric, and annatto, combined with emollients and natural waxes like beeswax, shea butter, and plant oils, enhances both aesthetic appeal and therapeutic value [4]. Polyherbal lipsticks thus not only serve decorative purposes but also contribute to maintaining lip health through nourishment and protection.

Overall, this review emphasizes the importance of sea buckthorn-based polyherbal lipstick as a promising natural cosmetic that offers dual benefits—lip coloration and therapeutic lip care. The concept aligns with the modern trend of green and sustainable cosmetics, promoting the development of safe, effective, and eco-friendly herbal beauty products [5]..

Keywords*:* Sea buckthorn (*Hippophae Rhamnoides*), Herbal cosmetics, Natural colorants, Lip care formulation, Antioxidant activity, Herbal excipients, Green cosmetics, Phytoconstituents, Lipstick evaluation parameters

I. INTRODUCTION

Cosmetics have been an essential part of human lifestyle for centuries, serving not only to enhance external appearance but also to protect the skin and boost self-confidence. Among cosmetic products, lipsticks hold a unique place as one of the most frequently used items across all age groups [1]. Lipsticks provide color, enhance beauty, and act as a protective barrier for delicate lip tissues. However, in recent decades, concerns regarding the use of harmful synthetic substances such as heavy metals, Parabens, and artificial dyes in conventional lipsticks have been raised. These chemical additives may lead to toxicity, allergic reactions, skin irritation, and even long-term health risks [2]. Due to such drawbacks, there has been a global shift in consumer preference toward safe, natural, and eco-friendly cosmetic products.

Herbal cosmetics, also known as green cosmetics or Cosmeceuticals, are derived from plant sources and are preferred because they combine both aesthetic and therapeutic benefits [3]. Unlike synthetic cosmetics, herbal formulations are biocompatible, biodegradable, and usually free from toxic effects. They are enriched with phytochemicals such as alkaloids, flavonoids, tannins, Terpenoids, and carotenoids, which exhibit antioxidant, antimicrobial, and anti-inflammatory properties[5]. The trend toward herbal formulations also aligns with the global movement toward sustainable and environmentally friendly products.

Poly herbal formulations, which combine two or more medicinal plants, have gained particular attention. Such formulations are often considered superior to single-plant preparations because of synergistic interactions among Phytoconstituents, leading to enhanced activity, stability, and broader therapeutic potential [7]. Polyherbal lipsticks thus

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 2, October 2025
Impact Factor: 7.67

represent an innovative approach that not only enhances beauty but also provides additional lip care benefits such as hydration, antioxidant protection, and healing of cracks.

Among natural ingredients, Sea Buckthorn (Hippophae Rhamnoides) has emerged as a highly promising component for cosmetic applications. Traditionally used in Ayurveda, Tibetan, and Chinese medicine, sea buckthorn is regarded as a "Superfruit" due to its unique nutritional and phytochemical profile [2]. Its berries are rich in carotenoids (β-carotene, lycopene, Zeaxanthin), flavonoids, polyphenols, Tocopherols, Phytosterols, and essential fatty acids, which collectively provide antioxidant, anti-inflammatory, wound-healing, and Photoprotective properties [4,8]. The bright orange-red coloration of sea buckthorn berries, attributed to their carotenoid content, makes them a natural candidate for lip formulations where both color and therapeutic functions are desired. Furthermore, sea buckthorn oil has been reported to enhance skin regeneration, improve elasticity, and protect against oxidative stress, thereby offering additional benefits for lip care [9].

To complement sea buckthorn, other natural colorants such as beetroot (Beta vulgaris), turmeric (Curcuma longa), and annatto (Bixa orellana) have been successfully incorporated into herbal lipsticks. These provide attractive shades, antioxidant effects, and additional therapeutic properties [10]. Similarly, natural excipients like beeswax, cocoa butter, shea butter, and castor oil not only serve as bases and stabilizers but also enhance spreadability, texture, and moisturization of the final product [11].

For a poly herbal lipstick to be effective and acceptable, it must undergo thorough evaluation. Standard evaluation parameters include melting point (for thermal stability), breaking point (mechanical strength), spreadability and pay-off (ease of application), pH (compatibility with lip mucosa), stability studies, and antimicrobial activity [12]. Such evaluations ensure that herbal lipsticks are not only safe but also comparable in performance to their synthetic counterparts.

Considering the increasing demand for safe and sustainable cosmetics, poly herbal lipstick formulations enriched with sea buckthorn represent a novel approach. They provide dual benefits—natural lip coloration and therapeutic lip care—while reducing dependence on synthetic chemicals. This review therefore aims to provide a comprehensive discussion on the formulation and evaluation of poly herbal lipsticks, emphasizing the phytochemical richness and therapeutic importance of sea buckthorn berry as the main ingredient.

Ideal Characteristics :

1. Safe and Non-toxic

- Should be free from harmful chemicals such as lead, parabens, and artificial dyes.
- Must not cause irritation, allergies, or toxicity when applied on lips.
- Should comply with regulatory safety guidelines for herbal cosmetics [1,6]

2. Attractive Color and Shade Range

- Must provide uniform and stable coloration using natural pigments (e.g., sea buckthorn carotenoids, beetroot Anthocyanins).
- Should not undergo discoloration or fading during storage or use [10].

3. Good Pay-off and Spreadability

- The lipstick should glide smoothly on application, leaving a uniform film.
- Must exhibit good pay-off (color transfer to lips in a single stroke) without excessive hardness or softness [11].

4. Appropriate Consistency and Texture

- Should not be gritty, greasy, or sticky.
- Must provide a smooth, soft, and comfortable feel on the lips [3]

5. Moisturizing and Protective Properties

- Should hydrate the lips and prevent dryness or cracking. Natural oils (castor oil, Shea butter, sea buckthorn oil) contribute to moisturizing and protecting against environmental damage [9].

6. Pleasant Odor and Taste

- Should be free from any offensive odor or taste.

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 2, October 2025
Impact Factor: 7.67

- If fragrance is added, it should be mild, natural, and acceptable [12].

7. Physicochemical Stability

- Should remain stable under varying environmental conditions (temperature, light, humidity).
- Must resist sweating, blooming, or microbial growth during storage [5]

8. Acceptable Melting and Breaking Point

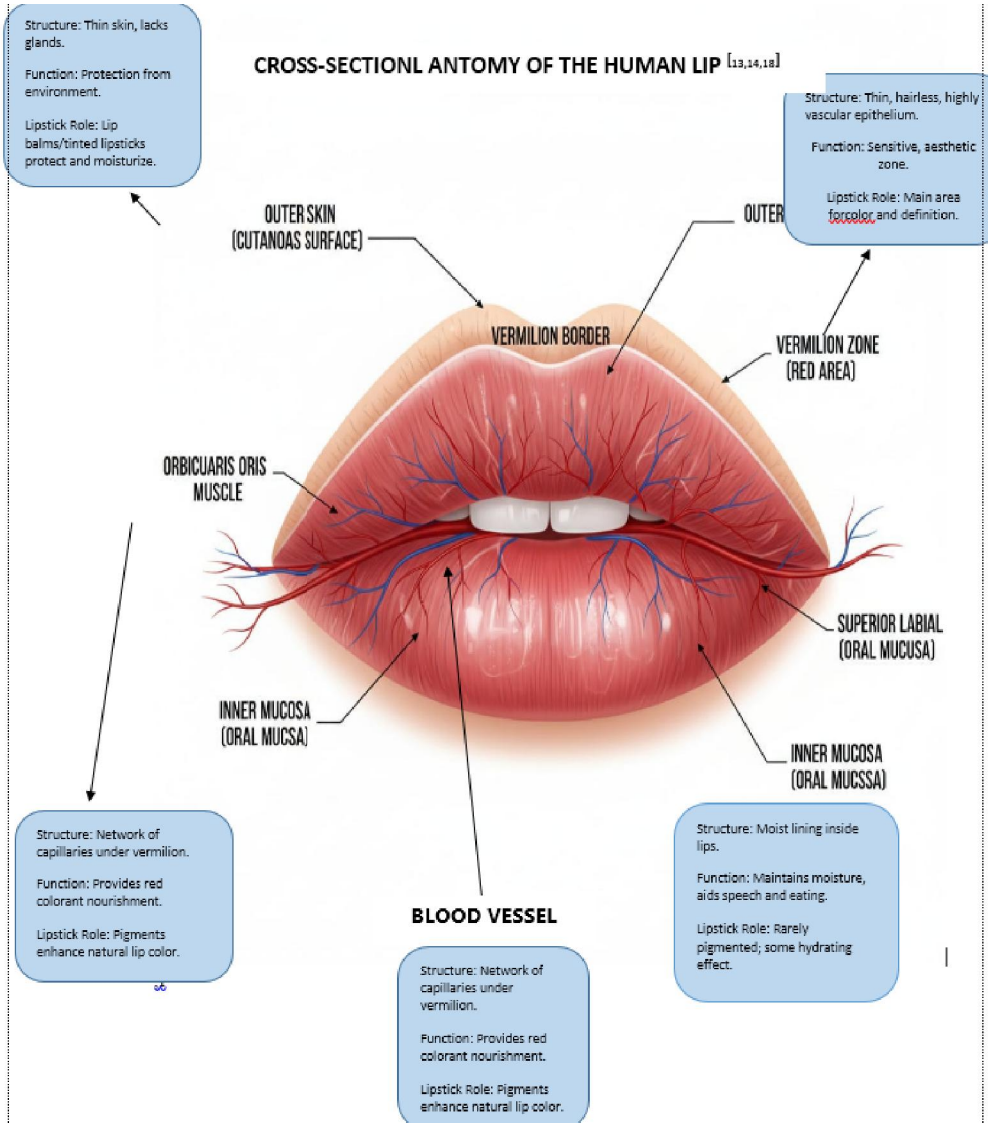
- Melting point should be slightly above body temperature (around 50–60 °C) so that it does not melt in hot climates yet softens upon application [6].
- Breaking point should be high enough to resist fracture during normal use.

9. Therapeutic Benefits

- Should provide added advantages such as antioxidant, wound-healing, anti-inflammatory, or UV-protective properties from herbal constituents like sea buckthorn [8]

10. Eco-friendly and Sustainable

- Should be biodegradable, environmentally safe, and aligned with green cosmetic principles [7].



IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 2, October 2025
Impact Factor: 7.67

Preparation Method :

Initially, melt and blend the raw materials separately according to their melting points. Heat the solvents, oils, and waxes in distinct stainless steel or ceramic containers. Next, combine the solvent and liquid with the color pigments. Merge the pigment mixture with the heated wax. Then, pour this into lipstick molds, cool, and remove the lipstick from the mold, fitting it into the lipstick case.[15]

Steps Involved:

1. Melting
↓
2. Blending
↓
3. Molding
↓
4. Labeling
↓
5. Packaging[16]

Common Challenges in Lipstick Production :

Formulation-Related Issues:

1. Sweating: When lipstick contains too much oil or inferior ingredients, it can lead to sweating, where oil seeps out, making the product messy and unappealing.

2. Bleeding: This occurs when the color pigments separate from the wax base, resulting in an uneven color distribution and potential staining.

3. Streaking: Visible lines or marks appear on the lipstick's surface, often due to improper mixing or incompatible ingredients.[17]

Molding-Related Problems:

1. Laddering: When the lipstick doesn't set properly, it can develop an uneven, layered appearance, resembling a ladder.

2. Deformation: The lipstick's shape becomes distorted or uneven, often due to improper molding or temperature control.

3. Cratering: Dimples or holes form on the lipstick's surface, typically due to air pockets or improper cooling.

4. Mushy Failure: In this case, the lipstick's core lacks structure and is prone to breaking or crumbing, often due to inadequate wax content or poor formulation.[18]

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 2, October 2025
Impact Factor: 7.67

Assessment of Herbal Lipstick Quality and Safety :

A comprehensive evaluation of herbal lipstick formulations was conducted to ensure their quality, safety, and performance. The assessment involved a series of tests, including:

1. Visual Inspection: The lipstick's color and texture were examined to ensure a uniform and appealing appearance.

2. PH Level Assessment: A digital pH meter was used to determine the lipstick's pH level, ensuring it was compatible with skin PH. [19]

3. Dermal Compatibility Evaluation: A skin irritation test was performed to assess the lipstick's potential to cause adverse skin reactions.

4. Thermal Stability Analysis: The melting point of the lipstick was determined using a capillary tube apparatus to evaluate its stability under various temperature conditions.

5. Mechanical Strength Testing: The lipstick's breaking point was measured to assess its durability and resistance to damage. [20]

6. Surface Characterization: The lipstick surface was examined for any defects, such as crystal formation or contamination, that could affect its quality.

7. Fragrance Stability Evaluation: The lipstick's fragrance was assessed after 30 days to determine its stability and longevity.[21]

8. Accelerated Aging Test: The lipstick was subjected to accelerated aging conditions to evaluate its stability and performance over time.

9. Solubility Assessment: The lipstick's solubility was tested in various solvents to assess its chemical stability and potential interactions.[22]

These tests were designed to ensure the herbal lipstick formulations met the required standards for safety, quality, and performance. The results of these evaluations are presented in Table 2, providing valuable insights into the formulations' characteristics.

II. CONCLUSION

Polyherbal lipsticks offer a safe, natural, and effective alternative to synthetic cosmetic products. They combine herbal ingredients that provide both color and therapeutic benefits such as moisturizing, antioxidant, and healing effects. These formulations promote healthy, attractive lips while minimizing side effects associated with chemical additives. With growing consumer demand for herbal cosmetics, polyherbal lipsticks hold great promise as eco-friendly and multifunctional beauty products of the future.

REFERENCES

[1]. Sharma R, Gupta A. Herbal Lipsticks: A Safer Alternative. International Journal of Pharmacy and Pharmaceutical Sciences. 2019;11(5):1–6.

[2]. Suryakanta, Mishra S, Pradhan R. Sea Buckthorn: A Multifunctional Plant. Journal of Pharmacognosy and Phytochemistry. 2018;7(2): 1903–1908.

[3]. Chawla P, Kaushik P. Formulation and Evaluation of Herbal Lipstick: A Review. International Journal of Green Pharmacy. 2020;14(1):1–6.

[4]. Yang B, Kallio HP. Fatty Acid Composition of Lipids in Sea Buckthorn (Hippophae rhamnoides L.) Berries of Different Origins. Journal of Agricultural and Food Chemistry. 2001;49(4):1939–1947.

[5]. Patil S, Jadhav N. Formulation and Evaluation of Herbal Cosmetics. Research Journal of Topical and Cosmetic Sciences. 2021;12(2):45–51.

[6]. Bhalekar MR, Thube S. Evaluation Parameters of Herbal Lipsticks: An Overview. Int J Cosmet Sci. 2017;39(2):145–151.

[7]. Patil S, Jadhav N. Formulation and Evaluation of Herbal Cosmetics. Res J Topical Cosmetic Sci. 2021;12(2):45–51.

[8]. Parasuraman S, Thing GS, Dhanaraj SA. Polyherbal Formulation: Concept and Application. Pharmacogn Rev. 2014;8(16):73–80.

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 2, October 2025
Impact Factor: 7.67

[9]. Zielińska A, Nowak I. Abundance of Active Ingredients in Sea-Buckthorn Oil. Lipids Health Dis. 2017;16:95.

[10]. Anjali R, Sultana S. Herbal Lipsticks Incorporated with Natural Colorants: A Review. World J Pharm Res. 2020;9(5):345–354.

[11]. Jadhav VM, Thorat RM, Kadam VJ, Gholve SB. Formulation and Evaluation of Herbal Lipstick. Int J PharmTech Res. 2009;1(4):1107–1111.

[12]. Thakur R, Jain N, Pathak R. Evaluation of Herbal Lipstick Formulations Using Natural Colorants. Asian J Pharm Clin Res. 2018;11(2):203–207.

[13]. Munmun, Dr. Foutszoglou, Mulliken JB (1), Pensler JM, 2016

[14]. Lips antomy. A [Online]. 2009 February 6 [cited 2010 December 8); Available from:URL:https://www.britannica.com/science/lips

[15]. Dr Kasture, Gokhale S B. Parakh S R. Hasan S A. Textbook of practical pharmaceutics. 16th ed. Pune (India): NiraliPrakashan, 2008; 33-35.

[16]. https://www.slideshare.net/mobile/harikrishna659/lipstick-69337464

[17]. Nanda S, Nanda A, Khar RK, Cosmetic technology, 1st edition, Birla Publication Pvt. Ltd New Delhi (India), 2007; 330-53.

[18]. Herbal Lipstick- An updated Overview Uzma s *1, Shayesta k 1, Abdul sameeh 2, Juveriya M 3, S M Shahidulla 4Department of pharmaceutics , Deccan school of pharmacy, Hyderabad 500001

[19]. Nuha Rasheed, Syed Abdul Rahman, Samreen Hafsa. “Formulation and Evaluation of Herbal Lipsticks.” Research Journal of Pharmacy and Technology. 2020; 13(4): 1693-1700.

[20]. Talreja S, Tiwari S, Rawat S, Bharti A. “The development and evaluation of a herbal lipstick formula utilizing various extracts.” J Pharm Biol Sci. 2023;11(1): 43-50.

[21]. Formulation and Evaluation of Herbal Lipstick from the Beetroot.” Research Journal of Topical and Cosmetic Sciences. 2023.

[22]. Harnessing Nature’s Hues: Preparation and Evaluation of Herbal Lipsticks with Natural PigmentsDr. Sapna Desai*1, Anjali Pandey1, Vandita Aggrawal1, Dr. Divyang Patel2, Dr. Sohan Patel1, Himanshu Panchal3, Dr. Dhananjay Meshram1 1 Department of Pharmacology, Pioneer Pharmacy College, Ajwa Road, Vadodara, Gujarat, India.2Department of Pharmacognosy, Institute of Pharmaceutical Sciences, Parul University, Vadodara, Gujarat, India.3 Department of Pharmaceutical Chemistry, Parul Institute of Pharmacy, Vadodara, Gujarat, India