



ANALYSIS OF THE PHARMACEUTICAL MARKET OF HERBAL-BASED SEMISOLID DOSAGE FORMS

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ABSTRACT

Semisolid dosage forms play a significant role in wound healing and tissue regeneration, as they act directly on the wound surface, ensuring targeted delivery of active substances to damaged tissues, maintaining a moist wound environment, and accelerating regenerative processes.

Relevance: Semisolid dosage forms play a significant role in wound healing and tissue regeneration, as they act directly on the wound surface, ensuring targeted delivery of active substances to damaged tissues, maintaining a moist wound environment, and accelerating regenerative processes.

Semisolid dosage forms derived from medicinal plants contain natural biologically active compounds—such as flavonoids, essential oils, vitamins, and polyphenols—which provide anti-inflammatory, antiseptic, antioxidant, and regenerative effects. In addition, these formulations are characterized by low toxicity, minimal side effects, and suitability for long-term use, making them advantageous compared to synthetic drugs.

Objective of the Study: To analyze the pharmaceutical market of semisolid dosage forms derived from medicinal plants available in the world and in Republic of Uzbekistan.

Results: Herbal-based semisolid dosage forms (ointments, creams, and gels) constitute an important segment of the modern pharmaceutical market. These products are distinguished by their high content of natural bioactive compounds, favorable safety profile, and complex pharmacological activity.

In particular, preparations based on calendula (*Calendula officinalis*), horse chestnut (*Aesculus hippocastanum*), and beggar's ticks (*Bidens tripartita*) are widely used in dermatology and cosmetology.

Calendula-based preparations exhibit pronounced anti-inflammatory, antiseptic, and wound-healing effects due to the presence of flavonoids, carotenoids, and essential oils. Horse chestnut extract contains escin, which provides venotonic, angioprotective, and anti-edematous effects, and is primarily used in the treatment of varicose veins. *Bidens tripartita*, rich in polyphenols and flavonoids, demonstrates anti-allergic, antiseptic, and wound-healing properties.

The global pharmaceutical market for phytopreparations is steadily growing; however, the level of development, consumption volume, and marketing strategies vary significantly across regions. These differences are largely determined by traditional medical systems, economic factors, regulatory policies, and population needs

Table 1. Regional Characteristics of the Global Market for Herbal-Based Semisolid Dosage Forms

Region / Country	Market Share and Status	Key Marketing Factors	Role of Herbal-Based Semisolid Dosage Forms
Europe (Germany, France, UK)	Largest share (~34%) (Grand View Research)	Strong regulation, high-quality standards, trust in phytomedicine	Widely used in dermatological and pharmaceutical ointments
USA	Fastest-growing market (Grand View Research)	Natural product trend, high income, OTC products	High demand in cosmeceuticals and skincare
China	Large domestic market	Traditional Chinese Medicine (TCM)	Integral part of traditional therapy
India	Very large consumer market	Ayurveda system, affordability	Widely used low-cost wound-healing agents
Japan	Stable developed market	Kampo system, strict requirements	Standardized ointments used in clinical practice
Asia-Pacific	Fastest-growing region (Fortune Business Insights)	Raw material base, large population, traditional medicine	Production center for herbal ointments
Africa	Developing market	Affordability, traditional medicine	Used as primary therapeutic agents
Russia	Moderately developed market	Pharmacy segment, growing phytopreparations	Calendula- and chamomile-based ointments widely used

Table 2. Average Prices of Herbal-Based Semisolid Dosage Forms in Pharmacies of Uzbekistan

Plant Name	Product Name	Dosage Form	Price (UZS)	Notes
Calendula	Calendula flowers (raw)	Dried	from ~12,800	Lowest price segment

Plant Name	Product Name	Dosage Form	Price (UZS)	Notes
	material)			(Apteka.uz)
Calendula	Hand cream (calendula + aloe)	Cream	~14,700	Mass market (Biotus)
Calendula	Face cream (40 ml)	Cream	~99,000	Mid-range segment (Apteka.uz)
Calendula	Calendula cream (Vivasan)	Cream	~306,000	Premium segment (Apteka.uz)
Calendula	Calendula gel (Boiron)	Gel	~234,000	Imported product (Biotus)
Horse chestnut	Horse chestnut cream (300 ml)	Cream/Gel	~45,000	Venotonic agent (Liki.uz)
Bidens (usually in combination)	Cream/ointment	Cream/Ointment	~20,000–60,000	Monocomponent products are rare

Conclusion: The analysis of the pharmaceutical market indicates that the prices of herbal-based semisolid dosage forms vary depending on their composition, country of manufacture, and therapeutic application. Calendula-based products dominate the low-cost segment, horse chestnut-based preparations belong to the mid-range segment, while *Bidens tripartita* is more commonly found as a component of combination products. The increasing demand for these preparations confirms the prospects of phytotherapy in the pharmaceutical industry.

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