

МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ НАЦІОНАЛЬНИЙ
ФАРМАЦЕВТИЧНИЙ УНІВЕРСИТЕТ
КАФЕДРА ПРОМИСЛОВОЇ ТЕХНОЛОГІЇ ЛІКІВ ТА КОСМЕТИЧНИХ
ЗАСОБІВ КАФЕДРА АПТЕЧНОЇ ТЕХНОЛОГІЇ ЛІКІВ

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multiple optima. Within analytical methods, the difference between weighted criteria and ideal point methods is in external parameters—weights for the former, comparison rules for the latter.

Conclusions. Analytical methods are most effective for reproducible, interpretable, and regulatorily compliant pharmaceutical development. The ideal point method reduces subjectivity and ensures solution uniqueness. Weighted criteria are simple but require weight justification. Numerical–analytical methods are suitable for complex systems but do not guarantee uniqueness. Non-mathematical methods are limited to preliminary assessment.

Multi-criteria optimization is essential for establishing the optimal composition and technological parameters, enabling systematic determination of excipient proportions and production conditions for optimal pharmaco-technological characteristics. For tasks requiring unique and reproducible results, preference should be given to analytical methods with minimal external parameters and strict mathematical formulation.

STUDY OF MICROSCOPIC DIAGNOSTIC SIGNS OF THE STRUCTURE OF THE BORAGE HERB VARIETY STRUMOK

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Introduction. To expand the range of domestic herbal medicines, plants that are widely cultivated, easily adapt to certain climatic conditions, and are not demanding on soils deserve special attention. Such plants include the representative of the Borage family (*Boraginaceae* Juss.), the borage *Borago officinalis* L. There are several varieties of this plant on the Ukrainian market, but the most affordable is the Strumok variety.

Research aim. The aim of this work was to study the anatomical structure of the borage herb Strumok variety and determine microscopic diagnostic features.

Research methods. The herb was harvested in the Kharkiv region during the period of mass flowering, fixed in a mixture of ethanol - glycerin - water (1:1:1). The study of the anatomical structure was carried out using a BIOLAM LOMO microscope. The pictures were taken using an OLYMPUS FE-140 video camera.

Main results. Diagnostic features of the anatomical structure of borage herb Strumok variety include: sizes and nature of the location of different types of hairs; shape of epidermal cells, thickness of cell membranes and their tortuosity, types of stoma apparatus; for stems: sizes of angular-lacunar collenchyma cells, endoderm with starch grains, transitional type of structure of the central cylinder, shape of conductive bundles; for petioles: presence of collenchyma and sclerenchyma; number and nature of arrangement of vascular bundles; for leaves: dorsiventral type of structure, shape of the central vein; for flowers: presence of simple hairs and shape of epidermal cells.

Conclusions. The results of the study of anatomical diagnostic features of the structure of borage herb Strumok variety will be included in the regulatory documentation for raw materials.

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**DEVELOPMENT OF THE COMPOSITION OF CHEWABLE
TABLETS BASED ON DRY EXTRACTS FOR UROLOGICAL USE**

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Introduction. Cystitis is an inflammatory disease of the urinary bladder, characterized by an acute or chronic course. The pathology has gender specificity: the incidence among women is 20–25%, while in men this figure does not exceed 0.5%, according to epidemiological data. There is a steady trend towards an increase in the