

The prospect of using *Plantago major* L. in the development of medicinal products

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Expansion of the assortment of modern effective and safe medicines can be achieved by introducing new original medicines based on natural raw materials in the pharmaceutical industry. Undoubtedly, it is worth noting that medicinal plants prospective raw materials for the development of pharmaceuticals products [5].

It is widely known using of medicinal plants for the treatment of various diseases. Potential possibilities of herbal medicine are significant, since the plants have therapeutic properties: anti-inflammatory, analgesic, diaphoretic, diuretic, choleric, reparative, soothing and hypnotics, immunostimulating, hemostatic and those that reduce blood coagulation, antiviral, bactericidal, etc. [2, 3].

One of the most common medicinal plants is Plantain large (*Plantago major* L., family Plantaginaceae), which is distributed practically throughout the territory of Ukraine. It is known that Plantain large, is a part of various medicines, cosmetics, etc. due to the presence of a large number of biologically active substances. However, it should be noted that its use should not be limited to the existing range of products. Therefore, the development of new drugs on its basis is an urgent problem in the pharmaceutical industry.

Based on the results of the analysis of literature sources, the presence of a large number of biologically active substances in this medicinal plant material was established.

Polysaccharides, iridoids, vitamins K and C, mucus, tannins, flavonoids, carotenoids, organic acids have been identified in the leaves of Plantain large [4].

Table 1

The chemical composition of the leaves of Plantain large

Chemical substances	Quantity, %	Chemical substances	Quantity, %
Carbohydrates	15	Tannins	4 – 6
Lipids	0,2	Iridoid	1,5
Organic acids	10 – 15	Amino acids	1,5
Vitamins	to 20	Other substances	about 40

It is necessary to conclude that to date in the pharmaceutical market of Ukraine there is a very narrow range of medicines manufactured on the basis of Plantain large.

In the seeds of Plantain large, the presence of: organic acids - amber; mucus; iridoid - aucubin; steroids; saponins; tannins; oily oil, which includes oleic, linoleic, linolenic, elaidin, triglycerides of oleic and linoleic acids, and higher fatty acids has been studied [1, 6].

Analyzing the chemical composition of Plantain large, we can conclude about the therapeutic effects of this plant. In particular, Plantain large has the following pharmacological properties: antibacterial, wound healing, antineoplastic, regenerative, analgesic, spasmolytic, diuretics, hypoglycemic, immunomodulating, hepatoprotective .

Thus, after analyzing the literature sources and the pharmaceutical market in Ukraine, the prospects of using the plant Plantain large and its further application in the creation of new phytopreparations were confirmed.

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