

**THE DEVELOPMENT OF NEW COMPLEX EXTRACTS BASED ON
BIOLOGICALLY ACTIVE SUBSTANCES OF HOPS AND INULIN-
CONTAINING PLANTS**

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The prevention of severe disease – the diabetes is a very important issue. Ukrainian endocrinologists reported that the level of the diabetes incidence in Ukraine is high. There are 1 million 264 thousand patients with the diabetes type I and II in Ukraine today. It should be noted that using the nutritional supplements containing inulin in the daily diet it is possible to prevent the diabetes and alleviate the suffering of patients. It is known that the inulin derivatives (esters, sulfates, oxidation products) are used in medicine to treat tuberculosis, hypertension, leukemia. The inulin hydrolysis producing fructose, which stimulates the growth and activity of bifidobacterias and lactobacillus, increases calcium absorption, influences on lipid metabolism, reduces the risk of atherosclerosis and diabetes.

The idea of the combination of therapeutic action of inulin and hops polyphenols is a completely new. It is known that hop contains phytohormones, vitamins (C, H and PP, B₃, B₆, provitamin A), and the other biologically active compounds. Selection varieties of hops are different by quantitative content and composition of α - and β -acids, mono- and sesquiterpenes, flavonoids and other biologically active substances.

Therefore, developing of the methods of producing complex extracts based on biologically active substances of hops and inulin-containing plants is an important issue. If the new recipes of supplements to the diet and products such as the various types of beverages, dairy and bakery products for the prevention of serious diseases are developed, the cost reduces, range expands and the quality of various products improves.

The patent search has been carried out, the most perspective types of inulin-containing plants and hop varieties have been chosen at Institute of Agriculture Polesie NAAS of Ukraine, Zhytomyr city.

Since the hops Gaydamackiy contains the maximum amount of polyphenol, this variety has been selected for further investigations, which are essential and promising.

