

# DETECTION AND ESTABLISHMENT OF QUANTITATIVE CONTENT OF POLYSACCHARIDES IN RAW MATERIALS

## *ALOE ARBORESCENS* MILL.

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**Introduction.** Medicinal plants have long been used for the prevention and treatment of various diseases. Herbal remedies have a number of advantages over synthetic drugs: they are low toxic, have fewer side effects, the possibility of using in chronic diseases, greater bioavailability to the human body. The most widely used houseplant is *Aloe arborescens* Mill. (family – *Liliaceae*). In our country, it is cultivated as a shrub, reaching a height of 1-3 m. The root system is fibrous, highly branched, located mainly in the surface layer of the soil. The stems are erect, slightly branching, with numerous annular scars in the lower part – traces of fallen leaves. The leaves are alternate, close together in the upper part of the stem, amplexicaul, elongate-xiphoid, slightly grooved, greenish-glaucous, covered (especially from below) with a thin, easily erased wax coating [2]. Aloe vera contains complex, bitter-tasting glycosidic compounds; aloe juice contains organic acids, resins, tannins, essential oils, amino acids, vitamins, flavonoids, and elements. Aloe extract is adaptogenic, stimulates tissue regeneration. Aloe extract, like other biogenic stimulants, introduced into the patient's body enhances the processes of resorption and regeneration, increasing its protective functions in the fight against diseases. Used for inflammatory diseases of the female genital organs [2, 3].

**Materials and methods.** We chose the roots of *Aloe arborescens*, harvested in the Kharkiv region in 2021, for phytochemical research. Detection of polysaccharides in aloe roots was performed by chemical reaction using an aqueous extract from the studied raw materials. As a result, the reaction was carried out with 96% ethanol. Quantitative content of polysaccharides was determined by gravimetry in accordance with the requirements of the SPU, the article "*Althaea roots*" [1].

**Results and discussion.** Polysaccharides were found in *Aloe arborescens* roots according to the results of the identification reaction. When determining the quantitative content of this class of BAC, the results were statistically processed according to the requirements of the SPU and are –  $11.35 \pm 0.52\%$ .

The obtained results are one of the stages of complex phytochemical study of aloe roots.

### References:

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