

BIDENS TRIPARTITA IS A PERSPECTIVE MEDICINAL PLANT

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The aim of the work is a study of qualitative and quantitative content of substances of *Bidens tripartita* herb.

Research techniques. The herb of *Bidens tripartita* was prepared in the Vinnitsa areas in 2012. We used chromatography on the paper and thin layer of sorbent for preliminary research of qualitative composition of the raw material.

The chromatography on the paper was carried out in the systems of solvents: on the presence of sugars, phenolic acids and phlavonoids cleared n-butanol- acetic acid icy-water (4:1:2); was used on sugars – cleared n-butanol-piridin-water (6:4:3); on organic acids – cleared n-butanol-formic acid-water (4:1:5), cleared ethylacetate-formic acid-water (3:1:1); on phenolic acids and phlavonoids – 2%, 5% and 15% acetic acid. The chromatography in thin layer of sorbent was carried out in the system of solvents by a chloroform-alcohol methyl (9:1).

The quantitative content of extractive substances and polysaccharides was studied by gravimetric method. Sum of oxidative phenols was determined by titration. Sums of fatty acids, free organic and phenol-carboxylic acids were studied by chromatography-mass-spectrometry.

Results. We identified carbohydrates (D-glucose and D-fructose), organic acids (apple, succinic and lemon), phenolic acids (chlorogenic and ferulic) and phlavonoids (kempherol, quercetinum and hyperosid) in the *Bidens tripartita* herb by chromatography on the paper.

The result of the research showed that the raw material contained at least 20% and 3% of extractive substances and sum of oxidative phenols respectively (we used 50% ethanol as an extractant). The quantitative content of polysaccharides, fatty acids, free organic and phenol-carboxylic acids was 3%, 1.4%, 0.01% and 0.4%, respectively.

Conclusions. As the result of qualitative composition research it was detected that the herb of *Bidens tripartita* contains carbohydrates, organic acids, phenolic acids, phlavonoids. We determined the quantitative content of extractive substances, sum of oxidative phenols, polysaccharides, fatty acids, free organic and phenol-carboxylic acids in raw material.

The obtained data will be used in further researches while creating new preparasion from *Bidens tripartita* herb.