

COMPONENTS OF *Telekia speciosa*

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In the flora of Azerbaidzhan, *Telekia speciosa* B. (heartleaf oxeye), belonging to the family Compositae, is a valuable medicinal plant. To study the component composition of individual organs, the plant was collected in the locality of Akhkamal in the region of the high-mountain Zakatal'skii State Reservation of the Azerbaidzhan SSR.

The component composition of the organic acids was determined by the method of [1], the composition carbohydrates by [2], and that of the free amino acids by paper chromatography [3]; neutral lipids were extracted with n-hexane (bp 40-60°C) from the air-dry comminuted material in a Soxhlet apparatus [4]; and the tocopherols in the oil were determined by a standard method [5].

Analysis showed that the amount of organic acids in the leaves was 3.61% and in the inflorescences 1.93%. Paper chromatography in the solvent system n-butanol-formic acid-water (18:2:9) (the revealing agent being a solution of Bromophenol Blue) showed that the heartleaf oxeye leaves contained tartaric (R_f 0.25), malic (R_f 0.48), oxalic (R_f 0.70), and two unidentified acids. Tartaric, malic, and one unidentified acid were detected in the inflorescences. The sum of the free amino acids in the leaves amounted to 3.60%, in the stems to 2.89%, and in the inflorescences to 2.05%. It was found by descending paper chromatography (the solvent being n-butanol-acetic acid-water (4:1:1) and the revealing agent 2% ninhydrin in acetone) that leaves of heartleaf oxeye contained cysteine (R_f 0.11), lysine (R_f 0.14), arginine + asparagine (R_f 0.21), histidine (R_f 0.32), threonine (R_f 0.38), alanine (R_f 0.40), tyrosine (R_f 0.45), tryptophan (R_f 0.52), valine (R_f 0.55), phenylalanine (R_f 0.57), and leucine (R_f 0.64). The stems contained 11 and the inflorescences seven amino acids. The total amount of carbohydrates in the leaves was 3.01%, in the stems 2.44%, and in the inflorescences 1.97%.

To study the qualitative composition of the carbohydrates we used the n-butanol-acetic acid-water (4:1:5) system with aniline phthalate as revealing agent. Chromatographic analysis showed that the leaves contained galactose (R_f 0.16), glucose (R_f 0.18), arabinose (R_f 0.21), and one unidentified sugar. The leaves and inflorescences contained galactose, glucose, arabinose, and one unidentified sugar. The total amount of neutral lipids in the leaves of heartleaf oxeye was 2.45%, in the stems 0.49% and in the inflorescences 2.30%. In addition, we studied the amount of tocopherols in the oil (mg-%): in the oil obtained from the leaves it was 3.72, from the inflorescences 3.20, and from the stems 0.089.

The results obtained characterize this plant as a medicinal and nutritional raw material.

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