



MORPHOLOGICAL AND ANATOMICAL FEATURES OF *AGRIMONIA ASIATICA* JUZ. AND *AGRIMONIA PILOSA* LDB

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Relevance: Representatives of the genus *Agrimonia* L. are valuable medicinal plants widely used in traditional medicine. However, the morphological and anatomical characteristics of its various species have not been sufficiently studied, which complicates species diagnostics and the rational use of raw materials.

Objective of the study: To study and compare the morphological and anatomical features of *Agrimonia asiatica* Juz. and *Agrimonia pilosa* Ldb. in populations of South Kazakhstan.

Materials and methods: The research material consisted of samples of *A. asiatica* Juz. and *A. pilosa* Ldb. collected from various ecotopes of South Kazakhstan. Morphological analysis was carried out using field and laboratory methods of descriptive botany. Anatomical studies were performed on microsections of leaves, stems, and roots using an MCX100 binocular microscope and Microvisible software. Morphometric parameters were determined with the use of statistical data processing.

Results: Diagnostic morphological features of the studied species were identified. In *A. pilosa* Ldb., fruits are significantly smaller (length – 4.7 ± 0.62 mm, width – 2.9 ± 0.68 mm) and possess distinct spines. In *A. asiatica* Juz., the leaves are simple, elliptic, and densely pubescent; more developed xylem conduction in stems and roots was noted. Anatomical structure revealed differences in the thickness of the epidermis, mesophyll, sclerenchyma, and xylem elements. For populations of *A. asiatica*, the presence of numerous glandular trichomes on the lower epidermis was characteristic.

Conclusions: The morphological and anatomical study revealed diagnostic features differentiating *A. asiatica* Juz. and *A. pilosa* Ldb. The obtained data refine intraspecific characteristics and can be used for taxonomic diagnostics, pharmacognostic evaluation, and further research of medicinal plants of the genus *Agrimonia* L.