

STUDY OF ANATOMIC STRUCTURE OF ROOT BIDENS TRIPARTITA

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Bidens tripartita is an herbaceous annual plant, that is widespread in Ukraine as a weed. The herbs of *Bidens tripartita* are included to the XI edition of USSR pharmacopoeia; this plant is not in official in Ukraine. In folk medicine decoctions of the herbs are used at in case of metabolic and digestion disturbances and diseases of urino-genital organs as diuretic, cholagogic, metabolic, anti-inflammatory, vitamin drug. Infusions and decoctions of the herbs are used externally for treatment of different diseases of skin. There is information about the study of anatomic structure of herbs *Bidens tripartita* in literary sources. However, we have not found out any data concerning study of anatomic structure of root.

The aim of the work is studying of anatomic structure of *Bidens tripartita* root and determination of microscopic diagnostic characters of the raw material.

Materials and methods. Raw material was prepared in the Vinnitsa and Kharkiv areas in 2012. Microslides for the studying of anatomic structure were made from fresh-collected, fixed, dried and soaked raw material. The light microscope "BIOLAM LOMO" (Russia) with 200x, 400x and 800x zoom was used for work. The obtained data was registered by the digital photcamera OLYMPUS FE - 140 and processed by Adobe Photoshop CS3.

Results. Anatomic structure of the root of *Bidens tripartita* is secondary non-bundle type. The covering tissue is periderm, which is formed with the parenchymatous thin-walled cells. The cortex parenchyma is presented by parenchymatous cells with thin insignificantly winding shells. There are small-diametered (in cross-sectional view) rounded secretory channels closer to a phloem. They are organised in a circle. The phloem is thin-walled and a cambium is well-expressed. A xylem is presented by spiral and stair vessels. The remnant of primary xylem is tetracrepid, which testifies tetracrepid radial bundle in the primary structure of root.

Conclusions. The diagnostic characters of anatomic structure of root are the secretory channels in cortex parenchyma and the tetracrepid remnant in the primary xylem.