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ABSTRACT BOOK



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The microscopic study of *Hierochloë odorata* (L.) P. Beauv leaves

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Background: Microscopic features of *H. odorata* leaves are important for diagnosing raw materials and detecting foreign impurities [1].

Aim: Identify the microscopic properties of *H. odorata* leaves.

Methods: Microscopic studies were carried out by light microscopy method [2].

Results: *H. odorata* leaves are isolateral and amphistomatic. The upper and lower epidermis consists of several types of cells: large, thick-walled, rhombic, located from the edge of the leaf to the center, alternating with rows of rectangular cells, which at their base contain tetracytic stomata and very narrow elongated cells covering the veins. Silicate cells are occasionally found in the rows adjacent to the stomata. Large prismatic crystals are located along the veins. Single-celled retort-shaped hairs are located along the edge of the leaf blade and large veins, directed towards the bottom of the leaf blade. The cross section of the leaf is represented by mesophyll, located between the upper and lower epidermis and containing large cavities in the middle. Large motor cells are located under the upper epidermis. Collateral closed bundles are found in the veins.

Conclusions: The main diagnostic anatomical features of *H. odorata* leaves have been identified.

References

1. Pukalskas A, van Beek TA, Venskutonis RP, Linssen JPH, van Veldhuizen A, de Groot AE. Identification of Radical Scavengers in Sweet Grass (*Hierochloë odorata*). *Journal of Agricultural and Food Chemistry*. 2012;50(10):2914-2919.
2. The State Pharmacopoeia of Ukraine (SPhU) DP "Ukrainian scientific farmakopeinyi tsentr yakosti likarskykh zasobiv". 2nd ed. Kharkiv 2015;1:377.