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THE SCLERENCHYMA NERVIRUBENS POPULUS ALB.: POLYMORPHISM OF CELLS

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The paper presents a brief overview of information on the polymorphism of cells sklerenhimy plants, indicating inconsistency of the existing views. The accepted judgment that the cells of the sclerenchyma in most cases deprived of living protoplasts, is now refuted. In some of them revealed from one to 175 nuclei, numerous mitochondria, vacuoles and other organelles. On cross-section area of phloem of the trunk of a poplar in addition to fibers oriented along the longitudinal axis, are installed other types of cells sklerenhimy: transverse fibers derived cells ray model of cambium, fiber sclereids. In the result of longitudinal and transverse fibers in loknyste of sclereids form a common network of cells connected with each other numerous-governmental contacts. In some transverse fibers of the sclerenchyma one can observe the body of the cell with a well-defined nucleus, long and short processes. Revealed also other types of cells sklerenhimy phloem, significantly different in form. Sclereids in poplar phloem occur in the form of separate cells located among parenchymal cells or next to the sclerenchyma fibers. This type of sclereids is characterized by a massive body and thick processes with short sprouts departing from them. Another type of sclereids had thinner, often long and branching processes, but also with a well-defined cell body. The number of sclereids increases sequentially from the cambium towards the periphery of the trunk of a poplar, where they form a large group of cells, as observed on transverse and longitudinal sections. Expected information value of a network of cells sklerenhimy poplar.

Key words: sclerenchyma, phloem fibers, sclereids.

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