

Thematic course: Polysaccharides of crops. Part 1.

General chemical characterization of polysaccharides of wheat *Triticum aestivum*, infected by the fungus *Aspergillus niger*

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Abstract

Method has been developed for isolating polysaccharides from wheat seeds *Triticum aestivum* L., including sequential processing of vegetable raw materials of various extractants: water, acidified water, aqueous solutions of ammonium oxalate and sodium hydroxide at different temperatures. Polysaccharide fractions isolated from the seeds of wheat are characterized with high content of residual glucose, xylose and arabinose. They can be attributed to glucans and hemi-celluloses: arabinoxylans or arabinoglikurono xylans. Fungi *Aspergillus niger* influences on physiological and biochemical parameters of wheat: they do not reduce germination, increases the rate of vegetative and root system growth, affects the monosaccharide composition of polysaccharides, including glükuron acids as well as protein content.