

CANNABIS SATIVA L. OIL CAKE TECHNOLOGICAL APPLICATIONS

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The Mondial current food situation is characterized by a decrease in the consumption of basic foodstuffs, since a significant part of the population, due to low purchasing power, cannot provide themselves with the necessary nutrients. In addition, modern people are consuming more refined and deeply processed foods, experiencing an acute shortage of protein, vitamins, macro- and microelements, and other substances. One way to improve food quality and the population's nutritional structure consists in introducing into the diet new non-traditional types of plant materials containing a balanced complex of proteins, lipids, minerals, and vitamins. A potential source of functional ingredients for the food industry are processed oilseeds. Currently, hemp (*Cannabis sativa* L.) seed oil cake is mainly used in feed production as an additive for farm animals feeding. At the same time, the hemp (*Cannabis sativa* L.) seed oil cake is characterized by the presence of food functional substances: proteins with a complete amino acid composition, essential polyunsaturated fatty acids, dietary fiber, minerals – magnesium, phosphorus, manganese, copper, iron, and calcium, which indicates the prospects for its use in the food industry. However, there are a number of technological factors that limit the use of cannabis seed oil cake. One of the main biochemical criteria related to the quality of the seed protein complex is the change in the acid index of the seed oil. With its increase above 1.5-2.0 mg KOH, the total content of crude protein in the seeds decreases, and the processes of hydrolytic cleavage of proteins intensify, which leads to a decrease in the content of digestible and assimilated protein. The same limiting factor in the use of hemp (*Cannabis sativa* L.) seed oil cake as a functional additive in food products is the presence of a large amount of fiber, which gives the product a rough texture and reduces palatability. A promising direction in the processing of hemp (*Cannabis sativa* L.) seed oil cake is its biotransformation using cellulolytic enzymes, leading to a reduction and softening of the seed coats while maintaining all the useful properties of the feedstock.

Keywords: *Cannabis sativa* L., oil cake, high-quality proteins, biochemical criteria

Acknowledgment: The research was funded by State Project 20.80009.5107.10, nr. PS-62 “Personalized nutrition and intelligent technologies for my well-being”, running at Technical University of Moldova.