

## **THE VALORISATION OF CANNABIS SATIVA L. OIL CAKE BIOLOGICALLY ACTIVE COMPOUNDS**

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### **Abstract:**

Food industry produces a significant amount of waste annually, thus creating premises for researches focused on reducing and effectively handling this problem, promoting the idea of zero waste. Oil cakes are produced during the oilseed extraction process. These leftovers are a source of health-promoting bioactive substances.

Europe has been growing industrial hemp (*Cannabis sativa* L.) for hundreds of years. The poor performance of hemp (*Cannabis sativa* L.) oil cake on certain functional qualities limits its utilization in the food industry. Thus, the most recent processing techniques created to eliminate or reduce these limits were compared. All of the essential amino acids are present in hemp cake's proteins, with arginine (2.28...3.10% of whole seeds) and glutamic acid (3.74...4.58% of whole seeds) being the two most important amino acids. From a nutritional perspective, hemp seed protein is quickly absorbed and provides a decent profile of essential amino acids, comparable to casein.

Together with being high in nutrients, hemp seeds are also a good source of natural antioxidants and other bioactive substances such tocopherols, phenolic compounds, phytosterols, carotenoids, minerals and bioactive peptides. The development of "functional foods" with positive effects on human health was the goal of this work, which aims to valorize agricultural waste sources, particularly hemp (*Cannabis sativa* L.) oil cake, by the extraction biologically active compounds that may be used to diversify food products.

**Key words:** *Cannabis sativa* L., biologically active compounds, industrial hemp, food waste, functional foods oil cake.

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