THE VALORISATION OF GARLIC (*ALLIUM SATIVUM*) BIOLOGICALLY ACTIVE COMPOUNDS

Tatiana Capcanari*, Eugenia Covaliov, Oxana Radu, Aurica Chirsanova

Technical University of Moldova, 168 Stefan cel Mare blvd., Chisinau, Republic of Moldova

*Corresponding author: tatiana.capcanari@toap.utm.md

Garlic has been widely studied over the past two decades. Used as a spice, and as a food preservative to inhibit the growth of pathogens, it is considered a potential functional food because it possesses bioactive properties, playing an important role in controlling health problems. In order to study the biologically active compounds in garlic, three garlic varieties have been chosen: Alcor, Liubasha, Jubileu Gribovschi. The study emphasizes some physicochemical characteristics of garlic in terms of dry matter, sugar content, crude oil, pH, dry matter, ash, and some physical properties such as mass, length, width, and geometrical shape. It was assessed the total polyphenol content in the mentioned garlic varieties was 5.43, 2.08, and 2.35 mg GAE/g respectively. The ability of garlic to speed up the healing of wounds and inflamed mucous membranes is due to the tannins that give it its sharp taste and smell. The content of tannins did not vary significantly ($p > 0.05$) between the three varieties of garlic studied, their average value being 0.21 mg/g. In terms of free radical inhibition, which was assessed by the DDPH method, the Alcor garlic variety exhibited the strongest capacity of 70.90 %. The behavior of some garlic properties during technological manipulation was assessed. Due to some major changes in terms of colour, taste, flavor, and consistency properties during technological manipulation, it was stated that Liubasha and Jubileu Gribovschi varieties should be used only in their raw form. The obtained data allow to state that garlic is an excellent bioactive raw material and the variety Alcor can be used as an ingredient in the development of functional food products.

Keywords: garlic, polyphenols, antioxidant activity, tannins

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