ANTIOXIDANT ACTIVITY OF BAKERY PRODUCTS WITH PROPHYLACTIC EFFECT

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The originality and novelty of the carried out research consists in the fact that it is proposed to obtain new bakery products with a prophylactic effect, which will be prepared from aproteic cereal flours with the addition of polycomponent preparations based on Spirulina within the framework of intensive technologies that present economic profitability and major benefits due to the high antioxidant and antiradical activity it possesses. It has been demonstrated that Spirulina-based preparations possess the ability to protect food products from microorganisms in the process of preserving them and ensure increased viability and the preservation of morphocultural characters. Thus, the possibility of using preparations based on Spirulina of cyanobacterial origin as agents to protect the product from microorganisms in the conservation process was demonstrated, also new recipes were developed for obtaining "Farrottini" breadsticks from rice flour and of soriz by stimulating the viability, the content of bioactive substances and the antifungal activity of the products, thanks to the addition of Spirulina.

For research, samples were obtained and selected from gluten-free, rice and sorrel flours, fortified with *Spirulina platensis* biomass, with the application of two procedures: the monophasic method, with a chemical softener (sodium bicarbonate) and the biochemical method (with compressed yeasts of bakery): PM rice - Breadsticks made from rice flour, SSP2 rice - Breadsticks made from rice flour with the addition of 6% spirulina biomass SP2, PM Soriz - Breadsticks made from rye flour and SSP2 Soriz - Breadsticks made from rye flour with the addition of 6% spirulina biomass SP2. In the finished products, TPC was determined by the spectrophotometric method, with the Folin Ciocalteu reagent (mg GAE·g-1). Research has shown that the gluten-free products obtained have a reduced TPC. As a result of the fortification of breadsticks with spirulina biomass, TPC increases in all samples, compared to samples without addition.

Keywords: "Farrottini" breadsticks, *Spirulina platensis,* prophylactic effect