STUDY ON THE QUALITY OF TOAST BREAD ASSORTMENTS FROM A ROMANIAN PROFILE UNIT AND CONSUMERS´ SAFETY

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Abstract

The consumption of bakery products has increased due to the diversity of assortments, preparation technology and taste which determined the existence of a very large range of breads with high nutritional value. The objectives of the present study were: determining the quality parameters of the toast bread, emphasizing the statistically significant differences and correlations between the quality parameters and evaluation of nutritional aspects. Four assortments of toast sliced bread-Toast Integral (T.I.), Toast Classic (T.C.), Toast Graham (T.G.) and Toast with Rye (T.R.) were analyzed. The analyzes included: weight, humidity, acidity, porosity, elasticity, water activity. Also, the nutritional profile (content of fats, saturated fatty acids, carbohydrates, sugar, protein, fiber and salt) was evaluated and the results were compared with the values declared on the label. The assortments with higher fiber content, respectively T. I., T.G. and T.R. had higher humidity than T.C. The acidity was significantly increased in the assortments of fiber-rich breads (T.I., T.R., T.G.) compared to sliced white bread (T.C.). Except for the pair T.I. - T.R., the porosity constituted an element of statistical differentiation for all the other pairs of investigated assortments. Basically, the highest porosity was T.C. (87.13%), followed by T.R., T.I. and T.G. In T.I., the increase in weight was correlated with the decrease in porosity. This can be an effect of baking in the tray, so in conditions of constant volume (r = -0.627). The T.C. products with higher humidity were also characterized by higher elasticity (r = 0.582). The analyzed products were characterized by lower fat contents and saturated fat actions compared to the values written on the package. The quality parameters of the investigated products were characterized by low values of coefficients of variation, which suggests that technological processes are controlled, repeatable. It is necessary to revise the labels in order to correct the nutritional information provided to the consumer.

Key words: quality parameters, statistical evaluation, toast