Determinations of the Quality of Alimentary Products from the Commercialization Units by Laboratory Methods

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SUMMARY

The quality and safety of the food of vegetal and animal origin represents a significant objective of the national and world organizations with concern to human and animal health. According to the EU Regulation, the evaluation and removal of all direct or indirect risks assessment in the production, processing, transport and consume, enables the prevention and removal of natural contaminants, accidentally introduced or occurring because of the improper handling of the food, starting with their origin and until they get on the table.

Our research was conducted over a period of three years in order to make an assessment upon the quality of pastries from a unit of Cluj-Napoca. There have been studied a number of 19 samples of fresh pastries products, as follows: salatini mignon pastries, muffins with ham, bacon and cheese, corn poppy, salatini with cheese and apple strudel. There were determined the organoleptic characteristics: colour, smell, feeler, presence of foreign bodies (visible free or with the stereomicroscope). The raw chemical composition was determined in the laboratory by the conventional methodology (after Weende). Based on the obtained data, there was calculated the raw energetic and digestible values.

The results showed that the dry matter content was between 70,12% and 74,82%, with one exception where the value was of 55,31% (cheese muffins). The value of the protein content was approximately uniform for four samples (between 10,00-10,57%) and higher for the salatini with cheese (11,35%). For the strudel the protein content was lower (8,27%) corresponding to this variety of food. The values of fat content was very variable, from 9,14% to 26,44 % of the products (17,46 % and 36,49% dry matter). The free azote extract (NFE) content was between 35,15 % and 48,52 %. The mineral compounds were around the value of 2 % only for two samples (pizzet and salatini with cheese), due to the contained dairy products in the receipt. For the rest of the products assortments, the raw ash was between 0,63 % (apple strudel) and 1,05% ( with exception of the salatini with ham: 1,59%). The energetic value for 6 products was between 367 kcal and ş 449 kcal/g of pastry product. Only for the muffins with cheese the value was of 289 kcal % (under 300 kcal/100 g, which is the limit foreseen by the regulation), explainable by the high total volatile content. There was confirmed the existence of a positive correlation between the raw fat and the energetic value.

The conclusions of the researches pointed out that that the pastry products studied did not present modified organoleptic characteristics. The fat content was high and very high for more than over 85% of the studied samples. The high energetic value over the limits foreseen for the nutritional norms (maximum 300 kg/100 g) was owned to the high fat content. As follows, there is recommended the changing of the mixture/recipe, and especially to reduce the fat content, as well as the realization of supervision and of a quality control management of the commercialized alimentary products, according to the principles of the HACCP system.

REFERENCES: with the author