

Fatty Acids Composition of Spread Fats, Mixed Spread Fats and Butters on the Present Czech Market

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The nutritive value of foods relates to both the qualitative and quantitative composition of food nutrients. Fats play an extremely important role because of the impact they may have on human health. *Trans*-fatty acids (commonly termed trans fats) occur, in small quantities, in meat and dairy products from ruminants. Most *trans*-fatty acids (TFA) consumed today, however, are industrially created as a side effect of partial hydrogenation of plant oils. TFA can thus be found in a list of foods including vegetable shortenings, margarines, crackers, cereals, salad dressings, fats, fried foods and many other processed foods. Eating TFA increases the risk of coronary heart disease. For these reasons, health authorities worldwide recommend that consumption of TFA be reduced to trace amounts. Many companies are voluntarily removing TFA from their products, or establishing trans-free product lines.

The results of fatty acids composition determination of spread fats, blended spread fats and butters from the present Czech market are presented and compared with fatty acids composition of these products which were produced within past twenty years.

The composition of fatty acids of spread fats is significantly better than in past and is without of health risk and vice versa has positive influence in prevention of cardiovascular diseases. For instance, 17 samples of spread fats had their unsaturated fatty acids (UFA) content > 53% and contained high levels (up 41.5%) of n-6 fatty acids and (up 10.4%) of n-3 fatty acids. Contents of TFA were negligible from the nutritional point of view (0,4-1,4%).

The composition of fatty acids of analysed butters (12 samples) correspond to values in the literature. Butters had their saturated fatty acids (SAFA) content 66,5-70,6% and TFA were in the range 2,3-3,6%. Fatty acid composition of mixed spread fats is the intersection of the two previous categories of products and is dependent on the ratio of vegetable and milk fat in the product.