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# **Fatty acid profile of commercial Frankfurt type sausages**

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Frankfurt sausages are widely consumed meat products. Although typical Frankfurt sausages are usually produced from pork meat, nowadays, poultry meat frankfurters are easily found in most western countries markets. Besides animal muscle and adipose tissue, other ingredients can be added in Frankfurters production, such as soybean and milk proteins, spices and ice, among others. The quality of the ingredients, particularly, the meat and adipose tissue, greatly influences the organoleptic characteristics of the final product as well as its nutritional value. Fat plays an important role in frankfurters, influencing its texture, tenderness and emulsion stability during production, and from a nutritional point of view since the consumption of large amounts of fat as been associated with several health risks. Moreover, there is a general agreement that the type of fat or fatty acids (FA) consumed is of major importance in what health is concerned.

In this work, eighteen commercial frankfurters were studied for their fatty acid composition. After Soxhlet extraction, fatty acid methyl esters (FAMES) were prepared by hydrolysis with a methanolic potassium hydroxide solution, methyl esterification with  $\text{BF}_3/\text{MeOH}$ , and extraction with n-heptane. Fatty acid composition was determined by gas-liquid chromatography with flame ionization detection (GLC-FID). A total of 28 fatty acids were identified. Excluding a turkey meat sausage, which presented an exceptionally high polyunsaturated FA content, monounsaturated FA were the main group found in all samples (from 41.7 to 54.5%). With the exception of three poultry meat sausages, saturated FA presented higher contents compared to the ones of polyunsaturated FA. In general, the poultry meat sausages presented higher polyunsaturated FA and lower saturated FA compared to the pork meat sausages. All samples presented a low content of trans FA (from 0.24 to 0.57%).