

## VALUATION OF BY-PRODUCTS IN THE BUTTER MANUFACTURING PROCESS

**Chițanu Ana**

*Technical University of Moldova, Chisinau, Republic of Moldova*

E-mail: ana.chitanu@mpasa.utm.md

The milk sector has seen important changes in recent years. Marked by a strong decline, mechanisms are being developed to revive the livestock sector - the main supplier of raw materials for the milk industry, but it is also investing in various modern technologies that allow to use all the nutrients from the industrial by-products as efficiently as possible. Currently, the non-fat fraction of milk is insufficiently utilized in food. It is considered that only 70% of milk proteins and lactose are found in finished dairy products, and the rest are intended for animal feed, transformed into technical products or discharged into waste water. Recent concerns have been directed in the direction of perfecting the procedures for obtaining proteins in a form as pure as possible and with a reduced degree of denaturation. Thus, there is an increase in consumer interest in dairy products with a lower lipid content and, therefore, with a reduced energy value, where milk proteins and lactose represent the basic components. There are many products obtained from non-fat dry substance of milk by-products and from non-cholesterol vegetable fats that are intended for a dietetic or special diet.

Among the main technological processes that take place in the butter industry, two secondary products stand out: skimmed milk - resulting from the separation of cream from milk and buttermilk - resulting from the manufacture of butter from cream. In the production of one ton of butter, up to 20 tons of skimmed milk and 1.5 tons of buttermilk are obtained.

Currently, there is a great concern worldwide for a useful use of useful substances from by-products resulting from the butter industry, emphasizing their valorization in human nutrition. Advances in scientific research have made it possible to re-evaluate the nutritional value of these by-products, which has been unjustifiably discredited. Modern, non-conventional technological processes have approved a rigorous and efficient separation of the components of secondary products and therefore a good processing, preservation and presentation of them.

The purpose of the work is to highlight the by-products from the processing of milk into butter, to study the methods of reduction, minimization and their rational valorization.

**Keywords:** *by-products resulting, buttermilk, butter industry, milk industry, raw materials skimmed milk.*