9th Edition of the International Conference, 15th December 2023 BIOTECHNOLOGIES, PRESENT AND PERSPECTIVES

THE PARTICULARITIES OF PALM OIL CONSUMPTION IN THE REPUBLIC OF MOLDOVA

*Oxana Radu, Tatiana Capcanari, Eugenia Covaliov, Aurica Chirsanova

Faculty of Food Technology, Technical University of Moldova, Stefan cel Mare 168 street, Chisinau, Republic of Moldova *oxana.radu@sa.utm.md

Abstract:

Due to its high palmitic acid (44%) content, palm oil represents important raw materials in the production of solid fats with low or absent trans isomers (margarine, spreads, shortenings). According to the FAO statistical data, the average global consumption of palm oil per capita in a year has increased 1.25 times in the last 10 years and averages 2,4 kg/capita/year. The main consumers of palm oil are African and Asian countries, while the Republic of Moldova is just discovering the world of palm oil (approx. 1 kg/capita/year), but this trend is growing.

Thus, due to palm oil's availability, stability, and relative safety, it is now widely used in the production of bakery, confectionery, dairy and sausage products, etc. The wide range of these goods on the local market has contributed in recent years to an increase in the total number of calories in citizens' diets, mainly from fats (up to 105 g/capita/day).

To establish local dietary habits regarding the consumption of foods high in saturated fatty acids, especially palm oil, a sociological survey was conducted in April-May 2023. Respondents were found to snack 2-3 times a day using a variety of ready-to-cook foods, 45% of which potentially contained palm oil. Moreover, the survey participants themselves often find it difficult to say which products may contain palm oil, they are mainly interested in the taste and total calorie content. At the same time, the attitude towards palm oil itself is quite negative, 40% of respondents claim that the corresponding product is harmful and should not be consumed.

Palm oil can indeed be pernicious to health, but only if consumed in large quantities due to its high content of saturated fatty acids, or if the manufacturer uses its hydrogenated form with trans isomers.

According to the Government Decree No. 279/2017, such information must be presented on the product label and comply with the manufacturer's internal technological instructions. However, due to the negativity of society towards palm oil, manufacturers often camouflage this product with terms such as 'vegetable fat', 'mixtures of vegetable fats', and 'special-purpose oils.' Raising awareness about products' characteristics and palm oil's properties can enhance the quality of life for local citizens.

Keywords: food habits, health, sociological survey, saturated fatty acids, solid fats, trans isomers

Acknowledgment: The research was funded by State Project 20.80009.5107.09 "Improving of food quality and safety through biotechnology and food engineering", running at the Technical University of Moldova.