



## Physical and chemical composition of some walnut (*Juglans Regia* L) biotypes from Moldavia

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The walnut fruits (*Juglans regia*) contain many active principles which are very important for the prevention of many chronic diseases. The Romanian walnut fruits are rich in nutritional compounds, with a high lipid content (between 55% and 76%), proteins (11% - 25%) and carbohydrates (16%). Polyunsaturated fatty acids are found in a ratio around 70% in the walnut oil and predominantly is the linoleic acid (about 58%). Also, walnuts contain compounds as: phytosterols, tocopherols and squalene, which prevent cardiovascular diseases. Not all the walnuts from different areas of Romania correspond to the market standards and so they are considered inadequate for consumption. Therefore an economic variant with nutritive value is the use of this raw material for the obtaining of edible oil thus turning to good account the insufficiently used resources. In this research we analyzed the fruits from several local populations of the Moldavian territory: Targu Neamt, Vrancea, Galati, Iasi, Bacau, Vaslui. We analyzed morphological aspects, physical and chemical parameters of the kernel and of the oil (refractive index, oil density, iodine value, acidity). We found that the fruits we studied are medium and large, weighing between 8-15 g, the kernel ratio has values between 32% and 54%, total lipid content is between 55% - 72% and the protein content is quite high, with values between 14% - 20%.