

Health benefities of dairy free milk from *Juglansregia* L.

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In the last few years, the population ratio demanding vegetable-based products is growing, either because of the increasing problems related with the intolerances to cow milk or because of changes in the food preferences. Dairy-free milks are finding an audience in Europe, despite consumption still ranking well below the US. The market has increasingly benefited in recent years from the perceived health and taste benefits of non-dairy products. Nut milk is an useful beverage for patients with lactose intolerance, celiac disease, as well as vegans. In addition, nut milk is a source of aminoacids, vitamins and minerals complex. Current research is devoted to study different types of vegetable milk, walnut milk in particular as well as its biochemical and physico-chemical properties. In this paper as components for obtaining experimental samples of vegetable milk walnuts were used. The technology of walnut milk included following main steps: primary walnut preparation, extraction procedure and homogenization. Standard methods of analysis have been applied for evaluation of walnut milk chemical composition, basic quality properties as well as microstructure and rheological behavior. Study gives a detailed analysis of the fatty acid composition of the product by GC-chromatography; 20 fatty acids were found. The highest content is in the mono- and polyunsaturated fatty acids, namely the linoleic, linolenic and arachidonic acids, which are of great nutritive and biological value. Analysis of walnut milk microstructure showed that dimensions of oil drops in walnut milk are distributed in normal mode, the major part of oil volume is formed by drops with an average diameter of 2.70 microns. These results showed high potential and positive view on walnut milk production, in agreement with the current demand of healthy products.