

CHEMICAL AND NUTRITIONAL CHARACTERIZATION OF SOYMILK

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Abstract

Soymilk is an alternative to dairy products and it has long been a traditional drink in China, Japan and other parts of Asia. The soybean (*Glycine max*) is the most important bean in the world, providing a wide range of vegetable proteins. Soymilk is a colloidal solution obtained in the form of water extract from swollen and ground soybeans. Soymilk is rich in protein, calcium and has no saturated fat. It is low in calories, being the perfect alternative for people with lactose intolerance. The active ingredients used in the preparation of soymilk are spring water and decorticated soybeans. Soymilk is a substitute for cow's milk. This kind of drink is especially used for vegetarian people, people with lactose intolerance, and those who hold religious fasting. The soybean used for soymilk has been purchased from Romanian supermarkets. In our study we used soybeans and homemade soymilk (prepared from us in-house) and two types of soy milk purchased from the Romania supermarket. Homemade vegetable milk was prepared by boiling.

The objective of this study was to evaluate the chemical and physical characteristics of soymilk homemade prepared, and some types of soymilk purchased from Romanian supermarkets. The soymilk has been prepared from analyzed grains and then some chemical and physical characteristics of milk have been assessed.

We investigated moisture and total dry content substance, fat, carbohydrates, and protein content. For soymilk, we established humidity, total solid content, refractive index, total mineral content, and sensory evaluation.

Macronutrients content in soymilk sample are in range from 1.1 (lipids in sample SMC) to 3.7 g/100g (protein in sample SMB), where SMB and SMC are sample of soymilk purchased from supermarket. The presence of aroma and flavor, darker color, and different viscosity are important attributes in the acceptance of soymilk beverages.

The recipe used by us for the preparation of homemade soy milk needs to be improved in order to improve all the physico-chemical and sensory characteristics.

Keywords: soymilk, sensory evaluation

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