

EFFECT OF TECHNOLOGICAL PROCESSING AND FERMENTATION OF SOY MILK ON THE CONTENT OF ISOFLAVONES AND ANTIOXIDANT STATUS

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ABSTRACT

This study reports the effect of technological processing and fermentation of soy milk on the content of isoflavones and antioxidant status. HPLC determination method was used to monitor the concentration changes of two major dietary phytoestrogens present in soya such daidzein and genistein. Also, the changes in total phenolic content and antioxidant activity were determined. Results showed that the concentration of the two aglycones, daidzein and genistein was affected by heat treatment 780.3 $\mu\text{g/g}$ and 31.86 $\mu\text{g/g}$ respectively. While, the remain of daidzein was 239.3 $\mu\text{g/g}$ in soymilk after fermentation. The processing steps also decreased in content of total phenolics and antioxidant activity which were 41.15% and 68.8% in soymilk from the quantity in whole seeds respectively. The percent of losses in fermented products were 16.6 % and 22.4 % from soybean seeds respectively.

KEYWORDS: Soybean Seed, Soy Milk, Processing, Fermentation, Isoflavones and Antioxidants Status