Title Studies to optimize pre-treatments for high moisture dried figs

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Abstract

Commercial fig drying is an important economic activity in the western part of Turkey, the Aegean region, and 90% of the produce is destined for export market. Most of the produce is exported until Christmas. Ready-to-eat rehydrated figs are gaining importance as an alternative product and as a tool to add value to fruits with lower moisture content. The research work was carried out on 2000-2002 season fruits with the aim of optimizing pre-treatments for re-hydration of dried fig fruits. These pre-treatments comprised of variables as the duration, composition and temperature of the dipping solution, water vapor treatment and a mixed application of water vapour + hot water dipping. The fruit moisture content and water activity levels were determined for each variable. High moisture fig fruits were packed in gas-tight packages and quality changes were monitored during storage. The addition of potassium sorbate was tested to control microbial growth. The fruit moisture content distribution was more homogeneous in dipped fruits than vapour treated ones even if problems existed as the leaching of the soluble solids and the sticky nature of the final product. Among the tested variables, dipping in hot water at 90°C 10 min. or water vapour treatment at 100°C for 30 min. are recommended.