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Possibilities for use of persimmon (Diospyros kaki L.) fiber in ice cream production

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In recent years, use of some ingredients having nutritional and physiological properties such as some fruits, probiotics, alternative sweeteners, dietary fibers, natural antioxidants in ice cream manufacture has increased due to interest of consumers to healthier and functional foods. While ice cream is poor in some of these properties, persimmon (*Diospyros lotus* L.) may be an important natural resource with functional properties for ice cream. In this study; it was aimed to investigate the possibilities of using dietary fiber from persimmon (*Diospyros kaki* L.) in the ice cream production. For this purpose, four different concentrations of (0.5%, 1%, 2% and 4%) of the obtained fiber were used in ice cream production. At the same time, control group ice cream production, which did not include fiber, was also carried out. The chemical, physicochemical and sensory properties of the ice cream samples were determined. According to the study results, the addition of persimmon fiber affected ($p<0.05$) dry matter, viscosity, acidity, and pH values of the ice cream samples. The increment of persimmon fiber concentration increased the dry matter, viscosity and acidity values in the ice creams but decreased pH values. Moreover, the addition of persimmon fiber affected positively physicochemical properties of ice creams. Increasing fiber concentration, total melting time and the first dripping time are prolonged and the overrun values increased. For the color parameters of ice creams, fiber addition decreased L* values and increased a* and b* values. The sensory results indicated that the increase of the fiber concentration decreases in the sensory points. The lowest scores were given to the ice cream sample containing 4% persimmon fiber by the panelists. According to this; it was suitable that the fiber concentration to be used in the production of ice cream should not exceed 2%.

Biography

Zeynep Gurbuz graduated from Ataturk University, Faculty of Agriculture, and Department of Food Engineering in 2013. She received Master's degree in the same university. She still continues her doctoral studies on dairy technology.

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