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Physicochemical, sensory and antimicrobial properties of the ice cream containing lavender (*Lavandula angustifolia*) essential oil

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Abstract. In this study, lavender essential oil (LEO) was added to ice creams as ingredient at 0, 0.02, 0.05 and 0.1% ratios. Some physicochemical, viscosity, rheological, colorimetric, sensory properties, and pathogen inhibition, including *L. monocytogenes* ATCC 7644 and *S. aureus* ATCC 29213, of the ice cream samples with the LEO were investigated. It was determined that the melting rate of the ice creams with the LEO was lower ($P<0.05$) and the overrun values were higher ($P<0.05$) than the control sample. The highest L^* and a^* values were determined in the control samples and the sample with 0.1% LEO, respectively. While C^* value of the sample with 0.02% LEO was higher than the other samples ($P<0.05$), the highest white index (WI) value was determined in the control and the sample with 0.01% LEO. The sample containing 0.01% LEO had the highest viscosity values at 20 and 50 rpm. It was determined that there was no statistically significant difference in the consistency coefficients of the samples ($P>0.05$) and all samples had pseudolplastic flow. The control sample had the highest sensory score, followed by the sample with 0.02% LEO. It was determined that the LEO addition only had a decreasing effect on the count of *S. aureus* ATCC 29213.

***Keywords*:** ice cream; lavender essential oil; physicochemical properties; sensory properties; antagonistic activity.

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