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Abstract

In this study, Siwi roasted date seeds (pits) as a by-product of the date factories were used in powder form for ice cream fortification to produce a new product with coffee-like flavor. Also, this product possesses functional, nutritional and health benefits as it contains, minerals, phenolic compounds and possess antioxidant activity. Six ice cream mixes were prepared: plain ice cream without additives (control), five ice cream treatments supplemented with powder of the Nescafé (3%), Coffee (3%) and Roasted Date Seeds Powder (RDSP) with ratio of 3%, 4% and 5%, respectively. The results showed that increasing the added percentage of Roasted Date Seeds Powder (RDSP) to the ice cream mixes leads to an increase in the total solids, fibers, total nitrogen and ash content of the final product. It also increases viscosity, specific gravity, weight per gallon and increase the depression of freezing point of the mixes. The overrun and melting resistance of the final ice cream also increased compared with the control. The sensory evaluation was improved by adding RDSP comparing to control. So in this study, it is recommended to use RDSP as the source of minerals and health-promoting for ice cream making, as it contains bioactive compounds and also gives the ice cream desirable color and coffee-like flavor, but free of caffeine.

Keywords: Antioxidant Activity, Functional Ice Cream, By Product, Nutritional and Health Benefits, Phenolic Compounds, Roasted Date Seeds Powder