

Production of Date Juice Infused with Natural Antioxidants from Qatari Herbs

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Abstract : The aim of this study is to utilize Qatari raw materials in the production of a date juice high in antioxidants. The antioxidants were extracted from five Qatari herbs: Caspian manna, *Tetraena mongolica*, *Capparis spinosa*, *Ziziphus Vulgaris* and *Lycium shawii*. The date juice was prepared in the lab and was infused with the polyphenolic extracts from the 5 different Qatari herbs. The date juice was then infused with the antioxidant containing the highest antioxidant activity and was within the acceptable range in sensory evaluation scale. The phenolic content for *Lycium shawii*, *Alhagi maurorum*, *Ziziphus Vulgaris*, *Capparis spinosa* and *Tetraena mongolica* was 4294 ppm, 3843 ppm, 804.59 ppm, 189.14 ppm and 226 ppm respectively, whereas their antioxidant capacity of was 6.21 %, 45.27 %, 69.81 %, 2.96 % and 8.63 % respectively. The highest antioxidant capacity was found in *Ziziphus Vulgaris* 69.8 % and the highest phenolic content was found in *Lycium shawii* 4294 ppm. *Alhagi maurorum*, *Tetraena mongolica* and *Lycium shawii* showed good results in terms of taste and aroma however *Ziziphus Vulgaris* exhibited bitter flavor. *Alhagi maurorum* antioxidant extract was used to be added to the date juice due to its high phenolic content, high antioxidant capacity, good taste and aroma.

Keywords : Qatar, dates, herbs, antioxidants

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