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Nutritional and Antioxidant Properties of Prickly Pear (Opuntia ficus indica Mill.) Grown in Algeria

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Abstract : Cactus fruit contains different nutritional and functional components, which are used because of their benefits to human health, such as flavonoids, phenolic compounds, carotenoids and vitamins C. It has hypoglycemic and hypolipidemic action, and antioxidant properties related to anticarcinogenic, antiulcerogenic and immunomodulatory effects. The antioxidant and nutritional properties have been characterized in cactus prickly pear (Opuntia ficus-indica Mill.), cultivar yellow, grown in Arris area; Eastern of Algeria. The antioxidant properties of this cactus cultivar were higher than the others cactus cultivar in the world. The amount of fruit phenolic compounds revealed contents between 20.65 and 45.70 mg / 100 g of FW for total polyphenols and 0.519 - 0.591 mg / 100 g of FW for the flavonoids. The antioxidant activity was evaluated by DPPH radical scavenging and FRAP (ferric reducing antioxidant power) methods. The average recorded to the potassium content is about 1070 mg / 100 g of the fresh weight; sodium is 60.7 mg / 100 g of the fresh weight and 80 mg / 100g for the calcium. According to the high value of this cactus, it was considered as a good nutrient and important pharmaceutical resource. It could be used as a natural additive or substituted food supplement in many foodstuffs production, to benefit from these benefits.

Keywords : antioxidant properties, DPPH, FRAP, nutritional properties, Opuntia ficus indica
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