Functional food and nutra-pharmaceutical perspectives of date (Phoenix dactylifera L.) fruit

ABSTRACT

Date palm counts among the oldest fruit crops of the world and is mainly cultivated for its highly nutritious fruits consumed as a staple food in many countries, especially in the Gulf region. Dates are enriched with numerous therapeutic bioactives and functional compounds such as phenolics, flavonols, carotenoids, minerals, and vitamins that not only provide an appreciable amount of energy required for the human body but also act as an effective therapeutic agent against several diseases. This review aimed to provide a deep insight into the nutritional as well as phytochemicals profile of date fruit and its seeds in order to explore their biological (anti-cancer, anti-diabetic, cardio-protective, anti-inflammatory properties), functional food, and nutra-pharmaceutical attributes. PRACTICAL APPLICATIONS: This review provides updated information regarding the date fruits and seeds phytochemicals composition together with highlighting dates potential as a natural therapeutic agent against several diseases. The study also urges the importance of consuming dates as a great package to live a healthy life due to the functional food and nutraceutical properties of this valuable fruit. The study also provides information first time as recommending dates to cope with the hidden hunger or micronutrient deficiency faced by the third world inhabitants. Hence, the review may further help the industry and researchers to explore the potential of dates for future medicinal and nutra-pharmaceutical applications.

Keyword: Phoenix dactylifera L.; Antioxidant potential; Dates; Hidden hunger; Nutraceutical; Polyphenols; Therapeutic agent