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Value addition in palmyrah palm (*Borassus flabellifer L*) present practises and scope

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India stands first in the world in terms of its wealth of palmyrah palms with a population estimated to nearly 122 million palms. The palm is found growing widely in southern states. Palmyrah palm has great economic potential and every part of the palm is useful in one way or the other. The edible palm products such as Neera obtained by tapping the inflorescences are consumed as such or converted in to edible preparations like Palm Jaggery, Palm Sugar, Palm Candy and Palm Chocolate. Another important product is Nungu which jelly like structure, Ripened fruit which is used in various foods at home level, and also Tuber is an important edible product. The products are not commercialised as the value addition in palmyrah is not standardised. Even though the palmyrah is an economically important palm it has not received proper attention from the agricultural research workers, probably on account of the fact that it is very slow growing palm found mostly in the wild state. In this context development of value added products and popularizing the same is essential. There is a need to study about existing utilization and scope of post harvest techniques for value added products.

Biography

Vengaiah P C has completed his M.Tech from G B Pant University. He is the Scientist (food Sci. & Tech.), at Dr. YSR Horticultural University. Andhra Pradesh. He has published/ presented more than 25 papers in reputed journals and conferences.

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Nutritional potential of two icebox cultivars of watermelon based on their biochemical composition and enzyme activities during development and ripening

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Watermelon (*Ctirullus lanatus (Thunb*). Matsum. & Nakai) is a healthful and popular fruit in the world. A comparative analysis of two icebox cultivars, 'H.20' and Simran, of watermelon was performed for evaluating their nutritional quality. Among these two cultivars, a sharp accumulation of sugars (reducing, non-reducing and total) occurred in the fully ripe fruit of 'H.20' compared with that of Simran. However, the accumulation of sugars was found to be concomitant with the fruit development in both the cultivars and it coincided with the increased activity of sucrose phosphate synthase. Sucrose synthase activity showed positive correlation with the sucrose cleaving process in 'H.20' compared to 'Simran'. Similar activities of invertase (acid, neutral) were recorded in pre-mature stage in both the cultivars of watermelon fruit. The amount of carotenoids and lycopene showed a sharp rise until the mature stage of both the cultivars with maximum in the same stage. Phenolic compounds analyzed in both the cultivars showed high accumulation in the initial stages, but declined with the onset of maturity. However maximum accumulation of total polyphenols was noticed in the pre-ripened stage of 'H.20'. The activities of antioxidant enzymes were highly correlated with the antioxidants in both the cultivars. Superoxide dismutase activity was high in 'Simran' while catalase exhibited high activity in 'H.20' in the ripened stage. The activities of the wall softening enzymes were indistinguishable in both the presently worked out cultivars with the exceptions of polygalacturonase, β-galactosidase and pectin methyl esterase which showed remarkable activities. The results of present study indicated cultivar 'H.20' as a nutritionally rich fruit with significant health promoting properties as compared to that of cultivar 'Simran'. Thus 'H. 20' being the source of biologically active constituents can be considered as an important fruit for functional food.

Biography

Soumya V. Menon is presently pursuing her Ph. D. in Botany and her area of research is biochemistry and histo-architectural studies in melons during their development and ripening.

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