

Post Harvest Preservation of Mango Fruit Using Freeze Drying and Tray Drying Methods

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Abstract : Mango is a tropical fruit which is often labelled as 'super-fruit' because of its unquantifiable benefits to human beings. However, despite its great importance, mango is a seasonal fruit, and only very few off-seasonal species are available in the market for consumption. Therefore, in order to overcome the seasonal variation and to increase the shelf-life of mango fruits, different drying methods are considered. In this study, freeze drying and tray drying methods were used to preserve two different cultivars of mango from South Africa. Moisture content, total soluble solid, ascorbic acid, total phenol content (TPC), antioxidant activity (DPPH) and organoleptic tests were carried out on the samples before and after drying. The effects of different edible preservatives and selected packaging materials used were analyzed on each sample. The result showed that freeze drying method is the best method of preserving the selected cultivar.

Keywords : postharvest, mangos, cultivar, total soluble solid, total phenol content, antioxidant

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