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EXPLOITING THE POTENTIAL OF FREEZE TECHNOLOGY FOR MONITORING PRODUCT FLOW: IMPROVEMENT IN YIELD AND QUALITY OF DHAKKI DATES

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ABSTRACT

The study was undertaken with the aim to explore the impact of low temperature storage on Doka of Dhakki cultivar in order to streamline the flow, enhance the quality, yield and storage stability of the product. The Doka harvested at mature and astringent stage was stored at 10, 0 and -15°C for a year and the quality was examined. The chilled Doka was given pot-alkali treatment prior to curing/ drying at 45-48°C to 25-26% moisture and allowed to store at 40°C. The effectiveness of the processes was determined by evaluating hardness index, appearance of mold growth, acceptability and rate of the curing/ drying, yield, quality, and storage stability of the product. The Doka converts into the ripened Dong on thawing, and sustains freezing effectively, yet causes stiff skin patchy product on curing/drying. The feature is skillfully mended by pot-alkali treatment resulting to a product with much improved quality, enhanced yield and stability to storage at 40°C. The process envisages high potential in streamlining flow of a superb quality product.