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RESEARCH PAPER

Processing and storage studies on water activity of dried moringa pods under tray dryer

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Abstract : Drumstick (*Moringa oleifera* L.) is an important vegetable rich in nutrients and minerals. It belongs to the family Moringaceae. The shelf-life of fresh moringa pods ranged between 3-5 days. Lower shelf-life have led to heavy post harvest losses during peak season. Fresh moringa pods (Annual Moringa type cv PKM-1) handpicked from Horticultural College and Research Institute, TNAU, Periyakulam, Tamil Nadu were used for the study. Pretreatment was given by dipping in boiling water with magnesium oxide (0.1%) for 15 seconds. Moringa pods were cut into chewable size of 5.0 cm length and used in tray dryer. Chewable size moringa pods at a moisture content of 751.35 ± 5.00 per cent (db) was spread as thin layer and deep bed layer dried at 40 and 50°C. Dried samples were packaged using polypropylene and multilayer packaging materials under vacuum and as normal air packaging condition and were stored at ambient (Normal Temperature Pressure (NTP) and at cold storage condition for three months. Dried, packaged and stored moringa pods of 5.0 cm length, dried as thin layer at 50°C in a tray dryer, packaged in multilayer packaging material, sealed under vacuum and stored at cold storage condition recorded minimum water activity value of 0.452 on 90th day of storage.

Key Words : Moringa, Tray dryer, Water activity, Different storage, Packing method, Packaging material, Shelf- life

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