

## DEVELOPMENT OF DEHYDRATED RAW MANGO (*Mangifera indica*) POWDER

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It is important to adopt a suitable preservative technique to reduce losses that occur in raw mango fruits. This study was carried out to develop dehydrated raw mango powder from varieties of *Kartha colomban*, *Rataamba*, *Polamba* and *Kohuamba*. Preliminary experiments were conducted to select the best slice thickness, drying method and temperature and pre-treatment. Mango slices of 0.5 cm thickness were pre-treated with Sodium meta bisulphate solution for 5 mins and oven dried at 55 °C for 48 hrs. The dried products were ground using a laboratory grinder and the moisture content, water activity, total ash, crude fat, crude fiber, and crude protein contents were determined. Sensory evaluation was conducted to select the best variety for the development of dehydrated raw mango powder. The selected product was packaged in Triple laminated Aluminium foil, Polypropylene (gauge 150) and Polypropylene (gauge 300) and stored at ambient conditions (29±2 °C). Samples were withdrawn at one month interval and tested for moisture content, water activity, color and microbiological quality to find out the best packaging material.

Based on the results *Polamba* was selected as the best variety to develop dehydrated raw mango powder and storage study data revealed that Triple laminated Aluminium foil was the best packaging material. Slight increase in moisture content, water activity and slight change in color of the product was observed in all packaging materials. Slight increase in total plate count and yeast and mould counts were observed during the storage period, however the counts were less than the standard limits given by the SLS 516: Part 1: 1991. Acceptability of the product was determined by comparing mango sauce prepared from dehydrated raw mango powder and fresh mango pulp using a sensory evaluation. Results revealed that there was no significant difference ( $\alpha > 0.05$ ) between the samples in terms of color, odor, taste, consistency and overall acceptability.

**Key words:** Dehydration, Raw mango, Mango Powder