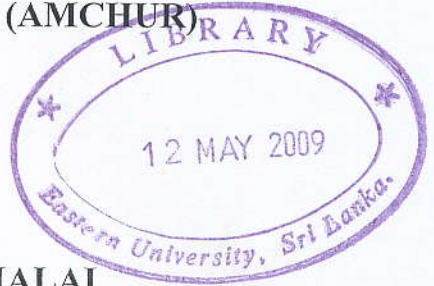


DEVELOPMENT AND QUALITY CHARACTERISTICS OF
GREEN MANGO POWDER (AMCHUR)

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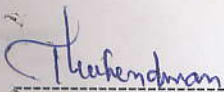
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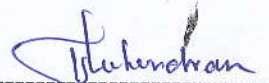
A RESEARCH REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE
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APPROVED BY



Dr. (Mrs). T. Mahendran,
Senior Lecturer and Supervisor,
Faculty of Agriculture
Eastern University, Sri Lanka



Dr. (Mrs). T. Mahendran
Head/Department of Agricultural
Chemistry,
Faculty of Agriculture,
Eastern University, Sri Lanka.

Date : 06.03.2009

Date : 06.03.2009

Dr.(Mrs).T.Mahendran
Head / Dept. of Agric. Chemistry,
Faculty of Agriculture
Eastern University, Sri Lanka.

ABSTRACT

A research was conducted to develop the green mango powder (Amchur) and to assess its nutritional and sensory qualities during storage.

Unripe mature mangoes were washed and peeled. They were cut into suitable size of 12mm thick slices. Potassium metabisulphite solution of 1.5 % (w/v) was prepared and the slices were dipped into the solution for 5 minutes. These slices were placed in a single layer on trays. These mango slices were dried in Sun drying, 40°C, 50°C, 60°C and 70°C in oven. Fruit slices were examined and turned frequently, until the slices became leathery but not sticky. These slices were allowed to cool and grinded into powder by using blender.

Nutritional analysis was done for fresh unripe mango and green mango powder (Amchur) for moisture, titrable acidity, ascorbic acid, total soluble solids, total sugars and crude fibre at two week interval throughout the experimental period. The declining trend with storage period was observed in acidity, ascorbic acid, total soluble solids, total sugars and crude fibre and an increasing trend was observed with storage period in moisture for all the treatments. Organoleptic assessment was conducted for mango flavour, taste, colour, absence of off-flavour and overall acceptance for all treatments.

Nine-point hedonic scale ranking method was used to evaluate the organoleptic properties. The results revealed that, there were significant differences among the treatments for mango flavour, taste, colour, absence of off-flavour and overall acceptability at 5% significant level. The findings of the research revealed that the green

mango powder obtained from the unripe mango dried at 50°C had the best shelf life in nutritional and organoleptical point of view compared to other treatments. The study also focused on the storage life of green mango powder (Amchur). The shelf life evaluation revealed that the green mango powder (Amchur) could be stored for 12 weeks without any significant losses in quality.

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