

C
581
PER

**SUITABILITY STUDY ON DIFFERENT MATURITY STAGES OF
Averrhoa carambola L. VARIETY (HONEY SWEET) IN
PROCESSING FRUIT JUICE**

A PROJECT REPORT PRESENTED BY

Y.M.PERERA

To the Board of Study in Plant Sciences of the
POSTGRADUATE INSTITUTE OF SCIENCE

In partial fulfillment of the requirement

For the award of the degree of

**MASTER OF SCIENCE IN POSTHARVEST TECHNOLOGY
OF FRUITS AND VEGETABLES**

Of the

UNIVERSITY OF PERADENIYA

SRI LANKA

2010

648327



**SUITABILITY STUDY ON DIFFERENT MATURITY STAGES OF
Averrhoa carambola L. VARIETY (HONEY SWEET) IN
PROCESSING FRUIT JUICE**

Y.M. Perera

Postgraduate Institute of Science

University of Peradeniya

Peradeniya

In Sri Lanka there are a number of fruit crops which have been underutilized. The *Averrhoa carambola* L. (carambola) is considered as one such fruit crop. There is a considerable market potential for the processed carambola products nationally and internationally. Two cultivars of carambola are available which are local and introduced. The local cultivars are not popular since their oxalic acid contents are considerably higher than that of the introduced varieties and sour taste. The objective of the present study was to examine the suitability of 'Honey Sweet', 'Peni Kamaranga' or B-17 is (an improved variety which was released by the Department of Agriculture) for processing. Fruits of Honey Sweet variety were collected from the HORDI at Gannoruwa to represent different maturity stages and analyzed for Total Soluble Solids (TSS), Titratable acidity, oxalic acid content. In addition, the fruits were tested for vulnerability to anthracnose and storage longevity under ambient temperature and 5 °C.

The result of the study indicated that half and fully ripen stages contain higher TSS and lower titratable acids. The oxalic acid content is lower in ripen stages, higher in green mature and color break stages, ridges of the fruit contained higher amount of oxalic acids. Fully ripen stage is the most susceptible to the anthracnose disease. For better storing of carambola fruits, it is wiser to harvest the fruits at color break stage and store them in refrigerator/cold room under 5 °C.