

Selected physicochemical properties of registered clones and wild types rambutan (*Nephelium lappaceum* L.) fruits and their potentials in food products

ABSTRACT

Rambutan fruit is an exotic fruit and is getting popular worldwide. However, there is usually a glut of rambutan fruit every year which leads to wastage, especially those from underutilized wild types. Transforming the fruit into various products could reduce the wastage. Before doing so, the characteristics of the fruit should be available. Hence, the main aim of this study was to investigate the physicochemical properties of various cultivars of rambutan. The results showed that rambutan fruit comprises between 38.6-70.8% peel, 19.1-45.9% pulp and 8.3-20.3% seed. On average, it has a pH, titratable acidity and total soluble solids of 4.18-5.44, 0.10-0.52% as citric acid and 13.78-16.67 °Brix, respectively. The fruit contains high sugar contents, mainly contributed by sucrose (5.38-10.01%), fructose (1.75-3.18%) and glucose (1.72-2.43%). Citric acid was the major organic acid found in the fruit and wild type, WT1, contained the highest level. Some rambutan cultivars including Clone R3, WT1 and wild type, WT2, possess greater concentrations of ascorbic acid compared to other tropical fruits. With these findings, various types of food products could be derived from rambutan fruit based on their physicochemical properties.

Keyword: Organic acids; Proportion of different parts of fruit; Pulp-to-seed ratio; Sugars