Title Quality evaluation of six hybrids rambutan stored at ambient and 10°C

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Abstract

Fruit of six hybrids selection of rambutan (Nephelium lappaceum L.) were characterized to identify those with marketing quality to promote their propagation, improvement and conservation in germplasm bank. Fruits were harvested from MARDI's farm at Bukit Tangga Station, Kedah. Fruits were assessed for weight, thickness of flesh and skin, breadth, length, and flat shape of fruits, length of the spin tern, colour of skin and flesh, total soluble solids content, pH and titratable acidity. Sensorial quality acceptance was conducted by fifty panelists who graded each selection for colour, shape, sweetness, acidity and overall acceptability. The shape of six selections were ovoid, and with the following characteristics; fruit weight ranged from 29.16 to 42.38g; fruit length ranged from 41.80 to 47.59 mm; fruit breadth ranged from 34.28 to 42.35 mm; fruit flat shape ranged from 30.96 to 38.63 mm; thickness of the skin ranged from 2.16 to 3.63 mm; thickness of the flesh from 6.04 to 8.78 mm and length of the spintern from 0.71 to 1.21 cm. The fruits had high contents of total soluble solids (16.63 to 20.17 °Brix), vitamin C content (21.94 to 26.47 mg/100g), pH (4.45 to 5.28) and total titratable acidity content ranged from 0.17 to 0.32%. The fruits from GB 44 and IE 20 selections had better attributes of fruit weight. GB 44 produced the best of total soluble solids and titratable acidity contents, desirable traits for export market. The hybrid GB 44 was also the most attractive for panelists because of the sweeter taste, less acid, and well testa/seed separation and texture more crunchy and firm compared to others. Different storage temperatures has a significant influence on rambutan quality. Rambutan fruits can be stored at 10°C for 10 days. Whereas at ambient the quality remain good only for 2 days.