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Development of ash gourd (*Benincasa hispida*) and banana (*Musaceae*) pseudo-stem sauce

M. L. P. Thathsarani¹*, J. A. E. C. Jayawardena¹ and U. A. S. K. Edirisinghe¹

¹Department of Agriculture & Food Technology, University of Vocational Technology, Sri Lanka. pawarnalokugee@gmail.com*

Ash gourd (*Benincasa hispida*), an underutilized fruit that has the potential to develop value-added products due to its high medicinal and nutritional value. In addition, banana central core, a biological waste of banana production is also known to have therapeutic properties. However, consumption of pseudo-stem is not commonly observed. Therefore, this study was aimed to develop a value-added sauce based product, from ash gourd and banana pseudo stem. Freshly prepared ash gourd pulp (AG) and, banana pseudo-stem pulp (BS) were mixed in different ratios to obtain three different blended sauces: F1 (AG: 50%, BS: 30%), F2 (AG: 60%, BS: 20%) and, F3 (AG: 70%, BS: 10%). Prepared sauce samples were analyzed for sensory attributes (colour, odour, texture, taste and, overall acceptability) using 30-semi-trained panelists and hedonic scale. Blended sauce F2 was more accepted than other two formulas with respect to all tested sensory attributes. Therefore, F2 formula was selected for physiochemical analysis and, stored at refrigerated (4°C) condition for microbial evaluation for six weeks. The results of physicochemical properties evaluation revealed, 100 g of F2 formula contains 2.51 ± 0.15 g of protein, 0.72 ± 0.09 g of fat, 2.21 ± 0.04 g of fiber and, 2.08 ± 0.05 g of ash. pH, brix value and Titratable acidity were recorded as 4.25, 26° & 0.84%, respectively. At weekly intervals, samples were tested for microbial growth. Up to six weeks of storage, total colony count was below the acceptable CFU value for sauce. However, microbial growth was gradually increased and, reached 100 CFU/g at the sixth week, making the sauce unacceptable and unsafe for consumption. Thus, the developed ash gourd and banana pseudo-stem sauce formula F2 can be stored under the refrigerated condition at least up to six weeks.

Keywords: Ash gourd, Banana pseudo-stem, Sauce, Value addition