Development of a Jam from Nam-Nam (Cynometra cauliflora) Fruit

S.R.W. Duraisamy*, G.M.W.R. Bandara and H.M.D. Nayomi

Department of Biotechnology, Faculty of Science, Horizon Campus, Sri Lanka *stefanierachel12@gmail.com

Nam-nam (Cynometra cauliflora, Fabaceae) fruit is a good source of nutrients including vitamins A and C. However, a limited number of value-added commercial products of nam-nam is available in the market. Therefore, the aim of this study was to develop a jam from nam-nam fruit with good nutritional and sensory properties and shelf life. Three types of jam were prepared using namnam and guava (*Psidium quajava*) and apple (*Malus domestica*) as natural pectin sources (75% of nam-nam fruit and 25% of total guava and apple, 50% of namnam fruit and 50% of total guava and apple, 25% nam-nam and 75% of total guava and apple). The samples were subjected to analysis of sensory and proximate qualities and microbial qualities. Sensory analysis was carried out using five-point hedonic scale using 30 untrained panelists. Results were analyzed using Minitab 17.0. The results revealed the significant differences (p<0.05) in color, overall aroma, overall texture, overall appearance and overall flavor and the sample that showed the best result (75% nam-nam and 25% guava and apple) was selected for proximate and microbial analysis. The total ash, fat, crude fiber, crude protein, moisture, and carbohydrate contents of the selected formulation were 0.4%, 0.2%, 2.2% 0.2% 37.5% 59.8%, respectively. The quality characteristics such as pH(3.5) and titratable acidity (0.16%) were also tested. All microbial parameters (total plate count, yeast and mould count, coliforms and *E. coli* count) were below the SLS standards. The jam after storing for 6 weeks had a less mould growth than the recommend standard maximum growth. Therefore, it can be concluded that jam with good nutritional, sensory and microbial qualities can be produced using nam-nam fruit.

Keywords: Microbial analysis, Nam-nam, Proximate analysis, Sensory evaluation