DEVELOPMENT AND QUALITY EVALUATION OF CHUTNEY PREPARED PALMYRAH PULP AND MANGO

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ABSTRACT

This study aimed to develop and evaluate a novel chutney prepared by palmyrah pulp and mango to enhance its nutritional value, sensory quality, and market potential, while promoting the utilization of underexploited palmyrah fruit. Five formulations (T1–T5) were prepared by varying the ratios of mango and palmyrah pulp. These samples were analyzed for their physicochemical, nutritional, microbial, and sensory characteristics. The results revealed that the incorporation of palmyrah pulp significantly affected the sugar, fat, ash, and mineral contents, thereby improving the overall nutritional profile of the chutney. Physicochemical parameters such as pH, titratable acidity, TSS, and moisture content varied among treatments but remained within acceptable limits, ensuring product stability and safety. Microbial analyses confirmed that all samples were free from *E.coli* and coliforms, with minimal total plate counts, indicating effective hygienic processing and satisfactory shelf stability. Sensory evaluation using a seven-point hedonic scale showed that treatment T3 (30% palmyrah pulp + 30% mango pulp) achieved the highest overall acceptability, offering an optimal balance of color taste, flavour, and texture. Overall, the study demonstrates that mango chutney enriched with palmyrah pulp can serve as a functional, nutrient-dense condiment with excellent sensory attributes and strong commercial potential. Furthermore, the research emphasizes the value addition of underutilized crops such as palmyrah, contributing to sustainable food innovation and local economic development in Sri Lanka.

Key words: Mango chutney, Nutritional quality, Palmyrah pulp, Physicochemical analysis, Sensory evaluation

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