

**DEVELOPMENT AND QUALITY EVALUATION OF FORTIFIED
INSTANT IDLI BATTER MIX ENRICHED WITH PALMYRAH
PULP**



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ABSTRACT

The study titled Development and Quality Evaluation of Fortified Instant idli batter mix enriched with Palmyrah pulp focused on enhancing the nutritional quality and sensory acceptability of instant idli batter by incorporating Palmyrah fruit pulp (PFP). The research aimed to develop a convenient, nutrient-rich, and culturally relevant food product using locally available ingredients. Different treatments (T₀, T₁, T₂, T₃, T₄) were prepared by varying the levels of Palmyrah pulp (0%, 10%, 20%, 30%, 40%), and their sensory, nutritional, physicochemical, microbiological, characteristics were evaluated. Sensory evaluation using 9-point hedonic scale showed that treatment T₃ (30% Palmyrah pulp + 50% rava) achieved the highest overall acceptability, offering an optimal balance of color, aroma, taste, flavor, texture. The nutritional analysis indicated that the inclusion of Palmyrah pulp significantly enhanced the batter's fiber, protein, fat, ash, salt and mineral content (Ca, Mg, K, Na) levels, without adversely affecting its texture or taste. Physicochemical parameters such as pH, titratable acidity, brix⁰, and moisture content and energy varied among treatments but remained within acceptable limits, ensuring product stability and safety. Microbiological analysis confirmed the safety of the product, showing absence of coliforms and acceptable yeast and mold counts, indicating effective hygienic processing and satisfactory shelf stability. Overall, the study concluded that incorporating 30% Palmyrah pulp (T₃) in instant idli batter provides a nutritionally enhanced, microbiologically safe, and consumer-acceptable product, supporting sustainable utilization of under exploited Palmyrah resources for commercial functional food development.

Key words: Fortification, Instant idli batter mix, Nutritional evaluation, Palmyrah pulp, Sensory analysis

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