

DEVELOPMENT OF A FIBRE ENRICHED SWEET AND SOUR MANGO RELISH BY INCORPORATING PINEAPPLE POMACE POWDER

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Fruit product processing industries discard a large amount of pomace, though they are rich in dietary fibres. This study was conducted to develop a fiber-enriched sweet and sour mango (*Mangifera indica*) relish by incorporating pineapple (*Ananas comosus*) pomace powder (PPP). The PPP was prepared by oven drying. Mango relish was prepared using four different levels of PPP as 0% (T₁), 7% (T₂), 9% (T₃) and 11% (T₄) (w/w) and the best level was selected through a sensory evaluation. The highest sum of rank for appearance (97.5), aroma (103.0), taste (92.0), texture (96.0) and spreadability (98.0) were reported in T₃, thereby selected as the best level to be incorporated. The PPP and the T₃ were stored at 4 °C for 21 days for physiochemical and microbiological analyses. The experiment was conducted as a Completely Randomized Design with three replicates for each treatment. The moisture, crude protein, crude fat, total dietary fibre (TDF), ash and carbohydrate content (%) of PPP were 4.56 ± 0.01, 4.42 ± 0.01, 0.72 ± 0.01, 59.73 ± 0.01, 2.24 ± 0.01 and 28.33 ± 0.02, respectively, where as in T₃ they were 58.31 ± 0.01, 0.32 ± 0.01, 0.42 ± 0.01, 2.34 ± 0.01, 7.6 ± 0.12 and 31.01 ± 0.11, respectively. During the storage, the pH, acidity (%) of PPP ranged from 3.82 ± 0.01 to 3.76 ± 0.01 and 2.3 ± 0.03 to 2.36 ± 0.01, respectively, while in T₃ they were ranged from 3.92 ± 0.01 to 3.87 ± 0.01 and 1.56 ± 0.01 to 1.67 ± 0.01, respectively and brix was 65.2° ± 0.2 to 65.8° ± 0.05. Yeast and mould count and total plate count of PPP were 4.6 × 10³ CFUml⁻¹ and 4.1 × 10³ CFUml⁻¹, respectively, while in T₃ they were 0.5 × 10² CFUml⁻¹ and absent, respectively. In conclusion, the PPP and mango relish (T₃) can be stored up to 3 weeks at 4 °C with desirable qualities and PPP could be used as an ingredient for the fibre enrichment of food products.

Keywords: Dietary fibre, Pineapple pomace powder, Sweet and sour mango relish