

Formulation and Evaluation of Instant Herbal Porridge Mixtures from Ranawara (*Cassia auriculata* Linn) Leaves

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Ranawara (*Cassia auriculata* Linn) based herbal porridge is a well reputed dietary remedy for treating diabetes among Sri Lankans. Studies were conducted to develop instant herbal porridge which containing Ranawara leaves, rice, garlic, onion, pepper and coconut by using dehydration method. Each ingredient was separately dehydrated until the moisture content reduced up to 6%. Dehydrated ingredients were ground, sifted and powder form of ingredients was blend according to the pre prepared formula based on traditional knowledge of Ayurvedic medicine and sensory properties. Two formulations were prepared with and without coconut powder and they were evaluated for physio chemical properties, antioxidants, sensory properties and shelf life.

Formulated recipe without coconut powder contains Ranawara leaves 38.86%, crushed rice 45.97%, garlic 9.45%, onion 4.09% and pepper 1.64%. Similarly, formulated recipe with coconut powder contained 46.84% coconut powder in dry weight base. The products without coconut powder contains, moisture 4.28 (SD 0.04) %, fat 4.83 (SD 0.12) %, ash 3.07 (SD 0.04) %, protein 10.80 (SD 0.03) %, fibre 6.39 (SD 0.05) % and carbohydrate 74.91 (SD 1.66) %. Total phenolic content and total antioxidant capacity of the product without coconut powder was 476.24 GAE mg/g and 715.52 AAE mg/g respectively, whereas the product with coconut powder was 240.14 GAE mg/g and 452.30 AAE mg/g respectively. Sensory results indicated there were no significant differences ($p < 0.05$) among homemade, commercial and formulated products in terms of overall acceptability. The vacuum sealed LDP pack appeared to be an appropriate packing method for both products as the changes in water activity, moisture and pH were minimum. Both products did not exceed safe peroxide level (20 mEq/kg) and FFA level (1.2%) within two months of period from the production date. In conclusion, organoleptically acceptable instant herbal porridge mixtures from Ranawara leaves can be prepared with minimum two months of shelf life.

Keywords: Ranawara (*Cassia auriculata* Linn), Herbal Porridge, Dehydration, Antioxidant, Proximate compositions

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