



## FORMULATION OF A COOKIE USING COMPOSITE FLOUR MIXTURE

Wijayasekara K.N.\* and Wansapala J.

Department of food Science and Technology, Faculty of Applied Sciences, University of Sri Jayewardenepura,  
Sri Lanka

[kaushiwu@gmail.com](mailto:kaushiwu@gmail.com)

The modern consumers are demanding foods that show two main properties, namely the convenience and traditional nutritional aspects of the food. This study seeks to investigate the potential of flours of cowpea, raw red rice, kithul, atta and wheat blends along with black seed oil in cookie making which could be used as a meal replacement. Initially four trials were carried out to find out the best combination of composite flour mixture. By considering the nutritional values, cowpea and kitul flour amounts were considered as variables while rest of the flour amounts were kept constant to maintain the standard texture and nature of cookies. The results of sensory evaluation of four treatments results were analysed using Friedman test. The results revealed that highest sum of rank for colour (108.0), texture (97.0), odour (104.5), mouth feel (107.5) and overall acceptability (110.5) was shown by the selected formulation by the sensory evaluation. The statistical findings signified that adding 25g of kitul flour and 5g of cowpea flour was the most preferred composition for composite flour mix. Selected formulation by the sensory evaluation was used to carry out the proximate and microbiological analysis where 25g kitul flour, 5g cowpea flour, 50g red rice flour, 15g wheat flour, 25 g atta flour, 50g sugar, 1 egg and 2.5 ml black seed oil were used as highly nutritious cereals and pulses. the chemical analysis revealed that the selected composition has 1.2% of moisture content, 6.8% of protein, 5.4% of total fat, 80.4% of carbohydrate, 3.2% of fibre and an energy content of 398 kcal/g. yeast and mould count of the tested sample were lower than the spoilage level ( $1.0 \times 10^1$  g<sup>-1</sup>). The formula developed in this study could be used to produce a new variety of nutritionally rich cookie to the local market.

**Keywords:** *Composite, Kitul flour, Black seed oil, Cookie*