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Evaluation of nutritional composition of peel and seeds of *Flacourtia indica* fruit

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Flacourtia indica is an endangered plant species with high medicinal value. The fruit has been reported as a valuable source of natural products that can treat various diseases and functional disorders. It is commonly called *Ramontchi, Governor's plum, Batoko plum, Madagascar plum* and *Indian plum.* In Sri Lanka, it is called "*Uguressa*". The nutritional content of non-edible portion (peel and seeds) is so far not reported. Hence, analysing the nutritional composition of this non-edible portion is targeted in the current study. We determined moisture, ash, lipid, fibre, protein, carbohydrate and calorie contents of peel and seeds. The results showed that the percentage of moisture, lipid, ash, fibre, protein, and carbohydrate contents of the peel powder were, 15.20±0.267, 9.277±0.165, 13.93±0.488, 9.520±0.0333, 22.41±0.53 and 29.66±0.665 respectively. The calorie value of peel was 291.8 kcal/100g.The percentage of moisture, lipid, ash, fibre, protein, and carbohydrate contents of the seed powder were 8.890±0.200, 0.6517±0.0217, 2.567±0.0246, 50.96±0.484, 17.54±0.309, and 19.39±0.520 respectively. The calorie value of seeds was 153.6 kcal/100g. Findings indicated that peel contains a higher percentage of moisture, lipid, ash, protein, and carbohydrate content than the seeds. Lipid content is very less in the seeds. Due to the presence of a significant amount of carbohydrates in fruit peels, it can be utilized as a carbohydrate source. The percentage of crude fibre content is very much higher in seeds than peel. Thus, *F. indica* seeds can be considered a good source of dietary fibre. Due to high protein content, both peel and seeds can be recommended for value-added food supplements with high protein content. The results of the statistical analysis showed that there is a significant difference ($p < 0.05$) among the total moisture content ($p=0.000$), lipid content ($p=0.000$), ash content ($p=0.000$), crude fibre content ($p=0.000$), crude protein content ($p=0.01$) and carbohydrate content ($p=0.000$) in seed and peel powder. These findings indicate that, *Flacourtia indica* seeds and peel exhibit the potential to be developed as a functional food.

Keywords: *Flacourtia indica,* Fibre content, Nitrogen content, Nutritional composition