Assessment of nutritional and mineral composition of different parts of Schismatoglottisbauensis

ABSTRACT

The study was carried out to assess nutritional and mineral composition of dried whole plant, leaf, stem, rhizome and root of Schismatoglottisbauensis. Proximate analysis was carried out by measuring total protein, fats, carbohydrate, ash and moisture contents following official methods of Association of Official Analytical Chemists. Macro- (Ca, Na, K) and micronutrients (Fe, Cu, Zn) were analyzed using atomic absorption spectrometry. Results revealed that dried whole plant showed highest crude fats and moisture content, whilst dried leaf exhibited the highest percentage of crude protein, and dried rhizome had the highest carbohydrate content. The calorific values for whole plant, leaf, stem, rhizome and root were 288.52, 309.19, 267.10, 303.71, and 295.37 kcal/ 100 g, respectively. Major minerals present in all the tested samples were potassium and calcium ranging from 2714 to 7213 mg/100 g and 216 to 1517 mg/100 g, respectively. Overall, the findings indicate this plant to be a good source of nutrient and minerals, which could be exploited as a valuable material for functional foods or nutraceuticals.

Keyword: Proximate; Nutritional; Mineral; Schismatoglottisbauensis; Keladi Jantang; Plant