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The Evaluation of Total Phenolic Compounds in Coleus Spp

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Coleus spp. is a large and widespread genus with over 150 species. Coleus spp. or locally known as Ati-ati plant is found in several parts of South East Asia including Malaysia. As a member of Mint families, Coleus spp. was believed to have a lot of phenolic compounds. In this study, 5 species of Ati-ati plants [Coleus amboinicus, Coleus blumei (thick green leaves hybrid), Coleus blumei (thin green leaves hybrid), Coleus blumei (purple leaves hybrid) and Coleus blumei (red leaves hybrid)] were randomly collected from Kuantan area and screened for their total phenol compounds. Only stem and leaf parts of the plants were used in this study. All samples were freeze-dried, grinded and extracted using 60% methanol. The content of total phenolic compounds in the extracts was determined using modified Folin-Ciocalteu methods and calculated as Gallic Acid Equivalent (GAE) per 100 mg fresh weight sample. The absorbance of the developed colour in the sample mixtures was measured at 760 nm using UV-VIS spectrophotometer. The results showed that the amount of phenolic compounds in all 5 species of Ati-ati plants was ranged between 8.1-11.1% GAE/100 mL. The amount of phenol compounds in Coleus amboinicus was the lowest ($P < 0.05$) compared to the other samples. Coleus blumei (thin green leaves hybrid) has highest amount of phenolic compounds but not significantly different ($P > 0.05$) with Coleus blumei (red leaves hybrid). This study showed that Coleus spp. has potential to be developed as neutral functional food.