Inventory and nutritional value of indigenous wild edible plants resources in Yilan and Hualien areas[1]

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Abstract

In order to understand nutrient contents and utilization method of wild edible plants by indigenous Taiwanese, this research collected and investigated 54 indigenous wild edible plants in Yilan and Hualien area. This research recorded samples source, edible parts, growing seasons, usage, market availability of wild edible plants and analyzed nutrients content of edible parts. The analysis items included protein, fiber, lutein, *β*-carotene, vitamin C, calcium, iron, zinc, phenolics, oxalate and etc. The protein contents in leaves of *Momordicaco chinchinensis*, *Capsicum annuum*, and *Persicaria chinense* was the highest, and its content was between 5.55-5.38 g/100 g. The lutein content was the most abundant in the leaves of *Momordica cochinchinensis* (up to 26.6 mg/100 g), and the rest are in the orders of *Amaranthus spinosus*, *Solanum americanum*, and *Capsicum annuum* with the content ranging from 13.23 to 17.36 mg/100 g. The result showed that the higher *β*-carotene contents in leaves of *Momordica cochinchinensis*, *Amaranthus spinosus*, and *Gonostegia hirta*, which were between 7.31 to 11.51 mg/100 g. The vitamin C contents was highest in leaves of *Momordica cochinchinensis* (296 mg/100 g), followed by *Persicaria chinense* (178 mg/100 g) and *Amaranthu spinosus* (90 mg/100 g). The iron contents was highest in the shoots of *Gynura divaricate* (10.37 mg/100 g), followed by *Eclopta prostrata* (7.98 mg/100 g) and *Nostoc commune* (7.90 mg/100 g). The zinc contents was highest in shoots of *Calamus formsanus* (2.41 mg/100 g), followed by *Pennisetum purpureum* (1.2 mg/100 g) and *Miscanthus floridulus* (1.2 mg/100 g). This research indicated that various indigenous wild edible plants were rich in nutrients and have potential for further research, promotion or utilization.

Keywords: ethnobotany, lutein, vitamin, oxalate, *Momordica cochinchinensis* (Gac)

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