

Phytonutrient, Antioxidant and Mineral Composition of Some Wild Fruits in South West Nigeria

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ABSTRACT

This study was carried out to determine the chemical composition, antinutrient and phytonutrient contents of some wild fruits, namely African star apple (*Chrysophyllum albidum* G. Don.), hog plum (*Spondias mombin* Linn.), bush mango (*Irvingiagabonensis* Baill) and monkey cola (*Colamillennii* K. Schum). Samples of the wild fruit commonly consumed were collected from some villages in Ido Local Government Area, Oyo State Nigeria. The wild fruits were analysed for phytonutrients, antioxidants and mineral composition. Ranges of total phenolics and total anthocyanin content of these wild fruits were 27.78 ± 6.01 in *I. gabonensis*, 57.42 ± 4.47 in *S. mombin*, 121.29 ± 4.97 in *C. millennii* and 398.23 ± 0.00 in *C. albidum* respectively. Significant differences ($p < 0.05$) were found in antinutrient, phytonutrient and mineral composition of *C. albidum*, *I. gabonensis* and *C. millennii*. The analysis of variance revealed that calcium and manganese contents of *I. gabonensis* were significantly ($p < 0.05$) higher than those of *C. albidum* and *C. millennii*. The antioxidants especially vitamin C content ranged from as low as 15.87 mg/100 g in *C. albidum* to as high as 204.86 mg/100 g in *S. mombin*. The values for total carotenoid ranged from 172.77 $\mu\text{g}/100\text{ g}$ (in *C. millennii*) to 1380.17 $\mu\text{g}/100\text{ g}$ (in *C. albidum*). The wild fruits are sources of phytonutrients, antioxidants such as vitamin C, total carotenoids and some minerals. Planting of the wild fruit trees or the incorporation in farming systems should thus be encouraged to increase production and availability to consumers and as industrial raw materials.

Keywords

- Wild fruits;
- minerals;
- vitamins;
- phytonutrients;
- Nigeria