

Nutritional analysis of selected species of *Alternanthera* Forsskal (Amaranthaceae)

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Alternanthera Forsskal (Amaranthaceae) is an underexploited genus with potent medicinal activities exhibiting biotic and abiotic tolerance, survival with basic minimal requirements, with a palatable taste and free of insecticides or pesticides. Here, we analyzed selected species of these under-utilized plants for various nutrients to enable identification of unconventional food resources. Among the species investigated, *Alternanthera sessilis* showed high amount of energy rich nutritional factors, such as carbohydrates, proteins and lipids. High content of aminoacids and flavanoids have been observed in *A. sessilis* and *A. philoxeroides*. *Alternanthera versicolor* recorded higher amount of vitamin A while *A. tenella* showed the least. Vitamin C content was predominantly high in all the species investigated. Regarding pigment composition, highest chlorophyll content was noticed in *A. philoxeroides* followed by *A. sessilis*; the least amount in *A. tenella*. The concentration of carotene was high in *A. sessilis*. With regard to antinutritional assays, *A. sessilis* and *A. philoxeroides* exhibited only low level of phytic acid and majority of them had low tannic acid content. These two species possess high nutritional and low level of antinutritional factors. All the species studied revealed comparatively high amount of phenol. With their demonstrated nutritional qualities with low level of anti-nutritional factors, it can be suggested that *A. sessilis* and *A. philoxeroides* be included in the dietary menu along with other conventional leafy vegetables. Further, these nutritive herbs can be advocated for domestication and thereby effective utilization.

Keywords: Antinutritional factors, β -Carotene, Chlorophyll, Dietary supplement, Herbal nutrition, Leafy vegetable, Nutraceuticals, Phenols, Phytic acid, Tannic acid, Vitamin A and C