

NUTRITIONAL, ANTINUTRITIONAL AND ANTIOXIDANT ACTIVITY OF FRESH AND DEHYDRATED MORINGA LEAVES

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ABSTRACT

The study was to determine the nutritional, antinutritional & antioxidant activity of moringa leaves. Proximate analysis of leaves was done by using the standard procedure of AOAC & preparation of leaf powder by oven drying technique. The leaves were dried in the oven at temperature 60 °C for 4 hour. Moisture content was significantly decreased from (74.70± 0.30 to 6.67 ± 0.19g/100g). While crude fat increase non-significantly (1.38± 0.032 to 5.54± 0.25g/100g), protein (7.79± 0.24 to 22.79± 0.20/100g), crude fibre (0.76± 0.023 to 12.06± 0.30/100g), Carbohydrate (14.41± 0.58g to 56.68± 0.50g/100g) & energy value (101.24± 1.12 to 367.84±1.05kcal/100g) increased. Protein, fibre, carbohydrate & energy were significantly increased in dehydrated sample. Total carotenoid & ascorbic acid increased significantly from 6372.77±24.60 to 17025± 131.80µg /100 g & 217.54±0.88 to 56.88±0.39mg/100 g. Calcium & iron content increased significantly from 432.33 ± 2.60 to 2146.66 ± 12.11& 0.70 ± 0.03to 23 ± 0.58mg/100g respectively. Phytate & oxalate content of fresh & dehydrated leaves were (5.01±0.16 to 8.73±0.20) & (95.0±0.96 to 386.05±1.90) respectively. Total polyphenols & total flavonoids were significantly increase (64.71±1.01 to 87.51±0.31) & (16.25±0.55 to 28.73±0.47).

KEYWORDS: Moringa, Drying, Temperature Effect, Nutritional Quality