

EFFECTS OF COOKING AND FRYING ON ANTIOXIDANTS PRESENT IN SWEET POTATOES (IPOMOEA BATATAS)

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ABSTRACT

This study determines the effects of cooking and frying on the antioxidants (vitamin A, vitamin C and vitamin E) present in sweet potato. The variety of sweet potato used is the orange type that was free from diseases and defects. Portions of prepared sweet potato samples were fried under a regulated temperature of 70°C for different time intervals of 10 minutes and 15 minutes while some other portions were cooked at 100°C for 10 minutes, 15 minutes and 20 minutes. Analysis of vitamin A, vitamin C and vitamin E contents was carried out on raw, fried and cooked sweet potato samples using the nutritional guidelines of Association of Official Analytical Chemists. Differences between the mean values of the treatments were determined by the least significant difference (LSD) test at 5% level of significance. There were significant differences in vitamin A, vitamin C and vitamin E contents of cooked and fried sweet potato. More of the nutritional contents, especially vitamins A and C were retained in cooked sweet potato than in fried one. Cooked sweet potato is recommended for the elderly and small children since it contains more vitamin A which enhances good eyesight.

Keywords: Antioxidants, Cooking, Frying, Proximate composition, Sweet potatoes