



DETERMINATION OF NUTRITIVE CHANGES OF CANNED MUSHROOMS (*AGARICUS BISPORUS*) DURING STORAGE PERIOD

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ABSTRACT

Mushrooms (*A. bisporus*) have a high nutritive value. Consuming fresh mushrooms is not productive because of enzyme activity and other limiting factors. The canning process is one food treatment that provides long product shelf-life. The changes of nutrients were determined by proximate composition: fat, protein, moisture, ash, and total carbohydrates. Minerals: Zn, Cu, K, Na, Ca, Cr, and P. Water soluble vitamins: B1 (thiamine), B2 (riboflavin), folic acid, pantothenic acid, niacin and vitamin C (L-ascorbic acid). These nutrients were determined on both fresh mushrooms and during storage for six months. The analyses were made at one and one-half month intervals. Mushrooms were exposed to blanching in the canning process and were sterilized. During blanching and storage, usually the nutritive contents changed. Values of freshly canned and stored products (the first value in parenthesis belongs to the fresh product, the second value represents the end of the six month storage period) were (%): fat (0.35-0.30), protein (3.43-2.24), moisture (91.73-92.02), ash (0.71-1.60), total carbohydrate (3.78-3.84). Minerals (ppm): Zn (5.47-1.70), Cu (1.59-3.79), K (2445.50-140.40), Na (171.59-6596.13), Fe (8.73-9.20), Ca (39.60-68.06), Cr (trace-trace), P (882.30-446.40). Vitamins (mg/100g): B1 (thiamine) (0.094-0.028), B2 (riboflavin) (0.396-0.176), folic acid (0.078-0.020), vitamin C (ascorbic acid) (5.72-2.31), pantothenic acid (2.29-1.22), niacin (5.35-4.29).

Key words: Blanching, canning, *Agaricus bisporus*, nutrients, proximate, vitamins, minerals.