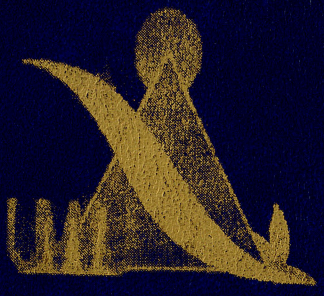

CHANGERS OF SELECTED MACRO/ MICRO NUTRIENTS IN MINIMALLY PROCESSED BANANA BLOSSOM UNDER THE LOW TEMPERATURE (8 ^{O}C) STORAGE

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ABSTRACT

Minimally Processed or fresh-cut fruits and vegetables are a rapidly developing segment of the fresh produce industry. These products are manufactured by washing, sorting, peeling, slicing and packaging with plastic film or in plastic trays wrapped with films. Minimally Processed (MP) fruits are new forms of product marketing intended to meet the consumer's desires for convenience and fresh-like quality. Fresh cut products are living cells and they have highly nutritional content than other foods items. Because of that the preparation method, storage condition, storage temperature, packaging material mainly affect to the nutritional quality degradation of the fresh cut products. Effect of chemical treatment and the storage condition to nutrient depletion within their shelf life period was analyzed. Banana blossom grow on the end of the stem holding a cluster of bananas it considered an Asian or tropical vegetable.29 cultivars can found in Sri Lanka. Banana processing involved washing in cool (8 ^{0}C) distilled water, Chlorine water (100ppm) and cleaned water. Then subjected to $CaCl_2$ solution (5g/L).Packaging was done by using LDPE bags and stored under refrigerator condition. Samples of banana flower were analyzed for proximate composition (protein, total dietary fiber, vitamin C and Anti-Oxidant) following the standard methods published by Association of Official Analytical Chemists (AOAC, 1995). Protein was determined by Kjeldahl method (Kjeldahl, 1883), and thereafter a conversion factor of 6.25 was used to calculate the total nitrogen to crude protein. Total dietary fiber (TDF) was determined according to the Ceramic Fiber Filter Method AOAC Official Method 962.09 (1982).Vitamin C content was determined by the redox titration method using iodine solution. The antioxidant activity was determined by the DPPH (2-2`- diphenylpicrylhydrazyl) assay. Embul kesel blossom have High protein content (19.11 ±0.50 g/100g) and Vitamin C content (7.96±0.04 mg/ 100g). Koikuttu kesel have high dietary fiber content than other cultivars. DPPH Radical Scavenging capacities of banana blossoms are high in Embul kesel (21.02 ± 0.31 ppm).The most of the Nutrient is slightly reducing during Processing and Storage time period. Therefore, needs develop well processing methods and storing condition to preserve nutrient of minimally processed Banana blossom.