

PREPARATION OF WHEAT MALTED FLOUR BLEND BISCUIT AND EVALUATION OF ITS QUALITY CHARACTERISTICS

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ABSTRACT

The study was carried out to find out the feasibility of partially replacing the wheat flour by malted flour blends of finger millet and mung bean in biscuit product. The malted seeds of local varieties of finger millet and mung bean were milled in to fine flour and blended at a ratio of 4:1. Then, biscuits were prepared by substituting wheat flour with different levels of malted flour blends (10, 20, 30, 40 and 50 %). The sensory attributes including appearance, flavor, texture, taste and overall acceptability of biscuits were evaluated by a five point hedonic scale test. The formulation of 30% malted flour blend (6% malted finger millet flour, 24% malted mung bean flour) incorporated biscuit had the highest median value for flavor and taste and no significant difference with wheat biscuits in all other sensory characteristics. Physical properties of biscuits like bulk density and spread factor decreased with substituting malted flour blends. The nutritional value of sensorially accepted composite biscuit was higher in total protein, crude fibre, ash, K, Na, free amino acid and reducing sugar content than wheat flour biscuit. The bacterial count of 30% malted flour blend incorporated biscuit was 3.6×10^4 CFU/g after two months of storage and this was 2 well below the safe level of 1×10^4 CFU/g. There was no yeast and mold growth observed during two months of storage. Therefore, nutritionally superior malted flour blend incorporated biscuit can be prepared from the locally available finger millet and mung bean and it can be used as a substitution for wheat flour biscuit in children diet.

Key words: Biscuit, Finger millet, Malting, Mungbean