

Formulation and popularization of nutritionally superior biscuit using malted green gram as a major source of protein

B M K S Tilakaratne* and K B Palipane

Institute of Post Harvest Technology, Jayanthi Mawatha, Anuradhapura

Several types of weaning foods are available in the market of Sri Lanka. Most of these weaning foods are nutritious blends of cereals, legumes and milk, and they are excellent sources of supplement to child's milk food. However, many of the proprietary weaning foods are quite expensive and beyond the purchasing power of parents belonging to middle and lower income groups. Germination or malting of legumes improves the availability of minerals, reduce the anti-nutritional factors, enhances some of the vitamins and improves the overall nutritive value. Hence, malted (sprouted) green gram is an ideal source of protein rich material for blending with maize to prepare a nutritive blend for use as weaning food. If a weaning food is prepared in the form of a biscuit it is easy to feed babies either directly or after soaking in milk or water. A methodology has developed in the form of biscuit using malted green gram. According to the results, 20% malted green gram, 40% maize flour, 40% wheat flour was selected as the best combination to produce nutritious biscuit without changing sensory qualities. The production cost calculated is Rs.106 per kg of biscuits. During 12-weeks of storage it was found that Polypropylene and cast-polypropylene were the best packaging materials, among the packaging materials tested (Polypropylene, polythene, and cast-polypropylene), to store this biscuit. It was observed that the total plate count (colony forming units per gram) of the product was nil after three months storage period in above mentioned packages This value is below the maximum acceptable level of 500 cfu/g., according to SLS specification ie. SLS 516 part 1: 1991.

* rprdc@sltnet.lk