

Low Fat Meatballs Containing Legume Flours
as Extenders: Nutrient Composition
and Sensory Evaluation

Bibi Zaynab Joomratee

2007

B.Sc. (Hons.) Food Science & Nutrition
School of Applied Science
University College Sedaya International

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ABSTRACT

Legumes are widely known for their healthy benefits among the population, food industries and health sectors. This study was conducted to produce low fat meatballs using legume flours as extenders. Proximate analysis, calcium determination and sensory evaluation were carried out as part of the research. Meatballs were prepared using lean chicken breast, chicken fat, legume flours and seasonings. Proximate analysis was carried out on both uncooked and cooked batches for sample C (Control), T1 (10 % lentil flour), T2 (10 % chickpea flour) and T3 (10 % green bean flour). Sensory evaluation was assessed using 50 untrained panelists for attributes: appearance, colour, aroma, texture, flavour, palatability and overall acceptability. Significant differences ($P < 0.05$) were obtained for fat and protein analysis in both uncooked and cooked batches. However, for moisture analysis in the cooked batch, non-significant difference ($P > 0.05$) was obtained among samples T1 and T3 which were extended with 10% lentil flour and 10% green bean flour respectively. Non-significant difference ($P > 0.05$) was also obtained for determination of calcium content. Significant difference ($P < 0.05$) was obtained for sample T1, for palatability and overall acceptability. Sample T2 has the highest protein content