

# FOOD SAFETY & REGULATORY MEASURES

June 05-07, 2017 Milan, Italy

## Development and quality assessment of fiber enriched low fat and low sugar functional carabeef cookies

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The present study was undertaken to develop and to assess the quality of shelf stable functional carabeef cookies. Preliminary trails were carried out to standardize the ingredients and processing conditions of carabeef cookies. On the basis of physico-chemical properties and sensory evaluation, 50% carabeef powder and baking at 150-160°C for 35-40 minutes were found optimum. Carabeef cookies were incorporated with fiber sources viz. orange pulp fiber, mango peel powder and dehulled pigeon pea flour at 5-15% level separately, out of which carabeef cookies with 10% orange pulp fiber were most accepted. Fiber enriched carabeef cookies were incorporated with poppy seeds, guar gum and plum pulp powder at 0.5-1.5% level separately to replace 20-40% fat, where 1.5% guar gum was selected as best fat replacer to replace 40% fat. Fiber enriched and low fat carabeef cookies were further incorporated with various sugar replacers viz. sodium caseinate, raftilose and inulin at 15-25% level separately. On the basis of physico-chemical properties and sensory evaluation, 20% sodium caseinate were selected as optimum. Fiber enriched, low fat and low sugar carabeef cookies were evaluated for complete product profile and compared with traditional cookies and normal carabeef cookies. These cookies were stored under aerobic and vacuum packaging conditions using low density polyethylene pouches (200 gauge) and impermeable multilayered nylon pouches (150 gauge) respectively. Cookies were stored at ambient temperature for 90 days and analyzed at every 15 days interval for various physico-chemical properties, microbiological studies and sensory quality. All cookies were very well accepted during whole storage period of 90 days under aerobic and vacuum packaging conditions. Vacuum packaging had better shelf life with higher acceptability than aerobic packaging functional carabeef cookies. Retail cost of functional carabeef cookies was estimated to be Rs. 377.00 per kg of product.

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