Abstract

The pumpkin fruit of the species C. moschata Duchesne has great nutritional potential, but remains under-utilized in Kenya. The fruits have diverse health enhancing properties. This vegetable-fruit has potential to be processed into various products both for home and industrial use. Despite these benefits, the fruit is underutilized as characterized by the few available pumpkin fruit flour products' recipes and little contribution to food security in Kenyan households. The present study determined sensory acceptability of baked products of blended pumpkin and wheat composite flour. Uniform mature pumpkin fruits grown on the Chuka University farm were harvested and processed into flour using a previously developed protocol. Pumpkin flour was augmented at 0%, 5%, 20%, 50% and 95% into wheat flour and baked to make cake, bread, mandazi, scones and cookies. The products were then subjected to sensory acceptability tests using a 5-scale hedonic rating, with 1 being least preferred and 5 most preferred by trained and untrained panelists at KALRO-Njoro and consumer groups in Nyeri County, Kenya. The ANOVA showed that products significantly (P < 0.05) differed in acceptability. Among Nyeri consumers, 50% cake and 5% mandazi and scone formulations were highly preferred for colour, texture and flavour. In Njoro, there were significant differences (P < 0.05) among the trained and untrained panelists, but overall in all products, the 0% and 5% formulations scored highest across all test parameters. Value addition and commercial utilization of any food product greatly increases demand. This study shows the great potential of value-added pumpkin flour in enhancing and enriching textural and sensory qualities of different commercial food products in the Kenyan food industry, which should be promoted for adoption and commercialization.