Relevance of Dried Meat Product (‘Kundi’), an Intermediate Moisture Meat, for Food Security

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Abstract

Millions of people worldwide especially in under and developing countries suffer from hunger and undernutrition. Food security means that each individual is able to obtain adequate and quality food at all times, in order to meet the body’s needs. ‘Kundi’ is a relish intermediate moisture dried meat product, produced in the northern part of Nigeria.

2-3 years old male Camelus dromedarius and White Fulani animals were used for this study, 2 kg of semimenbranous muscles from each animal were used, and trimmed of all external fat, connective tissues and bones. Meat samples were cut in sizeable pieces of weight ranges 70-90 g of 6-8 cm and kept in the refrigerator for 24 hours. Fresh meat cuts were boiled for 20 minutes at 100°C, seasoned and oven dried for 3 hours at 170°C. This study assessed the proximate composition of fresh and dried meat (‘Kundi’) products and their sensory evaluation in a completely randomised design.

Results showed that fresh camel meat had a significantly (p < 0.05) higher moisture and protein content 74.55% and 21.96%, respectively than fresh beef 72.69% and 18.96%, respectively. While fresh beef had higher (p < 0.05) ether extract content 6.34% than fresh camel meat 2.39%. Laboratory prepared beef ‘Kundi’ (LPBK) had the highest (p < 0.05) value in moisture content 35.09% followed by laboratory prepared camel ‘Kundi’ LPCK with 30.21%, while commercial ‘Kundi’ (CK) has the lowest moisture content. Protein obtained was inversely proportionally to moisture content. Ether extract for LPCK and LPBK were statistically similar (p > 0.05) and both were lower (p < 0.05) than value obtained for CK. Also results obtained for sensory evaluation showed that the panelist rated seasoned Kundi to have the highest significant (p < 0.05) value for tenderness, flavour, colour, juiciness, texture and acceptability with values 6.50, 5.30, 6.50, 6.53, 6.30 and 7.00 respectively.

Keywords: Beef, camel, Kundi, seasoned and unseasoned Kundi