

CHEMICAL & NUTRITIONAL

Characteristics of Traditional MEAT PRODUCTS OF BORANA COMMUNITY in Marsabit County, Kenya



Cooked traditional meat

Borana people produce different type of traditional meat products from Boran cattle (*Bos indicus*) and goat (*Capra hircus*) for nutritional supplement and snacks for special occasions and to meet seasonal fluctuation in the available protein in their diet. They have developed unique recipes and storage methods that increase products shelf-life under the traditional pastoral production environment. Upscaling production of traditional meat products is constrained by lack of understanding of its nutrient and chemical contents.

Objective

To determine the nutritional composition and indicators of spoilage in traditional meat products of Borana Community in Marsabit County, Kenya.

Materials and methods

Traditionally processed meat samples were collected in Marsabit County. The proximate composition, quality indices and mineral content of the samples were analyzed by use of the methods of the Association of Official Analytical Chemists (AOAC), (1995).

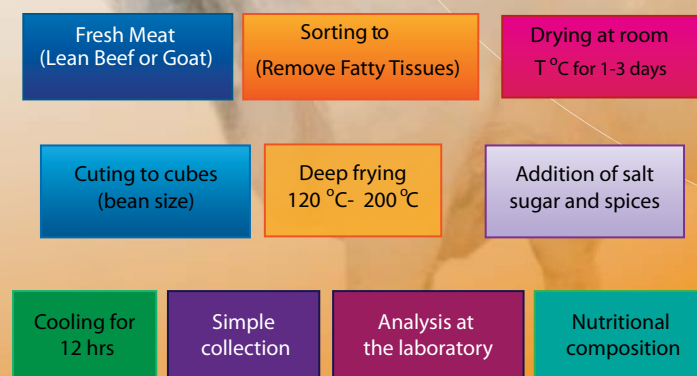


Fig 1: Work flowchart of traditional meat

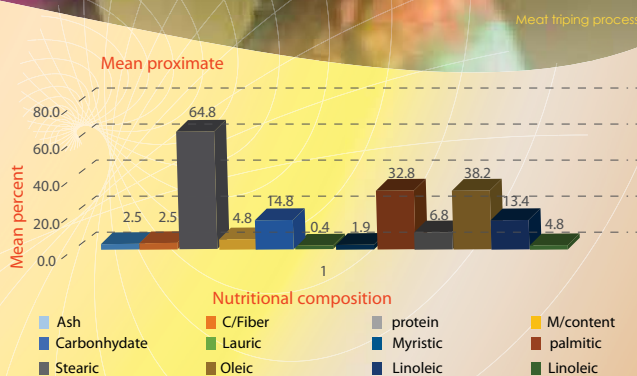


Figure 1: Nutritional composition of Traditional meat

Result

The proximate composition shows that traditional meat is a shelf stable product as it has low moisture content, similar with the study done by Ogunsola(2008)

Table 1: Quality parameters and mineral composition of Traditional meat

Parameter	Units	Mean
PH		5.9
Peroxide Value	meq/kg	2.3
TBA	mgMDA/kg	0.4
Acidity	%	0.0
Free Fatty Acid	%	1.3
Calcium	mg/100g	67.3
Iron	mg/100g	62
Zinc	mg/100g	4.5
Potasium	mg/100g	751.1
Magnesium	mg/100g	56.4
Sodium	mg/100g	254.4

Meat and meat products are also important sources of minerals in the diet. Oliveira et al., (2015) noted that beef has almost all important minerals for human nutrition.

The Peroxide Value, acid value and Thiobarbituric Acid levels were below the value associated with meat spoilage during the expected shelf life.

Conclusion and Recommendation

The traditional meat products were nutrient rich products, where the concentration of nutrients was enhanced by the drying process.

The keeping quality of the products was good, as all the rancidity indices including the Peroxide Value, Acidity and Thiobarbituric acid (TBA) were below the value associated with increased risk of rancidity.

There is good potential for up scaling of the production of these traditional meat products including exploring options for packaging and selling products to increase income while contributing towards improved food security among the community.

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References

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- Oliveira, E.A. de, Sampaio, A.A.M., Henrique, W., Pivaro, T.M., Rosa, B.L., Fernandes, A.R.M., 2015. Chemical and Fatty acid composition of different cuts cooked or uncooked from yearling bulls fed oil sources. ActaScientiarum. Animal Sciences 37, 187. doi:10.4025/actascianimsci.v37i2.26510