



## Optimisation Of Slaughterhouse Blood as An Indigenous Food Product and Its Acceptability By South African Ethnic Groups

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### Abstract

Blood collected at abattoirs is often utilised as traditional edible meat by-product in many areas of the world. It is used in the making of variety of foods such as blood sausages, blood pudding, biscuit, blood-soups, etc . In Africa, blood is known to be a traditional food of the Masai people in Kenya and Tanzania. Masai's traditional blood sausage is called *Mutura*, often nicknamed African sausage. Despite the widespread production and consumption of blood sausages in other parts of the world, this meat by-product is not well known in South Africa. However, there are some ethnic groups such as Basotho and Bapedi who consume cooked livestock blood called "bobete", and Nguni speaking people call it "ubende". The manufacturing processes and quality traits of this ethnic meat by-product has not been scientifically characterised in South Africa. Instead, products are home-made, and their processing methods and product characteristics are not well known. Hence, there is a need for more studies related to this traditional meat by-product. The lack of studies on this food presents a serious risk to the ethnic groups of such cuisine since they are in danger of losing their quality and traditional identity. Therefore, the objective of the current study was to characterise the underutilised livestock blood into acceptable food product in South Africa by producing blood sausages.

Four batches of cow blood sausages were formulated to contain 0% (no blood), 5%, 15% and 30% blood. The sausages were evaluated for consumer acceptability using a 75 untrained sensory member panel.

No significant differences were detected for aroma, flavour, juiciness, and overall acceptability across all four products. However, the frequencies on overall acceptability/liking showed that consumers in all ethnic groups who liked (score=4) or liked the sausages very much (score=5) were more than consumers who did not like the sausages. The ethnic groups (Sotho, Pedi and Tswana) (70 %) and Tsonga group (68%) liked the sausages more than the Nguni group, Venda, White and Coloured's.

This study provides information that could aid quality processing of cooked livestock blood with distinct characteristics that are acceptable to South African ethnic groups.

### **Biography: Ennet Moholisa**

Dr Ennet Moholisa, Researcher in Meat Science and Technology, ARC-Animal Production. Dr Moholisa's research field is on product development and chemical stability of food, with a special interest in the quality and safety of meat and meat products and their implications to the consumers. Her previous work included the research leading to the latest legislation on the inclusion of brine in frozen chicken, and the review of the current South African Beef Carcass Classification System. She is currently focusing on the utilisation of the fifth quarter meats (intestines, organs, blood, etc.) in processed products.