

CONSUMER PURCHASE INTENT AND WILLINGNESS TO PAY FOR COW BLOOD SAUSAGES IN SOUTH AFRICA

Ennet Moholisa^{1*}, Kealeboga Mosimanyana¹, Lizelle Rheeders¹, Prudence Seema¹ and Phillip Strydom²

¹Agricultural Research Council-Animal Production, Pretoria, South Africa

²University of Stellenbosch, Cape-Town, South Africa

*Corresponding author email: moholisae1@arc.agric.za

I. INTRODUCTION

Blood sausages are very popular traditional meat by-products in many parts of the world, however in South Africa, these products are not common, and thus not well known. The few blood sausages available in the South African food market are imported or are found in niche butcher shops, owned by immigrants. However, there is a history of whole blood being used as a food product by some of the ethnic groups in South Africa [1, 2, 3]. This prompted the investigation into the utilisation of slaughterhouse blood as an edible by-product of meat in South Africa. According to this study, blood sausages were acceptable to more than 60 % of the study participants [2]. As a result, the objective of this part of work was to assess the consumer purchasing intent and willingness to pay for cow blood sausages in South Africa.

II. MATERIALS AND METHODS

A detailed methodology can be found in Moholisa *et al.* [2]. Briefly, a total of 24 kg (1 kg/ treatment x 4 products) of cow blood sausages formulated with varying blood levels were produced in six replicates. Different South African ethnic groups, consisting of both male and females aged between 20-64 years, evaluated sausages for consumer acceptance. The purchasing intent was evaluated on a bi-polar scale of yes or no. Data were subjected to analysis of variance (ANOVA) using SAS version 9.4 statistical software [4]. Fisher's protected t-Least significant differences (LSD's) were calculated ($\alpha = 0.05$) to compare means, and tabulated frequencies were tested for association (patterns) using a Chi-Square (χ^2) test [5]. A probability level of 5% was considered significant for all significance tests.

III. RESULTS AND DISCUSSION

The results of the purchase intent on the bipolar scale of yes or no are presented on Table 1. There were no significant differences that were observed in the purchase intent of the sausages across age groups, ethnic groups and when sausages with different levels of blood inclusion were offered. However, regardless of the amount of blood in the sausage, in general, the number of consumer panellists who would buy the sausages was higher than the number who would not. On average, consumers between the ages of 20 and 59 in all the ethnic groups who showed interest in purchasing the sausages were more than consumers (57 vs 43 %) who would not purchase the products, with slight differences between treatment groups. A slightly higher percentage of elderly consumers (60-64 years) showed no interest in purchasing the sausages. The ethnic group that showed more interest in buying sausages was Venda people. White and coloured South Africans ("other" category) showed almost an equal interest in purchasing or not purchasing blood sausages when compared to other ethnic groups. Figure 1, showed that not many panellists would be willing to spend more than R70/kg for the blood sausages. Most of the panellists would be willing to purchase the sausages containing no blood, 5 and 15 % at a price between R50-60/kg, while most of the panellists would spent less than R50/kg for 30 % blood sausages. Interestingly, sausages containing no blood were not completely removed from those that included blood in all price ranges.

Table 1. Frequency distribution of consumers (%) purchase intent of the cow blood sausages formulated with 0, 5, 15 and 30 % blood.

Categories	Purchase intent		P-value
	Yes	No	
Blood inclusion level in the sausage:			
0 %	58.54	41.46	0.9032
5 %	58.08	41.92	
15 %	54.82	45.18	
30 %	56.60	43.40	
Age groups:			
20-29	51.19	48.81	0.0922
30-39	64.66	35.34	
40-49	55.97	44.03	
50-59	58.19	41.81	
>60	43.75	56.25	
Ethnic groups:			
1. Sotho	56.15	43.85	0.6994
2. Venda	64.29	35.05	
3. Tsonga	57.95	42.05	
4. Nguni	57.69	42.31	
5. Other	50.91	49.09	

Ethnic groups=1. Sotho (Sotho, Tswana, Pedi), 2. Venda, 3. Tsonga, 4. Nguni (Zulu, Xhosa, Ndebele, Swati), 5. Other (White and coloureds). NS= Not significant.

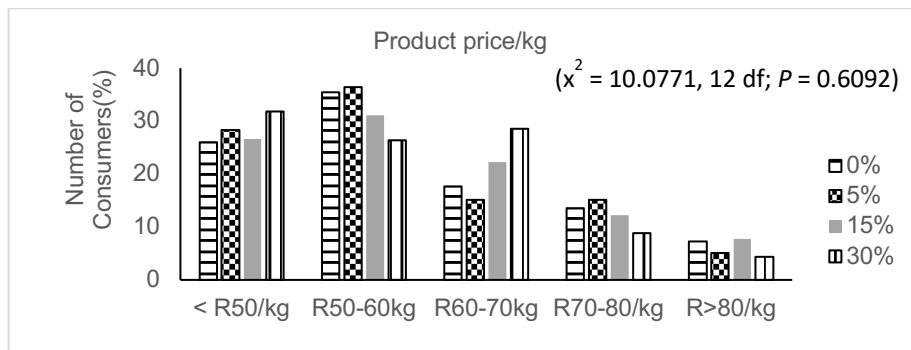


Figure 1. Product price of cow blood sausages

IV. CONCLUSION

The results suggests that if blood sausages are available in the South African food market, they may be marketable at a lower price/kg.

REFERENCES

- Mabundu, P., Bongela, B., Sosibe, K. & Mkwkwanazi, K. (2016). Cows, The sacred and the profane. Mail & Guardian Magazine. Retrieved from mg.co.za/article/2016-04-07-cows-the-sacred-and-the-profane.
- Moholisa, E., Mosimanyana, K., de Lange, L. & Strydom P. (2021). Optimisation of slaughterhouse blood as an indigenous food product and its acceptability in South African ethnic groups. In Proceedings 24th Biennial International Congress and Exhibition of SAAFOST, 20-22 September 2021, Durban, South Africa.
- Seshoene, M. (2023). Traditional African food in South Africa. South African Tourism. Retrived from <https://www.southafrica.net/tz/en/travel/article/traditional-african-food-in-south-africa>.
- SAS Institute, I. (2016). SAS® 9.4 Language Reference: Concepts (6th ed). Cary, North Carolina.
- Snedecor, G. W., & Cochran, W. G. (1988). Statistical Methods (7th ed.). IOWA USA: The Iowa State University Press.