

## RESEARCH HIGHLIGHTS

# Comparative Study of Imported and Local Chicken Meat Consumed in Ota, Ogun State

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Poultry production is increasing around the world with the increase in consumer demand. If the country is unable to cope with consumer demand production they have to import meat from other countries to meet the increased demand. The common types of poultry meat in Nigeria include; chicken, turkey and guinea fowl<sup>1</sup>.

The importation of foreign meat had been banned in Nigeria but still, some people managed to smuggle the foreign meat in frozen form. The ban was done to increase and upgrade local poultry breeding programs and techniques. Despite the ban, the local production of poultry is not coping with fast pacing demand for domestic consumption<sup>2</sup>.

In this context, researchers were motivated to perform a new study in which they assessed and compared the nutritional composition and safety profile of the imported frozen, exotic commercial and indigenous chicken meats consumed in Nigeria<sup>3</sup>.

For the experiment researchers took twenty-one samples of chicken meat and divided them into three groups. The samples were digested with sulfuric acid and determination of proximate composition was done. The safety profile was determined by quantification of levels of heavy metals i.e. cadmium, lead and chromium, malondialdehyde and lipid profile of the chicken meats.

The results of the study revealed that imported chicken had increased amounts of moisture and fat content as compared to local and commercial chicken. The analysis of heavy metals showed that the levels of cadmium, chromium and lead in the imported meat chicken group were a more comparatively local or exotic group. The commercial exotic group had increased manganese, copper and nickel amounts as compared to other groups.

The proximate analysis was done to identify the nutritional quality which revealed that the local meat of the chicken was more nutritious as compared with the imported ones. The local and exotic commercial chicken had high amounts of ash, protein, carbohydrates and fiber in them.

Lipid profile studies suggested that the imported chicken had hyper-lipidemia from amplified levels of triglycerides and total cholesterol compared to the exotic commercial and local breeds. The local breed also had the highest levels of HDL Cholesterol which is termed as the good cholesterol and hence has more nutritional benefits than the imported chicken.

At the end of the study, it was thus established that long term utilization of imported freeze chicken meat may result in heavy metal levels over the allowable limits as well as predisposition to oxidative stress and lipid imbalance. The local and exotic commercial chicken meats are safer and more nutritious for consumption.

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