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## Descriptive sensory profile of chicken meat and its relation to microbial flora during storage

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During storage, poultry meat undergoes physical and chemical changes mainly due to microbial growth. Consumers generally use smell and color as the most important indicators of food quality and these attributes greatly influence their purchasing decisions. Hence, it is essential for retailers to identify all the perceived sensory characteristics of raw chicken during storage. The objective of this study was to characterize and quantify the sensory properties of raw chicken and establish its correlation with the microbiological flora during storage. Chicken meat was obtained from a local processing plant and stored under refrigeration. The samples were subjected to microbiological and sensory analyses. Sensory analysis was carried out by a trained panel. The initial TVC, *Pseudomonas* spp., Enterobacteriaceae and LAB counts were  $5.00 \pm 0.13$ ,  $4.08 \pm 0.49$ ,  $3.47 \pm 0.11$  and  $3.01 \pm 0.24$  CFU/g, respectively. There was a significant increase in all the microbial counts during storage. The smell and appearance of the samples were described as pink, creamy, bloody, pungent and chemical. There was no significant difference between the color and overall smell of the control and samples stored for less than three days. A high correlation was found between microbial growth and the ratings for all the sensory descriptors. The results demonstrate that the sensory profile of raw chicken during refrigerated storage is highly dependent on the microbial levels.

## Biography

Wendy Katiyo is currently a PhD student at the University of Pretoria, South Africa. Her current study is part of an Australia-Africa Universities Network (AAUN) project on assessment of the safety and quality of chicken meat from farm to fork. Her areas of research interest include food safety and quality, sensory science, novel food technologies and bioactive compounds in food.

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