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Evaluation of Bacterial Composition of the Aerosol of Selected Abattoirs in Akure, South Western Nigeria

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Abstract : This study was carried out to reveal the bacterial composition of aerosol in the studied abattoirs. Bacteria isolated were characterized according to microbiological standards. Factors such as temperature and distance were considered as variable in this study. The isolation was carried out at different temperatures such as 27oC, 31oC and 29oC and at various distances of 100meters and 200meters away from the slaughter sites. Result obtained showed that strains of Staphylococcus aureus, Escherichia coli, Bacillus subtilis, Lactobacillus alimentarius and Micrococcus sp. were identified. The total viable counts showed that more microorganisms were present in the morning while the least viable count of 388 cfu was recorded in the evening period of this study. This study also showed that more microbial loads were recorded the further the distance is to the slaughter site. Conclusively, the array of bacteria isolated suggests that abattoir sites may be a potential source of pathogenic organisms to commuters if located within residential environment.

Keywords : abattoir, aerosol, bacterial composition, environment
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