

BACTERIOLOGICAL ASSESSMENT OF THE QUALITY OF WATER USED AT THE BODIJA MUNICIPAL ABATTOIR IBADAN, OYO STATE, NIGERIA

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ABSTRACT

The bacteriological status of water supply to the Bodija Municipal Abattoir, Ibadan was evaluated. Water samples from different sources within and around were collected and examined. The sources of water supply include Wells, Taps, Surface water tank, Borehole and a nearby stream. The average coliform count per 100ml and confirmatory *Escherichia coli* counts per 100ml respectively were determined using the multiple tube method. The surface tanks and wells had a value of 173.6 ± 10.9 and 159 ± 36.4 coliform count per 100ml respectively while the borehole had the lowest average count of 17 ± 8.1 coliform per 100ml. The confirmatory *Escherichia coli* count per 100ml was highest for wells 20.8 ± 18.5 and lowest for borehole 1 ± 0.07 . A significant high ($p < 0.05$) number 15 (68%) of the samples had a range of 161-200 coliform count per 100ml while 90% of the total samples had *E-coli* count per 100ml within the range of 1-40 count per 100ml. Bacteria isolates obtained from this study include *Escherichia Coli* (55%), *Klebsiella spp* (27.5%), *Pseudomonas spp* (10%) and *Proteus spp* (7.5%). These findings suggest that the bacteriological status of water used at the Bodija municipal abattoir was below the recommended standard of W.H.O (3 coliform but 0 *Escherichia coli* is acceptable) thus posing health and food safety risks on the public that depend on the meat from the abattoir. It is hereby recommended that there should be facilities on ground for water treatment in the abattoir before use and proper collection and storage of water should be practiced.

KEY WORDS: Bacteriology, Water Quality, Abattoir