

MICROBIOLOGICAL QUALITY OF PALM WINE (*Elaeis guineensis* and *Raphia hookeri*) SOLD WITHIN ABA METROPOLIS, ABIA STATE, SOUTH EASTERN NIGERIA

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ABSTRACT

Palm wine has several nutritional, medical, religious and social uses which have been reported to have increasingly enhanced the demand for this natural product. However, the sap undergoes spontaneous fermentation, which promotes the proliferation of microorganism due to its nutritional content. In the present study, the microbiological quality of different palm wine samples was investigated, the result revealed that the drink harboured several species of microbial genera which include *Staphylococcus*, *Lactobacillus*, *Micrococcus*, *Serratia*, *Bacillus*, *Streptococcus*, *Saccharomyces cerevisiae*, and *Candida tropiclis*. The heterotrophic bacteria and total fungal count ranges from $1.0 \times 10^4 - 2.0 \times 10^4$ and $1.6 \times 10^4 - 4.2 \times 10^4$ respectively for the different samples. The presence of these microbial populations in the drink is of public health importance considering the specific role of the organisms and the increasing demand for the product by people in the area studied. The present study therefore aims at investigating the rate of microbial contamination associated with the consumption of palm wine so as to create public awareness on the risk factor involved and the need for proper sanitary hygienic practice during the processing and distribution of this product.

Keywords: *Elaeis guineensis*, *Raphia hookeri*, Palm wine, Microbiological, contamination.