

# Food Microbiology and Food Market

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## Microbiological and physicochemical changes in palm wine subjected to spontaneous fermentation during storage

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Palm wine is as a result of the spontaneous fermentation of the sap of various palm plants. This study aimed at isolating and identify the yeasts from palm wine subjected to spontaneous fermentation during storage. A total of forty (40) yeast

isolates were obtained from spontaneously fermented palm wine samples. The yeast counts obtained ranged from  $5.46 \times 10^4$  cfu/ml at day one to  $3.00 \times 10^2$  cfu/ml at day twenty-two. *Saccharomyces cerevisiae* was isolated at all stages of fermentation. The pH dropped from 3.70 at 24hours to 3.37 at 360hours. Total titratable acidity of the wine increased from 2.28% at 24hours to 4.50% at 528hours. Total sugar of the stored palm wine from decreased from 4.0211g/10ml at 24hours to 0.6417g/10ml at 528hours was observed. The reducing sugar content of the

stored palm wine decreased from 13% at 24hours to 0.960% at 456 hours was also observed. The ethanol content of the stored palm wine increased steadily from 21.06mg/ml at 24hours to 88.99mg/ml at 456hours as the storage time increases. Palm wine whose storage time is not beyond 120hours is not injurious to the health of consumers.

### Biography

Afolabi is Lecturer in the Department of Microbiology, University of Ibadan, Nigeria. She has published so many research works in reputable microbiology journals while Owoola is my Postgraduate student.

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