



Physico-Chemical Properties and Sensory Evaluation of Wine Produced from Tiger Nut (*Cyperusesculentus*)

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Abstract: Production of wine from sources other than grapes has gained popularity in recent years. Tiger nut (*Cyperusesculentus*) is a high-yielding, readily-available tuber which has lots of dietary and medicinal values with the attendant potentials of being processed to many other edible products. In this study, wine was produced from Tiger nut and the quality of the wine evaluated. Healthy tiger nut obtained from a market in Ebonyi State, Nigeria were washed with clean water and ground with an electric blender until a homogenous pulp was obtained. The pulp was filtered using a muslin cloth. A solution of sugar in water (200g in 70cm³), 0.90g of *Saccharomyces cerevisiae* (baker's yeast), ammonium phosphate (0.60g) and potassium phosphate (0.60g) were added and the mixture was allowed to ferment for 6 days (primary fermentation). The temperature, pH, specific gravity, total titrable acidity, and sugar level of the sample were determined after every 12 h. The wine was racked and allowed to ferment for 14 days (secondary fermentation). It was then left to clarify for three months. The clarified wine was left to mature for 6 months before the final physico-chemical and sensory evaluation were carried out. The results of the analysis revealed that tiger nut wine produced had 15.8% alcohol content, 0.68% total titrable acidity, specific gravity of 0.9522, a pH of 2.8 and 1.25% total sugar content. These values are comparable to those obtained for other fruit wines. The sensory evaluation revealed that the attributes of the wine were acceptable to the majority of the respondents.

Key words: Tiger nut, Tubers, Wine, Fermentation, Sensory evaluation, Alcoholic beverages.