عنوان مقاله:

Physicochemical Characteristics and Microbial Population of Palm Oil Sold in Major Markets in Yenagoa Metropolis, Bayelsa States, Nigeria

محل انتشار:

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خلاصه مقاله:

Palm oil has found application in both food and several industries. This study evaluated some physicochemical quality and microbial population of palm oil sold in some major markets in Yenagoa metropolis, Bayelsa State, Nigeria. A total of twenty eight palm oil samples were obtained from seven markets, four being from each market. Standard procedures were employed to enumerate the microbial population and physicochemical quality of palm oil. The microbial population ranged from 3.802- 4.858 Log cfu/ml and 2.287 – 3.792 Log cfu/ml for bacteria and fungi respectively. The results of the physicochemical ranged from 4.503 - 8.467 (free fatty acid i.e. FFA), 2.600 - 9.275 Meq/kg (peroxide value), 3.775 – 12.000% (Impurity level), 0.550– 2.425% (moisture content) 191.50–203.05mgKOH/g (saponification value) and 0.9250 - 0.9875 (Specific gravity). The Analysis of variance showed that there were significant differences ($P < 0.05$) in all the physicochemical in most of the markets apart from saponification value. Parameters such as FFA, impurity, moisture, specific gravity, saponification value were not within the recommended limits, while the microbial population was within the maximum range recommended by Nigerian Agency for Food and Drug Administration Control (NAFDAC) for vegetable oil.

کلمات کلیدی:

Bayelsa state, Market, microbial population, physicochemical properties, quality