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A review on the quality of palm oil (*Elaeis guineensis*) produced locally in Imo state, Nigeria

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Over 70% inhabitants of Imo state depend on palm oil for their cooking, frying, etc. The study reviews available data on palm oil quality produced locally in Imo state with a view of providing up-to-date information and identifying research gaps that could have health consequences on consumers. Peer reviewed scientific articles were reviewed and a meta-analysis of four different scientific research databases, Pubmed, Web of Science, Google Scholar and directory for open-access journals (DOAJ) was conducted. The result showed that palm oil produced locally in Imo state has average pH of 4.73, acid value of 28.3 mg/KOH, FFA of 14.15 mg/KOH, smoke point at 115°C, iodine value of 1.68

wijj's, saponification value of 197.07 mg KOH/g, ester value of 168.77, moisture content of 0.44%, density of 0.89 g/mL, SG of 0.91, peroxide value of 17.75 mEq/kg, refractive index of 1.460 Bx and viscosity of 60.04 cps. Overall palm oil is highly degraded and of poor quality since major quality indicators are not within Nigerian Industrial Standard and Standard Organisation of Nigeria. Also, there is a dearth of information/data available on quality of palm oil produced locally in Imo state especially on its microbial status. Food scientist should look in that direction to enhance proper understanding of the quality of palm oil.

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