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ABSTRACT

Dried *Hibiscus sabdariffa* calyces collected from different markets in Uyo, Eastern Nigeria were evaluated for microbial quality, Aflatoxin contamination and proximate composition. The results showed that all the calyces were contaminated with microorganism. The total bacteria count ranged from 5.0×10^3 to 8.1×10^4 cfu/g in which the highest count was obtained from dried calyces from Itam Market. Coliform were not detected in most of the samples except samples from Uyo main market and Ikot Ekpene market in which the coliform level was below the acceptable limit. *Salmonella/Shigella* was not detected in the sample. The fungi count ranged from 3.4×10^4 to 7.3×10^4 . The associated bacteria were *Staphylococcus aureus*, *Bacillus subtilis*, *Bacillus* sp. *Enterococcus faecalis*, *Micrococcus* sp. and *Klebsiella* sp. The associated fungi were *Aspergillus flavus*, *A. terreus*, *A. glaucus*, *Penicillium citrinum*, *Fusarium oxysporum*, *Rhizopus* sp. and *Mucor* sp. *A. glaucus* had the highest frequency of occurrence among the isolated fungi. Out of the sample obtained Aflatoxin B₁ was detected in two samples and it ranged from 1.57 to 17.8 /µg/kg. The proximate analysis revealed that the crude protein ranged from 8.34 – 9.97%, crude fibre (7.26 – 7.82%) and fat (8.51 – 9.26%). The moisture content ranged from 13.13 – 14.85%.

Keywords: *Hibiscus sabdariffa*, calyces, microbial quality, Aflatoxin, *Aspergillus glaucus*.