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Title: The Nutritive Value and Antimicrobial Property of *Sorghum bicolor* L. Stem (Poporo Flour Used as Food Colour Additive and its Infusion Drink

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Abstract: The black purple sheath (stem) of *Sorghum bicolor* L., called Poporo used locally as food colour additives in cooking meals and its infusion drink commonly taken as beverages in Nigeria, was examined for its nutritive values and antimicrobial property. The medicinal potentials of the sorghum drink (fortified and unfortified) were determined with respect to their inhibitory effect on the growth of *Bacillus* sp., *Pseudomonas aeruginosa*, *Lactobacillus* sp. and *Corynebacterium* sp. Both the stem made into flour and the aqueous extract of the sorghum (drink) were found to be rich in energy (1121.3 KJ/100 g) and in some micronutrients such as Mg, Ca, K, Na and Fe. The high Mg content of stem (185.33/100 mg) may remove Mg deficiencies. The presence of Cu, Zn and Mn were also observed in the stem. The content of crude fibre (32.0%) and carbohydrate (44.50%) were high, making the stem a fodder for animal consumption. However, its protein content was low (3.20%) and the functional properties observed for the stem compared favorably well with other plants already reported by earlier workers for Pigeon pea flour, African yam bean and Wheat flour. The Fe content of both stem and drink met the daily-required intake (DRI) value for human being. The unfortified sorghum drink lack vitamin C but it inhibited the growth of the entire organism in this study having zones of inhibitions ranges from (3.0-5.0±0.2 mm). All these were however, increased when fortified with juice and lemon grass, with that of the pineapple juice having the highest inhibitory effect (11.00±0.2 mm) against *Pseudomonas aeruginosa*. In view of its richness in some micronutrients especially Mg and Fe and its manifested medicinal property, this cheaply produced drink from purely, underutilised local material, could serve as a safe good replacement particularly when fortified with pineapple juice and lemon grass for the expensive high sugar content carbonated drinks.

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