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FERMENTATION POTENTIALS OF BAOBAB (*Adansonia digitata*) PULP POWDER IN THE PRODUCTION OF YOGHURT FROM COW MILK

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ABSTRACT

Yoghurt was produced from fresh cow milk inoculated with baobab pulp powder. Baobab pulp powder was added at 0.34%, 0.52%, 0.69%, and 0.85% respectively, while the control sample (A) was yoghurt produced from fresh cow milk inoculated with regular commercial starter culture. The physical, chemical, microbiological, anti-nutritional and sensory properties of the samples were analysed using standard procedures. The moisture content, crude protein and fat content decreased with the added baobab pulp powder, while the fibre, ash and carbohydrate contents increased. The pH ranged from 4.34 to 4.74, coupled with negligible anti-nutritional composition. The titratable acidity increased with added baobab pulp powder from 0.52-0.69%. Brix and viscosity of treated samples increased respectively from 30.85-40.02 and 200.05-200.14. Total bacterial and fungi counts ranged from 8.65×10^4 to 15.51×10^4 Cfu/mL and 1.12×10^4 to 4.54×10^4 Cfu/mL respectively, with the control sample having the higher loads. The over-all acceptability of the samples were significant ($p>0.05$); sample E (0.85% inoculation) was the most preferred, followed by sample B (0.34% inoculation), while the least accepted sample was the control. Inoculating milk with baobab pulp powder produced yoghurt with improved and acceptable qualities.