

CHANGES IN SELECTED CHEMICAL COMPOSITIONS OF FERMENTED SORGHUM AND MAIZE GRAIN FLOURS

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ABSTRACT

The sorghum and maize grain flours were fermented by solid state method for 72 hours. The minerals and antinutrient contents were determined using standard methods. All chemicals used were of analytical grade and the values are reported in mg/100g. The mineral analysis of fermented sorghum and maize grain showed that the levels of sodium, potassium, calcium, magnesium and iron decreased markedly in samples B and C compared to others, there were marked reduction in the levels of calcium and magnesium in sample D while sample B gave the lowest amount of iron. The effect of fermentation on the antinutritional content showed that there was decrease in phytates, oxalates, tannins and phenols content of some of the fermented samples. The result showed that fermentation has been able to reduce the contents of the entire antinutrient.

Keywords: Sorghum flour, maize flour, fermentation, nutrient, antinutrient.