Effect of fermentation, malted flour treatment and drum drying on nutritional quality of uji

S K, Mbugua; R. A, Ahrens; H.N, Kigutha; V, Subramanian

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Abstract

Uji, a popular thin porridge in Kenya was made from sorghum flour. The uji was then either diluted (5-fold with water and boiled, or directly drum dried for rat studies and analysis. Uji was also prepared by using a mixture of malted finger millet flour, and sorghum flour-water slurry. The Uji was diluted 4-fold with water and boiled or directly drum dried for rat studies and analysis. Experiments involving combinations of fermentation, malt treatment, boiling and drum drying on tannin levels were also performed. Fermentation and drum drying decreased the extractable tannins. Addition of malted flour decreased the extractable tannins much more than by fermentation and drum drying. Fermentation improved in vitro protein digestibility (IVPD) considerably. Addition of malted flour reduced IVPD as compared to control. Neither fermentation nor malted flour treatment adversely affected the amino acid profile of uji. KEY WORDS: Uji fermentation, malted flour, drum drying, tannin, in vitro protein digestibility