

Proximate Composition and Digestibility of Fermented and Extruded *Uji* From Maize–Finger Millet Blend

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Abstract

The proximate composition, amino acid profile and in vitro starch and protein digestibilities of raw; fermented; fermented and cooked; unfermented and extruded; and fermented and extruded maize–finger millet blend was studied. Aspartic acid, glycine, cystine, methionine, tyrosine and lysine increased after fermentation, while contents of all other amino acids showed no significant changes. Greater losses of amino acids occurred when the fermented blend was extruded than when cooked. Fermentation improved protein and starch digestibilities, whereas cooking or extruding the fermented blend reduced the digestibilities. Extruding the unfermented blend increased protein and starch digestibilities and reduced nitrogen solubility index by 50%. Raw flour had 0.41 g/100 g water-soluble starch which declined to 0.05 g/100 g on fermentation but increased to 20–34 g/100 g after extrusion.

Keywords

Composition and Digestibility, Fermented, Extruded *Uji* , Maize–Finger Millet