

28th WORLD NUTRITION CONGRESS

November 12-13, 2018 Sydney, Australia

Study of the nutritional quality and acceptability of millet biscuits (*Pennisetum glaucum L.*) supplemented with cowpea (*Vigna unguiculata L.*) and Bambara groundnut (*Vigna subterranea L.*)

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The aim of the study was to determine the effect of supplementation of legume flour cowpea and Bambara groundnut (voandzou) from Burkina Faso at different levels 15%, 30% and 50% on the nutritional quality and acceptability of millet biscuits. The macronutrients, Iron and Zinc contents were determined using standard AOAC methods. For the acceptability of cookies, profile test on color, odor, texture and hedonic test were performed with a panel of 30 tasters. The energetic value of cookies decreased when the legume flour supplementation increased 479.8 kcal/100 g to 50% level against 490.1 kcal/100 g for the millet cookies (control). The protein content of cookies increased proportionally with the supplementation. The protein contents of cowpea cookies were higher than Bambara groundnut cookies, 12.82 g/100 g and 10.47 g/100 g, respectively. Supplemented cookies have low iron and zinc contents, 2.23 mg/100 g and 1.87 mg/100 g, respectively for cowpea and Bambara groundnut. On the organoleptic level, up to 15% supplementation, there is no significant difference in odor and taste. Cowpea and Bambara groundnut can be used at 15% in enrichment formulations of cereal biscuits.

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