Nutrient composition, sensory attributes and starch digestibility of cassava porridge modified with hydrothermally-treated finger millet

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ABSTRACT

Cassava (CAS) porridge has low energy density and is a poor source of several nutrients. Its energy density and nutrient composition is normally improved by blending it with other flours. The aim of this study was to determine the effect of hydrothermally-treated (HTT) finger millet on nutrient composition, sensory attributes and starch digestibility of cassava porridge. Composite flour had higher protein, fibre, lipid and mineral content than cassava flour. The high α-amylase activity of HTT finger millet permitted the quantity of CAS-HTT flour to be raised from 9.5% w/v to 19% w/v without altering the free-flowing drinkable consistency of porridge. Partial substitution of CAS with HTT finger millet had no effect on starch digestibility and tannin content but increased the phytate content of CAS-HTT porridge. Hydrothermally-treated finger millet masked the aroma and colour of cassava resulting in dark-coloured CAS-HTT porridge with a bitter taste.