

Physicochemical and sensory analysis of instant cereal beverage incorporated with corncob powder

ABSTRACT

The primary objectives of this study were to process corncob into corncob powder (CCP) and to apply CCP in the formulation of instant cereal beverage (ICB) in order to produce high fibre ICB, and to investigate the physicochemical and sensory properties of the corncob-based instant cereal beverage. Corncobs were sourced and washed thoroughly before drying and grinding into CCP. CCP was then imparted into ICB formulation in three different ratios (10, 20 and 30% w/w) to partially substitute corn flour in the formulation. All four ICB samples including the commercial counterpart were analysed for their physicochemical and sensory properties. The incorporation of CCP has affected the viscosity, colour and sensory attributes significantly of the produced ICB. Higher contents of CCP in the formulation was found to be responsible for less viscous and browner effect compared to the commercial ICB samples. Formulation of ICB incorporated with 30% w/w CCP had the highest mean scores (6.00, $p < 0.05$) of overall acceptability among all the other formulations and it was comparable to the commercial ICB in the current market.

Keyword: Physicochemical; Sensory; Corncob; Instant cereal beverage