



Effects of Adding Cocoa (*Theobroma cacao* L.) Pulp Nectar to Stirred Yoghurts on Physicochemical and Sensory Properties

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Abstract: Cocoa (*Theobroma cacao* L.) comprise of a fruit 'pod' which contains seeds embedded in mucilaginous pulp. In this first study, the objectives were to investigate the effects of adding cocoa pulp nectar (0, 15 and 30% v/v) to stirred yoghurts on their physicochemical and sensory properties. The Total Soluble Solids (TSS) of cocoa pulp was increased from 5- 40°Brix with sucrose, processed at 80°C for 30 min, addition of 0.25% xanthan gum and further processed at 90°C for 3 min. Focus group guided product development in the selection of yoghurt with desirable level of cocoa pulp nectar. The addition of cocoa pulp nectar to yoghurt increased ($p<0.01$) TSS, lowered consistency ($p<0.05$) and Total Titratable Acidity (TTA) as % lactic acid ($p<0.01$). Yoghurt with 30% cocoa pulp nectar had 21°Brix, consistency 8.0 cm/30 sec, pH 4.38 and 0.17 g/100 g lactic acid. This yoghurt was liked very much to extremely for flavour and overall acceptability. On storage at 4°C for 4 weeks, the yoghurt became less viscous, more acidic, darker, less chromatic and more yellowish-green. A 225 g serving of yoghurt was fat-free, good source of protein, K and P and excellent Ca.

Key words: *Theobroma cacao* L., cocoa pulp nectar, stirred yoghurt, physicochemical, hedonic scores, nutritional analysis