Processed Sorrel/Roselle (*Hibiscus sabdariffa* L.) Leather from Pectolase-Treated alyce. Effects of Xanthan Gum on Physicochemical Quality and Sensory Acceptance

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Abstract: This study investigated the effects of adding xanthan gum on the physicochemical and sensory quality of sorrel/roselle (*Hibiscus sabdariffa* L.) leather. Also, the influence of health benefits of sorrel on sensory acceptance of sorrel leather was determined. Calyces were hot-water processed at 90°C for 60 min and treated with 0.5% pectolase at 20°C for 24 h for puree. Sorrel purees with different levels of xanthan gum were dehydrated at 50°C for 48 h into leather. The addition of xanthan (0.15%) resulted in more chromatic (p<0.01), less bluish red hue (p<0.01) lower firmness (p<0.05) and lower Total Soluble Solids (TSS) (p<0.05) than control (0% xanthan gum) sorrel leather. The addition of xanthan gum influenced (p<0.05) only sensory sweetness of the product. The presentation of health benefits on sorrel calyces to panellists did not (p>0.05) influence hedonic rating of all sensory attributes. All sensory attributes except for aroma (liked slightly to moderately) were liked moderately to very much. On storage for 6 wks at 4°C, products were darker, (p<0.05) less bluish red (p<0.05), less firm (p<0.05) and had lower TSS (p<0.01) and citric acid (p<0.05). All microbial counts were < 10 CFU g⁻¹ throughout storage.

Key words: Sorrel/rosee, *Hibiscus sabdariffa* L., calyces, leather, xanthan gum, pectolase, storage, physicochemical, sensory acceptance