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Processed Sorrel/Roselle (*Hibiscus sabdariffa* L.) Leather from Pectolase-Treated alyces. 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/roselle, *Hibiscus sabdariffa* L., calyces, leather, xanthan gum, pectolase, storage, physicochemical, sensory acceptance