Roselle/sorrel (*Hibiscus subdariffa* L.) wines with varying calyx puree and total soluble solids: sensory acceptance, quantitative descriptive and physicochemical analysis

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Abstract

Effects of varying roselle sorrel (*Hibiscus sabdariffa* L) puree and total soluble solids (TSS) on physicochemical properties and sensory acceptance of wines were investigated. For puree, calyces were hot-water processed at 90°C for 30 min, cooled and treated with 1.0% pectolase at 23°C for 24 h. Wine treatments were w/v 20% puree/20°Brix, 30% puree/26°Brix and 30% puree/30°Brix. Wines varied in chroma ($P < 0.05$), pH ($P < 0.01$), total titratable acidity ($P < 0.01$), TSS ($P < 0.01$), transmission ($P < 0.01$) and sensory colour ($P < 0.01$), clarity ($P < 0.01$), flavour ($P < 0.05$), balance ($P < 0.05$) and overall acceptability ($P < 0.05$). Wines with higher puree had more acceptable ($P < 0.05$) flavour. Sorrel wine of 30% sorrel puree/26°Brix was most acceptable overall ($P < 0.05$) of wines, with descriptors of bright clarity, intense redness, high alcohol, strong balance and weak bitterness. The reading of health benefits on sorrel influenced ($P < 0.05$) only hedonic colour of wines. There was no ($P > 0.05$) correlation between hedonic scores and descriptive intensity scores.

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Keywords:
wines, sorrel, roselle, descriptive, physicochemical, sensory