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**Title:** Compositional characteristics of Marama (*Tylosema esculentum*) storage root flour

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The study concerns the characterization of the components and properties of Marama (*Tylosema esculentum*) storage root. Flours prepared from marama roots collected from two locations, Omipanda and Okomumbonde in Namibia were analysed and compared to potato, waxy potato and sweet potato flours. Raw marama roots had mean water content, crude protein, fat, ash, total carbohydrate, total starch and degree brix of 86.6, 2.4, 0.2, 2.3, 9.1, 5.6 g/100g root and 2.0° respectively. The mean proximate composition of marama root flour (4.5% crude protein, 0.38% fat, 4.3% ash and 88.0% total carbohydrate, db) was close to that of sweet potato. Marama root flour had a lower amount of crude protein compared to the waxy potato and potato; but a higher soluble dietary fiber compared to waxy potato and potato in this study. The peak viscosity (520-550 mPa.s) of marama root flour paste is about twice as viscous as that of sweet potato. The mean gel firmness of marama root flour (0.27 N is not significantly ( $p < 0.05$ ), different from those of waxy potato and potato (0.26 and 0.31 N, respectively); but higher than that of sweet potato (0.06 N). The in vitro- starch digestibility of marama root flour was close to those of the potato varieties used. The above results suggest that marama root flour has potential as foods due to its similar functional properties to potato and similar nutritional composition to sweet potato.