Title	Physicochemical changes occurring during post-harvest hardening of trifoliate yam (*Dioscorea dumetorum*) tubers
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Abstract

Processing of *Dioscorea dumetorum* tubers into flour could be a means of adding a longer-term value to this tropical plant with a high nutritional potential but which presents a post-harvest hardening problem. This study was carried out in order to investigate the effect of storage under prevailing tropical ambient conditions (19–28 °C, RH 60–85%) for 56 days on the physicochemical characteristics of flours produced from hardened tubers. With the exception of bulk density, the results showed that all the physicochemical properties measured (water absorption capacity, oil absorption capacity, water solubility index, hydrophilic–lipophilic index, swelling capacity and least gelatinising concentration) were significantly influenced by tuber storage time ($P<0.05$). In general, the physicochemical indices increased with storage in at least two phases, from days 2 to 21 and from days 28 to 56. Since sprouting of most tubers was observed after 28 days of storage, the results suggest that post-harvest hardening and sprouting influence the above-mentioned indices of flours produced from *D. dumetorum* tubers.