

Title Effects of storage temperatures on the antioxidative activity and composition of yam
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Abstract

The effects of storage temperatures on the composition and antioxidative activities of one kind of Taiwanese yam tubers, Tainung No. 1 (TNG1) (*Dioscorea alata*), were investigated at room temperature (20 ± 8 °C), 17 ± 2 and 10 ± 1.5 °C. Measurements of the antioxidative activities included reducing power and α, α -diphenyl- β -picryl-hydrazyl radical-scavenging activity. The crude lipid and fibre contents decreased with storage time at all three temperatures, but the reducing sugar contents increased during storage. Both the reducing power and DPPH radical-scavenging activity of TNG1 decreased after 3 and 11 weeks at room temperature and 17 °C, respectively. At 10 °C, significant decline in the reducing power was found after 14 weeks, while the DPPH radical-scavenging activity tended to increase after 7 weeks due to the microbes causing rotteness.