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**Evidence of spontaneous triploidy in cassava (*Manihot esculenta* Crantz)**

Cassava originated from South America but is now cultivated all over the tropics and is an important crop for food and industrial processing. Polyploidy is a natural mechanism largely used in crop improvement, but spontaneous polyploidy has never been reported in strictly *Manihot esculenta* individuals. In the past, hybridization with wild relatives and chemical treatment has led to successful creation of triploids and tetraploids that were vigorous and gave high yields of starch but were not suitable for cooking. We report here on the discovery of two strictly *M. esculenta* spontaneous triploid clones that were selected, conserved and propagated by farmers in Vanuatu (Oceania, South Pacific). These two clones were grown in traditional home-gardens and are highly appreciated for domestic uses. Considering their phenotypes, we suspected polyploidization. Flow cytometry and cytogenetic chromosome counting were used to confirm this hypothesis. Finally, a set of 11 SSR markers was used to establish the *M. esculenta* origin of these clones.