Polymorphic microsatellite and cryptic simple repeat sequence markers in pineapples (Ananas comosus var. comosus)

Abstract

A rapid method for isolating microsatellite loci in pineapples, based on the 5′-anchored polymerase chain reaction technique, revealed 137 microsatellite loci (consisting of 62 dinucleotide, 24 trinucleotide, 49 tetranucleotide and 2 hexanucleotide repeats) and 16 cryptically simple repeat sequences. We report on the characterization of 19 polymorphic microsatellite loci and one cryptic simple repeat loci in pineapples. The number of alleles per locus ranged from two to four while the observed heterozygosity ranged from 0.1705 to 1. These markers are useful as tools for detecting levels of genetic variation in pineapple varieties for germplasm management and crossbreeding purposes.