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Microsatellite sequences in studies of genetic structure in goats

S u m m a r y

Saanen goat population variability and structure was investigated genetically utilizing FAO recommended microsatellite markers. Genetic variation at 6 microsatellite *loci* and population structure were examined. Thirty four alleles, in total, were detected. Allele numbers (Na), observed (Ho), expected heterozygosity (He) were calculated. All microsatellite *loci* were found to be polymorphic, with 4 to 8 alleles per *locus* in average. The average He values compared to the average Ho values did not show differences in the studied populations - their value was 0.7. No significant genotype linkage disequilibrium was found for most of the *loci*. Estimates of genetic variability such as effective number of alleles and gene diversities revealed substantial genetic variation frequently displayed by microsatellite markers. Average effective number of alleles was less than the average observed number of alleles: 5.7 and 3.8, respectively. The populations showed high levels of genetic variation. Microsatellite markers were a useful tool for analysis of genetic structure in goats.