

Molecular Characterization Reveals Genetic Uniformity in Experimental Chicken Resources

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Abstract :

The objective of the present study was to conduct the genetic characterization of nine experimental chicken lines based on multilocus microsatellite analysis. Commercial chicken lines were also analyzed in order to compare their levels of genetic uniformity with those of the experimental lines. In six experimental lines, more than 80% of genotyped loci showed fixed allele for all individuals in each line, whereas only 17.5% of genotyped loci were fixed in commercial lines, at the maximum. One of experimental lines (GSN/1) was categorized as a highly inbred line on the basis of all individuals having the same, single allele at every microsatellite locus. Genetic information obtained from the present study should be helpful for the utilization and management of experimental chicken resources.

Key Word :

experimental chicken resource, genetic uniformity, microsatellite polymorphism

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