

Candidate gene for production traits in Charolaise breed. Preliminary results

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Searching for genetic markers connected with production traits is an important tool supporting animal improvement. Among many genes responsible for economically important traits there is, among others, GH (growth hormone) because of its essential role in lactation and growth processes. The aim of presented work was to assess genetic variability in Charolaise breed traditionally reared for meat production basing on GH1-AluI polymorphism. Material for study consisted of blood samples for DNA genotyping obtained from 46 Charolaise purebred unrelated bull calves reared in three different farms located in the same province. Animals were genotyped for the Leu/Val polymorphism in the GH gene. Genotypes were identified with the PCR-RFLP method. In homozygous animals either a unique band (211 bp, VV variants), or two bands (159 and 52 bp, LL variants) patterns were observed. The observed number of genotypes 47.83% LL and LV, 4.34% VV were quite close to the values expected when using Hardy-Weinberg formulas. The calculated χ^2 value was 0.22, indicating Hardy-Weinberg equilibrium in the population.

KEY WORDS: candidate gene / GH polimorphism / production traits