

Study on the relationship between silent mutations and quantitative trait Loci genes in cattle

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ABSTRACT:

Silent mutation is one among the mutations that occurs in coding and non-coding regions of different genes which governs the protein function. Often the sequences lead to variance in one of the amino acids because of the triplet code therefore with low percentages and non-significantly changing genetic code expressions they influence on protein function and folding. Mostly, the secondary structure for mRNA will be altered and correlated with Quantitative Trait Loci (QTL) which are a part of DNA and associated with phenotype, quantitative trait variance and can be identified by SNPs and AFLPs. These are related polygenic genes found on different chromosomes that are responsible for quantitative traits and change continuously. This review explains the importance of silent mutations and their relation with quantitative characteristics such as productivity as well as performance of the cattle.

Keywords:

Silent mutation, QTL, Genes, Cattle.