

QTL in chicken: a look back and forward ? a review*

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Abstract :

Identification of genes determining the expression of economically important traits of plants and animals is a main research focus in agricultural genomics. Most of these traits are characterized by a wide variability of the expression of genes at certain loci called quantitative trait loci (QTL). Characterization of the chromosomal regions carrying QTL can be applied in marker-assisted selection (MAS) to improve breeding efficiency. Molecular linkage maps in combination with powerful statistical methods facilitate the genetic dissection of complex traits, and the chicken is ideally suited for this task due to a relatively short life cycle and large number of progeny. Two major approaches are employed in understanding the genomic architecture of economically important traits: QTL mapping and, more recently, functional genomics.

Key Word :

behaviour, disease resistance, egg production, egg quality, growth, hatchability, quantitative trait loci, microsatellites, shell thickness

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