

Special Issue

Livestock Breeding and Conservation Genetics

Message from the Guest Editor

Livestock breeding is a branch of applied genetics that has achieved significant improvements in the production traits of farm animals. In the last two decades, the contribution of molecular genetics has grown. The QTL concept has identified several candidate loci with a significant impact on quantitative traits. The application of molecular markers in animal breeding has led to the so-called marker-assisted selection. The availability of many informative molecular markers has allowed for the possibility to estimate genetic variability in livestock populations and has been successfully used in modern genetic conservation programs. The last conceptual change in animal breeding was the introduction of genomic selection. This concept allows for selection decisions based almost exclusively on genotype information. This strategy will considerably speed up genetic progress and increase the proportion of individuals participating in selection schemes. The development of efficient methods for targeted genome editing opens a new horizon for the precise genetic optimization of farm animal genomes, resulting in a new generation of more productive, healthier, and more robust livestock.

Guest Editor

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Deadline for manuscript submissions

closed (15 October 2021)



Agriculture

an Open Access Journal
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Impact Factor 3.6
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Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, cross-disciplinary and scholarly journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. We invite submissions from authors according to the aims and scope of the journal described in more detail on this page. *Agriculture* is published in an open access format – articles are published on the journal's website immediately after acceptance, giving the scientific community and the public unlimited and free access to the content.

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