

EDITORIAL

LIVESTOCK FARMING AND AGRIBUSINESS MANAGEMENT: CURRENT EXPERIENCES

Francesco VIZZARRI (Editor in Chief)

NPPC – Research Institute for Animal Production Nitra, Slovak Republic

The first Editorial article of 2025 will focus on the challenges facing managers of agriculture and livestock production agribusinesses, from the large commercial scale down to the small scale, including subsistence production systems, and how these challenges can be overcome with changes to management through technology, innovative breeding genetic practices, or educational skill's intensive programs.

The greatest challenges that contemporary agriculture is facing is a growing food need using fewer resources. It is therefore crucial to apply technical and scientific advancements systematically in feeding, nutrition, genetics, reproduction, animal health control, and general improvement of animal husbandry to fill the coming productivity gaps. One way to achieve these expected productivity requirements can be by improving the genetics, health, and more efficacy of animal husbandry. In this situation native breeds of rabbits are playing an important role. The choice of breed or strain of rabbits on a farm should account for the capacity of animals to adapt and thrive under local conditions as well as their potential to resist disease. In recent years, animal husbandry based on quantitative genetics has begun applied, which led to significantly increased and streamlined animal production. However, the implementation of genetic markers in breeding programs has been quite limited for technological reasons. Currently, at the NPPC in Luzianky, Department of Nutrition and Small Farm Animals is running a research project (APVV 20-0037), financed by the Slovak Research and Development Agency (APVV), that focus on genomic selection based on markers of single nucleotide polymorphism, that offers new opportunities to select the most suitable animals for breeding purposes, in relation to selected traits, performance characteristics, or natural disease resistance. The principle of this methodology is the use of the quantitative trait locus (QTL) associated with a particular phenotypic trait and its subsequent use in selection. Genomic selection is a type of Marker-Assisted Selection in which breeding value of animals can be accurately estimated with the help of dense marker map of chromosomes without information about their phenotype or that of close relatives. The aims and originality of the project are given the complexity of looking at the possibility to find and using the polymorphism in selected membrane receptors genes and their use in balancing selection of native rabbits and chickens breed aimed on prediction and higher efficiency of production potential, quality, reproduction and viability. The running project is based on the latest global study of genetics and immunogenetics, focusing on their impact and possibility of use in animals' selection.

The "management" in Agriculture is an essential piece of the business behind farms. Under the theme:

"How Can Education Meet Agribusiness Challenges? Skills, Knowledge, and Practical Solutions for Agribusiness – Example of e-AgriMBA", an interactive seminar will take place at Faculty of Economics and Management, SUA in Nitra, Slovakia, on 28th March 2025, bringing together academics, industry representatives, and students to discuss how education can bridge the skills gap in agribusiness. The session will explore practical knowledge, digital competencies, and sustainability-driven solutions, showcasing the e-AgriMBA Learning System as a model for accessible, industry-aligned, and environmentally responsible higher education.

The e-AgriMBA project is developing a pan-European electronic learning system to enhance sustainable MBA education in agribusiness. By expanding the portfolio of existing MBA programs and integrating digital learning tools, the initiative strengthens higher education institutions' capacity to meet evolving industry demands.

Implemented by a consortium of six universities within the AgriMBA network, which has been accrediting MBA programs since 1990, the project also aims to establish a new MBA program at the Technical University of Moldova. A key focus is ensuring inclusivity by offering opportunities for students with fewer resources while promoting digital and language

Copyright: © 2025 Vizzarri

Correspondence: E-mail: francesco.vizzarri@nppc.sk
Francesco Vizzarri, NPPC – Research Institute for Animal Production Nitra,
Hlohovecká 2, 951 46 Lužianky, Slovak Republic



<https://doi.org/10.36547/sjas.1050>

skills essential for the sustainable transformation of agribusiness education.

A project meeting will also take place in Nitra alongside the seminar, allowing partners to assess progress and discuss the implementation of online teaching tools.

Co-funded by the Erasmus+ Programme of the European Union; Project: Electronic Pan-European Learning System for Sustainable Agribusiness MBA Education (No. 2022-1-PL01-KA220-HED-00008608).

In the first Editorial article of 2025, I am going to introduce the contents of the articles collected and published in the first issue of 2025 year.

Akpan *et al.* designed a research to identify genotypic variants in pituitary specific transcription factor-1 (PIT-1) gene and determine the relationship between PIT-1 genotypic variants and growth rate indices, with non-linear growth model parameters in FUNAAB Alpha chickens. The study found an association between PIT-1 genotypic variants and growth curve parameters; the Gompertz model was found to be the most appropriate non-linear model for describing growth in FUNAAB alpha chickens.

Jimoh *et al.* performed a feeding trial to investigate the use of decorticated sandbox seeds (SBS, *Hura crepitans*) as a source of methionine in broiler production. It was concluded that the use of decorticated SBS, as a source of methionine in broiler production, has no detrimental effect on nutrient utilization and blood profile.

Cavallo *et al.* implemented a study with the objective to evaluate the adaptation of mid-lactating Holstein cows regarding their introduction at the automatic milking system (AMS) and its effect on behaviour and milk performance. Results suggest that the adaptability of the cows to the automatic milking system may also depend on the individual behaviour of cows and not only on the environment around them. Therefore, it is necessary to apply new livestock management strategies, when AMS (as a free-traffic system) is going to displace the milking parlour in order to better fine-tune the adaptation of cows (especially for heifers) and also to select cows that respond best to the robotic milking system.

Adeleye *et al.* investigated the effect of equi-energy replacement of native maize with extruded maize on the growth performance, energy utilization indices and post-prandial glucose response of broiler chicken. This study suggests that extruded maize, as an equi-energy replacement for native maize, improves growth performance and flock uniformity in broiler chickens.

Editorial Team looks forward to evaluating your submitted contributions and providing all necessary support to Authors in order to best serve animal science and the scientific community, with commitment to research integrity and the highest publishing ethics.

Enjoy the reading!

ACKNOWLEDGMENT

Editor in Chief of the Slovak Journal of Animal Science thanks **Lubomir Ondruska, PhD** (Deputy Director of the Research Institute for Animal Production in Nitra and Head of Department of Nutrition and Small Farm Animals, and Coordinator of APVV-20-0037 project) and **Zuzana Bajusova, PhD** (Institute of Economics and Management, Slovak University of Agriculture in Nitra, and Project manager (No. 2022-1-PL01-KA220-HED-00008608 project)), for providing valuable information about current activities.

REFERENCES

- Akpan, U., Olowookere, V. O. & Ikeobi, C. O. N. (2025). Relationship between pituitary specific transcription factor-1 (pit-1) genotypic variants and non-linear growth curve parameters in Funaab alpha chickens. *Slovak Journal of Animal Science*, 58(1), In Press.
- Jimoh, A., Opowoye, I. O. & Angevbee, E. I. (2025). Response of broiler chickens to graded levels of decorticated raw sandbox seeds (*Hura crepitans*) as source of methionine. *Slovak Journal of Animal Science*, 58(1), In Press.
- Cavallo, C., Amato, A., Liotta, L., Minuti, A. & Lopreiato, V. (2025). The adaptation in the first week to the automatic milking system influences long-term milk performance and behavior of Holstein cows. *Slovak Journal of Animal Science*, 58(1), In Press.
- Adeleye, O., Balogun, A. & Fadayomi, O. (2025). Equi-energy replacement of native maize with extruded maize in broiler chicken diets: effect on growth performance, energy utilization and post-prandial glucose response. *Slovak Journal of Animal Science*, 58(1), In Press.