

Preface

Ural State Agrarian University is one of the leading agricultural universities of the Russian Federation. The International scientific and practical conference "**From modernization to advanced development: ensuring competitiveness and scientific leadership of the agro-industrial complex**" **IDSISA2024** was held on March 14-15, 2024 in face-to-face and extra-mural format.

The key directions of the international scientific and practical conference were:

- Scientific support for innovative development of livestock farming and biotechnology;
- Modern scientific achievements - into the practice of production and processing of crop products;
- Current problems of veterinary medicine;
- Cell biology and biochemistry of a cell of a living organism;
- Open ground vegetables;
- Intelligent technologies in crop production;
- Organic farming;
- Adaptive resource-saving cultivation technologies; agricultural crops;
- Selection and seed production of plants;
- Biotechnology in crop production;
- Genetic technologies in breeding;
- Preservation of plant biodiversity;
- Mechanization and automation of processes in crop production;
- Renewable energy sources;
- Digitalization and artificial intelligence in crop production;
- Digital and engineering technologies as a factor in the intensive development of agriculture;
- Current problems of veterinary medicine and microbiology;
- Agroecological aspects of the development of horticulture;
- Modern directions of highly productive environmentally friendly agriculture, development and implementation of systems for the rational use of modern means of chemical and biological protection of agricultural plants.

The main goal of the conference was to discuss and solve the most important strategic tasks for the development of innovative technologies in animal husbandry and crop production, their modernization and further intellectualization.

The international conference was attended by scientists from countries near and far abroad, in particular Kazakhstan, Uzbekistan, Tajikistan, Belarus, Armenia, Pakistan, Azerbaijan, China, Hungary, Spain, Iraq, etc.

In total, more than 250 participants took part in the international conference. The organizing committee received 257 manuscripts, 173 of which were positively reviewed.

The manuscripts were checked for compliance with the requirements by highly qualified experts well-known to a wide range of domestic and foreign scientists. The achievements of scientific teams and the practical experience of leading specialists presented at the international conference will contribute to the further development of the agro-industrial complex.

We express our sincerest gratitude to all participants, experts, and moderators for the work done and the interest shown in the international conference. We are confident that the conference was held at a high level and was positively evaluated both in Russia and abroad thanks to such fruitful joint work. We hope for further cooperation and a meeting on the Ural land at conferences, symposiums, round tables, and seminars.

Sincerely yours, Ural State University.

Prof. Olga Loretts Chairman of the organizing committee, editor of conference materials Ural State Agrarian University, Russian Federation;

Prof. Irina Donnik Deputy chairman of the organizing committee, deputy editor of conference materials Russian Academy of Sciences, Russian Federation;

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