

Preface

Ural State Agrarian University, one of the leading agricultural higher educational institutions in Russia, has organized an International Scientific and Practical Conference "Development of the agro-industrial complex in the context of robotization and digitalization of production in Russia and abroad", dedicated to the professional holiday of all employees of the agro-industrial complex - the Day of the employee of agriculture and processing industry. The conference was held on October 15-16, 2020. The key areas were: digital technologies for monitoring agricultural crops, livestock and various elements of the agricultural process; improvement of agricultural production management efficiency is the use of information systems based on geoinformation technologies; cooperation of digital platforms of agricultural product market participants; planning of agricultural operations and precision farming; capabilities accounting and management using artificial intelligence and digital platforms; training of highly qualified personnel in the conditions of digital technologies development.

The main goal of the conference was to discuss and solve the most important strategic and tactical tasks for the intensive development of agriculture and processing industries, starting from accounting within the enterprise and ending with the collaboration of suppliers on digital platforms. As a result, based on the reports submitted by participants from 17 countries, it was decided to create international collaborations and mirror laboratories in current scientific areas in the agro-industrial complex, hold regular meetings and round tables to update existing scientific knowledge and exchange experience in the practical application of digital technologies and robots.

The conference was attended by scientists, teachers of the higher educational institution and scientific community, agribusiness, state authorities, local self-government, graduate students, students and University employees.

In total, the conference was attended by more than 275 participants. The Organizing Committee received 327 manuscripts, 170 of which were positively reviewed. The manuscripts were checked for compliance with the requirements by highly qualified experts known to a wide range of domestic and foreign scientists.

We express our sincere gratitude to all participants, experts, and moderators for their work and interest in the conference. We are confident that thanks to such joint fruitful work, the conference was held at a high level and was positively evaluated both in Russia and abroad. We look forward to further cooperation and meeting at conferences, symposiums, round tables and seminars.

1. Creation and use of modern digital, intelligent, robotic systems and technologies, new materials and methods of construction, big data processing and the Internet of things in the agro-industrial complex.

2. Modern directions of highly productive environmentally friendly agro- and water management, development and implementation of systems for the rational use of modern chemical and biological protection of agricultural plants and animals, the use of new drugs, growth agents, antidepressants, immunostimulants, probiotics and feed additives.

3. Efficient production, storage, processing and pre-sale preparation of agricultural products. Creation of safe and high-quality, including functional food products based on modern genetic and breeding methods in crop production and animal husbandry.

4. Modern trends and methods of countering technogenic, biogenic, socio-cultural and cyber threats for the agro-industrial complex at the present stage.

5. Modern problems of interaction between man and nature, man and technology, and social institutions. Adequate response of science and society to global challenges in the context of production intellectualization.

6. Food security. Economics and legal regulation in the agro-industrial complex.

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

Dr. Viktor Kukhar

Dr. Aleksey Ruchkin

Scientific and Technical Committee of Conference materials

Ural State Agrarian University, Russian Federation