Overview of the V International Workshop on Innovations in Agro and Food Technologies - WIAFT-V-2021

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Abstract. The overview describes the main directions and results of the V International Workshop on Innovations in Agro and Food Technologies (WIAFT-V-2021) held in Volgograd, Russian Federation on 17-18 June 2021. It gives the details about the participants and the proceedings. The anchor partners of Krasnoyarsk Science and Technology City Hall were Krasnoyarsk State Agrarian University, the Volga Region Research Institute of Manufacture and Processing of Meat-and-Milk Production, Volgograd, Russia, Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, Tashkent, Uzbekistan and Bukhara Engineering Technological Institute, Bukhara, Uzbekistan. The Krasnoyarsk Research Institute of Agriculture of the Federal Research Center "Krasnoyarsk Science Center of the Siberian Branch of the Russian Academy of Sciences" and Siberian Scientific Centre DNIT sponsored the Workshop.

The Volume contains Proceedings of the V International Workshop on Innovations in Agro and Food Technologies (WIAFT-V-2021) held in Volgograd, Russian Federation on 17-18 June 2021.

The purpose of the Workshop was to share the results and prospects of the achievements in the field of advanced technologies in agriculture and food industry, environmental engineering, as well as in modern areas of ecosystem sustainability.

The Workshop was organised by the International and Russian Union of Scientific and Engineering Associations (Moscow, Russia), Krasnoyarsk Regional Union of Scientific and Engineering Associations, Krasnoyarsk Science and Technology City Hall and the Volga Region Research Institute of Manufacture and Processing of Meat-and-Milk Production (Volgograd, Russia).

This year the new scientific section was organized by the international partners from Uzbekistan - Bukhara Engineering Technological Institute.

The Krasnoyarsk Research Institute of Agriculture of the Federal Research Centre "Krasnoyarsk Science Centre of the Siberian Branch of the Russian Academy of Sciences" and Siberian Scientific Centre DNIT sponsored the Workshop.

The Program Committee and Editorial Board included prominent professors and scientists from the Russian Academy of Sciences; Department of Animal Science, Faculty of Agriculture, Islamic Azad...
University, Rasht Branch, Rasht (Iran); Republican Unitary Enterprise "The Scientific and Practical Center of the National Academy of Sciences of Belarus for Animal Husbandry" Zhodino City, Minsk region (Belarus); Academician J. Alyshbaev Institute of Economics of the National Academy of Sciences, Bishkek city (Kyrgyz Republic); Institute in Belgrade (Serbia); Siberian Federal University (Russia); Universities and Scientific Institutes of Volgograd and Krasnoyarsk (Russia), Uzbekistan, Republic of Kazakhstan as well as specialists from Russian and foreign leading industrial enterprises (see Appendix 1).

A wide range of fundamental and applied problems in various ecological, environmental and agri-technological systems has undergone consideration during the Workshop.

The Workshop was organised in 5 main sections:

- Topical issues of food technologies
- Modern technologies in growing, feeding and keeping farm animals and poultry
- Environmental engineering for ecosystem sustainability
- Development of agriculture organization and technologies, food security
- Biodiversity and advances in developing genetic potential

The scientific sessions of the Workshop were held in Volgograd State Technical University and the Volga region research Institute of manufacture and processing of meat-and-milk production (figure 1).

Figure 1. Scientific sessions.

The international scope of the Workshop was confirmed by the participation of representatives from 14 countries besides Russia (Azerbaijan, China, Czech Republic, Germany, Indonesia, Kazakhstan, Republic of Belarus, Serbia, Tajikistan, Turkey, UK, Ukraine, Uzbekistan, Vietnam):
The participants from Russia (more than 50 regions) represented over 250 universities, scientific institutes and organisations, industrial enterprises.

The Workshop provided the premier interdisciplinary and multidisciplinary forum for researchers, practitioners and educators to present and discuss the most recent innovations, trends, concerns, practical challenges encountered and the solutions adopted in the fields of advances in developing genetic potential of farm animals and poultry; modern technologies in growing, feeding and keeping farm animals and poultry; advanced technologies for processing livestock products; topical issues of food technologies; biotechnological aspects of food manufacturing; problems and prospects of food security in modern society; environmental engineering for ecosystem sustainability [1-3] etc. Although the schedule of the Workshop was very tight, there were very vivid discussions among the participants.

The participants who could not come to the Workshop due to different reasons including the problem of high transportation costs presented on-site presentations which are available on the website of the Workshop. Participants who could not come due to the restrictions connected with COVID-19 presented poster presentation which can be found at the website of the workshop and took part in the online session with reports which had been prepared and sent to the Organizing Committee beforehand. The online section was held on the Zoom platform (zoom.us) which let all the participants to watch the reports and ask questions online as well as to write them in the chat format. The speakers answered the questions online.

The overall technical quality of the workshop was good, the platform let to add up to 500 participants simultaneously. The participants could watch the reports, write questions and communicate. The moderator could change the roles so that the speaker could answer questions and make comments (figure 2).

**Figure 2.** Online sessions and reports.
Opening and welcoming speeches were done by the chairman of the agriculture committee of the Volgograd region, Marina Morozova; the Vice-President of the Russian Academy of Sciences, Academician of the Russian Academy of Sciences Irina Donnik; the President of the Academy of Food Security, Corresponding Member RAS Valery Sergeev; the Ataman of the All-Kuban Cossack Host, Doctor of Agricultural Sciences, Professor of the Kuban State Agrarian University named after I. T. Trubilin Vasily Komlatsky. Welcome speeches were also done by representatives of Serbia, Belarus, Ireland, Kyrgyzstan, Iran, etc.

At the session at the Volga region research institute of manufacture and processing of meat-and-milk production, the participants were greatly interested in the plenary reports of Russian and foreign colleagues: Ivan Gorlov, Doctor of Agricultural Sciences, Professor, Academician of the Russian Academy of Sciences, Scientific Director of the State Scientific Institution NIIMMP, Russia - "Innovative approaches to ensuring food security in Russia"; Vasily Radchikov, Doctor of Agricultural Sciences, Professor, RUE of the National Academy of Sciences of Belarus for Livestock, Zhodino, Belarus - "Support and Demand in the Field of Modern Technologies and the Innovation Market"; Merim Koicheva, Head of the Department of the Institute of Economics, Doctor of Economics, Professor, National Academy of Sciences of Kyrgyzstan - "Roadmap for the green economy of Kyrgyzstan"; Qiuge, PRC - "Assessment of the modern meat market in China"; etc.

All participants were invited to present their papers in this Volume and all submitted manuscripts went through the independent peer review process. We are very grateful to all reviewers from Russia, Uzbekistan, China, Belarus, Slovenia, Germany, Serbia, Czech Republic and Republic of Kazakhstan for their time and highly professional comments. We deeply believe that their reviews gave opportunity to improve the scientific quality of the presented papers which may be useful for academic, scientific and agri-industrial partners.

More than 400 reports were submitted to the Organizing Committee of the Workshop. 245 reports were selected for inclusion into this Volume after the review process. All the papers were subjected to rigorous peer-review by workshop committee members and international reviewers. The papers were selected based on their quality and relevance to the Workshop directions and on the results of their presentation at the scientific session. The proceedings present to the readers the recent advances in the field of topical issues of food technologies; modern technologies in growing, feeding and keeping farm animals and poultry; environmental engineering for ecosystem sustainability; development of agriculture organization and technologies; food security; biodiversity and advances in developing genetic potential. These papers reflect modern engineering approaches in all Workshop directions, broaden the researches of the previous conferences and workshops [4-14].

We chose the IOP Conference Series: Earth and Environmental Science (EES) to provide all contributors with the opportunity to publish their papers in an international, peer-reviewed journal. This is understood and appreciated by all the participants, and therefore this Volume provides an excellent overview of the main topics of our Workshop.

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The Krasnoyarsk Research Institute of Agriculture of the Federal Research Center "Krasnoyarsk Science Center of the Siberian Branch of the Russian Academy of Sciences" and Siberian Scientific Centre DNIT sponsored the Workshop.

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We express gratitude to IOP Publishing for an opportunity to publish the Proceedings of the Workshop to provide open access and to make them available for worldwide recognition.

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Appendix 1

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