

# Overview of the VIII International Conference on Advanced Agritechnologies, Environmental Engineering and Sustainable Development – AGRITECH-VIII – 2023

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**Abstract.** The overview describes the main directions and results of the International Conference “AGRITECH-VIII-2023” held in Krasnoyarsk, Russia on 29-31 March 2023. 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, Ufa State Petroleum Technological University, Ufa, Republic of Bashkortostan, the Volga Region Research Institute of Manufacture and Processing of Meat-and-Milk Production, Volgograd, Russia, Bukhara Engineering Technological Institute, Bukhara and Namangan Engineering Technological University, Namangan, Uzbekistan, Zhetysu University named after I. Zhansugurov, Taldykorgan, Kazakhstan. 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 Conference.

The Volume contains Proceedings of the VIII International Conference on Advanced Agritechnologies, Environmental Engineering and Sustainable Development – AGRITECH-VIII-2023 which was held in Krasnoyarsk, Russian Federation on 29-31 March 2023.

The purpose of the Conference was to exchange the experience of leading experts in the field of high-tech geochemical, geological, geophysical and information technologies in agriculture; energy, oil and gas engineering; environmental management and engineering, mining and soil processing technologies, as well as in modern areas of biodiversity research and methods for its conservation for sustainable development; the influence of food production on the environment and sustainable systems of food technologies; agroforestry, environmental safety, green technologies and natural resources.

The Program Committee and Editorial Board included prominent professors and scientists from the Russian Academy of Sciences, Xinjiang, (China), Krasnoyarsk State Agrarian University (Russia), Institute in Belgrade (Serbia), Siberian Federal University

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(Russia), Universities and Scientific Institutes of Volgograd and Krasnoyarsk (Russia), Uzbekistan, Republic of Kazakhstan, Belarus, Azerbaijan, Kyrgyz Republic as well as specialists from Russian and foreign leading industrial enterprises (see Appendix 1).

The Conference was organised in 10 main sections: Agritechnologies, Agritech Engineering, Policy and Law for Sustainable Environmental Health; Innovative Development of Sustainable Systems of Agrarian-and-Food Production; Information Technologies, Automation Engineering and Digitization of Agriculture; Environmental Engineering, Mining and Soil Treatment Technology; Environmental Safety, Risk Assessment and Management in Oil and Gas Industry; Green Technologies, Climate Change and Environmental Pollution; Chemical, Ecological, Oil-and-Gas Engineering and Natural Resources; Agricultural Mechanization, Civil Engineering and Energetics; Biodiversity and Ecosystem Stability for Sustaining the Natural Area.

The international scope of the Conference was confirmed by the participation of representatives from 10 countries besides Russia: Uzbekistan, Egypt, Tajikistan, China, Belarus, Laos, Kazakhstan, Nigeria, South Africa, United Kingdom.

The participants from Russia (more than 50 regions) represented over 200 universities, scientific institutes and organisations, agro-industrial enterprises.

The Conference 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 environmental and earth sciences, agritech engineering, chemical, mining and soil treatment technologies, digitization of agriculture, aerospace technologies for the development of agribusiness and precision farming, etc. Although the schedule of the Conference was very tight, there were very vivid discussions among the participants.

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, China, Belarus, Serbia, Republic of Kazakhstan, Turkey and Uzbekistan 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 600 reports were submitted to the Organizing Committee of the Conference. 297 reports were selected for inclusion into this Volume after the review process. All the papers were subjected to rigorous peer-review by conference committee members and international reviewers. The papers were selected based on their quality and relevance to the Conference directions and on the results of their presentation at the Conference session.

The Volume presents scientific papers in 7 main sections: Agritechnologies and Environmental Engineering for Sustainable Environmental Health; Innovative Development of Sustainable Systems of Agrarian-and-Food Production; Information Technologies, Automation Engineering and Digitization of Agriculture; Green Technologies, Climate Change and Environmental Safety and Pollution; Chemical, Ecological, Oil-and-Gas Engineering and Natural Resources; Agricultural Mechanization, Civil Engineering and Energetics; Biodiversity, Agroforestry and Ecosystem Stability for Sustaining the Natural Area.

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 Conference "AGRITECH-VIII-2023" (Appendix 2).

On behalf of the conference committee and organizers, we would like to thank all the authors who contributed to this Volume as well as to the reviewers, speakers and all the conference participants for their support to AGRITECH-VIII-2023.

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