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ADOP 2025

Fifth International Conference on

Agriculture Digitalization and Organic Production

ADOP 2025

Conference Programme and Abstracts

June 3–6, 2025
Barnaul, Altai Region, Russia

SPC RAS

Altai state agricultural university

Springer

Organizer

- Altai State Agricultural University (ASAU, Barnaul, Russia)
- St. Petersburg Federal Research Center of the Russian Academy of Sciences (SPC RAS, St. Petersburg, Russia)

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- Andrey Ronzhin, SPC RAS

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Conference at a glance

Tuesday, June 3, 2025		
08:30-09:00	**On-line Registration**	
09:00-12:30	**Oral Session 1: Digital Technologies, Aquaculture and Bioinformatics** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Cochairs:** Oksana Ogij and Roman Meshcheryakov	**Online Oral Session 2: Organic Production and Sustainable Agriculture** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Cochairs:** Valentina Kundius and Olga Cherepanova
12:30-13:00	**Lunch break**	
13:00-13:30	**Opening Ceremony** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Cochairs:** Vladimir Pleshakov and Andrey Ronzhin	
13:30-15:00	**Plenary Session 1** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Chair:** Valentina Kundius and Vladimir Surovtsev	
15:00-15:15	**On-line Joint Photography of Conference Participants** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09	
16:00-18:00	**Dinner**	
Wednesday, June 4, 2025		
09:00-12:30	**Oral Session 3: Biologization of Animal Husbandry** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Cochairs:** Roman Nekrasov and Georgy Laptev	**Online Oral Session 4: Mathematical Support and Remote Monitoring** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Cochairs:** Boris Sokolov and Alexey Stepanov
12:30-13:00	**Lunch break**	
13:00-15:00	**Plenary Session 2** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Chair:** Nadezhda Bogolyubova and Georgy Laptev	
Thursday, June 5, 2025		
09:00-12:30	**Oral Session 5: Biologization of Plant Growing** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Cochairs:** Viktar Lemiasheuski and Liudmila Sokolova	**Online Oral Session 6: Application of Ground and Air Robots** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Cochairs:** Andrey Ronzhin and Mikhail Tatur
12:30-13:00	**Lunch break**	
13:00-15:00	**Plenary Session 3** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Chair:** Kirill Golokhvast and Igor Smirnov	
15:00-15:30	**Closing Ceremony** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Chair:** Vladimir Pleshakov and Andrey Ronzhin	
Friday, June 6, 2025		
09:00-20:00	**Cultural Program**	

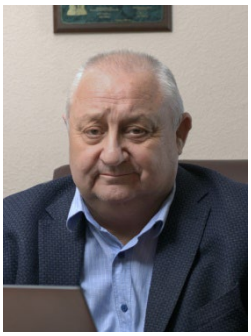
Conference Programme

Tuesday, June 3, 2025	
08:30-09:00	**On-line Registration**
09:00-12:30	**Oral Session 1: Digital Technologies, Aquaculture and Bioinformatics** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgvZEZob3ZUNlp4UT09 **Cochairs:** Oksana Ogij, Roman Meshcheryakov
	Roman Meshcheryakov, Konstantin Rusakov, and Gleb Tevyashov. Determining Average Size and Average Speed of Fish Using Deep Learning Technologies
	Van Le, Quyen Vu, and Andrey Ronzhin. Real-time Fish Detection and Counting with YOLOv11
	Sergei Maslennikov, Darya Borisova, and Tigran Gevorgian. The Potential of Mariculture and Artificial Reproduction of the Red King Crab Paralithodes Camtschaticus for the Stabilization of Biological Resources
	Al-Mamoori Loay Mohammed Mazbin, Lina Lagutkina, Alexander Martyanov, and Viktor Kryuchkov. Stimulation of Carp Spawning Using OVASIS Hormone and Pituitary Extract under Iraqi Conditions
	Alexander Bekarev. Digital Maturity of the Fisheries Sector: The Regional Aspect
	P. Gourkhede, A. Naikwadi, Gopal Shinde, M. Pendke, and B. Wankhede. Digital Tools in Soil Health Diagnostic and Organic Farming: A Sustainable Way
	Petr Akmarov, Olga Knyazeva, Dmitry Kondratiev, and Natalia Gorbyshina. Regional Features and Problems of Production Digital Transformation in Russia
	Mariya Golovko and Maksim Belousov. Digitalization of Agriculture: Prospects and Threats
	Abusupyan Dibirov. The Impact of Digitalization on the Sustainability of the Food Supply Chain
	Gregory Komlatsky. Digital Transformation in Russian Beekeeping
	Elena Yildirim, Georgi Laptev, Daria Tiurina, Valentina Filippova, Larisa Ilina, Natalia Novikova, Kseniya Sokolova, Ekaterina Ponomareva, Vasiliy Zaikin, Irina Klyuchnikova, Elena Korochkina, Darren Griffin, and Michael Romanov. Bioinformatic Data Analysis from Metagenomic Whole Genome Sequencing of Endometrial Microorganisms in Cows with Normal and Pathological Conditions
	Elena Yildirim, Georgi Laptev, Daria Tiurina, Vitaliy Morozov, Valentina Filippova, Larisa Ilina, Natalia Novikova, Kseniya Sokolova, Ekaterina Ponomareva, Vasiliy Zaikin, Alesya Savicheva, Darren Griffin, and Michael Romanov. Bioinformatic Analysis of NGS Sequencing Data of the Intestinal Microbiome in Broilers Fed Supplements of Glyphosate, Probiotic Bacterial Strains and Antibiotics
	Vyacheslav Shalamov. Trends and Cases of AI Implementation for Agriculture and Agro-Industry Based on the Company's Requests and Cases
	Olga Prozorovskaya. Competencies of the 21st Century: The Relevance of Digital Knowledge and Skills for a Successful Career in the Agricultural Sector
	Vasily Lyubimtsev, Svetlana Sladkova, Sergey Kholodkevich, Andrey Ponomarev, and Maria Medyankina. Early Detection of Dangerous Toxicity of Biologically Treated Wastewater Using an Electronic System for Continuous Analysis of Cardioactivity of Crayfish
	Nikita Kochetkov, Victoria Gaffarova, Vasily Lyubimtsev, Svetlana Sladkova, and Sergey Kholodkevich. Digital Analysis of Histological Images for the Purpose of Quantitative Characterization of Goblet-Shaped Intestinal Cells of Sterlet (Acipenser Ruthenus) to Assess the State of the Digestive Tract
	Elchin Khalilov, Zang Min, Andrey Lazukin, Anton Saveliev, Zengling Ma, Farid Khalilov, Min Wang. Aqua-Aero Robotic System – AARS for Hyperspectral Monitoring of Pollution of Water Bodies and Their Purification from Cyanobacteria

09:00-12:30	**Online Oral Session 2: Organic Production and Sustainable Agriculture** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Cochairs:** Valentina Kundius and Olga Cherepanova
	Vladimir Semenov and Alexander Semenov. Organic Production as a Competitive Advantage of Rural Development
	Rahul Kamble, Kailash Gadhe, Bhagwan Asewar, Vidhya Wadmare, Prasad Gangakhedkar, Kishor Anerao, Pratyush Kumari Rath, and Gopal Shinde. Organic Food and Farming: Regulations, Challenges and Market Evolution in India and Worldwide
	Alexander Bykov, Natalya Sergeyeva, and Ekaterina Malykha. The Development of the Global Organic Market and the Possibility of Exporting It From Siberia
	Anatoly Tingaev, Yulia Cheprunova, and Alexander Davydov. Organic Waste Assessment for Land Fertility Improvement Using Information Technology
	Aleksandr Perekopskiy, Anton Zakharov, Nikolay Kostyuchenkov, Aleksey Mishanov, and Alexey Komoedov. Theoretical Background for the Development of Organic Crop Production Technologies
	Olga Antonova, Lilia Stupina, and Valentina Kursakova. Use of Straw and Destructors in Resource-Saving Technologies of Organic Farming and Its Influence on the Microbiome and Qualitative Composition of Humus
	Sergey Medvedev, Aleskander Semenov, and Elena Semenova. Organic Gardening
	Mehak Rai Sethi and Poonam Gulati. The Interplay between Innovations in Plant Breeding and Climate Change: Trailing Their Mottled Range of Impressions upon Each Other
	Vishal Keshaorao Ingle, Harishchandra Wamanrao Awari, Sumant Baburao Jadhav, Uday Manoharrao Khodke, and Gopal Uttamrao Shinde. Estimation of Crop Evapotranspiration for Groundnut Crop in Semiarid Region of Maharashtra, India
	Natalia Tsatsenko, Alexey Tolmachev, Arkadiy Moiseev, and Ludmila Tsatsenko. Insight into the Living Lab Methodology in Sustainable Agriculture: A Review
	Prasad Gangakhedkar, Hemant Deshpande, Vaibhav Jadhav, Sachin Giri, Govind Desai, Rahul Kamble, Vidhya Wadmare, Bhagwan Asewar, and Gopal Shinde. The Smart Food Revolution: Industry 4.0 Tools and Their Impact
	Pratyush Kumari Rath, Digambar Shivram Perke, Srinivas Bharti, Ranjit Chavan, Dheeraj Pathrikar, Prasad Gangakhedkar, Rahul Kamble, and Bhagwan Asewar. A Review on Optimization of Farm Revenue to Mitigate Global Food Insecurity Dynamics
	Elena Pauyrova. Assessment of Greenhouse Gas Emissions from Agricultural Food Losses
	Gayane Gasparyan, Albert Markosyan, Sose Markosyan, Surik Hunanyan, Hovhannes Yeritsyan, and Tatevik Jhangiryan. Intraprofile Distribution of Mobile Forms of Some Heavy Metals in Eroded Mountain Chernozems
	Song Zengyi and Viktar Lemiasheuski. The Influence of Roadside Plants on Urban Ecology and the Treatment of Lead Pollution
	Ludmila Bakina, Yulia Polyak, Alexander Gerasimov, and Natalya Mayachkina. Dynamics of Agrophysical Properties of Agricultural Soil Contaminated with Oil
	Igor Plyako. Organic Production Practices
	Nina Petsukh. Production of Biological Products for Plant Protection in Organic Farming by the Branch of the Federal State Budgetary Institution "Rosselkhoznadzor" in the Altai Territory and the Altai Republic
12:30-13:00	**Lunch break**
13:00-13:30	**Opening Ceremony** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Cochairs:** Vladimir Pleshakov and Andrey Ronzhin
13:30-	**Plenary Session 1**

15:00	https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgvZEZob3ZUNlp4UT09 **Chair:** Valentina Kundius and Vladimir Surovtsev
	Keynote speech 1: *Aleksandra Figurek, Elena Semenova, and Aleksandr Semenov*. Digital and Artificial Inteligence Marketing in the Food Industry
	Keynote speech 2: *Valentina Kundius, Vladimir Chernyshkov, Olga Cherepanova.* Development of Organic Agriculture Based on the Biologization of Agricultural Technologies
	Keynote speech 3: *Vladimir Surovtsev and Khapsat Dibirova*. Opportunities and Limitations of the Development of Organic Food Production: World Experience and the Situation in Russia
15:00-15:15	**On-line Joint Photography of Conference Participants** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgvZEZob3ZUNlp4UT09
16:00-18:00	**Dinner**

Wednesday, June 4, 2025	
09:00-12:30	**Oral Session 3: Biologization of Animal Husbandry** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Cochairs:** Roman Nekrasov and Georgy Laptev
	Susanna Mirzabekyan, Marine Balayan, Anahit Manvelyan, Lilit Malkhasyan, Haykush Batikyan, Astghik Pepoyan, and Natalya Harutyunyan. Pathogenic and Antimicrobial Resistance Profiles of Bacterial Strains in Bovine Mastitis: Insights from the Stepanavan Region of Armenia
	Yan Li, Viktar Lemiasheuski, and Svetlana Maksimova. Effects of Earthworms on Livestock and Poultry Manure Composting and Its Environmental and Economic Significance: A Meta-Analysis
	Roman Nekrasov, Alexei Butenko, Evgenia Tuaeva, Magomed Chabaev, Konstantin Ostrenko, Ivan Kutyin, Nadezhda Bogolyubova, and Julia Bogolyubova. Prospects for BSFL Conversion of Grain Wastes into Pig Feedstuffs
	Antonina Afanaseva, Vladislav Sarychev, Georgi Laptev, Larisa Ilina, Elena Yildirim, and Valentina Filippova. Influence of the Feed Additive "Profort" on the Rumen Microbiome of Black-pied Holstein Cows
	Valentina Filippova, Larisa Ilina, Elena Yildirim, Andrei Dubrovin, Kseniya Sokolova, Ekaterina Ponomareva, Alisa Dubrovina, Irina Klyuchnikova, Vasiliy Zaikin, Ivan Malakhov, Georgi Laptev, Darren Griffin, and Michael Romanov. Effectiveness Evaluation of Microbiological Preparations for Preserving Ensiled Plant Feeds in a Model Experiment Using Microbiomic and Bioinformatic Tools
	Konstantin Ostrenko, Natalia Nevkrytaya, Anastasia Ovcharova, Ivan Kutyin, Kirill Koltsov, Alexander Deltsov, and Vladimir Maximov. The Effect of Coriander and Fennel Fruits on the Digestibility and Digestibility of Feed in Bull Calves During Rearing
	Tatiana Lashkova. Preparation of Lake Sapropel in Cow Diets in Novgorod Region
	Susanna Mirzabekyan, Marine Balayan, Lilit Malkhasyan, Syuzanna Abrahamyan, Haykush Batikyan, Natalya Harutyunyan, Astghik Pepoyan, Sergeyi Tspnetsyan, and Anahit Manvelyan. Correlation between Physicochemical Parameters of Milk and Risk of Bacterial Contamination: A Case Study in Armenia
	Konstantin Ostrenko. Essential Oil Crops in Animal Husbandry as Digestive and Immune Stimulants
	Alexandra Dydykina. Monitoring of Milk Quality of Kholmogorsky Cows in the Arkhangelsk Region
	Viktar Lemiasheuski. Provision of Substrates for Energy Processes in Bulls at Different Levels of Metabolizable Protein
09:00-12:30	**Online Oral Session 4: Mathematical Support and Remote Monitoring** https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09 **Cochairs:** Boris Sokolov and Alexey Stepanov
	Valentina Maksimova, Tatiana Makarovskikh, Alexander Zhulev, and Nikita Levchenko. Algorithms for Detecting of Forested Overgrown Lands of a Region Using NDVI Data
	Viktor Gornyy, Olga Balun, Andrew Kiserlev, Igor Smirnov, Andrew Tronin, and Elena Shkodina. Satellite Mapping of Soil Enthalpy for the Introduction of Sorghum Crop in the Non-Chernozem Zone (Using the Novgorod Oblast as a Case Study)
	Evgenii Mitrofanov, Ivan Blekanov, Aleksey Martemyanov, Evgenii Kruchinin, Rodion Akhrameev, Mikhail Arkhipov, and Olga Mitrofanova. A Multi-Agent Agricultural Robot System for Precision Crop Monitoring
	Alexey Stepanov, Elizaveta Fomina, Artem Bordakov, Konstantin Dubrovin, and Lyubov Illarionova. Use of Satellite Imagery and UAV to Assess Weed Infestation of Soybean Crops
	Viacheslav Zelentsov, Viktor Mochalov, and Natallia Lapitskaya. Methodology for Assessing the Quality of Multispectral Space Imaging Data in Landscape Element Monitoring

	(r=0.74, p<0.001). The result of fattening pigs using BSFL meal is effective as the final ADG, carcass pair weight, slaughter yield were higher than the control (p<0.05). Thus, the use of grain wastes in the BSFL rearing technology creates prerequisites for further development of circular economy of waste processing with the help of insect technology and increases the sustainability of the feed base in pig breeding. In the long term, this approach significantly reduces the costs of production of final products, reduces waste and its negative impact on the environment.
	**Antonina Afanaseva and Vladislav Sarychev**, Altai State Agricultural University, Barnaul, Russia. **Georgi Laptev**, Molecular Genetics and Microbiomics Laboratory, BIOTROF+ Ltd, Pushkin, St. Petersburg, Russia. **Larisa Ilina, Elena Yildirim, and Valentina Filippova**, Molecular Genetics and Microbiomics Laboratory, BIOTROF+ Ltd, Pushkin; Federal State Budgetary Educational Institution of Higher Education "St. Petersburg State Agrarian University", Pushkin, St. Petersburg, Russia. **Lecture Title:** Influence of the Feed Additive "Profort" on the Rumen Microbiome of Black-pied Holstein Cows. **Abstract:** The use of additives in the diet, including those based on probiotic preparations, helps to improve digestion processes, normalize the balance of microflora, metabolism and increase animal productivity. The aim of this work was to analyze the rumen microbiome of Black-and-White Holstein cows using the enzyme-probiotic feed additive "Profort". The cows of the experimental group were fed 30.0 g of probiotic three times for 15 days, with a break of 15 days (total days of experiment – 75). As a result, at the end of the experiment, in the experimental group, at the family level, significant reliable differences were found in the number of cellulolytic bacteria taxa: Oscillospiraceae, SR 1, Flavobacteriaceae and Weeksellaceae, as well as taxa of lactate-fermenting bacteria. Thus, the use of the feed additive "Profort" in the diet of highly productive lactating cows helps to increase the concentration of beneficial microorganisms (cellulolytic, lactate-utilizing) in the rumen, fermenting the intermediate products of the breakdown of feed components to form volatile fatty acids necessary for the synthesis of milk components.
	**Valentina Filippova, Larisa Ilina, and Elena Yildirim**, Molecular Genetics and Microbiomics Laboratory, BIOTROF+ Ltd, Pushkin; Federal State Budgetary Educational Institution of Higher Education "St. Petersburg State Agrarian University", Pushkin, St. Petersburg, Russia. **Ivan Malakhov**, Federal State Budgetary Educational Institution of Higher Education "St. Petersburg State Agrarian University", Pushkin, St. Petersburg, Russia. **Kseniya Sokolova, Ekaterina Ponomareva, Alisa Dubrovina, Irina Klyuchnikova, Vasiliy Zaikin, and Georgi Laptev**, Molecular Genetics and Microbiomics Laboratory, BIOTROF+ Ltd, Pushkin, St. Petersburg, Russia. **Andrei Dubrovin**, Information Technologies, Mechanics and Optics (ITMO) University, St. Petersburg, Russia. **Darren Griffin**, School of Natural Sciences, University of Kent, Canterbury, Kent, UK; Animal Genomics and Bioresource Research Unit (AGB Research Unit), Faculty of Science, Kasetsart University, Chatuchak, Bangkok, Thailand. **Michael Romanov**, Federal State Budgetary Educational Institution of Higher Education "St. Petersburg State Agrarian University", Pushkin, St. Petersburg; L.K. Ernst Federal Research Center for Animal Husbandry, Dubrovitsy, Podolsk, Moscow Oblast, Russia; School of Natural Sciences,

	University of Kent, Canterbury, Kent, UK; Animal Genomics and Bioresource Research Unit (AGB Research Unit), Faculty of Science, Kasetsart University, Chatuchak, Bangkok, Thailand. **Lecture Title:** Effectiveness Evaluation of Microbiological Preparations for Preserving Ensiled Plant Feeds in a Model Experiment Using Microbiomic and Bioinformatic Tools. **Abstract:** Ensiling is the main method of preparing bulk forages for cattle in the conditions of the risk farming zone. This zone includes St. Petersburg and the Leningrad Oblast due to their geographical location and high humidity. To improve the efficiency of enzymatic processes during ensiling, various biopreparations of lactic acid bacteria that consist of one or more strains are used. However, the biotechnological potential of lactic acid bacteria involved in silage fermentation remains insufficiently studied. Thus, the selection of microorganisms for use in silages should always be carried out with all rigor and meet certain criteria. The aim of this study using metagenomic next-generation sequencing (NGS) and bioinformatics was to assess the efficiency of applying monocultures of lactic acid bacteria strains (Lactobacillus plantarum 50 and Enterococcus faecium 46). We further evaluated combining these strains for the ensiling process in a model laboratory experiment. As a result, it was shown that the greatest stability of microbiome and a high proportion of lactobacilli in the ensiled feeds, the best pH levels and silage quality were achieved using a combination of strains (L. plantarum 50 + E. faecium 46).
 	**Konstantin Ostrenko, Anastasia Ovcharova, Ivan Kutyin, and Kirill Koltsov**, All-Russian Research Institute of Physiology, Biochemistry and Nutrition of Animals – Branch of the L.K. Ernst Federal Research Center for Animal Husbandry, VNIIFBiP, Borovsk, Russia. **Natalia Nevkrytaya**, FSBSI "Research Institute of Agriculture of Crimea", Simferopol, Republic of Crimea, Russia. **Alexander Deltsov and Vladimir Maximov**, Moscow State Academy of Veterinary Medicine and Biotechnology – MVA named after K.I. Skryabin Akademika, Moscow, Russia. **Lecture Title:** The Effect of Coriander and Fennel Fruits on the Digestibility and Digestibility of Feed in Bull Calves During Rearing. **Abstract:** High profitability in animal husbandry can be achieved using modern technologies in feeding, physiology and the rational use of natural resources. Experiments with vegetable essential oils demonstrate the possibility of using natural products, in particular, plant secondary metabolites, to influence the fermentation processes in the rumen by selectively suppressing certain types of microorganisms, while intensively stimulating the immune system of the calves. The aim of the study was to study the effect of feed additives of technically processed coriander and fennel fruits on the digestibility and nitrogen retention of feed. The data obtained in the study showed that the inclusion of a mixture of technologically processed coriander and fennel fruits in various ratios in the technological cycle of fattening improves the growth rates of Holstein bulls. These data indicate that fruits and the essential and fatty oils contained in them affect the effectiveness of feed use. Thus, the weight values of bulls at 7 months of age in the 3rd experimental group (9 g of fennel fruits and 32 g of coriander fruits), the average daily increase was significantly higher by 81.0% ($p < 0.05$), the gross increase by 83.0% ($p < 0.05$) and the increase in body weight was higher by 35.6% ($p < 0.05$), compared with the control group. The highest digestibility of feed nutrients was also observed in the bulls of this experimental group. The bulls of this group outperformed their peers from the control groups in terms of digestibility of dry matter, respectively, by 3.89% ($p < 0.05$), crude protein – by 2.66% ($p < 0.05$), crude fat – by 2.01%, crude fiber – by 4.78% ($p < 0.05$) and nitrogen-free

Format of the Conference

The conference is held in a hybrid format: on site of Altai State Agricultural University (ASAU, 98 Krasnoarmeysky Ave., Barnaul, Russia) and in the format of videoconference. A single link to the video conference for the opening ceremony, plenary sessions, oral sessions, closing ceremony for participants and listeners: **https://us06web.zoom.us/j/87926743169?pwd=Y1RWWGtua1JtWEgyZEZob3ZUNlp4UT09**: connection to Oral sessions is carried out in the Halls in accordance with the names of the sessions.

The time of the videoconference is indicated in the time zone of St. Petersburg/Moscow (UTC + 3): **https://www.worldtimebuddy.com/utc-to-russia-moscow/**. The time in Barnaul is **4 hours ahead** of the time in Moscow.

Contacts

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