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**ON EDUCATIONAL, RESEARCH ACTIVITIES IN THE FIELD OF
AGROTECHNOLOGICAL EDUCATION**

**ОБ УЧЕБНО-ИССЛЕДОВАТЕЛЬСКОЙ И НАУЧНОЙ ДЕЯТЕЛЬНОСТИ
В ОБЛАСТИ АГРОТЕХНОЛОГИЧЕСКОГО ОБРАЗОВАНИЯ**



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Abstract. The purpose of this work is to substantiate the importance of social and educational and research activities in the field of agrotechnological education. In this regard, an analysis of papers in the field of pedagogy, as well as educational and scientific publications in the field of agrotechnological education, was carried out on the example of the Republic of Sakha (Yakutia). In the works of the master of zootechnics, master of mathematics, senior lecturer A.I. Grigoreva the rationale for improving the educational process is given. The papers note the effectiveness of using interactive methods in the educational process. The paper also substantiates the use of elements of the transport task in a computer business game. It is proposed to include the disciplines of GIS-technology in the educational process of students of the agrotechnological direction. The education programs for individual variable disciplines have been published. Regional information on topics has been added to education programs, university textbooks and other methodological textbooks. An analysis of the educational program was carried out bachelors on the profile "Breeding, Genetics and Selection of Animals" of the direction "Zootechnics". The paper analyzes the disciplines, as well as educational and industrial practices. The summary of disciplines is given: basic and regional components.

Аннотация. Цель данной работы состоит в обосновании важности научной, общественной и учебно-исследовательской деятельности в области

агротехнологического образования. В связи с этим проведен анализ работ в области педагогики, а также учебных и научных публикаций в области агротехнологического образования на примере Республики Саха (Якутия). В трудах дано обоснование совершенствования образовательного процесса. В работах отмечается эффективность использования интерактивных методов в образовательном процессе. Обосновано использование элементов транспортной задачи в компьютерной деловой игре. Предложено включить дисциплины ГИС в образовательный процесс студентов агротехнологического направления. Составлены актуальные учебные программы по отдельным вариативным дисциплинам. В учебных программах, учебных пособиях и других методических пособиях была добавлена региональная информация по отдельным темам. Проведен анализ образовательной программы бакалавров по профилю «Разведение, генетика и селекция животных» по направлению «Зоотехния». В работе проведен анализ дисциплин, а также учебных и производственных практик. Дано краткое содержание дисциплин: базовых и региональных компонентов. Проведенный анализ показал, что научные статьи, а также учебные публикации посвящены актуальным темам и обладают практической значимостью.

Keywords: educational activity, methodical work, agriculture, research

Ключевые слова: учебная деятельность, методическая работа, сельское хозяйство, исследования

Educational and methodological activity is one of the important elements at the University. The provision of the educational process with the necessary material depends on this: university textbooks, methodological instructions, recommendations, visual aids, education programs, workbooks, and other methodological documentation. Regional, national component in educational plan – these are the requirements of the regional professional community, the formation of unique knowledge for individual conditions. In this regard, there is an increasing need to

create educational and educational literature to ensure the educational process of bachelors, masters and graduate students.

It is known that even in electronic library systems there are no textbooks on certain regional issues of agriculture, forestry and water management.

In this case, we will analyze the current information on educational publications published under the authorship of a master in animal science, a master of mathematics, **Aleksandra I. Grigoreva**, senior lecturer Federal State Autonomous Educational Institution of Higher Education North-Eastern Federal University named after M.K. Ammosova NEFU named after M.K. Ammosova, The Republic of Sakha (Yakutia), Yakutsk city (ex. Yakut State University named after M.K. Ammosova).

Senior Lecturer A.I. Grigoreva teaches at NEFU named after M.K. Ammosov such disciplines: Mathematics, Theory of Probability, Mathematical Statistics, Theory of Random Processes, Differential Equations, Algebra and Geometry, Mathematical Analysis, Discrete Mathematics, Computational Mathematics etc.

In this case, cooperation with the Senior Lecturer A.I. Grigoreva in the field of science and education contributed to improving the effectiveness of the implementation of plans in scientific research and educational and methodological work.

It should be noted that the Senior Lecturer A.I. Grigoreva – author and co-author 15 university textbooks, monographs on pedagogy, scientific papers on the preparation of bachelors, specialists and masters.

In the monograph [1] presents actual information on the use of active and interactive methods in the educational process of bachelors of agricultural profile. It has been established that the use of business game forms contributes to a better assimilation of educational material. Also in another section provides information on using the elements of the transport task for a practical lesson. The chapters are devoted to the independent work of students in the modules: forestry, land reclamation, crop production, animal husbandry, product processing. The book provides actual information on practical exercises for each didactic unit. Also, this information can be used in practical field studies.

In a scientific article [2] rationale the main approaches to practical training for students of the agrarian profile, including for field practical training in enterprises. In this case, practical field studies are the most effective form for consolidating knowledge. The importance of laboratory studies for the educational and research work of students is also noted - as one of the tools for obtaining knowledge. It is noted that in the educational process, laboratory classes should go along with practical exercises after lectures in all professional and special disciplines, because of special courses and disciplines of an agrotechnological profile form the main base for students of the agricultural direction of training. An important part of the educational process is the research, project activities of students; in this case, work allows the development of a creative approach to solve the scientific and technical problems of modern agricultural production in various conditions. Students who work on individual scientific topics have more universal knowledge in the field of modern agricultural technologies. Therefore, the best option in the educational process would be laboratory classes (educational and research activities) and practical training within the schedule, as well as practical classes with scientific and project activities in extracurricular activities (clubs, extracurricular activities, etc).

In another article [3] provides information on the preparation of the regional electronic reference books on forest inventory for students and forestry specialists of Yakutia. This material was based on research data from the forest fund of the Republic of Sakha (Yakutia) and is a reference book. The team worked on the creation electronic reference books which contained basic information and algorithms for calculating and determining the class of wood, marketability, as well as other indicators that can be used to create forest growth models. The developed algorithm for calculating and identifying the technical characteristics of the forest was tested in the framework of educational and practical classes, as well as in separate scientific research works. Now we are compiling an electronic database and supplementing the material with new information, clarifying changes, etc.

In a published work [4] examples of practical classes in various forms are given: on-site classes on farms, laboratory work, practical interactive classes, etc.

This work continues the discussion of the previously conducted analysis on the effectiveness of various forms of education for bachelors of the direction "Zootechnics". In this case, noted the importance of knowledge on the technology of feeding and breeding farm animals. The main basic disciplines of feeding, farm animals and breeding of farm animals, are the main for bachelors of the direction "Zootechnics". Therefore, in this case, the need to consolidate knowledge on individual topics within these disciplines increases. At the Department of General Zootechnics field practical classes in these disciplines are held at the basic leading farms in Yakutsk. Scientific research is also being carried out in these leading farms in Yakutsk.

In this article [5] the prospect and practical possibilities of introducing geoinformation technologies into the educational and scientific activities of students of the agrarian direction are considered. The relevance of the introduction of disciplines such as geoinformation technologies in the educational and scientific activities of students of the agrarian direction is due to the need to improve the conditions for training specialists. The basic algorithms for working with special software adapted to the educational process are presented. It should be noted that these technological tools greatly improve the work in the field of agriculture (Agronomy, Land Reclamation, Agricultural Mechanization, Animal Husbandry, Natural Resource Assessment, etc.). This knowledge will be useful for the development of technologies, interdisciplinary research, obtaining new practical opportunities for bachelors of the agricultural direction.

In another work [6] the analysis of the educational program bachelors on the profile "Breeding, Genetics and Selection of Animals" of the direction "Zootechnics" in Arctic SAU (ex. Yakut SAA) is presented. The analysis of the main curriculum was given, where the assessment was carried out by sections (blocks of disciplines and practices, as well as optional modules). A brief description of the disciplines of the basic and regional cycles is given. They note the following didactic units: aboriginal Yakut cattle, breeds and types of farm animals, features of forage harvesting in the north, deer breeding, cattle breeding, horse breeding, pig breeding,

goat and sheep breeding, breeding of fur animals, technology of feeding farm animals and birds, animal genetics, feed and nutritional value, feed additives, personnel management, sectoral economics etc. An assessment was also given to educational and industrial practices, optional modules. The analysis showed that the educational program is relevant, has practical significance, and contains disciplines that include regional information on the technology of keeping and feeding farm animals and birds in the conditions of the Republic of Sakha (Yakutia).

Social, scientific and pedagogical activity of the Senior Lecturer A.I. Grigoreva was awarded:

2022 - Certificate of Honor of the Yakutsk City Duma - for many years of conscientious work, contribution to the development of the education system in the territory of the "city of Yakutsk" and in connection with the 45th anniversary of the department "Higher Mathematics" Institute of Mathematics and Informatics North-Eastern Federal University named after M.K. Ammosov (with a medal).

2022 - Certificate of the Institute of Mathematics and Informatics North-Eastern Federal University named after M.K. Ammosov - for many years of scientific and pedagogical work in the system of higher education and personal contribution to the training of qualified personnel for the Republic of Sakha (Yakutia), Yakutsk city.

2021 - Letter of thanks North-Eastern Federal University named after M.K. Ammosova - for expert activities during the Youth Science Week-2021, Yakutsk city.

2020 - Diploma of the 1st degree of the participant of the project "II International Book Edition", "Best Young Scientists - 2020" among scientific and educational institutions of the Commonwealth of Independent States (organizer union of companies in the form of association "National Union "Bobek"", 09/28/2020), Nur-Sultan, Kazakhstan.

2020 - Medal "Best Young Scientists - 2020" among scientific and educational institutions of the Commonwealth of Independent States - for contribution to the development of Science and Education (organizer union of companies in the form of association "National Union "Bobek"", 09/28/2020), Nur-Sultan, Kazakhstan.

2013 - Letter of thanks from the Physics and Mathematics Forum "Lensky Krai" - for participation in the work of the II Mathematical holiday in the Republic of Sakha (Yakutia).

2012 - Certificate of Honor of the Physics and Mathematics Forum "Lensky Krai" - for active participation in holding the I Mathematical holiday in the Republic of Sakha (Yakutia), Yakutsk city.

2012 - Letter of thanks from the Institute of Mathematics and Informatics North-Eastern Federal University named after M.K. Ammosov - for active participation in the work of the jury of the Olympiad, held as part of the I Mathematical holiday in the Republic of Sakha (Yakutia).

2011 - Certificate of Honor of the Institute of Mathematics and Informatics North-Eastern Federal University named after M.K. Ammosov - for active participation in student events and in connection with the 5th anniversary of the club "Intellect", Yakutsk city.

2011 - Letter of thanks North-Eastern Federal University named after M.K. Ammosova - for active and fruitful work in the organization of research work of students, young scientists and specialists of NEFU.

Thus, we emphasize the relevance and prospects of research in pedagogy.

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