

Научная статья

Original article

УДК 631



PEDAGOGICAL RESEARCH IN AGROTECHNOLOGICAL EDUCATION

ПЕДАГОГИЧЕСКИЕ ИССЛЕДОВАНИЯ В ОБЛАСТИ

АГРОТЕХНОЛОГИЧЕСКОГО ОБРАЗОВАНИЯ

Egor Denisovich Alekseev, Cand. of Agr. Sc., Associate Professor, Associate Professor of the Department "Traditional Industries of the North", FSBEI HE " Arctic State Agrotechnological University" (677007, Russian Federation, Republic of Sakha (Yakutia), Yakutsk, st. Sergelyakhskoe sh. 3 km, d. 3), +7(968)-154-49-94, arcsau@bk.ru

Алексеев Егор Денисович, кандидат сельскохозяйственных наук, доцент, доцент кафедры «Традиционные отрасли Севера», ФГБОУ ВО «Арктический государственный агротехнологический университет» (677007, Российская Федерация, Республика Саха (Якутия), г. Якутск, ул. Сергеляхское ш. 3 км, д. 3), тел. +7(968)-154-49-94, arcsau@bk.ru

Abstract. The purpose of the work: a review of achievements in the field of educational and methodological research - for bachelors and masters of agrotechnological direction. Works on agrotechnological orientation have relevance, practical significance. In the articles of Associate Professor M.F. Grigorev - describes the features of the preparation of students and the role of the curator in junior courses.

Международный журнал прикладных наук и технологий "Integral"

University textbook contains modern material and scientific data, an program for the preparation of bachelors in the discipline "Fundamentals of scientific research" is presented, and also this material serves as a practice training for research work. In other series of university textbook, actual didactic units on agricultural technologies for agriculture of the Republic of Sakha (Yakutia) are reflected. It contains educational and methodological information on vermicomposting, the use of biofertilizers, and the improvement of Homesteading management. Also, one article substantiates the prospects and practical significance of the introduction of geoinformation technologies in the educational process of preparing bachelors of agrotechnological orientation. These educational and scientific developments contain sufficient didactic material - have relevance, novelty and practical significance for the bachelors and masters of agrotechnological orientation.

Аннотация. Цель работы обзор достижений в области учебно-методических разработок – учебные издания для бакалавров и магистров агротехнологического направления подготовки. Отмечена актуальность, практическая значимость и содержание инициативных работ по агротехнологической направленности. В работах – отмечена особенности подготовки студентов и роль куратора на младших курсах. В учебных пособиях на основе современного материала и собственных данных представлена актуальная программа для подготовки бакалавров по дисциплине «Основы научных исследований», а также этот материал служит программой практики для научно-исследовательской работы. В других сериях учебных пособий – отражены актуальные дидактические единицы по агротехнологиям для сельского хозяйства Республики Саха (Якутия). В них содержится учебно-методическая информация по вермикомпостированию, использование биоудобрений, улучшению приусадебного хозяйства. Также в одной статье обосновано перспективность и практическая значимость внедрения геоинформационных технологий в образовательный процесс подготовки бакалавров агротехнологической

Международный журнал прикладных наук и технологий "Integral"

направленности. Данные учебные и научные разработки содержат достаточный дидактический материал - обладают актуальностью, новизной и практической значимостью для подготовки бакалавров и магистров агротехнологической направленности.

Keywords: study, educational and methodical work, results, agriculture, science.

Ключевые слова: учеба, учебно-методическая работа, результаты, сельское хозяйство, наука.

The training of highly qualified personnel for the agro-industrial complex is the important task for Agricultural Universities. Improving the educational process is a actual topic and has great practical significance. Today FSBEI HE Arctic State Agrotechnological University (ex FSBEI HE Yakut State Agricultural Academy) is the basic Agricultural University in the North-East of the Russian Federation, where personnel are trained in all areas of the agrotechnological profile, as well as in the traditional industries of the North. Today, the Arctic State Agrotechnological University is represented by the Faculty of Agrotechnology, the Faculty of Engineering, the Faculty of Veterinary Medicine, the Faculty of Forestry and Land Management, the Faculty of Economics, the College of Technology and Management, as well as the Oktem branch.

The teaching staff of the Agrotechnological University is engaged in research activities in the areas of the forest complex, crop production, animal husbandry, veterinary medicine, the economy of the agro-industrial complex, etc. At the same time, one of the directions is profile pedagogy (agriculture). Among the promising young teaching staff stands out **Mikhail Fedoseevich Grigorev**, Candidate of Agricultural Sciences, Associate Professor of the Department of General Zootechnics Faculty of Agrotechnology of the Arctic State Agrotechnological University, Republic of Sakha (Yakutia), Professor of Russian Academy of Natural History.

Международный журнал прикладных наук и технологий "Integral"

Associate Professor M.F. Grigorev is the author of 22 educational publications, of which 8 university textbook, 7 workbook, 7 educational program. Also Associate Professor M.F. Grigorev - taught general professional disciplines: "Fundamentals of scientific research" (bachelor's), "Information Technology" (bachelor's, MSc), "Modern methods of research" (MSc), "Methodology and technology of scientific research" (MSc), "Experiment planning methods and biometric processing of research results" (MSc), and etc.

For participation in International and All-Russian book exhibitions he was Awarded Medal "For innovative work in higher education", Russian Academy of Natural History, Moscow city (2020).

It should be noted that Associate Professor M.F. Grigorev - also studies pedagogy, the topic is regional aspects for the formation of professional competencies. In the article [1] describes the complexity and features of instilling skills for students in animal feeding technology. For students studying in the direction of training "Zootechny" - these knowledge and skills are basic. In this case, the Department of General Zootechnics has a good scientific base.

In another article [2] - presented role of the curator of educational work in junior courses in the by specialty "Technology of production and processing of agricultural products". It also describes the complexity of students adaptation to the transition to the educational process of the university. In this aspect, the work of the curator to helping students.

In work [3] - presented educational and research work of students "Environmental engineering and water use" in the Yakut State Agricultural Academy. As you know, educational and research work is one of the important instruments for increasing interest in the educational process. In this case, regional disciplines and individual modules were considered in which educational and scientific experimental research was carried out. In the disciplines of land ameliorative, a regional aspect was studied, which differed significantly from generally accepted methods. The

importance of increasing land fertility, the prospects of vermitechnologies, as well as the dependence of some technologies on specific natural and climatic conditions are noted. Knowledge of this information contributes to a better adaptation to regional production.

In another work [4] – presented the rationale for the inclusion of disciplines such as GIS in the educational process of bachelors of engineering profile for "Forestry business", "Forestry", "Technology of timber harvesting and wood processing industries", "Environmental engineering and water use", "Land management and cadasters". The importance of graphical construction of landscape models for the work of engineering specialists (forestry, land management, etc.) is presented. The paper considers the issue of educational and research work of students in the specialties "Forestry business", "Forestry", "Technology of timber harvesting and wood processing industries", "Environmental engineering and water use", "Land management and cadasters". As well as the technological scheme in GIS programs: data collection, information import, object transformation, creation of a foundation, clarification of boundaries, creation of maps, export of digital information, printing. The paper notes the prospects of research work, as well as the practical significance of the use of new information technologies in the profession.

Based on the analysis of modern information and scientific materials, co-authored - university textbook [5] – the book provides information the prospect of using low-quality wood and waste products from wood processing as biofuels. Content: The main characteristics of wood materials, as well as fuel production technologies, including the equipment used for harvesting, grinding, sorting, creating, etc. The environmental aspects of the use of woody biomass as a fuel are also considered.

In another university textbook [6] – presented information on standard research methods. The main formulas for statistical processing of experimental data are also given. Such didactic units as a research plan, goals and objectives, a laboratory test

Международный журнал прикладных наук и технологий "Integral"

log, research materials and methods, experimental conditions, equipment testing, statistical processing of information, publication of research results are considered.

In another book [7] – such didactic units as a comprehensive improvement of the household, growing vegetables using vermifertilizers and basic agricultural techniques are considered; basic principles of animal husbandry (feeding of cattle). The material presented in the educational publication was oriented taking into account the natural and climatic conditions of the Republic of Sakha (Yakutia). It should be noted that the book was recommended by the educational and methodological association of the Russian Academy of Natural History for classical university and technical education as a university textbook for students of higher educational institutions studying in the direction of training 20.03.02 "Environmental engineering and water use".

In the university textbook [8] – presented basic and individual issues of reclamation agriculture. The regional problems of increasing land fertility in the Republic of Sakha (Yakutia) from the point of view of climatic and technical conditions are presented. Information is also provided on the basic and regional features of agricultural technology for growing vegetable crops in the Republic of Sakha (Yakutia). This book was recommended by the Union of Potato and Vegetable Growers of Yakutia as a university textbook for students of the direction of 20.03.02 "Environmental engineering and water use", 35.03.04 "Agronomy", 35.03.07 "Technology of production and processing of agricultural products".

It should be noted that the teaching materials of Associate Professor M.F. Grigorev, and co-authors - written on actual topics, contain basic and regional didactic units on agricultural technology, as well as modern technologies in the industry. The presented scientific and educational material has practical significance and novelty. Also, the main scientific and educational material was introduced into the educational process of bachelors and MSc at the FSBEI HE Arctic SAU (ex FSBEI HE Yakut SAA).

Международный журнал прикладных наук и технологий "Integral"

The main results of scientific, educational, educational and methodological activities of Associate Professor M.F. Grigorev were Awarded:

2022 - Letter of thanks from the Faculty of Agrotechnology, Arctic State Agrotechnological University - for active participation in scientific activities, Yakutsk city;

2021 - Letter of thanks from the SAGRIS project coordinator Arctic State Agrotechnological University - for participation in the organization of the Block-seminar of Module 4 "Transdisciplinary methods for sustainable agriculture" Project "Enhancement of Postgraduate Studies on Sustainable Agriculture and Future Farming Systems - SAGRIS", October 25-29, 2021, Yakutsk city;

2021 - Letter of thanks of the Head of the Department "General zootechnics", Faculty of Agrotechnology, Arctic State Agrotechnological University - for great work and contribution to the development of the Department "General zootechnics", Yakutsk city;

2021 - Certificate of honor of the Arctic State Agrotechnological University - for achievements in patent activity and conscientious work, 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 - Honorary title "Excellence in Public Education", Russian Academy of Natural History, Moscow city;

2020 - Letter of thanks from the International Scientific and Practical Conference "Science and education: experience, problems, development prospects" Section 2.6 Innovations in veterinary medicine and biotechnology, Krasnoyarsk State Agrarian University, Krasnoyarsk city;

Международный журнал прикладных наук и технологий "Integral"

2020 - Certificate of honor of the Yakut State Agricultural Academy - for conscientious work in scientific and pedagogical activity, Yakutsk city;

2017 - Certificate of honor of the Scientific and Innovation Center (Krasnoyarsk city) - for contribution to the development of scientific research; significant success in the organization of scientific, educational and methodological activities, and also with the holiday "Knowledge Day" and the professional holiday "Teacher's Day";

2017 - Laureate diploma of the 1st degree - III International contest of scientific and educational concepts and developments "Pedagogical achievements-2017", nomination "Program of discipline, educational and methodological complex", Scientific and Innovation Center, Krasnoyarsk city;

2017 - Certificate of honor of the Yakut State Agricultural Academy - for conscientious work and contribution to the development of the Yakut SAA, as well as with the celebration of the national holiday "Ysyakh-2017", Yakutsk city;

2013 - Winner of the Grant of the President of the Republic of Sakha (Yakutia) for young scientists and specialists in the scientific direction "Agricultural Sciences", Yakutsk city.

Thus, pedagogical research in the direction of agriculture has the prospect of development at the Agrotechnological University. The methods used in scientific work are being improved, new technologies are being introduced into the educational process of preparing bachelors and MSc for agriculture in the North and the Arctic.

Литература

1. Григорьев М.Ф. Привитие практического навыка студентам по технологии кормления и содержания крупного рогатого скота // Организация образовательного процесса в современных условиях: материалы учебно-методической конференции. Якутск: ЯГСХА, 2013. С. 83-86.
2. Григорьев М.Ф. Роль куратора воспитательной работе на младших курсах по специальности «Технология производства и переработки сельскохозяйственной продукции» // Организация образовательного

- процесса в современных условиях: материалы учебно-методической конференции. Якутск: ЯГСХА, 2013. С. 241-242.
3. Степанова Д.И., Григорьев М.Ф., Кулачикова Л.Г. Организация учебно-исследовательской работы студентов "Природообустройство и водопользование" в Якутской ГСХА // Организация образовательного процесса в современных условиях: материалы учебно-методической конференции. Якутск, 2017. С. 47-49.
 4. Федорова Т.Н., Ушницкий А.А., Григорьев М.Ф. Геоинформационные технологии в учебном процессе бакалавров инженерного профиля // Перспективы социально-экономического развития села РС(Я): сборник статей по материалам Республиканской научно-практической конференции; Якутская государственная сельскохозяйственная академия, Агротехнологический факультет. Якутск, 2015. С. 256-260.
 5. Ушницкий А.А., Григорьев М.Ф. Энергетическое использование древесной биомассы: учебное пособие. Якутск: ЯГСХА, 2016. 100 с.
 6. Ушницкий А.А., Григорьев М.Ф. Методы и средства научных исследований: учебное пособие. Якутск: ЯГСХА, 2016. 90 с.
 7. Степанова Д.И., Григорьев М.Ф., Эверстова У.К. Приусадебное хозяйство: пособие по самостоятельной работе студентов. Москва: Изд. «Интернаука», 2017. 78 с.
 8. Степанова Д.И., Эверстова У.К., Григорьев М.Ф. Мелиоративное земледелие: учебное пособие. Новосибирск: Изд. АНС «СибАК», 2018. 124 с.

References

1. Grigorev M.F. (2013) Teaching practical skills to students in the technology of feeding and keeping cattle. Proceedings of Educational and methodological Conference "Organizatsiya obrazovatel'nogo protsessa v sovremennykh usloviyakh" [Organization of the educational process in modern conditions],

- Yakut State Agricultural Academy, Yakutsk (Russia), April 15-16, 2013, pp. 83-86.
2. Grigorev M.F. (2013) The role of the curator of educational work in junior courses in the by specialty "Technology of production and processing of agricultural products". Proceedings of Educational and methodological Conference "Organizatsiya obrazovatel'nogo protsessa v sovremennykh usloviyakh" [Organization of the educational process in modern conditions], Yakut State Agricultural Academy, Yakutsk (Russia), April 15-16, 2013, pp. 241-242.
 3. Stepanova D.I., Grigorev M.F., Kulachikova L.G. (2017) Organization of educational and research work of students "Environmental engineering and water use" in the Yakut State Agricultural Academy. Proceedings of Educational and methodological Conference "Organizatsiya obrazovatel'nogo protsessa v sovremennykh usloviyakh" [Organization of the educational process in modern conditions], Yakut State Agricultural Academy, Yakutsk (Russia), April 21, 2017, pp. 47-49.
 4. Fedorova T.N., Usnitsky A.A., Grigorev M.F. (2015) Geoinformation technologies in the educational process of bachelors of engineering profile. Proceedings of Republican Scientific and Practical Conference "Perspektivy sotsial'no-ekonomicheskogo razvitiya sela RS(YA)" [Prospects for the socio-economic development of village of the Republic of Sakha (Yakutia)], Yakut State Agricultural Academy, Yakutsk (Russia), April 23, 2015, pp. 256-260.
 5. Ushnitskiy A.A., Grigorev M.F. (2016) Energy use of wood biomass: university textbook (Yakutsk: YSAA). 100 p.
 6. Ushnitskiy A.A., Grigorev M.F. (2016) Methods and tools of scientific research: university textbook (Yakutsk: YSAA). 90 p.

7. Stepanova D.I., Grigorev M.F., Everstova U.K. (2017) Homesteading management: manual for independent work of students: university textbook (Moscow: Publishing house "Internauka"). 78 p.
8. Stepanova D.I., Everstova U.K., Grigorev M.F. (2018) Ameliorative agriculture: university textbook (Novosibirsk: Publishing house ANS "SibAK"). 124 p.

© *Алексеев Е.Д., 2022 Международный журнал прикладных наук и технологий "Integral" №4/2022*

Для цитирования: Алексеев Е.Д. Pedagogical research in agrotechnological education// Международный журнал прикладных наук и технологий "Integral" №4/2022