ISSN 2224-526X

ҚАЗАҚСТАН РЕСПУБЛИКАСЫ
ҰЛТТЫҚ ҒЫЛЫМ АКАДЕМИЯСЫНЫҢ
Қазақ ұлттық аграрлық университеті

Х А Б А Р Л А Р Ы

ИЗВЕСТИЯ

НАЦИОНАЛЬНОЙ АКАДЕМИИ НАУК
РЕСПУБЛИКИ КАЗАХСТАН
Казакский национальный
аграрный университет

IZVESTIÂ

NATIONAL'NOJ AKADEMII NAUK
RESPUBLIKI KAZAHSTAN
Kazakh national
agrarian university

SERIÂ AGRARNYH NAUK

2 (50)

MARCH – APRIL 2019

PUBLISHED SINCE JANUARY 2011

PUBLISHED 6 TIMES A YEAR

ALMATY, NAS RK

Б а с р е д а к т о р

Есполов Т.И.,

э.ғ.д, профессор,

ҚР ҰҒА академигі және вице-президенті

Р е д а к ц и я л қ а с ы:

Байзақов С.Б., э.ғ.д, проф., ҚР ҰҒА академигі (бас редактордың орынбасары); **Тиреуов К.М.**, э.ғ.д, проф., ҚР ҰҒА академигі (бас редактордың орынбасары); **Елешев Р.Е.**, т.ғ.д., проф., ҚР ҰҒА академигі; **Рау А.Г.**, т.ғ.д., проф., ҚР ҰҒА академигі; **Иванов Н.П.**, в.ғ.д, проф., ҚР ҰҒА академигі; **Кешуов С.А.**, т.ғ.д., проф., ҚР ҰҒА академигі; **Мелдебеков А.**, а.ш.ғ.д., проф., ҚР ҰҒА академигі; **Чоманов У.Ч.**, т.ғ.д., проф., ҚР ҰҒА академигі; **Елюбаев С.З.**, а.ш.ғ.д., проф., ҚР ҰҒА академигі; **Садыкулов Т.**, а.ш.ғ.д., проф., академигі; **Баймұқанов Д.А.**, а.ш.ғ.д., проф., ҚР ҰҒА корр-мүшесі; **Сансызбай А.Р.**, а.ш.ғ.д., проф., ҚР ҰҒА корр-мүшесі; **Умбетаев И.**, а.ш.ғ.д., проф., ҚР ҰҒА академигі; **Оспанов С.Р.**, а.ш.ғ.д., проф., ҚР ҰҒА құрметті мүшесі; **Олейченко С.И.**, а.ш.ғ.д., проф.; **Кененбаев С.Б.**, а.ш.ғ.д., проф., ҚР ҰҒА корр-мүшесі; **Омбаев А.М.**, а.ш.ғ.д., проф. ҚР ҰҒА корр-мүшесі; **Молдашев А.Б.**, э.ғ.д., проф., ҚР ҰҒА құрметті мүшесі; **Сагитов А.О.**, б.ғ.д., ҚР ҰҒА академигі; **Сапаров А.С.**, а.ш.ғ.д., проф., ҚР АШҒА академигі; **Балгабаев Н.Н.**, а.ш.ғ.д., проф.; **Умирзаков С.И.**, т.ғ.д, проф.; **Султанов А.А.**, в.ғ.д., проф., ҚР АШҒА академигі; **Алимкулов Ж.С.**, т.ғ.д., проф., ҚР АШҒА академигі; **Сарсембаева Н.Б.**, в.ғ.д., проф.

Р е д а к ц и я к е н е с і:

Fasler-Kan Elizaveta, Dr., University of Basel Switzerland; **Koolmees Petrus Adrianus**, Prof. Dr., Utrecht University, The Netherlands; **Babadoost-Kondri Mohammad**, Prof., University of Illinois, USA; **Yus Aniza Binti Yusof**, Dr., University Putra, Malaysia; **Hesseln Hayley Fawn**, As. Prof., University of Saskatchewan, Canada; **Alex Morgounov**, Pr., International Maize and Wheat Improvement Center Turkey; **Андреш С.**, Молдова Республикасы ҰҒА академигі; **Гаврилюк Н.Н.**, Украина ҰҒА академигі; **Герасимович Л.С.**, Беларусь Республикасының ҰҒА академигі; **Мамедов Г.**, Азербайжан Республикасының ҰҒА академигі; **Шейко И.П.**, Беларусь Республикасының ҰҒА академигі; **Жалнин Э.В.**, т.ғ.д., проф., Ресей; **Боинчан Б.**, а.ш.ғ.д, проф., Молдова Республикасы; **Юлдашбаев Ю.А.**, а.ш.ғ.д, проф., РҒА корр-мүшесі, Ресей.

Главный редактор

Есполов Т.И.,

доктор эконом. наук, проф.,
вице-президент и академик НАН РК

Редакционная коллегия:

Байзаков С.Б., доктор эконом. наук, проф., академик НАН РК (заместитель главного редактора); **Тиреуов К.М.**, доктор эконом. наук, проф., академик НАН РК (заместитель главного редактора); **Елешев Р.Е.**, доктор техн. наук, проф., академик НАН РК; **Рау А.Г.**, доктор техн. наук, проф., академик НАН РК; **Иванов Н.П.**, доктор ветеринар. наук, проф., академик НАН РК; **Кешуов С.А.**, доктор техн. наук, проф., академик НАН РК; **Мелдебеков А.**, доктор сельхоз. наук, проф., академик НАН РК; **Чоманов У.Ч.**, доктор техн. наук, проф., академик НАН РК; **Елюбаев С.З.**, доктор сельхоз. наук, проф., академик НАН РК; **Садыкулов Т.**, доктор сельхоз. наук, проф., академик НАН РК; **Баймуханов Д.А.**, доктор сельхоз. наук, проф., член-корр. НАН РК; **Сансызбай А.Р.**, доктор сельхоз. наук, проф., член-корр. НАН РК; **Умбетаев И.**, доктор сельхоз. наук, проф., академик НАН РК; **Оспанов С.Р.**, доктор сельхоз. наук, проф., Почетный член НАН РК; **Олейченко С.И.**, доктор сельхоз. наук, проф.; **Кененбаев С.Б.**, доктор сельхоз. наук, проф., член-корр. НАН РК; **Омбаев А.М.**, доктор сельхоз. наук, проф. член-корр. НАН РК.; **Молдашев А.Б.**, доктор эконом. наук, проф., Почетный член НАН РК; **Сагитов А.О.**, доктор биол. наук, академик НАН РК; **Сапаров А.С.**, доктор сельхоз. наук, проф., академик АСХН РК; **Балгабаев Н.Н.**, доктор сельхоз. наук, проф.; **Умирзаков С.И.**, доктор техн. наук, проф.; **Султанов А.А.**, доктор ветеринар. наук, проф., академик АСХН РК; **Алимкулов Ж.С.**, доктор техн. наук, проф., академик АСХН РК; **Сарсембаева Н.Б.**, доктор ветеринар. наук, проф.

Редакционный совет:

Fasler-Kan Elizaveta, Dr., University of Basel Switzerland; **Koolmees Petrus Adrianus**, Prof. Dr., Utrecht University, The Netherlands; **Babadoost-Kondri Mohammad**, Prof., University of Illinois, USA; **Yus Aniza Binti Yusof**, Dr., University Putra, Malaysia; **Hesseln Hayley Fawn**, As.Prof., University of Saskatchewan, Canada; **Alex Morgounov**, Pr., International Maize and Wheat Improvement Center Turkey; **Андреш С.**, академик НАН Республики Молдова; **Гаврилюк Н.Н.**, академик НАН Украины; **Герасимович Л.С.**, академик НАН Республики Беларусь; **Мамедов Г.**, академик НАН Республики Азербайджан; **Шейко И.П.**, академик НАН Республики Беларусь; **Жалнин Э.В.**, доктор техн. наук, проф., Россия; **Боинчан Б.**, доктор сельхоз. наук, проф., Республика Молдова; **Юлдашбаев Ю.А.**, доктор сельхоз. наук, проф., член-корр. РАН, Россия.

Известия Национальной академии наук Республики Казахстан. Серия аграрных наук.

ISSN 2224-526X

Собственник: ООО «Национальная академия наук Республики Казахстан» (г. Алматы)

Свидетельство о постановке на учет периодического печатного издания в Комитете информации и архивов Министерства культуры и информации Республики Казахстан № 10895-Ж, выданное 30.04.2010 г.

Периодичность 6 раз в год

Тираж: 300 экземпляров

Адрес редакции: 050010, г. Алматы, ул. Шевченко, 28, ком. 219-220, тел. 272-13-19, 272-13-18

<http://agricultural.kz/index.php/en/>

© Национальная академия наук Республики Казахстан, 2019

Адрес типографии: ИП «Аруна», г. Алматы, ул. Муратбаева, 75

Chief Editor

Espolov T.I.,

Dr. economy. Sciences, prof.,
Vice President and academician of the NAS RK

Editorial Board:

Baizakov S.B., Dr. of economy sciences, prof., academician of NAS RK (deputy editor); **Tireuov K.M.**, Doctor of Economy Sciences., prof., academician of NAS RK (deputy editor); **Eleshev R.E.**, Dr. Of agricultural sciences, prof., academician of NAS RK; **Rau A.G.**, Dr. sciences, prof., academician of NAS RK; **Ivanov N.P.**, Dr. of veterinary sciences, prof., academician of NAS RK; **Keshuov S.A.**, Dr. sciences, prof., academician of NAS RK; **Meldebekov A.**, doctor of agricultural sciences, prof., academician of NAS RK; **Chomanov U.Ch.**, Dr. sciences, prof., academician of NAS RK; **Yelyubayev S.Z.**, Dr. of agricultural sciences, prof., academician of NAS RK; **Sadykulov T.**, Dr. Farm. Sciences, prof., academician of NAS RK; **Baimukanov D.A.**, doctor of agricultural sciences, prof., corresponding member NAS RK; **Sansyzbai A.R.**, doctor of agricultural sciences, prof., corresponding member NAS RK; **Umbetaev I.**, Dr. Farm. Sciences, prof., academician of NAS RK; **Ospanov S.R.**, Dr. agricultural sciences, prof., Honorary Member of NAS RK; **Oleychenko S.N.**, Dr. Of agricultural sciences, prof.; **Kenenbayev S.B.**, Dr. Agricultural sciences, prof., corresponding member NAS RK; **Ombayev A.M.**, Dr. Agricultural sciences, Prof. corresponding member NAS RK; **Moldashev A.B.**, Doctor of Economy sciences, prof., Honorary Member of NAS RK; **Sagitov A.O.**, Dr. biol. sciences, academician of NAS RK; **Saparov A.S.**, Doctor of agricultural sciences, prof., academician of NAS RK; **Balgabaev N.N.**, the doctor agricultural sciences, Prof.; **Umirezakov S.I.**, Dr. Sci. Sciences, Prof.; **Sultanov A.A.**, Dr. of veterinary sciences, prof., academician of the Academy of Agricultural Sciences of Kazakhstan; **Alimkulov J.C.**, Dr. of tekhnical sciences, prof., academician of the Academy of Agricultural sciences of Kazakhstan; **Sarsembayeva N.B.**, Dr. veterinary sciences, prof.

Editorial Board:

Fasler-Kan Elizaveta, Dr., University of Basel Switzerland; **Koolmees Petrus Adrianus**, Prof. Dr., Utrecht University, The Netherlands; **Babadoost-Kondri Mohammad**, Prof., University of Illinois, USA; **Yus Aniza Binti Yusof**, Dr., University Putra, Malaysia; **Hesseln Hayley Fawn**, As. Prof., University of Saskatchewan, Canada; **Alex Morgounov**, candidate of agricultural sciences, International Maize and Wheat Improvement Center Turkey; **Andresh S.**, academician of NAS of Moldova; **Gavrilluk N.N.**, academician of NAS of Ukraine; **Gerasimovich L.S.**, academician of NAS of Belorussia; **Mamadov G.**, academician of NAS of Azerbaijan; **Sheiko I.P.**, academician of NAS of Belorussia; **Zhalnin E.V.**, Dr. of technical sciences, professor, Russia, **Boinchan B.**, doctor of agricultural sciences, prof., Moldova; **Yuldashbayev Y.A.**, doctor of agricultural sciences, prof., corresponding member of RAS, Russia.

News of the National Academy of Sciences of the Republic of Kazakhstan. Series of Agrarian Sciences.

ISSN 2224-526X

Owner: RPA "National Academy of Sciences of the Republic of Kazakhstan" (Almaty)

The certificate of registration of a periodic printed publication in the Committee of Information and Archives of the Ministry of Culture and Information of the Republic of Kazakhstan N 10895-Ж, issued 30.04.2010

Periodicity: 6 times a year

Circulation: 300 copies

Editorial address: 28, Shevchenko str., of.219-220, Almaty, 050010, tel. 272-13-19, 272-13-18,
<http://nauka-nanrk.kz / agricultural.kz>

© National Academy of Sciences of the Republic of Kazakhstan, 2019

Address of printing house: ST "Aruna", 75, Muratbayev str, Almaty

NEWS

OF THE NATIONAL ACADEMY OF SCIENCES OF THE REPUBLIC OF KAZAKHSTAN

SERIES OF AGRICULTURAL SCIENCES

ISSN 2224-526X

Volume 2, Number 50 (2019), 51 – 54

<https://doi.org/10.32014/2019.2224-526X.16>

UDC 619:614

**N. P. Ivanov¹, T. M. Dosmukhambetov², A. M. Namet¹, M. A. Aliyev²,
D. M. Bekenov³, K. M. Shynybaev¹, N. Zh. Akmyrzayev¹, T. S. Sadykulov⁴, M. A. Kineyev⁵**

¹Kazakh Scientific Research Veterinary Institute LLP, Almaty, Kazakhstan,

²“Bayserke-Agro LLP”, Almaty, Kazakhstan,

³Educational, Research and Production Center “Bayserke-Agro LLP”, Almaty, Kazakhstan,

⁴Non-profit JSC “Kazakh National Agrarian University”, Almaty, Kazakhstan,

⁵LLP “Kazakh Research Institute of Livestock and Feed Production” Almaty, Kazakhstan.

E-mail: akademik-vet@mail.ru, baiserke-agro.kz@mail.ru, ainamet@mail.ru, baiserke-agro.kz@mail.ru,

unpcbayerke-agro@mail.ru, nurlan.90.92@inbox.ru

IDENTIFYING THE RISKS OF POSSIBLE APPEARANCE AND SPREAD OF INFECTIOUS DISEASES IN “BAYSERKE-AGRO” LLP AND ADJACENT TERRITORY

Summary. Taking into account the epizootology law on the continuity of the epizootic process and the data of the epizootological inspection of the livestock sites of “Bayserke-Agro” LLP and the adjacent territory, we identified possible risks of the occurrence and spread of infectious animal diseases (with different forms of infections - exogenous, endogenous and cryptogenic), which were nominally divided into 4 groups:

- risks associated with the source of the pathogen;
- risks associated with the transmission mechanism of the infectious beginning;
- risks associated with a susceptible organism;
- risks common to several links of the epizootic chain.

Analysis of the risk criteria for the emergence and spread of infectious animal diseases in epizootological units (EU) made it possible to establish that the main reasons for the persistence of a complex epizootic situation for infectious animal diseases are:

- the absence of separate groups of animals, which causes the contact of separate individuals contained in various livestock formations and requires the organization of the ES;
- inadequate process of identification of animals, which does not allow for the timely detection and isolation of an infected animal;
- lack of equipment of livestock facilities with necessary installations, which leads to the possible penetration of pathogens into animals;
- unsatisfactory implementation of veterinary and sanitary measures for the destruction of the pathogen in the external environment;
- insufficient implementation of special veterinary measures, which does not increase, in necessary cases, the body's resistance to a specific disease.

Results and analysis of the data. Taking into account the law of epizootology on the continuity of the epizootic process [1] and the data of the epizootological inspection of the livestock sites of “Bayserke-Agro” LLP and the adjacent territory, we identified possible risks of the occurrence and spread of infectious animal diseases (with different forms of infections - exogenous, endogenous and cryptogenic) which were divided into 4 groups:

- risks associated with the source of the pathogen;
- the risks associated with the transmission mechanism of the infectious beginning;
- risks associated with a susceptible organism;
- risks common to several links of the epizootic chain.

The criteria for the risk of occurrence and spread of infectious animal diseases associated with the source of the pathogen:

- lack of formation of epizootological units;
- lack of identification of farm animals;
- incomplete coverage of diagnostic studies of the actual livestock of farm animals;
- lack of quality control of used diagnostica;
- failure to comply with the multiplicity of studies during the health of anti-epizootic measures;
- concealment by owners of cases of clinical manifestations of animal diseases;
- untimely declaration of the economy as unfavorable and establishment of quarantine and restrictive measures;
- untimely isolation and delivery of sick animals for slaughter;
- joint grazing on pasture of different species (cattle, small cattle, horses, etc.) from animals that are unfavorable and prosperous for infectious diseases EU;
- unsatisfactory implementation of veterinary and sanitary measures;
- lack of veterinary control in the sale and purchase of animals;
- lack of centralized slaughter of sick stock in the region.

The criteria for the risk of occurrence and spread of infectious animal diseases associated with the mechanism of transmission of infection:

- low veterinary and sanitary condition of some livestock farms;
- non-compliance with the rules for the destruction of animal corpses;
- the lack of facilities for livestock facilities to collect afterbirth, aborted fruits and disinfection of animal care items;
- inadequate carrying out disinfection of milk obtained from animals of dysfunctional herds and dairy equipment;
- the absence of a planned change of pasture plots and watering places of animals;
- the lack of measures to prevent livestock farms of animals not kept on it (stray dogs, wild animals, birds, rodents) of possible carriers of the infectious principle.

The criteria for the risk of occurrence and spread of infectious animal diseases associated with a susceptible organism:

- low resistance of animals, due to poor feeding and maintenance of animals;
- unreasonable choice of means and methods of their use in the fight against infectious animal diseases;
- lack of quality control of used vaccines and non-compliance with the multiplicity of their use;
- lack of post-vaccination control of immunity in vaccinated animals;
- the presence of latent forms of the course of diseases and not their timely detection.

General risk factors:

- livestock technology without taking into account the possibilities of breaking the epizootic chain;
- unreasonable division of territory into zones according to the degree of tension of the epizootic situation and factors of the possible spread of infectious animal diseases;
- population density in a certain area and a high concentration of herd animals;
- facts of uncontrolled movement and sale of animals and animal products;
- untimely purchase of materials for anti-epizootic measures and animal identification;
- inadequate compensation to owners for surrendered for slaughter or destruction of a sick animal;
- the presence of pathogens in adjacent territories.

Thus, the analysis of the risk criteria for the emergence and spread of contagious animal diseases in epizootic units (EU) made it possible to establish that the main reasons for the persistence of a complex epizootic situation for infectious animal diseases are:

- the absence of separate groups of animals, which causes the contact of individual individuals contained in various livestock formations and requires the organization of EU [2];
- inadequate identification of animals, which does not allow for the timely detection and isolation of an infected animal;

- lack of equipment of livestock facilities with necessary facilities, which leads to the possible penetration of pathogens into animals;
- unsatisfactory conduct of veterinary and sanitary measures to destroy the pathogen in the external environment [3];
- insufficient implementation of special veterinary measures, which does not increase, in necessary cases, the body's resistance to a specific disease [4].

**Н. П. Иванов¹, Т. М. Досмухамбетов²,
А. М. Намет¹, М. А. Алиев², Д. М. Бекенов³, К. М. Шыныбаев¹,
Н. Ж. Акмырзаев¹, Т. С. Садыкулов⁴, М. А. Кинеев⁵**

¹Қазақ ветеринария ғылыми-зерттеу институты, Алматы, Қазақстан,

²«Байсерке-Агро» ЖШС, Алматы облысы, Қазақстан,

³«Байсерке-Агро ББҒӨО» ЖШС, Алматы облысы, Қазақстан,

⁴«Қазақ ұлттық аграрлық университеті», Алматы, Қазақстан,

⁵«Қазақ мал шаруашылығы және азық өндіру ғылыми-зерттеу институты»,
Алматы, Қазақстан

«БАЙСЕРКЕ-АГРО» ЖШС ҚАРАСТЫ ТЕРРИТОРИЯ МАҢЫНДАҒЫ ЖҰҚПАЛЫ АУРУЛАРДЫҢ ТАРАЛУЫ МЕН ПАЙДА БОЛУ ҚАУПІН АНЫҚТАУ

Аннотация. Мақалада «Байсерке-Агро» ЖШС қарасты территория маңындағы мал фермаларындағы індеттанулық зерттеулердің мәліметі бойынша жұқпалы аурулардың пайда болуы мен таралу қаупінің індетке қарсы шараларды жетілдіру үшін анықтауға мүмкіндік беретіндігі келтірілген.

Түйін сөздер: пайда болу қаупі, жұқпалы аурулар, ауру қоздырушысының бастауы, жұқпалы ауруларының берілу механизмі, бейім организм.

**Н. П. Иванов¹, Т. М. Досмухамбетов²,
А. М. Намет¹, М. А. Алиев², Д. М. Бекенов³, К. М. Шыныбаев¹,
Н. Ж. Акмырзаев¹, Т. С. Садыкулов⁴, М. А. Кинеев⁵**

¹ТОО «Казахский научно-исследовательский ветеринарный институт», Алматы, Казахстан,

²ТОО «Байсерке-Агро», Алматинская область, Казахстан,

³ТОО «УНПЦ Байсерке-Агро» Алматинская область, Казахстан,

⁴НАО «Казахский национальный аграрный университет» Алматы, Казахстан,

⁵ТОО «Казахский научно-исследовательский институт животноводства и кормопроизводства»,
Алматы, Казахстан

ВЫЯВЛЕНИЕ РИСКОВ ВОЗМОЖНОГО ПОЯВЛЕНИЯ И РАСПРОСТРАНЕНИЯ ЗАРАЗНЫХ БОЛЕЗНЕЙ В ТОО «БАЙСЕРКЕ-АГРО» И ПРИЛЕГАЮЩЕЙ К НЕМУ ТЕРРИТОРИИ

Аннотация. В статье приведены данные эпизоотологического обследования животноводческих участков ТОО «Байсерке-Агро» и прилегающей к ним территории, анализ которых позволил определить возможные риски возникновения и распространения заразных болезней животных, с целью последующей разработки противоэпизоотических мероприятий.

Ключевые слова: риски, заразные болезни, источник возбудителя заболевания, механизм передачи заразного начала, восприимчивый организм.

Information about authors:

Ivanov N. P., chief researcher, doctor of veterinary sciences, professor, academician of the National Academy of Sciences of the Republic of Kazakhstan, akademik, Kazakh Scientific Research Veterinary Institute LLP, Almaty, Kazakhstan; vet@mail.ru; <https://orcid.org/0000-0003-1964-241X>

Dosmukhanbetov T. M. is the founder of "Baystroke Agro" ESPC of Almaty region, Kazakhstan; baiserke-agro.kz@mail.ru; <https://orcid.org/0000-0002-0373-8321>

Namet A. M., chief researcher, doctor of veterinary sciences, Kazakh Scientific Research Veterinary Institute LLP, Almaty, Kazakhstan; ainamet@mail.ru; <https://orcid.org/0000-0001-9639-4208>

Aliyev M. A., doctor PhD, General Director of Bayserke-Agro LLP, Almaty region, Kazakhstan; baiserke-agro.kz@mail.ru; <https://orcid.org/0000-0002-4439-9565>

Bekenov D. M., director, master of natural sciences and biotechnology, "UNPTS Bayserke-Agro" LLP Almaty, Kazakhstan; unpcbayerke-agro@mail.ru; <https://orcid.org/0000-0003-2244-0878>

Shynybaev K. M., senior researcher, Kazakh Scientific Research Veterinary Institute LLP, Almaty, Kazakhstan; k.shynybaev@mail.ru; <https://orcid.org/0000-0002-7702-1390>

Akmyrzaev N. Zh., junior researcher, Kazakh Scientific Research Veterinary Institute LLP, Almaty, Kazakhstan; nurlan.90.92@inbox.ru; <https://orcid.org/0000-0001-8896-3482>

Sadykulov T., chief researcher, doctor of agricultural sciences, professor, academician of the National Academy of Sciences of the Republic of Kazakhstan, Kazakh National Agrarian University NAO, Almaty, Kazakhstan; baiserke-agro.kz@mail.ru

Kineyev M. A., doctor of agricultural sciences, professor, academician AIAS RK, LLP "Kazakh Research Institute of Livestock and Feed Production", Almaty, Kazakhstan; baiserke-agro.kz@mail.ru

REFERENCES

- [1] Konopatkin A.A., Bakulov I.A. and other. Epizootology and infectious diseases of farm animals. M., 1984. P. 3-12.
- [2] Sultanov A.A., Ivanov N.P., Namet A.M. and others. Recommendations on the formation of an epizootological (epidemiological) unit and a sampling of animals to establish the epizootic situation on brucellosis. Almaty, 2016. 15 p.
- [3] Sultanov A.A., Ivanov N.P., Namet A.M. and other. Recommendations for the improvement of the veterinary and sanitary state on livestock farms (on the example of Bayserke-Agro LLP). Almaty, 2016. 22 p.
- [4] Namet A.M., Karataev B.Sh. and other. Acceptance of Vaccine Strain Pasteurellosis, used Inactivated Vaccines // News of NAS RK. Series of agrarian sciences. 2011. N 5. ISSN 2224-526X. P. 76-78. <https://doi.org/10.32014/2018.2224-526X>.

Publication Ethics and Publication Malpractice in the journals of the National Academy of Sciences of the Republic of Kazakhstan

For information on Ethics in publishing and Ethical guidelines for journal publication see <http://www.elsevier.com/publishingethics> and <http://www.elsevier.com/journal-authors/ethics>.

Submission of an article to the National Academy of Sciences of the Republic of Kazakhstan implies that the described work has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis or as an electronic preprint, see <http://www.elsevier.com/postingpolicy>), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. In particular, translations into English of papers already published in another language are not accepted.

No other forms of scientific misconduct are allowed, such as plagiarism, falsification, fraudulent data, incorrect interpretation of other works, incorrect citations, etc. The National Academy of Sciences of the Republic of Kazakhstan follows the Code of Conduct of the Committee on Publication Ethics (COPE), and follows the COPE Flowcharts for Resolving Cases of Suspected Misconduct (http://publicationethics.org/files/u2/New_Code.pdf). To verify originality, your article may be checked by the Cross Check originality detection service <http://www.elsevier.com/editors/plagdetect>.

The authors are obliged to participate in peer review process and be ready to provide corrections, clarifications, retractions and apologies when needed. All authors of a paper should have significantly contributed to the research.

The reviewers should provide objective judgments and should point out relevant published works which are not yet cited. Reviewed articles should be treated confidentially. The reviewers will be chosen in such a way that there is no conflict of interests with respect to the research, the authors and/or the research funders.

The editors have complete responsibility and authority to reject or accept a paper, and they will only accept a paper when reasonably certain. They will preserve anonymity of reviewers and promote publication of corrections, clarifications, retractions and apologies when needed. The acceptance of a paper automatically implies the copyright transfer to the National Academy of Sciences of the Republic of Kazakhstan.

The Editorial Board of the National Academy of Sciences of the Republic of Kazakhstan will monitor and safeguard publishing ethics.

Правила оформления статьи для публикации в журнале смотреть на сайте:

www.nauka-nanrk.kz

<http://agricultural.kz/index.php/en/>

Редактор *М. С. Ахметова, Т. М. Апендиев, Д. С. Аленов*
Верстка на компьютере *Д. Н. Калкабековой*

Подписано в печать 12.04.2019.
Формат 60x881/8. Бумага офсетная. Печать – ризограф.
7,2 п.л. Тираж 300. Заказ 2.