

ISSN 2518-1483 (Online),
ISSN 2224-5227 (Print)

2021 • 1

ҚАЗАҚСТАН РЕСПУБЛИКАСЫ
ҰЛТТЫҚ ҒЫЛЫМ АКАДЕМИЯСЫНЫҢ

БАЯНДАМАЛАРЫ

ДОКЛАДЫ

НАЦИОНАЛЬНОЙ АКАДЕМИИ НАУК
РЕСПУБЛИКИ КАЗАХСТАН

REPORTS

OF THE NATIONAL ACADEMY OF SCIENCES
OF THE REPUBLIC OF KAZAKHSTAN

PUBLISHED SINCE 1944



ALMATY, NAS RK

Бас редакторы
х.ғ.д., проф., ҚР ҰҒА академигі
М.Ж. Жұрынов

Редакция алқасы:

Адекенов С.М. проф., академик (Қазақстан) (бас ред. орынбасары)
Баймуқанов Д.А. проф., академик (Қазақстан)
Бенберин В.В., проф., академик (Қазақстан)
Березин В.Э., проф., корр.-мүшесі (Қазақстан)
Берсимбаев Р.И. проф., академик (Қазақстан)
Величкин В.И. проф., корр.-мүшесі (Ресей)
Елешев Р.Е., проф., академик (Қазақстан)
Жамбакин Қ.Ж., проф., академик (Қазақстан)
Илолов М.И. проф., академик (Тәжікстан)
Кригер Виктор проф. (Германия)
Локшин В.Н. проф., академик (Қазақстан)
Огарь Н.П. проф., корр.-мүшесі (Қазақстан)
Перни Стефано проф. (Ұлыбритания)
Потапов В.А. проф. (Украина)
Прокопович Полина проф. (Ұлыбритания)
Раманкулов Е.М., проф., корр.-мүшесі (Қазақстан)
Семенов В.Г., проф., академик (Россия)
Сикорски Марек проф., (Польша)
Уразалиев Р.А., проф., академик (Қазақстан)

«Қазақстан Республикасы Ұлттық ғылым академиясының баяндамалары»

ISSN 2518-1483 (Online),

ISSN 2224-5227 (Print)

Меншіктенуші: «Қазақстан Республикасының Ұлттық ғылым академиясы» Республикалық қоғамдық бірлестігі (Алматы қ.).

Қазақстан Республикасының Ақпарат және қоғамдық даму министрлігінің Ақпарат комитетінде 29.07.2020 ж. берілген № KZ93VPY00025418 мерзімдік басылым тіркеуіне қойылу туралы куәлік.

Тақырыптық бағыты: наноматериалдар алу, биотехнология және экология саласындағы бірегей зерттеу нәтижелерін жариялау.

Мерзімділігі: жылына 6 рет.

Тиражы: 500 дана.

Редакцияның мекенжайы: 050010, Алматы қ., Шевченко көш., 28; 219, 220 бөл.;

тел.: 272-13-19, 272-13-18,

<http://reports-science.kz/index.php/en/archive>

© Қазақстан Республикасының Ұлттық ғылым академиясы, 2021

Типографияның мекенжайы: «NurNaz GRACE», Алматы қ., Рысқұлов көш., 103.

Главный редактор
д.х.н., проф., академик НАН РК
М. Ж. Журинов

Редакционная коллегия:

Адекенов С.М. проф., академик (Казахстан) (зам. гл. ред.)
Баймуканов Д.А. проф., чл.-корр. (Казахстан)
Бенберин В.В., проф., академик (Казахстан)
Березин В.Э., проф., чл.-корр. (Казахстан)
Берсимбаев Р.И. проф., академик (Казахстан)
Величкин В.И. проф., чл.-корр. (Россия)
Елешев Р.Е., проф., академик (Казахстан)
Жамбакин К.Ж., проф., академик (Казахстан)
Илолов М.И. проф., академик (Таджикистан)
Кригер Виктор проф. (Германия)
Локшин В.Н. проф., академик (Казахстан)
Огарь Н.П. проф., чл.-корр. (Казахстан)
Перни Стефано проф. (Великобритания)
Потапов В.А. проф. (Украина)
Прокопович Полина проф. (Великобритания)
Раманкулов Е.М., проф., чл.-корр. (Казахстан)
Семенов В.Г., проф., академик (Россия)
Сикорски Марек проф., (Польша)
Уразалиев Р.А., проф., академик (Казахстан)

Доклады Национальной академии наук Республики Казахстан»
ISSN 2518-1483 (Online),
ISSN 2224-5227 (Print)

Собственник: Республиканское общественное объединение «Национальная академия наук Республики Казахстан» (г. Алматы).

Свидетельство о постановке на учет периодического печатного издания в Комитете информации Министерства информации и общественного развития Республики Казахстан № KZ93VPY00025418, выданное 29.07.2020 г.

Тематическая направленность: *публикация оригинальных результатов исследований в области получения наноматериалов, биотехнологии и экологии.*

Периодичность: 6 раз в год.

Тираж: 500 экземпляров

Адрес редакции: 050010, г.Алматы, ул.Шевченко, 28; ком. 219, 220; тел. 272-13-19, 272-13-18,
<http://reports-science.kz/index.php/en/archive>

© Национальная академия наук Республики Казахстан, 2021 г.

Адрес типографии: «NurNaz GRACE», г. Алматы, ул. Рыскулова, 103.

E d i t o r i n c h i e f

doctor of chemistry, professor, academician of NAS RK

M.Zh. Zhurinov**E d i t o r i a l b o a r d :****Adekenov S.M.** prof., academician (Kazakhstan) (deputy editor in chief)**Baimukanov D.A.** prof., academician (Kazakhstan)

Benberin V.V., prof., academician (Kazakhstan)

Berezin V.Ye., prof., corr. member. (Kazakhstan)**Bersimbayev R.I.** prof., academician (Kazakhstan)**Velichkin V.I.** prof., corr. member (Russia)**Eleshev R.E.**, prof., academician (Kazakhstan)**Zhambakin K.Zh.**, prof., academician (Kazakhstan)**Iolov M.I.** prof., academician (Tadjikistan)**Krieger Viktor** prof. (Germany)**Lokshin V.N.** prof., academician (Kazakhstan)**Ogar N.P.** prof., corr. member (Kazakhstan)**Perni Stephano** prof. (Great Britain)**Potapov V.A.** prof. (Ukraine)**Prokopovich Polina** prof. (Great Britain)**Ramankulov E.M.**, prof., corr. member. (Kazakhstan)**Semenov V.G.**, prof., academician (Russia)**Sikorski Marek** prof., (Poland)**Urazaliev R.A.**, prof., academician (Kazakhstan)**Reports of the National Academy of Sciences of the Republic of Kazakhstan.****ISSN 2224-5227****ISSN 2518-1483 (Online),****ISSN 2224-5227 (Print)**

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

The certificate of registration of a periodical printed publication in the Committee of information of the Ministry of Information and Social Development of the Republic of Kazakhstan No. **KZ93VPY00025418**, issued 29.07.2020.**Thematic scope:** *publication of original research results in the field of obtaining nanomaterials, biotechnology and ecology.*

Periodicity: 6 times a year.

Circulation: 500 copies.

Editorial address: 28, Shevchenko str., of. 219, 220, Almaty, 050010, tel. 272-13-19, 272-13-18,

<http://reports-science.kz/index.php/en/archive>

© National Academy of Sciences of the Republic of Kazakhstan, 2021

Address of printing house: «NurNaz GRACE», 103, Ryskulov str, Almaty.

K.A. Sarkhanov

S. Seifullin Kazakh Agrotechnical University, Kazakhstan.

E-mail: ksarhanov@mail.ru

SCIENTIFIC AND PRACTICAL BASES OF INCREASING THE EFFICIENCY OF LIVESTOCK IN THE CONDITIONS OF CENTRAL KAZAKHSTAN

Abstract. The analysis demonstrates that the growth of animal products is provided, mainly by the private subsidiary farmings and households (PSF and HH), where is concentrated more than 80% of cattle and poultry.

Meanwhile, small-scale seasonal production prevails in this sector, which, as practice shows, sometimes does not meet the requirements of the processing industry, and the output products cannot be competitive domestically, especially on the foreign markets.

Consequently, the purpose of these scientific and production researches were the development of the conceptual framework for the improvement of the efficiency of live-stock animal breeding in the rural regions of Central Kazakhstan, which have lion shares of pasture land and underground minerals of the country.

A distinctive feature of the operating system of the small economy management forms in rural regions of Akmola, Karaganda, North-Kazakhstani, and South-Kazakhstani areas has been studied.

The modern abstract-logical, economic-mathematical and statistical methods, common research methods in the area of livestock section are applied in the scientific researches, experiments: All-Russia Research and Development Institute of Livestock Breeding, VIZH, VASKHNIL, and also data on the development of cattle breeding of the region before and post-privatization periods of the rural reform was used.

On the basis of long-term research work, the author having identified the main problems, is developing a comprehensive program for the development of animal husbandry in four areas, that is, to improve systems: economy management, fodder production, subsidies and breeding.

According to the research, the principles and conceptual foundations of improving the efficiency of breeding domestic farm animals have been developed. At the same time, the principles of a systematic approach, feedback, the need to describe the regulatory impacts of the state, the functional composition and structure of the system of economic models at the level of rural regions are distinguished and justified.

Key words: Households, efficiency, personal subsidiary households, agricultural cooperative, fodder base, nutritional value, usefulness of fodder, subsidies, cattle, sheep, horses, livestock, cost, selection.

Introduction. As shown in the practice with the privatization of the agrarian sector of the national economy, there are particular difficulties especially in the development of livestock section beside the positive characteristics of the transformations. Particularly, the extensive development path of the private subsidiary farmings and households (PSF and HH), prevailing by number and output of products, promoted degradation of pasture, hayfield meadows, uncertainty in the subsidy and brood work, which are principal constraining factors in the production of competitive livestock products. Measures on their elimination in preference manner: development of the effective systems: economic management of commodities manufacturers, creation of strong, nutritive base, state support, and selective-breeding work.

The research results. Development of economic management mechanism of commodities manufacturers. Scientific and production researches were carried out in the rural regions (30 rural regions of Akmola, Karaganda, North-Kazakhstani and South-Kazakhstani areas, on issues related to the improvement of the economic mechanism of operation of small economy management forms in rural regions and reasonability of private subsidiary farmings and households (PSF and HH) transformation (conversions) in small forms of private enterprise, and also search of the ways for renewal of free-range animal husbandry in the context of the market.

Following factors, determining the development of integration in the modern conditions, were detected during the research on this subject: reasonability of participation in the organization activity, the priority of the common interests over private ones, weak link principle, allocation of the basic elements in the cooperation system, the necessity of the participation. [1,2].

Consequently, on the last stage of this work, they speak for the necessity of development of the particular model of agricultural cooperative in three rural areas and analysis of the results of transformation (conversion) of private subsidiary farmings in small forms of private enterprises, and also a reclamation of the remote pastures by small agricultural facilities, in the context of the pilot project of LLP “Otkanzhar” using alternative energy sources (solar, wind).

Creation of agricultural cooperatives based on the private subsidiary farmings and households within the rural settlements was efficient and they take the form of vertical integration, i.e. members of cooperative, preserving ownership of the means of production and land, conduct the joint activity on the issues related to the sale of products, feed production, supply of materials and machinery, improvement of productivity of livestock farming, i.e. a chain is built according to the principle of the closed cycle, where the regular problems in one link will be compensated in other ones as required. [3,4]. Measures on the transformation of the private subsidiary farmings and households in small forms of private enterprise and reclamation of the remote pastures by small agricultural facilities were less attractive due to limitation of the material and technical resources of the private subsidiary farmings, free land plots of the surrounding grounds to the rural settlements and absence of the proper social and production infrastructure in the remote rural areas.

Measures to improve the nutritional value of forage and productivity of rangelands.

As mentioned above, in terms of priority, the second position is taken by the creation of a solid and full-fledged feed base for animal husbandry. In this case, it should be considered in two positions: quantitative and qualitative understanding [5]. Consequently, the feed value of a wild plant “Shaiyr”, peculiar to the regions of Central Kazakhstan, has been studied to improve diet density of the animal nutrition.

For this purpose, three groups of cows were formed by analogy, in order to feed shayr in the form of juicy and granular feed: the first group is the control one (in the diet instead of juicy feed - corn silage), respectively, the second experimental group is shayr-alfalfa hay, the third is experimental - shayr haylage and their share in the diet were equivalent in terms of physical weight.

The duration of the experiment was 5 months.

Wherein, the milk productivity of the animals of the second group fed with shayr-alfalfa haylage turned out to be higher than that of the first and third groups, i.e. in terms of milk yield - by 250 and 120 kg, or 16% and 7.5%, respectively, as well as the advantage of group 3 (shayr haylage) in relation to group 1 - by 130, or 8.8%, respectively. Experimental animals fed with shayr-alfalfa mixture were characterized by relatively high indicators of the main components in milk, especially in terms of fat and protein content, in comparison with the data of animals of groups 1 and 3, by 0.16-0.12% and 0.09-0, 05% ($P < 0.05$), respectively. Since the collection of shayr is a laborious process (manually), the effectiveness of feeding animals with it in the form of granular feed mixed with biological active substances was also investigated. This gave amazing results, i.e. significant growth, development and a high level of safety (survival) of young animals were observed, especially cattle in the dairy period of rearing, where unforeseen costs of offspring usually occurred.

The cultivation of a perennial, drought-resistant (the root system reaches 3 meters) imported plant "Spinach-Rumiks" for livestock feed, showed that from one experimental hectare, from the second year without irrigation, they gave 120 c/ha, and, out of three cuttings (per year) - 360 c/ha of green mass. When feeding dairy cows with it in the form of haylage, it was not inferior to traditional succulent forage in terms of feed value, and turned out to be more effective in terms of cost. The international project: “Arid lands management” has been implemented to improve the nutritive base in a quantitative sense in the Shetskiy region of Karaganda area at the expense of the grants of the Global Environmental Facility (USA, Washington) and the Ministry of Ecology of the Republic of Kazakhstan.

At the same time, the participation of agricultural producers in the region consisted in the provision of land plots, equipment, agricultural machinery, production facilities in the possession, and grant holders - in the provision of material and technical resources associated with this project. At the same time, the

crops of grain crops, carried out within the framework of the project, ensured the receipt of up to 9 c/ha of hay, against 2-4 c / ha. Livestock number has increased by one and half times, meat production in two times, and preparation and sales of feed on average in three times at the project territory within four years.

Thus, the results of this work clearly demonstrated the ecological and economic viability of dry agricultural lands, subject to the transition from crop production to traditional livestock breeding for these territories [6,7].

State support of livestock breeding.

A search of the effective subsidy instruments in the area of livestock products production including the results of the implementation of the mentioned in the previous section of the project “Arid lands management” demonstrated that predominated transition to the natural subsidy i.e. rendering of the necessary services is the mandatory method of state support, especially to develop the livestock section. Implementation of agrotechnical measures on improvement of the feeding value of pastoral and hayfield meadows becomes of special actuality as cost of animals’ diet takes the lion’s share (70%) in the prime cost of the livestock products. [8,9]. For example, let’s say that the prime cost of milk is 100 KZT, in theory, the food cost is 70 KZT among them. In the case of such indicators, a commodity producer sells milk at least 120 KZT per liter at 20% profitability. Consequently, the prime cost of feed is reduced at least up to 30%, and purchase value of feed accordingly, due to yield enhancement of pasture and hayfield meadows, say nothing of the nutritive value improvement. In this case the calculations demonstrate: $(70 \text{ KZT} \times 30\%) : 100\% = 21 \text{ KZT}$, i.e. the prime cost of milk will be $30 + (70-21) = 79 \text{ KZT}$. Now commodity producers can sell milk at previous profitability $79 + (79 \times 20) : 100 = 94,8 \text{ KZT}$ per liter of milk, i.e. competitive ability of the product is increased. It can be said in the abstract that the recommended subsidy system of the livestock section provides accessibility of subsidy for all commodities producers, purposiveness of its use, and also minimizes such corruption offenses.

Improvement of breeding and productive qualities of farm animals.

Ranking in fourth place is the creation of effective, competitive herds, flocks, herds of farm animals.

Red Steppe Breed of domestic breeding is the most adapted to the natural and climatic, feeding conditions of Central Kazakhstan in dairy farming. However, this breed has great possibilities in the area of improvement of productive abilities, using breeding males of related breeds, particularly Angeln breed, developed in Germany [10,11,12].

Table 1 – Comparative indicators of the milk productivity of livestock of the local population and its crossbreeds of different bloods (in angler)

Group	Blood	n	Milk yield, kg		Content, B %			
			M±m	Cv%	ptotein		fat	
					M±m	Cv%	M±m	Cv%
In 305 days of lactation								
1	Local cattle of steppe	35	3464,5±80,0	11,8	2,88±0,02	3,2	3,81±0,02	4,5
2	Hybrids (50%)	30	4615±68,5	10,4	2,73±0,02	3,1	3,75±0,03	5,9
3	Hybrids (75%)	28	4737±81,1	11,1	2,85±0,01	2,7	3,73±0,02	6,2

The data in the table indicate that the highest milk productivity was characteristic of first-calf heifers with 75% blood, exceeding groups 1-2 by 1273 and 122 kg of milk with a slight concession in the content of fat and protein in milk. At the same time, for the first lactation from crossbreeds, an average of 4637 kg of milk was produced, which is 1173 kg (28.5%) more than from peers of the local group.

In summary, we can conclude that the higher the milk production of cows, the more sensitive they are to the adverse effects of external factors.[9,10].

Domestic Kazakh Whiteheaded cattle is the most acclimatized animal in beef farming in terms of Central Kazakhstan. [13-14].

The table below shows the results of improving the productivity of beef cattle in the local population using Hereford bulls (related).

Table 2 – Comparative indicators of productivity of local and crossbred animals of different bloods according to Hereford

Experimental groups	n	Age in months				Average day. gain, from 16-19 months. (y)
		6	12	16	19	
1 (local каз)	14	151,2±2,3	256,2±7,2	359,5±8,7	426,2±6,6	741
2 (purebred and aboriginal animals)	12	153,5±2,4	259,5±6,5	376,5±8,0	446,1±5,3	773
3 (hybrids 50%)	13	155,2±3,2	257,3±7,1	374,3±8,1	461,4±6,2	967
4 (hybrids 75%)	15	155,0±2,4	261,2±6,4	363,0±9,1	453,5±5,6	1005

As can be seen from the table, at the age of 19 months, there is a significant advantage of hybrid animals over purebred and aboriginal animals, i.e. 3 groups (50%) over 1-2 groups - 35.2 and 15.3 kg, 4 group (75%) - 27.3 and 7.4 kg and in terms of average daily weight gain - 226-194 g and 264-232 d respectively.

At the control slaughter, the heaviest carcass weights were in animals of groups 3 and 4 - 243.6 and 239 kg, respectively, and castrate bulls of group 3 in carcass weight exceeded group 1 by 19.9 kg, or 8.0%, 2 - by 8, 3 kg, or 3.4%, and 4 - 4.6 kg, or 1.8%. In the regions of Central Kazakhstan, the original type of activity is the breeding of fat-tailed (meat-lard) sheep breeds. In the history of their formation, a special role was played by the Yedilbayevskaya fat-tail coarse-wooled breed of sheep, created mainly by folk selection. [15].

Stud rams of Yedilbayev breed (related) are used to improve the productivity of the local fat-rumped sheep (LFRS).

Table 3 – Dynamics of live weight of young Saryarka (SKG) and cross-breed (Unit x SKG) sheep, kg

Breed	Gender of lambs	At birth		4,5 months.		12 months.	
		n	M±m	n	M±m	n	M±m
U x LFRS	bar	48	5,0±0,05	37	40,2±0,51	26	50,2±0,52
	yar	54	4,6±0,07	33	36,3±0,49	29	47,0±0,43
LFRS	bar	47	4,8±0,06	40	38,3±0,60	31	48,7±0,44
	yar	57	4,3±0,05	54	34,8±0,43	38	45,3±0,50

According to the table, it can be seen that the lambs of the compared groups were born with an optimal live weight, viable, with an insignificant difference in live weight, but at 4.5 months in crossbred rams and bright (U x SKG) there is an advantage in live weight over purebred ones (SKG) was 1.9 kg and 1.5 kg and at 12 months - by 1.5 and 1.7, respectively, the difference is significant ($P > 0, 95$). It should be noted that the lambs of both groups had a high vigor of growth and in the first 20 days of life they increased their initial body weight by an average of 2.7-2.9 times, with an average daily weight gain of 435 g - 350 g and 415- 325 g, respectively. Large breeding herds of fat-rumped sheep of Zhanaarkinskiy and Sarysuiskiy intrabreed types are created as the result of this work.

The development of herd horse breeding in our country is associated with the history and national tradition of the indigenous population and its foundation was laid by the breeding of horses of the "Toad" type, which retained many economically useful traits from wild ancestors, such as adaptability to year-round grazing, the mowing instinct among stallions – producers, etc. [16].

Consequently, the use of commercial lines (Mesker 98-62, Maupas 9-55) of Mugalzhanrskaya breed by the breeding regions was the most effective for improvement of productivity of the local horses, preserving their adaptive characteristics.

Table 4 – Results of using stud stallions of the Mesker and Maupas breeding lines on local mares

Line	Stallions		Mare Kaz		Young 1,5 r.		Dif±kg	Young. 2,5 r		Dif±kg
	n	M±m	n	M±m	n	M±m		n	M±m	
Mesker	5	508,3±5,2	35	400,4±4,2	28	316,6±3,3	37,1	27	390,4±5,3	47,8
Maupas	5	501,1±5,8	30	404,1±4,0	26	314,3±3,1	34,8	24	396,2±4,9	53,6
Kazakhs	5	416,5±6,7	27	402,7±3,9	20	279,5±3,9	-	29	342,6±3,5	-

As can be seen from the table, at the age of 1.5 years, the offspring of stallions-sires along the Mesker line had a live weight on average of 316.6 kg, along the Maupas line - 314.3 kg, in the non-linear group (from local Kazakh stallions) - 279.5 kg, and at 2.5 years of age - 390.4; 396.2 kg and 342.6 kg respectively. At the same time, the difference in live weight of young animals at the age of 1.5 years along the line of Mesker, Maupas in relation to the nonlinear group was 37.1 kg and 34.8 kg, and at 2.5 years of age - 47.8 kg and 35, 6 kg, respectively, which indicates a sufficient efficiency of using stallions of the Saryarka type as improvers for local Kazakh horses.

An expected allowance from the sale of the abovementioned events in the region per one livestock unit is 69.4 thousand KZT. (2017)

In summary, we can say that in the regions of Central Kazakhstan, restoration and improvement of breeding and productive qualities of domestic breeds of farm animals is an effective and resource-saving method of selection and breeding work.

Corollary. The implementation of the above measures creates the necessary conditions for increasing the volume of production, including environmentally friendly livestock products, ensures the creation of new jobs, an increase in profitability, as well as stabilization of the rural population.

К.А. Сарханов

Қазақтың С.Сейфуллин атындағы агротехникалық университеті

«ОРТАЛЫҚ ҚАЗАҚСТАНДА МАЛ ШАРУАШЫЛЫҒЫ ТИІМДІЛІГІН АРТТЫРУДЫҢ ҒЫЛЫМИ-ТӘЖІРИБЕЛІК НЕГІЗДЕМЕЛЕРІ»

Аннотация. Еліміздің аграрлық сектор экономикасындағы жағдай мал өнімдері өсімінің, негізінен, мал, құс бастарының 80% жуығының шоғырландырған жеке қосалқы, отбасы шаруашылықтары (ЖҚШ,ОШ) есебінен екенін көрсетіп отыр. Атап айтқанда, бұл сектор, өндірген өнімдері өңдеуші кәсіпорындар талабына, ішкі, сыртқы нарық сұраныстарына да сай келе бермейтін шағын товарлы, маусымдық өндірісі басымдылығымен ерекшеленеді. Демек, аталған ғылыми-өндірістік зерттеудің түпкі мақсаты – еліміздің шабындық жерлері мен жер асты қазба байлықтарының басым бөлігін иеленіп отырған, Орталық Қазақстан ауылдық аймақтарынд ауыл шаруашылығы малдарын өсірудің тиімділігін арттырудың концептуалдық негіздемелерін жасау болып табылады.

Сонымен қатар, еліміздің ауылдық аймақтар бойынша шағын шаруашылық жүргізу формалары мен түрлерінің қызметтері айырмашылықтары мен ерекшеліктерін де зерттеу мақсатында ғылыми-өндірістік жұмыстар Ақмола, Қарағанды, Солтүстік-Қазақстан және Оңтүстік-Қазақстан облыстарында атқарылды.

Ғылыми зерттеулер мен эксперименттарда заманауи абстракті-логикалық, экономика-математикалық және статистикалық, мал шаруашылығы саласында қолданылатын жалпылама тәсілдер (ВНИИОК, ВИЖ, ВАСХНИЛ) қолданылды және аталған аймақтың жекешелендіруге дейінгі, кейінгі кезеңдердегі мал шаруашылығы даму көрсеткіштері де пайдаланылды.

Автор, көп жылдық ғылыми-іздістіру жұмыстары негізінде басты проблемаларды анықтап, төрт бағытты қамтитын кешенді мал шаруашылығын дамыту бағдарламасын жасайды, яғни шаруашылық жүргізу, мал азығы өндірісі, субсидиялау және мал тұқымын асылдандыру жүйелерін жетілдіру;

Зерттеулер деректеріне сай, отандық ауыл шаруашылығы мал тұқымдарын өсіру тиімділіктерін арттырудың қағидалары мен концептуальдық анықтамалары жасалды. Сонымен қатар, бұл салада, ауылдық өңірлер деңгейінде шаруашылық жүргізудің құрлымдық, жүйелік үлгілері, қызметтері құрамы және кері байланыстылық пен мемлекеттік реттеудің әсерлері сарапталып, нақтыланған тұжырымдамалар жасалды.

Түйін сөздер: Шаруашылық жүргізу жүйесі, тиімділік, жеке қосалқы, отбасы шаруашылықтары, ауыл шаруашылығы кооперативі, мал азығы қоры, коректілік, мал азығы құнарлылығы, субсидиялау, ірі кара, қой, жылқы, мал шаруашылығы, өзіндік құн, селекция.

К.А. Сарханов

Казахский агротехнический университет им. С.Сейфуллина

«НАУЧНО-ПРАКТИЧЕСКИЕ ОСНОВЫ ПОВЫШЕНИЯ ЭФФЕКТИВНОСТИ ЖИВОТНОВОДСТВА В УСЛОВИЯХ ЦЕНТРАЛЬНОГО КАЗАХСТАНА»

Аннотация: Положение дел в аграрном секторе экономики страны показывает, что рост животноводческой продукции обеспечивается, в основном за счет личных подсобных и домашних хозяйств, (ЛПХ и ДХ) где сосредоточено более 80% скота и птицы. Вместо с тем, в этом секторе преобладает мелкотоварное, сезонное производство, которое как показывает практика, не всегда отвечает требованиям перерабаты-вающей промышленности, а выпускаемая продукция вряд ли может быть конкурентоспособной на внутреннем, особенно на внешнем рынках.

Следовательно, целью данной научно-производственных исследований оказалась разработка концептуальные основы повышения эффективности разведения сельскохозяйственных животных в сельских регионах Центрального Казахстана, располагающихся львиными долями пастбищных угодий и подземными полезными ископаемыми страны.

При этом, изучена и отличительная особенность системы функционирования малых форм хозяйствования на селе в сельских территориях Акмолинской, Карагандинской, Северо-Казахстанской и Южно-Казахстанской областей.

В научных исследованиях, экспериментах применены современные абстрактно-логические, экономико-математические и статистические методы, общепринятые методики исследований в сфере отрасли животноводства: ВНИИОК, ВИЖ, ВАСХНИЛ, а также использованы данные по развитию животноводства региона до и постприватизационных периодах сельской реформы.

Автор, на основе долговременной научно-поисковой работы определив основных проблем, разрабатывает комплексную программу развития животноводства в четырёх направлениях, т.е. по совершенствовании систем: хозяйствования, кормопроизводства, субсидирования и племенного дела.

По данным исследований разработаны принципы и концептуальные основы повышения эффективности разведения отечественных пород сельскохозяйственных животных. При этом, выделяются и обосновываются принципы системного подхода, обратной связи, необходимость описания регулирующих воздействий государства, функциональной состав и структуры системы моделей хозяйствования на уровне сельских регионов.

Ключевые слова: Хозяйствования, эффективность, личные подсобные домашние хозяйства, сельскохозяйственный кооператив, кормовая база, питательность, полноценность кормов, субсидирование, крупный рогатый скот, овец, лошади, животноводства, себестоимость, селекция.

Information about the author:

Sarkhanov Kakimzhan Akhmedzhanovich, D Sc Agr, a correspondent member of Academy of Agricultural Sciences, S. Seifullin Kazakh Agrotechnical University, Nur-Sultan, Kazakhstan; ksarhanov@mail.ru; <https://orcid.org/0000-0003-3766-740X>

REFERENCES

- [1] Omurzakov T.K. "Agricultural cooperation as a development factor". newspaper: "Kazakhstanskaya Pravda", November 11, 2016.
- [2] Tkach A. V. The role of personal subsidiary plots in providing the population with agricultural products. Modern forms of relationship between society, cooperation and the state in the period of modernization. M., Russian University of Cooperation, 2010.
- [3] Donchenko A.S. and others Animal husbandry in the farmstead and in the personal peasant economy. Novosibirsk, 2007, p. 38-71.
- [4] Myrzaliyev B.S. and others Role of households and peculiarities of their development in South Kazakhstan region // Problems of the agricultural market. 2016. No.3. p. 67-73.
- [5] Fregout J. Le cheval de boucherie va –t-il devenir rentable AgricLeavages. `Ntrcn~Fregout|| 1972-/3757.P 26.
- [6] Huth F. Nutzungsrichtung unq Ureulichtin abhanqiqkeit von der Hohen – und Breitenmassen beim Rind (Текст) / F Huth // Fierzuchten, 1978 36,5:197-200.
- [7] Anocker G. et. Al. Erhobng derFundtuhItistug durch Verbesserung der Zualitat der junqvieh (Текст) / G. et.Al. Anocker|| - aulzucht – Fierzucht; 1979; 33,6: 253-255.
- [8] Utibayev B.S., Akhmetova D.T., Utibayeva G.B., Zhunussova R.M. Financial support of agricultural producers of the Republic of Kazakhstan. // Problems of the agricultural market. 2016. No.4. p.63-70.
- [9] Proka N. I., Sabkin V. I., Polukhin A. A., Surovtseva E. S., Kuznetsova T. M. Potential of cooperation of small-scale business patterns in rural area of the OreI region // Bulletin of the Oryol State Agrarian University. 2013. No. 6 (45).
- [10] Dalenov Sh.D. Problems and strategies for the development of dairy cattle breeding in Kazakhstan (Text) / Sh.D. Dalenov, M.A. Kineev // Bulletin of Science of Kazakhstan 2011 №2 p.44-49-ISSN 0021-4583
- [11] Baitolayev K.E. Impact of the productive potential of cows on utilization efficiency. Bulletin of the Kyrgyz National Agrarian University, Journal – 2012. No.1. p. 112-114.
- [12] Torekhanov A.A., Sulenov Zh.S., Tajiyev K.P., Kozhamuratova U.B., Karymsakov T.M., Azerkhanov Kh.A. Assessment of modern state of breeding potential of new dairy type of brown cattle of Kazakhstan. Animal husbandry, fodder production of veterinary science. Journal, 2006. No 2. p. 54-62.
- [13] Litvinov I. About lengthening the period of economic use of cows. (Text) / I. Litvinov // J. Dairy and meat cattle breeding-2003-№8 p.33-35. ISSN 0026-9034.
- [14] Oralbayeva A.K. Problems of development of meat and meat products export in Kazakhstan, Volume 2, Number 56 (2020), 54-62.
- [15] Ermekov M.A. Curdy sheep of Kazakhstan (Text) / M. A. Ermekov, A. V. Golodnov // Ed. "Kainar". Almaty. 1976. 110 s.
- [16] Nechaev I.N. Meat horse breeding (Tabunnoe), (Text) / I. N. Nechaev // Almaty, "Kainar", 1975. 134 p.

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 work described 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 originality detection service Cross Check <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://www.nauka-nanrk.kz)

ISSN 2518-1483 (Online), ISSN 2224-5227 (Print)

<http://reports-science.kz/index.php/en/archive>

Редакторы: *М. С. Ахметова, Д. С. Аленов, А. Ахметова*

Верстка на компьютере *А. М. Кульгинбаевой*

Подписано в печать 12.02.2021.

Формат 60x881/8. Бумага офсетная. Печать – ризограф.
10,25 п.л. Тираж 500. Заказ 1.