

The current state and efficiency of land use in farms of the Khorezm region

¹Narinbaeva Gulnora Karimovna, ²Mirzaev Musurmon Umidullaevich,
³Abdullaev Farkhod Mamarajabovich, ⁴Isakhanov Muslimjon Marifjonovich

¹Senior Lecturer, ²Assistant, ³Assistant, ⁴Independent researcher
^{1, 2, 3, 4}Department of Agribusiness and Investment Activities,
^{1, 2, 3, 4}Tashkent State Agrarian University, Tashkent city, Uzbekistan,
Email – narinbaeva63@bk.ru

Abstract: *The article discusses the current state and effectiveness of land use in farms of the Khorezm region. The analysis of the development of agricultural production in the Khorezm region by industry, the economic indicators of land use are calculated. The main directions of development of the agricultural sector in this area are proposed.*

Key Words: *agriculture, land, agricultural products, farming, crop production, livestock breeding.*

1. INTRODUCTION:

With the independence of the Republic of Uzbekistan, an opportunity has arisen due to ongoing economic reforms in the agricultural sector, which is one of the main sectors of the economy, the formation of agricultural entities and the equality of all forms of ownership. The basis of the programs on socio-economic development of the country, developed by the First President of the Republic of Uzbekistan I.A. Karimov, is to achieve the objectives for the development of industries during the period of market reforms, which in the agricultural sector give their results. The formation of the owner of the dekhkan, which is ensured through cardinal economic transformations, the supply of products and the formation of the class of real owners in agriculture, has especially increased. In the agricultural sector of the economy of the republic, agricultural production organizations were recognized as promising forms: various types of cooperatives, farm and dekhkan farms for stimulation and development, the activity of which on the part of the government created legal and organizational prerequisites. However, in comparison with other entities in the process of agricultural production, the activities of farms have shown advantages. It is for this reason and the need to scale up agricultural production that the Decree of the President of the Republic of Uzbekistan dated March 24, 2003 “On the Deepening of Reforms in Agriculture” No. 3226-PF (1) was adopted, in which the development of farms was identified as a priority.

In accordance with Government decisions, a complete restructuring of all collective (shirkat) farms was carried out and farms were formed on their territory. This has led to a sharp increase in the number of agricultural producers.

On October 9, 2017, the President of the Republic of Uzbekistan signed a decree on the radical improvement of the system for protecting the rights and legitimate interests of farmers, dekhkan farms and owners of household lands, as well as the use of agricultural land (2).

The document notes that the Council of Farmers of Uzbekistan, formed to protect the rights and interests of farmers, could not fulfill the tasks assigned to it. He was transformed into the Council of farmers, dekhkan farms and owners of household lands of Uzbekistan.

The efficiency of using more than 480 thousand hectares of household cultivated areas owned by the population has been criticized. The parliamentary, representative and public control over the use of land is called insufficient.

The main part of farms is limited to agricultural production, there is no proper infrastructure for the supply of material and technical resources and the provision of services, the financial condition of most farms does not allow to buy modern technical equipment and introduce advanced technologies and innovations, the decree says.

The document established that from the harvest of 2018, the effectiveness of the use of land plots of farms will be discussed on a quarterly basis in the district councils of people's deputies, and the cultivated area of dekhkan farms and owners of household lands will be discussed monthly in the citizens' self-government bodies.

Starting from the same period, “strict measures of responsibility up to the termination of their rights to land plots” will be applied to farmers, dekhkan farms and owners of homestead lands, inefficiently using land areas, not fully sowing agricultural crops and not timely implementing agrotechnical measures.

In 2018-2021, farms will be phasedly transformed into multidisciplinary farms. Until October 1, 2018, a complete inventory of all sown areas of dekhkan farms and owners of household lands should be carried out and their single register formed.

Starting January 1, 2022, land lease agreements with farms that have not mastered multidisciplinary activities will be terminated.

The government has been instructed to prepare decisions on the development of livestock, poultry, fish farming, horticulture, beekeeping and other areas of agriculture, as well as improving the efficiency of farms.

In addition, the “program of comprehensive measures for the widespread introduction of market infrastructures, innovations, scientific achievements and modern information and communication technologies while increasing the efficiency and profitability of agriculture, especially when mechanizing cotton picking, as well as further improving labor relations in the field” should be approved.

According to the results of the reforms carried out in 2008-2015, land plots of farms were optimized. On December 15, 2015, No. 362 adopted a resolution of the Cabinet of Ministers of the Republic of Uzbekistan “On measures to optimize the size of land provided for farming.”

The document was adopted in order to further improve the efficiency of farms, as well as to ensure the rational use of land and water resources, to strengthen the financial and economic condition of farms.

2. LITERATURE REVIEW:

The problems of reproduction of land resources and the effectiveness of their use occupy an important place in the works of well-known foreign representatives of economic science. This problem was once paid attention to A. Smith, D. Ricardo, D. Andersen, D. Keynes, A. Marshall, P. Samuelson, M. Friedman, R. Barr and other foreign researchers.

The modern problems of assessing and improving effective land use in agricultural production are the works of A.I. Altukhova, S.V. Borozdina, S.N. Volkova, N.Ya. Kovalenko, A.I. Kolobova, P.F. Loiko, O.V. Medvedeva, V.S. Shamanaev, A. Yugay and other authors.

3. ANALYSIS AND DISCUSSION:

Khorezm region is the northern region of the Republic of Uzbekistan, where agricultural sectors are sectors of the regional economy. At the end of 2016, the share of agriculture in the GDP structure of the Khorezm region amounted to 24%.

In 2016, agricultural production in the region amounted to 3034.0 billion soums, which is 108.6 percent higher than the previous period (Fig. 1).

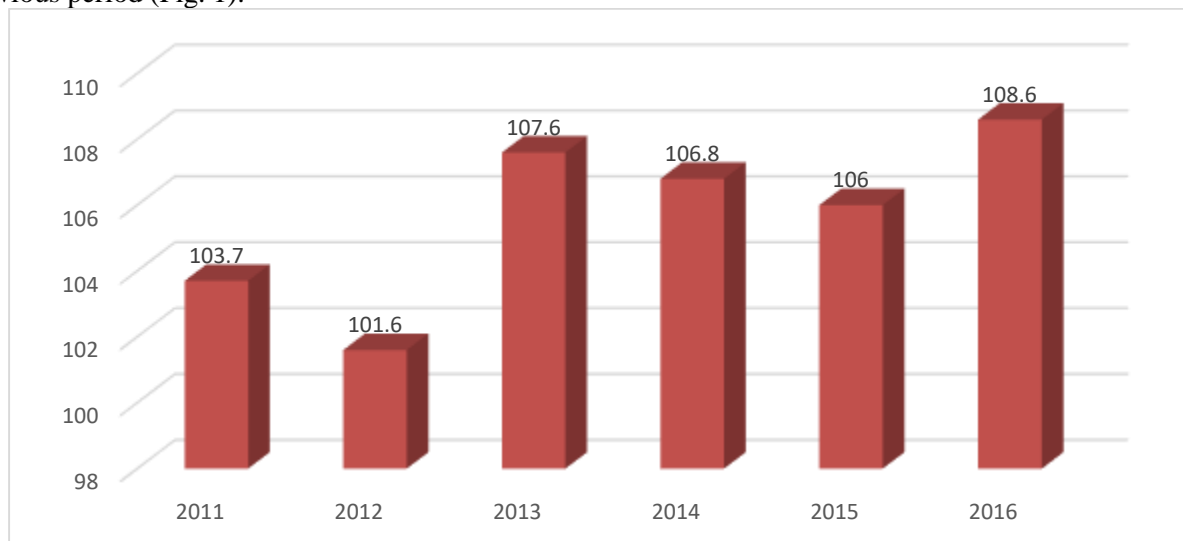


Fig. 1. The dynamics of agricultural growth in the Khorezm region¹

In the structure of agricultural production, the share of crop production amounted to 50.9% (1543.3 billion soums) according to the results of 2016, respectively, the share of livestock production was 49.1% (1407.1 billion soums).

The measures taken to optimize the structure of sown areas for the period 2008-2016 ensured a reduction in the sown areas of cotton and an expansion of the crops of grain-crops.

In order to further improve the efficiency of farms, as well as ensure the rational use of land and water resources, strengthen the financial and economic situation of farms, on December 15, 2015, No. 362 adopted the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan “On measures to optimize the size of land allocated for farming”.

The summary results of further optimization of the size of land provided for farming, in the main areas of their specialization in the Khorezm region are presented in table. 1. Based on the results of optimization, the number of farms in the region amounted to 6049, and the average land area is 33.8 hectares.

¹ Agriculture of Uzbekistan. Statistical Digest. - Tashkent: State Committee of the Republic of Uzbekistan on Statistics, 2017.

In 2016, 634.9 thousand tons of vegetables were grown in the region (158.5% compared to 2011), 128.1 thousand tons of potatoes (145.6%), 144.5 thousand tons of melons (140.6 %), 191.8 thousand tons of fruits and berries (150.7%) and 45 thousand tons of grapes (160.1%) (Table 1).

Table 1
Crop production in the Khorezm region²

Indicators	2011	2012	2013	2014	2015	2016	The ratio of 2016 to 2011,%
Cereal	288,2	337,2	419,3	445,7	459,5	494,9	171,7
Cotton	224,7	261,3	243,2	258,2	264,8	284,8	126,7
Potatoes	88	96,3	101,9	108,4	114,9	128,1	145,6
Vegetables	400,5	438,2	471,6	501,8	547,5	634,9	158,5
Melon food	102,8	109,2	119,1	125,6	132,5	144,5	140,6
Fruits and berries	127,3	136,4	146,7	161,4	173,3	191,8	150,7
Grape	28,1	30,4	33,2	36,8	40,1	45,0	160,1

The most important direction of sustainable and efficient development of agriculture is its transfer to intensive management methods through the introduction of modern agricultural technologies and equipping with highly productive agricultural machinery.

Table 2
Crop and livestock production by farms of the Khorezm region³

Indicators	2012	2013	2014	2015	2016	The ratio of 2016 to 2012,%
Cereal	204,9	259,4	282,7	293,3	324,3	158,3
Cotton	258,3	240,0	253,7	261,5	281,7	109,1
Potatoes	20,2	21,2	22,1	23,4	28,5	141,1
Vegetables	141,4	155,1	164,3	177,5	207,5	146,7
Melon food	60,1	65,1	68,1	72,0	78,4	130,4
Fruits and berries	76,1	81,2	90,2	96,7	103,5	136,0
Grape	10,2	10,8	12,0	13,0	14,4	141,2
Meat	3,1	3,5	3,8	4,0	4,3	138,7
Milk	28,1	32,	34,6	37,3	39,9	142,0
Eggs, mln. pcs.	15,7	17,9	19,8	21,5	23,3	148,4
Wool, tons	125	127	137	148	157	125,6

Consider the main indicators of the activities of farms in the Khorezm region table 2.

In 2016, farms of the Khorezm region cultivated 324.3 thousand tons of grain (158.3% compared to 2012), 281.7 thousand tons of raw cotton (109.1%), 207.5 thousand tons of vegetables (146.7%), 28.5 thousand tons of potatoes (141.1%), 78.4 thousand tons of melons (130.4%), 103.5 thousand tons of fruits and berries (136.0%) and 14.4 thousand tons of grapes (141.2%) (Table 3).

The livestock production indicators also tended to increase, as meat production in 2016 increased by 38.7% compared to 2012, milk - 42%, eggs - 48.4%, wool - 25.6%.

In Uzbekistan, much attention is paid to the creation and development of multidisciplinary farms, which are not limited only to the cultivation of crops or livestock, but are also engaged in in-depth processing of agricultural products and the provision of services to the rural population.

² Agriculture of Uzbekistan. Statistical Digest. - Tashkent: State Committee of the Republic of Uzbekistan on Statistics, 2017.

³ Agriculture of Uzbekistan. Statistical Digest. - Tashkent: State Committee of the Republic of Uzbekistan on Statistics, 2017.

Table 3
Information on the implementation of the Program for the development of multidisciplinary farms in the Khorezm region (as of 01.01.2016)⁴

Directions of multidisciplinary farms	Number of farms	The need for funds, million soums	Due to a loan at the bank, million soums	At the expense of own funds	Newly created jobs
The provision of services	226	12758	173	12758	678
Refrigerated Warehouses	9	1760	500	1260	29
Flour and flour products	3	185	-	185	9
Processing of fruits and vegetables	7	1018	250	768	38
Milk processing	12	2134	842	1292	64
Meat processing	2	369	50	319	16
Beekeeping	13	396	102	294	29
Fish farming	67	6622	2400	4222	211
Poultry farming	21	3367	640	2727	85
Cattle breeding	129	20185	7707	12478	378
Vegetable growing	791	5236	-	5236	3640
Seedlings preparation	6	68	-	68	56
Greenhouses	2	45	50	95	11
Viticulture	30	502	107	395	156
Gardening	30	495	213	282	85
Intensive gardening	42	1230	80	1150	183
Total	1390	56370	13114	43529	5668

According to the Program for the development of multidisciplinary farms, in 2016 in the Republic of Uzbekistan, projects were implemented to create additional farms for production and services. So in the Khorezm region, according to data as of January 1, 2017, 1390 multidisciplinary farms were additionally created, which received bank credit support in the amount of 13114 million soums, which allowed to create an additional 5668 jobs. Table 3 presents information on the implementation of the Program for the development of multidisciplinary farms in the Khorezm region in the context of directions.

Land resources are one of the main national wealth of our country. Complete, reliable, objective information about the land is of great importance for land management in general and for the development of sustainable agriculture, in particular.

Rational use of the land fund involves the creation and improvement of a management system that allows the most efficient use of land resources.

In fig. 2 shows the structure of the land area used by land users engaged in agricultural production in the Khorezm region. The total land area is 409.2 hectares, of which the area of agricultural land is 56.2%, household land use, garden and garden plots - 11.9%, others (forest plantations, etc.) - 31.9%.

In order to analyze the dynamics and structure of indicators of the use of land resources of the region, it is necessary to determine the composition and structure of sown areas of agricultural crops in the region over several years.

From 2013 to 2016, the area under cultivation increased by 10.1%: from 210.4 thousand ha to 231.6 thousand ha. The largest share in the structure of crops is consistently occupied by cotton and grain crops - 45.6% and 31%, respectively, on average over 4 years.

In the table 4 presents data on the dynamics of changes in the area of agricultural land.

Based on the data in table 4 we can conclude that the total area of agricultural land in the Khorezm region, including its structure, has not changed over the past four years. At the same time, the total land area is equal to the area of agricultural land and it is used quite rationally, as arable land in the total land area is 88.7%.

⁴ Data of the Ministry of Agriculture of the Republic of Uzbekistan

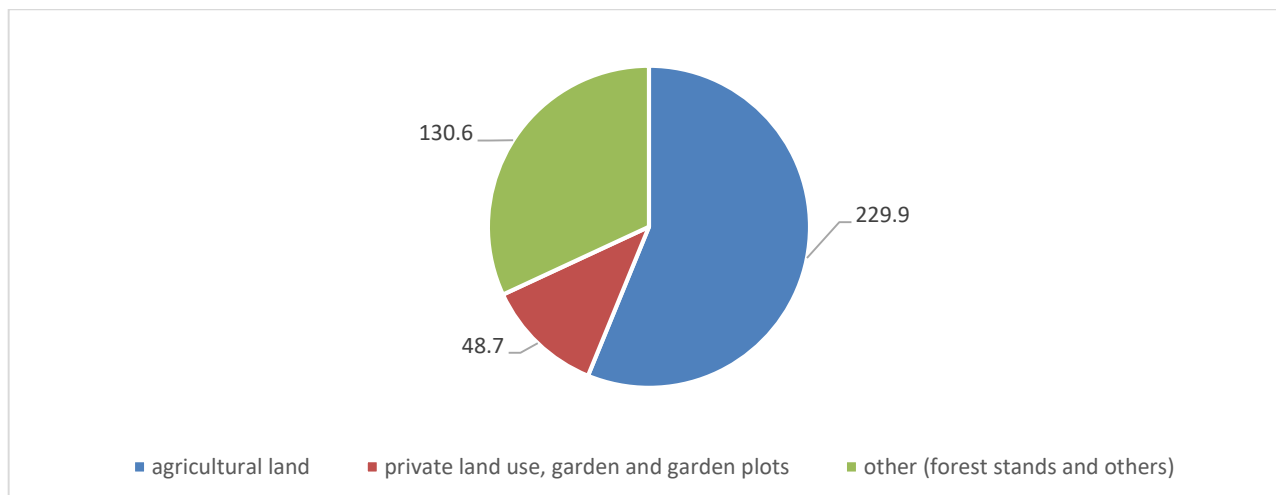


Fig. 2. The structure of the land area used by land by users engaged in agricultural production in the Khorezm region, ha (01.01.2016)⁵

The analysis of productivity and gross agricultural output in the Khorezm region is presented in Table 6.

**Table 4
 Agricultural land of the Khorezm region, ha⁶**

Indicators	2013	2014	2015	2016	The ratio of 2016 to 2013, %
<i>Farmland</i>	229,9	230,0	229,9	229,9	100
Including: Arable land	204,0	204,0	203,9	204,7	100,3
Irrigated land	220,9	221,1	221	221	100,05
Sown area of all crops	210,4	225,1	223,0	231,6	110

From the data in table 6 it can be seen that the gross output in 2016 relative to 2013 increased.

**Table 5
 The composition and structure of sown areas of crops in the Khorezm region⁷**

Indicators	2013		2014		2015		2016		The ratio of 2016 to 2013, %
	thousand ha	%	thousand ha	%	thousand ha	%	thousand ha	%	
Total sown area	210,4	100	225,1	100	223	100	231,6	100	110,1
Including:									
Cereal crops	59,7	28,4	70,4	31,3	71,5	32,1	74,9	32,3	125,5
Cotton plant	95,6	45,4	106,6	47,4	103,8	46,5	99,5	43,0	104,1
Potato	5,5	2,6	5,2	2,3	5,2	2,3	6,1	2,6	110,9
Vegetables	13,8	6,6	14,3	6,4	14,6	6,5	14,7	6,3	106,5
Melon food	6,1	2,9	6,5	2,9	6,7	3,0	6,8	2,9	111,5
Forage crops	28,9	13,7	20,2	9,0	19,4	8,7	27,7	12,0	95,8
Other crops	0,8	0,4	1,9	0,8	1,8	0,8	1,9	0,8	237,5

⁵ Agriculture of Uzbekistan. Statistical Digest. - Tashkent: State Committee of the Republic of Uzbekistan on Statistics, 2017.

⁶ Agriculture of Uzbekistan. Statistical Digest. - Tashkent: State Committee of the Republic of Uzbekistan on Statistics, 2017.

⁷ Agriculture of Uzbekistan. Statistical Digest. - Tashkent: State Committee of the Republic of Uzbekistan on Statistics, 2017.

Table 6
 Dynamics of gross harvests and productivity of the main field crops in the Khorezm region⁸

Indicators	2013		2014		2015		2016		The ratio of 2016 to 2013, % (productivity)	The ratio of 2016 to 2013, % (gross output)
	Productivity, t / ha	Gross output, thousand tons	Productivity, t / ha	Gross output, thousand tons	Productivity, t / ha	Gross output, thousand tons	Productivity, t / ha	Gross output, thousand tons		
Cereal	45,0	288,2	43,1	337,2	41,8	419,3	42,9	445,7	95,3	154,6
Cotton	27,8	224,7	28,1	261,3	28,4	243,2	28,2	258,2	101,4	114,9
Potatoes	165,6	88,0	174,9	96,3	176,6	101,9	178,3	108,4	107,7	123,2
Vegetables	234,3	400,5	239,8	438,2	241,0	471,6	242,3	501,8	103,4	125,3
Melon food	162,6	102,8	166,6	109,2	173,4	119,1	177,0	125,6	108,9	122,2

Table 7
 Economic indicators of land use in the Khorezm region

№	Indicators	2013	2014	2015	2016	The ratio of 2016 to 2013, %
1	Agricultural products, billion soums	1242,0	1596,1	1952,9	2236,8	180,1
2	Gross output per 100 hectares of arable land, million soums	608,8	782,4	957,8	1092,7	179,5
	Per 100 hectares of agricultural land, million soums	540,2	694,0	849,5	972,9	180,1
3	Gross crop production, billion soums	624,3	845,9	1050,8	1134,7	181,8
	On 100 hectares of arable land, million soums	306,0	414,7	515,4	554,3	181,1
	On 100 hectares of agricultural land, million soums	271,6	367,8	457,1	493,6	181,8
4	Gross livestock production, billion soums	617,7	750,2	902,1	1102,1	178,4
	At 100 hectares of arable land, million soums	302,8	367,7	442,4	538,4	177,8
	At 100 hectares of agricultural land, million soums	268,7	326,2	392,4	479,4	178,4
5	The share of arable land in agricultural land, %	88,7	88,7	88,7	89,0	-

Table 7 presents the dynamics and economic indicators of the efficiency of land use in the Khorezm region.

Analyzing the data in Table 7, we can see that in 2016, 1092.7 million soums of gross agricultural output were produced per 100 hectares of arable land, which is 79.5 percent higher than in 2013, of which 1134.7 million soums were crop production and 1102.1 million soums livestock products. In 2016, 972.9 million soums of gross output were produced per 100 hectares of agricultural land, which exceeded this indicator in 2013 by 80.1 percent, of which plant growing was 493.6 million soums, and livestock was 479.4 million.

⁸ Agriculture of Uzbekistan. Statistical Digest. - Tashkent: State Committee of the Republic of Uzbekistan on Statistics, 2017.

4. CONCLUSION:

The main directions of development of the agricultural sector of the Khorezm region are:

- Increasing the efficiency of the use of land and water resources of the region, aimed at increasing the yield and productivity of agricultural products by improving the condition of land and water systems;
- Strengthening the material and technical base of rural producers on the basis of increased investment activity, expansion of leasing operations and the creation of alternative ICCs;
- Improvement of agricultural regulation mechanisms aimed at ensuring the sustainable development of the industry, increasing its competitiveness, reducing barriers for agricultural producers to enter the markets;
- Creation of favorable conditions for agricultural producers.

Agricultural development is provided by solving the problems of developing market infrastructure, access to material financial resources, improving the regulatory framework in the activities of agricultural producers, aimed at providing greater economic freedom to producers.

Thus, the analysis allows us to conclude that the agriculture of the Khorezm region has favorable prospects for its further development. The stable growth of gross output in agriculture that has begun creates objective prerequisites for the restoration of stable production systems on a fundamentally new market basis, through the deepening of economic reforms.

REFERENCES:

1. Decree of the President of the Republic of Uzbekistan dated March 24, 2003 No. PU –3226 “On the most important directions of deepening reforms in agriculture”.
2. Decree of the President of the Republic of Uzbekistan dated October 9, 2017 No. UP-5199 “On measures to radically improve the system of protecting the rights and legitimate interests of farmers, dekhkan farms and owners of household lands, and efficient use of sown areas of agriculture”.
3. Decree of the President of the Republic of Uzbekistan “On the Strategy for the Further Development of the Republic of Uzbekistan” dated July 02, 2017 No. UP-4947.
4. Agriculture of Uzbekistan. Statistical collection. - Tashkent: State Committee of the Republic of Uzbekistan on Statistics, 2017.
5. Decree of the President of the Republic of Uzbekistan “On organizational measures for the further development of the activities of farmers, dekhkan farms and homeowners” dated October 10, 2017 No. PP-3318.
6. Decree of the President of the Republic of Uzbekistan “On measures to improve the public administration system in the field of agriculture” dated April 17, 2019, No. PP-5708.
7. Busel I.P., Malikhtarovich P.I., Furs I.N., Yakovchik N.S. (2012). Organization of production at agricultural enterprises. Moscow: Information Center of the Ministry of Finance, 576 p.
8. Bykovskaya, N.V. (2004). Improving the economic efficiency of dairy cattle breeding. Moscow: Publishing House of the Russian State Autonomy University, 103 p.
9. Kovalenko N.Ya. and others. (2008). Economics and organization of farming. Moscow: RGAU-ICCA, 208 p.
10. Latypov A.R. (2012): Problems of providing agricultural land for rent. *Business in law*, 4, 66-68.
11. Lysenko E. (2004): Efficiency of land use. *Economist*, 6, 87 - 92.
12. Nechaev V.I., Artemova E.I., Belova L.A. Agricultural Economics. - Moscow: KolosS, 2010. -- 384 p.
13. Galimova F.R., and Dekhkanova N.S. (2015), An innovative way of developing farms in Uzbekistan. Study of the innovative potential of society and the formation of directions for its strategic development: a collection of scientific papers of the International Scientific and Practical Conference (December 29-30, 2015), South-West. state un-t Kursk, 123-126.
14. Galimova F.R., and Yuldashev A.A. (2017), Innovation as a factor in the accelerated development of the agro-industrial complex. Innovative technologies in the modernization and diversification of production in the real sector: materials of the republican scientific and practical conference (April 7, 2017). Tashkent: TSEU, 489-490.
15. Rustamova I.B., and Galimova F.R., (2019): Measuring innovation in agricultural enterprises: a methodological approach. *Actual science: International scientific journal. Volgograd: Research Center “Absolute”, 1(18)*, 51-53.
16. Rustamova I.B., and Galimova F.R., (2019): Features of the economic evaluation of innovation. *Agroeconomics: Scientific and Practical Agro-economic Journal. - Tashkent: Research Institute of Agricultural Economics, (Special issue)*, 57-59.
17. Galimova, F.R., & Islamov, F.R. (2019). Development trends and the economic situation of agriculture in Uzbekistan. *Higher School: Scientific and Practical Journal* (8), 14-15.
18. Galimova, F.R., & Dekhkanova, N.S. (2019). The system of state regulation of agriculture in Uzbekistan. *Higher School: Scientific and Practical Journal* (7), 8-10.
19. Dekhkanova, N.S. (2018) The place of agriculture in the economy of Uzbekistan. *Agro chemistry protection and quarantine of plants journal*, 1(5), 42-44.
20. Narinbaeva G.K., Islamov F.R., Davlatov S.A., Ergashev G.B. (2019): Current state of production of animal production in the Republic of Uzbekistan. *Journal of Science and Healthcare Exploration (JSHE). Volume - 1, Issue – 6*, 6 p.