THE SIGNIFICANCE AND PROSPECTS OF INTERNATIONAL PROJECTS IN THE DEVELOPMENT OF THE AGRICULTURAL SECTOR

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Abstract. *Today, in many countries, including Uzbekistan, the development of agriculture and satisfying the population's needs for food products is one of the most urgent problems. For this purpose, in cooperation with the UN Food and Agriculture Organization (FAO) and a group of scientists of the Tashkent State Agrarian University, scientific and practical assistance to the farms of our republic continues within the framework of the international project.*

Keywords: *UN, food, sustainability, resource efficiency, crop types, wheat, barley, maize, flax, productivity, succession planting.*

INTRODUCTION. Ensuring food safety is a guarantee of ensuring the independence of Uzbekistan, socio-economic and political stability in the country. Situations such as natural disasters, lack of water for irrigating land, and droughts on earth as a result of climate change make it difficult to grow food products. As a result, prices in the world food markets are rising. Also, the world financial and economic crisis, which started in 2008 and is still ongoing, is causing this problem to become acute. It is a clear proof of this that in 54 countries of the world, the level of financial condition of families has decreased, the majority of the population of more than 20 countries is suffering from hunger, the average life expectancy of the population has decreased in 12 countries, and in recent years more than 840 million of the world's population are suffering from hunger.

That is why issues of ensuring food safety are given great importance all over the world.

Agriculture plays an important role in ensuring food security. In this regard, the President of the Republic of Uzbekistan Sh.M. Mirziyoev [1] in his speech at the joint session of the Oliy Majlis Chambers said, "The issues of agricultural reform and ensuring food safety, without a doubt, remain one of the most important tasks for us. "First of all, great attention will be paid to the consistent development of the agro-industrial complex and its locomotive, i.e. multi-branch farms, which are the driving force," he said.

Since the first years of independence, food safety issues have been in one of the central places in the socio-economic policy of Uzbekistan. Now, the issues of further improving the welfare and quality of life of the population, providing the population with food are closely related to the problem of ensuring food safety.

Therefore, the need to research the theoretical foundations and priority directions of food safety in Uzbekistan based on the implementation of the food program determined the relevance of this research topic.

Effective use of irrigated land in agriculture, maintenance and increase of soil fertility, use of innovative technologies that save energy, resources and money in agriculture are desirable to ensure food security.

We can cite the following technologies as energy-saving innovative technologies in agriculture

1. “0” technologies. Cultivation by sowing seeds without tilling the soil;
2. Drip, sprinkle and subsoil irrigation of field crops;
3. Organization of foliar feeding of field crops in addition to roots;
4. Use of biologically active substances, stimulants, regulators in the cultivation of field crops;
5. Improving the crop rotation system, developing short-rotation crop rotation, increasing the area of intermediate, siderate and repeated crops;
6. Wider use of leguminous and leguminous grain crops in the short-rotational cropping system is desirable.
7. Use of complex fertilizers containing micro-fertilizers as well as macro-fertilizers in mineral feeding.
8. It is advisable to widely introduce co-planting in irrigated areas.

In order to widely introduce these technologies in the production, including in farmers', peasant farms, and in the cultivated fields of clusters, first of all, it is necessary to develop the scientific and practical bases of the application of these technologies, and to determine the optimal terms and norms for the use of each agrotechnical activity. For this, it is desirable to establish scientific and practical cooperation between science and industry, to simplify the mechanism of implementation of scientific achievements, and to organize mutually beneficial projects.

Based on this, the professors-teachers of the "Plantology and Oilseeds" department of ToshSAU, the project "Integrated management of natural resources in arid and saline agricultural production landscapes of Central Asia and Turkey" (GCP/SEC/293/GFF) implemented by FAO/GEF within the framework of this project, professors Z.K.Yuldasheva, J.B.Khudaykulov, B.M.Azizov, associated professor Ch.Kh.Ulugov returned from a business trip to Bukhara and Kashkadarya regions in September and October of this year.

RESEARCH RESULTS, CONCLUSIONS AND RECOMMENDATIONS

First, they went to the field of "Jamshid" farm in Qamashi district of Kashkadarya region. The total cultivated area of the farm is 112 hectares. For the harvest of 2022, 20 ha of barley were planted in the field in the 1st contour; 10 ha of winter wheat per field in the 2nd contour; We witnessed that 5 hectares of flax were planted in the field of the 3rd contour, 5 hectares of peas were planted in the field of the 4th contour, and 60 hectares of sorghum were planted in the field of the 5th contour.

Table 1

Recommendations on rules for planting crops in farming "Jamshid"

Name of the farm	Contour no	Crops in 2021-2022 placement status	It was recommended to plant in 2022-2023	Sowing rates, kg/ha
"Jamshid" farming	1-Contour	Barley for 20	triticale	120-150 kg/ha
	2- Contour	10 ha of winter wheat	winter wheat	65-70 kg/ha
	3- Contour	5 ha linen	Barley	100-120 кг/га
	4- Contour	Peas for 5	Barley	100-120 кг/га

	5- Contour	Maximum of 60 flax	quick spring wheat	120-150 кг/га

The project members, in consultation with the head of the farm, plant triticale (120-150 kg/ha) instead of barley on 20 ha in the 1st contour for the harvest of 2023; 10 ha of autumn pea varieties (65-70 kg/ha) per field in the 2nd contour; 5 ha of barley varieties (100-120 kg/ha) in the 3rd contour field, 5 ha of barley varieties (100-120 kg/ha) in the 4th contour field, and 60 ha of early spring wheat (120-150 kg) in the 5th contour field It was proposed to alternate planting varieties of /ga).

Figures 1-2. The process of determining the biological productivity of sorghum crops in the field of the 5th contour of the Jamshid farm Ch.Ulugov, Ph.D., associated professor, project participant

Figure 3. Flax yield determination process in 3 contour of farm

The head of the farm is given constant advice on the correct selection of crop types and varieties, the optimal planting period, the use of standards and methods, and the issues of crop care.

Table 2

Crop rotation according to contours in "Jamshid" farm

Name of the farm	Contour no	Crops in 2021-2022 placement status	It was recommended to plant in 2022-2023	It was recommended to plant in 2023-2024
Jamshid farm.	1-contour	Barley for 20	triticale	peas
	2-contour	10 ha winter wheat	5 to autumn peas	5 га арпа
			5 га махсар Maximum	тезпишар кузги буғдой quick spring wheat
	3-contour	5 ha linen	Barley	Махсар Maximum
	4-contour	5 ha peas	Barley	peas
	5-contour	Maximum of 60 flax	quick spring wheat	20 ha peas
				20 ha linen
				20 ha triticale

4-5-6 Figures. The process of conducting phenological observations during the phases of the development of the sorghum crop in the field of the Jamshid farm in the 5th contour and the harvesting of the ripe grain crops in the 1st and 2nd contours with the help of combines in "Oltinboev" farm, Sherzod's field

The total cultivated area of "Oltinboev" farm in Qamashi district of Kashkadarya region is 75 ha. The arable land area of the farm is located in 3 contour fields. For the harvest of 2022, 15 ha of barley were planted in the 1st field, 15 ha of flax in the 2nd field, and 4 ha of wheat in the 3rd field. Based on the rotation system, taking into account the soil and climate conditions of the region, autumn peas (65-70 kg/ha) instead of barley (65-70 kg/ha) for the 1st field, triticale varieties instead of flax (120-150 kg/ha) for the 2nd field 15 ha , it was recommended to plant triticale (120-150 kg/ha) instead of wheat crop on 4 ha in the 3rd field.

Table 3

Recommendations on Rules for planting crops at "Oltinboev" farm

Name of the farm	**Contour no**	**Crops in 2021-2022 placement status**	**It was recommended to plant in 2022-2023**	**Sowing rates, kg/ha**
“Oltinboev” farm	1-contour	15 ha barley	peas	65-70 kg/ha
	2-contour	15 ha linen	triticale	100-120 kg/ha
	3-contour	4 ha wheat	3 linen	22-25 kg/ha

7-8 Figures. Processes of determination of grain residue and grain yield in the field of "Oltinboev" farm

Table 4

Crop rotation according to contours at "Oltinboev" farm system organization

Name of the farm	Contour no	Crops in 2021-2022 placement status	It was recommended to plant in 2022-2023	It was recommended to plant in 2023-2024
Oltinboev farm	1-contour	15 ha barley	peas	triticale
	2-contour	15 ha linen	triticale	wheat
	3-contour	4 ha wheat	linen	barley

The farm has 36 hectares of natural pasture, and these areas are purposefully used for raising livestock. Necessary recommendations were given to the head of the farm on measures for more effective use of pasture lands.

Gofirjon Jumaev farm

The total cultivated area of "Gofirjon Jumaev" farm in Qamashi district of Kashkadarya region is 39 ha. The arable land area of the farm consists of 4 contour fields. For the harvest of 2022, 15 ha of barley were planted between rows of Iranian pistachios in the 1st field. The 2nd field was planted with 20 ha of barley, the 3rd field with 1 ha of peas, and the 4th field with 3 ha of flax. Taking into account the soil and climate conditions of the dry region of Qamashi district, triticale (120-150 kg/ha) is planted in the 1st field between rows of 15 ha, winter peas (65-70 kg/ha) in the 2nd field, 10 ha It was recommended to sow barley seeds at the rate of 100-120 kg/ha in the optimal autumn season for 1 ha of pea crop in the 3rd field and 1 ha of pea crop in the 4th field.

Table 5

Recommendations on rules for planting crops at "Gofirjon Jumaev" farm

Name of the farm	Counter no	Crops in 2021-2022 placement status	It was recommended to plant in 2022-2023	Sowing rates, kg/ha
"Gofirjon Jumaev" farm	1-contour	15 ha barley	triticale	100-120 kg/ha
	2- contour	20 ha barley	peas	60-70 kg/ha
	3- contour	1 ha peas	barley	100-120 kg/ha
	4- contour	3 ha linen	wheat	120-150 kg/ha

Table 6

Crop rotation along the contour system organization in “Oltinboev” farm

Name of the farm	Contour no	Crops in 2021-2022 placement status	It was recommended to plant 2022-2023	It was recommended to plant in 2023-2024
“Oltinboev” farm	1-contour	15 ha barley	triticale	peas
	2-contour	20 ha barley	10 ha peas	quick spring wheat
			flax	
	3-contour	1 ha peas	barley	flax
	4-contour	3 ha linen	wheat	triticale

Summary. Within the framework of the project "Integrated management of natural resources in arid and saline agricultural production landscapes of Central Asia and Turkey" (GCP/SEC/293/GFF), which is being implemented in cooperation with Tashkent State Agrarian University and FAO/GEF scientists, operating in the conditions of water-scarce regions of Kashkadarya region as a result of a practical visit to the upcoming farms, scientific and practical recommendations were given to them, and cooperation relations are bearing positive results**.**

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