ХОРИЖИЙ ВА МАХАЛЛИЙ СОЯ НАВЛАРИ УРУҒЧИЛИК ТИЗИМИНИ ТАШКИЛ ҚИЛИШДА ТУПРОҚНИНГ АҲАМИЯТИ

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Abstract: *Nowadays, many different varieties of soy are being created in scientific research institutes. The factor that gives the fastest results in reducing poverty and increasing the incomes of the rural population is a sharp increase in productivity and efficiency in agriculture, and this has further improved the seed production system, and the development of this sector is our main goal.*

Key words: *seed production, preparation, processing, storage and marketing, variety and seed control, flowering stage, podding stage, plant stem shape and pod shape*

Аннотация: *Хозирги кунда илмий тадқиқоқот институтларида кўплаб соянинг турли навлари хам яратилябди. Камбағалликни қисқартириш ва қишлоқ аҳолиси даромадларини кўпайтиришда энг тез натижа берадиган омил бу – қишлоқ хўжалигида ҳосилдорлик ва самарадорликни кескин ошириш эканлиги ва бу уруғчилик тизимини янада такомиллашганлиги ва шу соҳанинг ривожлантириш эса асосий мақсадимиздир.*

Калит сўзлар: *уруғларни етиштириш, тайёрлаш, қайта ишлаш, сақлаш ва сотиш, нав ва уруғлик назорати, гуллаш босқичи, дуккаклаш босқичи ўсимликни поя шакли ва дуккаклар шакли*

Аннотации: *В настоящее время в научно-исследовательских институтах создается множество различных сортов сои. Фактором, дающим самые быстрые результаты в сокращении бедности и увеличении доходов сельского населения, является резкое повышение производительности и эффективности в сельском хозяйстве, а это еще больше улучшило систему семеноводства, и развитие этой отрасли является нашей главной целью.*

Ключевые слова: *производство семян, подготовка, переработка, хранение и реализация, контроль сорта и семян, стадия цветения, стадия стручков, форма стебля растения и форма стручка.*

INTRODUCTION

Relevance of the topic. As a leguminous plant, soybean is the best predecessor crop for all agricultural crops such as winter cereals, cotton, corn, and all types of vegetable crops. The role and importance of the soybean plant in agriculture is considered very high. In addition to food products, soybeans are used in industrial enterprises for the production of gas, artificial fertilizers and medicines, as well as for increasing soil fertility. Therefore,

great attention is being paid to the cultivation of soybeans in our country. Globally, the year-on-year increase in the demand for soybean (Glycine max) important food products requires further expansion of agricultural crop areas and continuous supply of high-quality products. Today, soybeans are cultivated on 122 million hectares of land in the world, and more than 362 million tons of soybeans are harvested per year, including Brazil 37 million, the USA 31 million, Argentina 18 million, India 11 million, China 9 million, and in Uzbekistan 31,000 hectares of soybeans are planted in open fields 32 4,000 tons of soybeans are grown." However, as a result of the daily increase in demand for soy protein and oil, the demand for soybean varieties with higher protein and oil content is increasing. Today, the growth of soybean production in the world is provided due to the increase of cultivated areas and the increase of productivity, and the average annual growth rate of planted soybean area in the last ten years is 1.7 percent. "Soybean yield per hectare increased by 1.0%, and the average yield was 28 centners per hectare. At the same time, scientific and research work is being carried out on the placement of soybean varieties in different soil conditions, the development of agrotechnological elements to increase the yield and grain quality, including the protein content and oiliness level, and the maintenance and increase of soil fertility. In recent years, in our republic, great attention has been paid to the cultivation of soybeans as the main crop in irrigated areas, as well as to increase the grain yield, grain quality, oiliness level, and increase the productivity of soils with low fertility. In paragraph 3.3 of the Decree of the President of the Republic of Uzbekistan "On the Strategy of Actions for the Development of the Republic of Uzbekistan for 2017-2021" it is stated that "... to increase the volume of production in agriculture, to further strengthen the food security of the country, to expand the volume of production of ecologically clean products, to export the agrarian sector important tasks aimed at significantly increasing its potential" have been defined. At the same time, in the conditions of light gray soils with low productivity of the Republic, the cultivation of soybeans as the main crop, the use of mineral fertilizers to increase the protein content and fat content of grain, and the wide introduction of agro-technologies in the production industry are among the urgent tasks of today. PQ-3144 of the President of the Republic of Uzbekistan dated March 14, 2017 No. PQ-2832 "On measures to organize soybean planting and increase the cultivation of soybean crops in the republic" No. PQ-3144 This dissertation research is to a certain extent of service to the implementation of the tasks defined in the Decree of the President of the Republic of Uzbekistan No. PF-5853 of October 23, 2019 "On approval of the strategy for the development of agriculture of the Republic of Uzbekistan for 2020-2030" and other regulatory legal documents related to this activity. does. Today, in order to establish a primary seed breeding system of domestic soybean varieties such as "To'maris Man-60", "Hasildor", foreign "Vilana", "Slaviya", which are included in the State Register for planting in our country, seed nurseries of these

varieties are established on a scientific basis, and a large number of soybean seeds are planted. It is also related to conducting scientific research. [1]

Soil sample of the experimental field, agrochemical parameters of the soil.

The field of experiments is located in Andijan district of Andijan region, the average relative humidity of the air is 62-65%, and in winter this indicator is 75-80%.

Our experiments in seed nurseries of soybean varieties were conducted in 2022 in the fields of the meadow gray soil farm of the Central Experimental Field of the Research Institute of Cereals and Legumes. The experimental land area is medium-cultivated irrigated meadow gray soil, the mechanical composition is medium sand, the soil-forming parent rocks consist of alluvial-proluval deposits, the seepage water is located 1.5-2.0 meters above the surface, according to its taste, it is fresh, with humus (AkV), layer 0-50 around cm and well supplied with nutrients.

table -1

Agrochemical parameters of experimental field soil.

S/n	The depth of the sampled layer is sm	hummus %	General %			Active mg/kg		
			azote	fosfor	Kaliy	$N\text{-}NO_3$	P_2O_5	K_2O
1	0-30	1.62	0.135	0.146	1	0-30	1.62	0.135
2	30-50	1.01	0.094	0.120	2	30-50	1.01	0.094
3	50-70	0.81	0.072	0.090	3	50-70	0.81	0.072
4	70-100	0.34	0.031	0.027	4	70-100	0.34	0.031

As can be seen from the table, the amount of humus in the soil is 1.62% in the Khaydov layer (0-30), it significantly decreases towards the lower layers of the soil, and its amount is 0.34% in the deepest (70-100 cm).

Practical results of the research

Soybean varieties are selected 4 times during the growing season in order to ensure fertility, including: at the weeding stage, the seed is selected based on the color of the lower part of the leaf; based on color.The experimental land area is medium-cultivated irrigated meadow soil, the mechanical composition is very sandy, the soil-forming parent rocks consist of alluvial-proluval deposits, the seepage water is fresh, humus-rich (A+V) , the layer is around 0-50 cm and is well supplied with nutrients.The climate is changeable continental, the average temperature in January-February is 5-6 oC, the summer is moderate, the hottest month is July, the average temperature is +28.2-32.5 oC. Precipitation is low throughout the year, and most of it (70-80%) falls in winter and spring. Climatic conditions are favorable for the cultivation of agricultural crops, including wheat, in this region, but during the phases of wheat flowering and grain filling and milk ripening, the sharp heating of the day has a certain negative effect on the yield and quality of wheat. Warming of the daily air temperature had a negative effect on the productivity and quality of mid-evening and late varieties.According to long-term data, the duration of days with an

annual average rainfall of 257.9-388.9 mm + 10 oS is 210-215 days, and the sum of useful temperatures is 2800-3100 oS.

Table-2

Information of Andijan hydrometeorological department

Years	Months												Annual average
	1	2	3	4	5	6	7	8	9	10	11	12	
Average daily air temperature, C°													
2019	-2,0	4,6	10,5	16,5	21,5	25,8	26,9	25,6	21,2	13,5	5,0	1,1	**14,2**
2020	0,2	-4,8	8,4	15,3	23,1	25,3	26,5	25,6	20,7	15,0	8,7	2,3	**13,9**
2021	-8,1	-4,5	7,8	16,5	21,5	26,0	28,0	0	0	0	0	0	**9,6**
Amount of precipitation, mm													
2019	7,3	13,0	33,4	20,8	11,5	12,5	7,6	6,5	2,2	3,1	0	15,1	**133,0**
2020	24,9	34,9	15,6	21,7	1,5	8,5	0	0	1,8	5,6	8,5	18,2	**141,2**
2021	15,6	24,3	30,4	18,8	30,5	0	0	0	0	0	0	0	**119,6**

Summary

In conclusion, the climatic conditions in the region are considered favorable for the cultivation of agricultural crops, including wheat, but years with high precipitation in early spring may cause weed growth.

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