GROWING WHEAT IN ACCORDANCE WITH THE ECOLOGICAL CONDITIONS OF OUR COUNTRY AND ITS BIOMETRIC INDICATORS

Rakhimova Umidakhon Salijon's daughter
Employee of the International Institute of Food Technology and Engineering
The son of Akhmadjonov Dilshod Olimjon
a graduate student

Abstract: *In the conditions of global climate change in my country, it is important to select varieties with high technological quality indicators and grain yield, stable results in all indicators, organize seed production and obtain new hybrid populations. When choosing starting material for growing wheat plants in our country*

Keywords: *Wheat varieties, food, experiment, variant, green mass, plant height, spike length, 1000-grain weight, number of grains per spike, climate adaptation, growing season*

Аннотация: *В условиях глобального изменения климата в нашей стране актуальным является подбор сортов с высокими технологическими показателями качества зерна и урожайности, стабильными результатами по всем показателям, организация семеноводства и получение новых гибридных популяций. При выборе исходного материала для выращивания пшеницы в нашей стране*

Ключевые слова: *Сорта пшеницы, продовольствие, эксперимент, вариант, зелёная масса, высота растения, длина колоса, масса 1000 зерен, число зерен в колосе, климатическая адаптация, вегетационный период*

INTRODUCTION

In order to meet the needs of the population in food products, industry in raw materials, and livestock in feed, special attention is paid to the development and continuous improvement of agricultural techniques for growing field crops, taking into account their biological characteristics, soil and climatic conditions. In recent years, global weather and climate changes in the world and in our country may lead to a decrease in high and high-quality yields from agricultural crops, including grain crops, which requires the creation of high-yielding, early-maturing, disease-resistant, salt-resistant, drought-resistant and heat-resistant varieties of grain crops suitable for irrigated conditions, taking into account the diversity of soil and climatic conditions of our republic, and the organization of their seed production system on a scientific basis.

Research by B. Niyozaliyev et al. [5; 136-137-b] showed that in the top layer of the soil, 20.2 t/ha of root mass was accumulated after wheat, 10.1 t/ha after cowpea, 18.2 t/ha after mung bean, 24.7 t/ha after soybean, 58.0 t/ha after corn, and 30.3 t/ha of shoot mass remained after winter wheat.

In the processes of growth, development and high yield formation in wheat plants, crop rotation and combined agrotechnical measures used in the farming system play a key role. According to S.O. Konopkin, I.N. Kudryashov, the importance of intercrops and nitrogen fertilizers in winter wheat cultivation is incomparable [2; 469-479-p.]. According to A.A. Gortlevsky, V.M. Kuldyushkin and others, when alternating crop types, the soil bulk density decreased from 1.47 g/cm3 to 1.25-1.30 cm3, and the physical properties of the soil improved, increasing productivity [2; 157-p.]. According to A. Rasulov and others, intercrops and repeated crops leave 5-6 tons of aboveground and underground parts per hectare, improving the growth and development of plants planted after them [1; 18-p.]. Z. Umarov, H. Atabaeva, A. Alimov observed in their experiments that grain crops absorb the most nutrients during the period of accumulation and earing. Therefore, it is important to provide grain plants with nutrients during these periods. They proved that if 20 tons of fertilizer per hectare is applied to fertile land, it is possible to obtain a yield of up to 74 centners per hectare [3; p. 26].

In irrigated farming, the best companion crops for winter wheat are alfalfa and other legumes.

Data from Z.S. Tursunkhodzhaev, M.A. Sorokin, A.L. Toropkina, N. Urazmatov and other scientists have shown that two-year-old clover enriches the soil in the 0-60 cm layer with root residues equivalent to 150-200 kg of nitrogen, 60 kg of phosphorus, and 40-50 tons of manure per hectare of land. [3; p. 27].

In the experiment, when winter wheat was planted after repeated crops and compared the yield according to the options, compared to the control-wheat option, that is, compared to the option without repeated crops after wheat, the yield in the option planted with corn was 4.7 centners per hectare, in the option planted with millet it was 2.5 centners, in the option planted with mash, compared to the control option planted with soybeans. A higher grain yield of 12.0 centners was obtained. It was determined that the amount of nutrients remaining in the soil, soil volume mass, porosity, and water permeability were important for the options where repeated crops were planted.

The following data were obtained when the biometric indicators of the varieties were analyzed according to the experimental results in the ecological variety test nursery.

Biometric indicators of wheat plants planted before repeated crops

s/n	Crop types	Number of seedlings per 1 m2	Plant height, cm	Spike length, cm.	The number of spikes in one spike, pcs	The number of grains in one ear, pcs	Weight of 1000 grains, g
1	Wheat-wheat (control)	435	92,3	7,6	12	28,8	36,3
2	Wheat -Tarikh	431	96,1	8,8	15,1	36,5	40,5

3	Wheat -Tarikh	452	96,1	8,8	15,1	36,5	40,5
4	wheat –Mung bean	480	96,1	8,8	15,1	36,5	40,5
5	wheat –Mung bean	488	96,1	8,8	15,1	36,5	40,5
6	wheat –Mung bean	488	96,1	8,8	15,1	36,5	40,5
7	wheat-soybean	415	95,7	8,1	14,5	35	40
8	wheat-soybean	425	95,7	8,1	14,5	35	40
9	wheat-soybean	437	95,7	8,1	14,5	35	40
10	Wheat-Corn	480	96,1	8,8	15,1	36,5	40,5
11	Wheat-Corn	488	96,1	8,8	15,1	36,5	40,5
12	Wheat-Corn	482	98,1	8,9	16,1	38,5	41,5

In cereal crops, the number of productive stems increases or decreases, in turn, the expected yield increases or decreases. The data in the table above show that compared to the control variant, where wheat was planted instead of wheat, there was an increase in biometric indicators in all variants, including the highest seedling density, calculated from the number of ears per 1 m2 before grain harvest, was observed in the variants planted instead of mung bean and soybean, and it was found that this indicator affected all biometric indicators. Compared to the control variant, the plant height in the variant planted with corn differed by 3.8 cm, in the variant planted with soya bean by 3.4 cm, and in the variants planted with mung bean and soybean by 8.3 cm. The same pattern was positively reflected in the analysis of remaining ear length, number of ears per ear, number of grains per ear and 1000 grain weight.

CONCLUSION.

In the global changing climatic conditions of my country, it is important to select varieties with high technological quality indicators and grain yield, stable results in all indicators, organize seed production, and obtain new hybrid populations. When selecting the starting material for growing wheat plants in our country, the Durdona variety of wheat was selected and studied.

REFERENCES USED:

1. Abdukarimov. D. T. Selection and seed production of grain crops. Tashkent-2010. pp. 9-84.

2. S.O. Konopkin, I.N. Kudryashov Dissertation on the importance of intercrops and nitrogen fertilizers in winter wheat cultivation. 1990.

3. Atabaeva Kh. Kadirkhozhaev O “Plant science” Tashkent-2006

4. Tellyaev R.Sh., Doctor of Agricultural Sciences, Professor Dissertation “The influence of acceptable types of repeated crops on soil fertility and winter wheat yield”

5. Bobodzhanov V.A., Kurbanova M.B., Borotova M.M. Production process of hexaploid triticale// Vesti s.-kh. nauki. 1990. - No. 9. - S. 101-105

6. Gulyaev V. G. Plant science, 1984. Moscow. "Colossus"

7. Grabovets A.I., Krokhmal A.V. Triticale: monograph // Rostovna-Donu: OOO "Izdatelstvo "Yug", 2019. - P.240.