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**DATES AND NORMS OF SOWING NEW VARIETIES OF WINTER WHEAT ON
IRRIGATED LANDS OF THE ZARAFSHAN VALLEY**

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Abstract. The article presents the results of field experiments on the study of agricultural technology (the influence of timing and seeding rates and their interaction) of promising and new varieties (Asr, Grom, Davr, Druzhba and Uzbekistan-25) of winter wheat suitable for soil and climatic conditions carried out in 2019-2021 on the irrigated lands of the Samarkand region.

Key words: sowing dates, seeding rates, variety, yield, grain quality

抽象的。 本文介绍了适合土壤的冬小麦有前景的新品种 (Asr、Grom、Davv、Druzhba 和 Uzbekistan-25) 农业技术研究 (时机和播种量的影响及其相互作用) 的田间试验结果 和 2019-2021 年在撒马尔罕地区灌溉土地上进行的气候条件。

关键词: 播期, 播种率, 品种, 产量, 品质

Relevance of the topic. The production of grain crops in our country is steadily developing on irrigated lands, the yield of grain crops is growing. The consistent development of agricultural production, further strengthening of the country's food security, expansion of the production of environmentally friendly products, a significant increase in the export potential of the agricultural sector are considered one of the most important tasks provided for by the strategy of action of the Republic of Uzbekistan for 2017-2021. Together with the reduction of the acreage of grain crops by 50 thousand hectares, it is planned to introduce advanced agricultural technologies for processing agricultural crops, the use of modern irrigation methods, the selection of varieties suitable for the soil and climatic conditions of irrigated lands, the correct

organization of seed growing, the development of agricultural technologies that will increase the yield of grain - spike crops from 54.9 to 66.4 c / ha [1; 245 p.].

Currently, 43 (63 units in the Republic) varieties of soft winter wheat are included in the State Register (2021), agricultural crops recommended for sowing on irrigated lands of the Samarkand region on the territory of the Republic of Uzbekistan, the main goal is to select among these intensive varieties suitable for soil climatic conditions of the region, resistant to diseases, drought, lodging, responsive to irrigation and fertilization, high-yielding (with high baking properties of strong and valuable wheat), improving their seed production, as well as the development of agricultural techniques for

Received: October 18, 2021 / Revised: November 09, 2021 / Accepted: December 30, 2021 / Published: January 28, 2022

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cultivating varieties, introduction into production [7; 110-b].

Object and research methods. Field experiments were carried out in accordance with the program in the fields of the Samarkand Scientific Experimental Station in the Ishtikhan District of the Samarkand Region.

The objects of study were new and promising varieties of ozis wheat Asr, Davr, Grom, Druzhba and Uzbekistan - 25, included in the State Register for cultivation on irrigated lands.

In the experiment, sowing was studied at various times (09.20; 10.10; 1.11;) with a seeding rate of 4.0; 4.5 and 5.0 million pieces. viable seeds per hectare. The experiment was repeated 4 times, the area of the registration plots was 50 m², two-tier. In the study, the plants were grown in accordance with the agricultural techniques recommended for the region. All phenological observations, bimetric measurements were carried out in accordance with the methodology of the UzNIIH "Methodology for conducting field research" [3; 145-b.]. The amount of klekovina was determined according to GOST 13586-1-68.

Analysis of variance of the yield data was determined according to BA Dospekhov [2; 317-c].

Analysis of research results. B.R.Irmulatov, B.A.Mustafayev's note that using the timing of planting, it is possible to regulate the most important phases of culture development until a favorable time of the external environment. At the same time, the yield increases by 25-30%, in some years by 40-50% [6; 13-14-b.].

V. Gubanov and others [4; 240-b.], R. Jabbarov [5; 16-b.] Have shown in their studies that the planting rate of winter wheat is different for different planting dates.

But there are no clear recommendations on what should be the planting rate when planting at an early, acceptable or late date for each species, variety. What should be the seeding rate of winter wheat on irrigated land when sowing is done 10 or 20 days later than the optimal time. This cannot be determined in univariate experiments. Therefore, the study of the influence of different dates and planting rates on the formation of new varieties of winter wheat in two-factor experiments allows you to determine and recommend the optimal planting rates at different planting dates in existing soil and climatic conditions.

The results of our experiments showed that the extinction of most plants sown in the early period, in our opinion, may occur due to their strong growth in the autumn and a decrease in resistance to fungal diseases.

For late sowing of sensible wheat, the seeding rate should be higher compared to optimal and early sowing times. With the lengthening of the sowing period, when the tillering coefficient of plants is low, with a late sowing period, a decrease in field germination and resistance to unfavorable conditions in the autumn-winter period is observed.

If the sowing period of winter wheat is too late, the plant forms 2-3 leaves, hibernates with an insufficiently developed tillering node and root system. At the same time, the frost resistance of such plants was low.

With a late sowing period, the seedlings of winter wheat were sparse, the plants did not complete the tillering phase and hibernated with 1-2 formed leaves with numerous weeds, the yield decreased by 10-15 c / ha.

At different planting densities, the number of productive stems does not differ greatly. Plants adapt to their environment by forming an optimal

planting density. With thinned sowing, the plants bush strongly, and with thickened due to unfavorable conditions, weak plants die, the rest of the plants are poorly developed, tillering decreases. With a thickened sowing, due to the lack of some factors, plants with 2-3 leaves do not form secondary roots in the phase of exit into the tube, they die.

Thus, in the growth and development of wheat, two opposite interdependent processes occur, which coincide at the same time and the process of self-control of the formation of the optimal plant density occurs.

As the analysis of the experimental results showed, it was noticed that the timing of sowing seeds on the studied varieties influenced in different ways. With a delay in the sowing period and an increase in sowing rates for winter wheat varieties (Grom, Asr, Davr, Druzhba and Uzbekistan-25), the number of grains per ear, the weight of 1000 grains, the weight of the ear decreased, and the quality indicators of grain increased, the amount of gluten and the IDC indicator increased. contained in the grain.

In the context of the varieties studied in the experiment, it was revealed that the sowing time also affects the yield.

Among the studied varieties, the highest grain yield of 63-70 c / ha was obtained at an early sowing date on September 20 with a seeding rate of 4.0 million viable seeds per hectare, and with an optimal sowing date on October 10 with a density of 4.5 million viable seeds per hectare, this figure was 65-72 c / ha, with a late November 1 sowing date with a plant density of 5.0 million viable seeds per hectare, the yield was 58-63 c / ha.

According to the results obtained, it can be concluded that in order to grow a plentiful and high-quality grain harvest of new and promising varieties of winter wheat (Thunder, Asr, Davr and Druzhba) in the soil and climatic conditions of the Samarkand region, it is necessary to sow at an early date on September 20 with a plant density of 4, 0 million germinable seeds per hectare, at the optimal time - in the first decade of October (October 10) with a seeding rate of 4.5 million in case of a late sowing of the Uzbekistan-25 variety, with a seeding rate of 5.0 million germinable seeds per hectare allows you to get positive results.

REFERENCES

1. Decree of the president of the republic of uzbekistan dated february 7, 2017 "on the strategy of action for the five development priorities of the republic of uzbekistan for 2017-2021" up no. 4947.
2. Dospekhov b.a. field experiment technique. - m: "kolos", 1985. - 317 p.
3. Methodology for conducting field research. - uzniih, - tashkent, 2007.-145 p.
4. Gubanov ya.v., fun ng, kuznetsov i.a., tarasenko b.i., nosov p.v., serebryakov a.i. agricultural technology of winter wheat. -m. kolos, 1967.240 p.
5. Jabborov r.d. wheat cultivation in the northern basin of the zarafshan valley. abstract dissertation. cand. s-x. sciences. samarkand, 1978, 16 p.
6. Irmulotov b.p., mustafaev b.a. the influence of the seeding time of the seeding rate on the yield of modern varieties of spring wheat // agrarian science. -moscow, 2014. -no. 9.-p. 13-14.
7. State register of agricultural crops recommended for sowing on the territory of the republic of uzbekistan. tashkent, 2021 110 p.