

## INFLUENCE OF AGROTECHNICAL FACTORS TRITICALE TO IMPORTANT ECONOMIC SYMPTOMS

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**Abstract.** *This article presents the analysis of the data obtained in the scientific research work on the agrotechnology of growing a new, promising variety of triticale belonging to the group of grain crops. The experiments were conducted in the soil and climate conditions of the experimental farm of the Tashkent State Agrarian University.*

**Keywords:** *triticale, variety, seed, planting time, rate, development phases, tuber, earing, flowering, period of validity.*

**Introduction.** From the first years of our independence, the government of Uzbekistan paid great attention to the radical reform of the agrarian sector, the development of production focused on deep processing of agricultural products, and the provision of high-quality food products to the population. The transition to the farming movement, which is efficient in management, has proven itself in the world experience, ensures that agriculture will improve. These measures are bearing fruit. In particular, during the reform years, grain cultivation was 1 mln. 8 million per ton. reached tons. The volume of agricultural production has more than doubled.

According to the decree of the President of the Republic of Uzbekistan No. PD-3281 of September 15, 2017: for the harvest of 2018, grain crops will be grown on an area of 1 million 107.1 thousand hectares, a total of 6 million. It is envisaged to grow 604 thousand tons of grain crops. It can be seen that, by taking care of grain crops, in 2018, a high and high-quality grain crop was grown from them.

At a time when the population growth in Uzbekistan is increasing dramatically, it is important to choose high-protein and high-energy grain crops adapted to every climatic conditions of our Republic and with high potential yield, and to cultivate them taking into account their biology and important economic characteristics, as well as applying them to the production of high-yielding varieties. there are urgent, responsible tasks.

The reforms carried out in the agriculture of our country are aimed at providing the population with food products, raw materials for industry, and fodder for livestock. In this regard, grain growing is one of the main sectors, and triticale, a grain crop with spikes - Triticale L., occupies an important place.

In the age of advanced science and technology, it is clear to all of us that measures against the financial crisis have been developed in our country, and the use of advanced modern innovative technologies in the agricultural sector has been highly effective. We consider it a great happiness that grain independence was achieved by the initiative of our President and the government of Uzbekistan in the last two decades, and that the citizens of our country are living a prosperous life in a peaceful and prosperous country, with plenty of food and a rich table.

Nowadays, ensuring food security is an important area in all countries, because the increase in the world's population leads to an even greater demand for food. Therefore, the contribution of grain crops to the sustainable development of the agricultural sector is of great importance.

Triticale is a plant resulting from the crossbreeding of wheat and rye. For the first time in history, in 1875, the Scottish scientist A.S. succeeded in creating a sterile plant by crossing wheat and rye. Wilson is noted in scientific sources.

By 1888, the first fertile hybrid of wheat and rye was obtained in Germany by the German scientist W. Rimpau.

In 1918, thousands of hybrids were created by crossing wheat and rye at the Saratov Scientific Experiment Station. This plant got its name "Triticale" only in 1935 when the German scientist Tshermak founded (*Triticum* (wheat) + *Secale* (rye) = Triticale). Currently, the international scientific name is *Triticosecale*.

According to scientific sources, in recent years, octoploid 56-chromosomal triticale was created by crossing autumn or spring soft wheat with rye, and hexaploid 42-chromosomal triticale was created by crossing durum wheat with rye. In the following years, hybrids of 3 types (soft, hard wheat and rye) were created, which combined the genetic characteristics of hard, soft wheat and rye.

*The purpose of the scientific work is to study the effect of planting time and rate on the productivity of new triticale varieties under the conditions of irrigated typical gray soils of Tashkent region.*

*Results of the experiment:* Table 1 below shows the analysis of the data obtained on the duration of the development phases of triticale varieties. According to the table, the first planting date is on September 20, that is, in the options planted in the early period, the planting rate of the "Sardor" variety is 4 million units/ha, compared to the experimental option. The transition to the germination phase was on September 27, the transition to the tuberization phase was on March 10, the earing phase was on April 12, the flowering phase was on April 24, and the ripening period was on June 8. It was observed that the transition to the germination phase was on September 29, the transition to the tuber phase was on March 13, the earing phase was on April 14, the flowering phase was on April 26, and the crop ripening period was on June 8.

The first planting period is on September 20, i.e., in the early-planted options, in the "Sardor" variety, the planting rate is 5 million units/ha. phase on April 26 and the ripening period of the crop on June 10, in the "Armug'on-60" variety, these parameters, i.e., the transition to the budding phase on September 27, the transition to the tuber phase on March 14, the spike phase on April 15, flowering It was observed that the phase coincided with April 27 and the period of crop ripening coincided with June 11. As it can be seen from the analysis of the obtained data, it was found that the seeds sown on the same day have a partial effect on the development phases depending on the sowing rate.

When analyzing the above data, the first planting period is on September 20, i.e., in the early-planted options, the planting rate of the "Sardor" variety is 6 million pieces/ha. If the spike phase is on April 13, the flowering phase is on April 28, and the crop ripening period is on June 11, then in the "Armug'on-60" variety, these indicators, i.e., the transition to the budding phase is on October 2, the transition to the tuber phase is on March 14, It was observed that the spike phase was on April 15, the flowering phase was on April 30, and the crop ripening period was on June 12.

Data were obtained when triticale cultivars were sown in the second sowing period, i.e. on October 10, and the duration of development phases from seed germination to harvest maturity was determined.

According to the analysis of the data obtained on the duration of the development phases of triticale varieties, the second planting date is on October 10, i.e., in the options planted in the middle term, in the experimental option with a planting rate of 4 million units/ha in the "Sardor" variety, the transition to the sprouting phase is on October 20, the transition to the tuber phase March 16, the spike phase on April 17, the flowering phase on May 2, and the ripening period on June 14, in the "Armugon-60" variety, these indicators, that is, the transition to the budding phase, on October 20, the transition to the tuber phase It was observed that on March 18, the earing phase was on April 19, the flowering phase was on May 4, and the ripening period of the crop was on June 14.

In our field experiments, the second sowing period is October 10, i.e., in the options planted in the middle term, the planting rate of the "Sardor" variety is 6 million pieces/ha, the period of lateral germination of seeds is on October 24, the period of transition to the tuber phase is on March 19, and the spike phase is on April 19, the flowering phase is on May 5, and the crop ripening period is on June 16, in the "Armugon-60" variety, these parameters, i.e., lateral germination of seeds is on October 24, the period of transition to the tuber phase is on March 20, and the earing phase is on April 20. it was observed that the flowering phase coincided with May 7 and the period of crop ripening coincided with June 16.

*1-table*

***Duration of development phases of triticale varieties, day and month***

№	Varieties	Sowing rate, million units/ha	Transition periods						
			Weeding	Tubing	Spike	Flowering	Ripe	The duration of the validity period, days	From planting period until ripening, days
20 september									
1	Sardor	4,0	27.09	10.03	12.04	24.04	08.06	253	260
2	Armugon-60		29.09	13.03	14.04	26.04	08.06	251	260
3	Sardor	5,0	28.09	12.03	13.04	26.04	10.06	254	262
4	Armugon-60		27.09	14.03	15.04	27.04	11.06	256	263
5	Sardor	6,0	30.09	13.03	13.04	28.04	11.06	253	263
6	Armugon-60		02.10	14.03	15.04	30.04	12.06	252	264
10 oktober									
7	Sardor	4,0	20.10	16.03	17.04	02.05	14.06	236	247
8	Armugon-60		20.10	18.03	19.04	04.05	14.06	236	247
9	Sardor	5,0	22.10	18.03	18.04	04.05	16.06	236	249
10	Armugon-60		22.10	18.03	20.04	05.05	16.06	236	249
11	Sardor	6,0	24.10	19.03	19.04	05.05	16.06	234	249

12	Armugon-60		24.10	20.03	20.04	07.05	16.06	234	249
1 november									
13	Sardor	4,0	12.11	20.03	22.04	05.05	20.06	219	232
14	Armugon-60		13.11	22.03	24.04	06.05	20.06	218	232
15	Sardor	5,0	14.11	22.03	24.04	07.05	22.06	219	234
16	Armugon-60		14.11	24.03	26.04	09.05	22.06	219	234
17	Sardor	6,0	16.11	24.03	25.04	08.05	22.06	217	234
18	Armugon-60		17.11	26.03	26.04	09.05	22.06	216	234

The data analysis shows that the differences between the first and second planting periods and the planting rates are significant during the development phases, and the ripening of the second planting period is 6-8 days later than the first planting period.

Triticale cultivars were planted in our third planting period, on November 1, and the duration of development phases from seed germination to harvest maturity was monitored.

According to the analysis of the data obtained on the duration of the development phases of triticale varieties, the third planting period is on November 1, i.e., in the variants planted in the late period, in the experimental variant with a planting rate of 4 million units/ha in the "Sardor" variety, the transition to the sprouting phase is on November 12, the transition to the tuber phase March 20, the spike phase on April 22, the flowering phase on May 5, and the ripening period on June 20, in the variety "Armugon-60" these parameters, that is, the horizontal germination of seeds on November 13, the period of transition to the tuber phase on 22 it was observed that the spike phase was on April 24, the flowering phase was on May 6, and the crop ripening period was on June 20.

In our field experiments, the third sowing period is November 1, i.e., in the variants planted in the late period, the planting rate of the "Sardor" variety is 5 million pieces/ha. , the flowering phase is on May 7, and the crop ripening period is on June 22, in the "Armug'on-60" variety, these parameters, that is, lateral germination of seeds on November 14, the period of transition to the tuber phase on March 24, and the spike phase on April 26, it was observed that the flowering phase coincided with May 9 and the period of crop ripening coincided with June 22. In our experiment, the differences between the first, second, and third planting periods were significant throughout the development phases, as is evident from the analysis of the obtained data.

In our field experiments, the third sowing period is November 1, i.e., in the options planted in the late period, the sowing rate of the "Sardor" variety is 6 million pieces/ha. April, the flowering phase is on May 8, and the crop ripening period is on June 22, in the "Armugon-60" variety, these indicators, i.e., lateral germination of seeds are on November 17, the period of transition to the tuber phase is on March 26, and the earing phase is on April 26. per day, it was observed that the flowering phase coincided with May 9 and the ripening period of the crop coincided with June 22.

*Conclusion:* Differences between planting dates and rates were significant throughout the development phases, and it was noted that the third planting period was 10-14 days later in maturity than the first planting period.

It was observed that planting triticale varieties late in the third period, i.e. on November 1, caused these varieties to ripen by the third ten days of June. This is the late ripening period for grain crops in the agriculture of our country. Therefore, it is recommended to plant triticale varieties in the first and second planting periods in our country in order to optimally plant repeated crops and get a good harvest from them.

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