

YŮT: 631;631.8;633;633.1;633.19

**THE EFFECT OF PLANTING TIME, RATE AND RATE OF
FERTILIZER ON THE HEIGHT AND LEAF NUMBER OF TRITICALE
PLANTS**

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Annotation. In this article, the height of plants and the number of leaves of triticale "Sardor" have been studied and scientifically substantiated on the basis of sowing dates, seeding rates and optimal rates of fertilizing with mineral fertilizers.

Enter. It is known that in the care of agricultural crops, the height of the plant and the number of leaves play an important role in the level of transpiration rate in the plant. In all types of agricultural crops, the level of leaves depends on the growth dynamics of the plant. The function of the leaves of the plant is not only to pass the assimilation process, but also has a positive effect on increasing its productivity. Also, the effect of agrotechnical measures used in crops, especially soil-climatic conditions, fertilizer, water, growth regulators and other factors also have an effect on the leaf level of the plant.

The surface of the leaves changes depending on the conditions of growth in crops and the applied agrotechnics. In drought years, the leaf surface can increase to 5-20 thousand m²/ha, and up to 70 thousand m²/ha when moisture and nitrogen nutrition are sufficient. When the leaf index in the field is 4-5 m², the photosynthesis system works in the optimal mode and the most FAR is absorbed. When there is less leaf surface, FAR is less captured by leaf surface. When the optimal leaf surface exceeds 50,000 m²/ha, the lower leaves become shaded, their

participation in photosynthesis decreases, and even the upper leaves feed the lower ones [1].

The photosynthetic potential of a plant means the activity of its leaf surface during growth or growth phases. On the basis of the photosynthetic potential, the level of absorption of solar radiation falling on this area by cultivated plants, agrometeorological indicators and the yield that can be obtained are predicted [2].

The object of the study. The typical gray soils of dry areas and the "Sardor" variety of triticale were taken as the object of the research work.

The purpose of the study. To study the impact of planting period, rate and rate of mineral fertilizers on the growth, development and yield of triticale plant created for semi-moistened flat hilly regions and to develop agrotechnology of cultivation.

Research methods and conditions. The field experiments were conducted in the central experimental field of the Scientific Research Institute of Dryland Agriculture. The soils of the experimental field are typical gray soils. Biometric measurements were determined by counting the number of leaves on the plant according to the method of the State Variety Testing Commission of Agricultural Crops (1989) [3].

Research results. In the experiment, it was found out that there was an effect of planting period, seed and mineral fertilizers on plant height and number of leaves in the "Sardor" variety of triticale studied in the experiment.

According to the experimental results obtained in 2019, in the autumn period (1-10.11), the planting rate is 2.5 million pieces of germinating seeds, the control (without fertilizer) planted in the 1st option has a plant height of 89.6 cm and the number of leaves is 78 pieces, mineral fertilizers P30 K30 kg /ha-Fon, Fon+N30 kg/ha, Fon+N40 kg/ha, Fon+N50 kg/ha (options 2, 3, 4, 5) plant height 94.0-99.0-98

respectively, 4-96.2 cm, the number of leaves was 81-94-92-86. Planting rate: 3.0 million viable seeds, control planted (without fertilizer) in option 6, plant height 87.6 cm and number of leaves 77, mineral fertilizers P30 K30 kg/ha-Fon, Fon+N30 kg/ha, Fon+ N40 kg/ha, Fon+N50 kg/ha applied in options 7, 8, 9 and 10 respectively, plant height 99.5-99.7-97.4-94.0 cm, number of leaves 96-99-87- It was observed that there were 83 units. Sowing rate 3.5 million seeds, control (without fertilizer) 89.1 cm and 79 leaves in option 11, mineral fertilizers P30 K30 kg/ha Fon, Fon +N30 kg/ha, Fon +N40 kg /ha, in options 12, 13, 14 and 15 applied Fon+N50 kg/ha, respectively, the plant height is 92.1-97.3-94.2-93.6 cm, the number of leaves is 80-92-85-82 organized.

Effect of planting period, rate and mineral fertilizer rates on triticales height and number of leaves, G'allaorol 2019.

№	Planting norm, mln/ha	The norm of mineral fertilizers, kg/ha	Plant height, cm	Number of leaves, pcs
1	Autumn term (1-10.11)	2,5	Control (without fertilizer)	78
2			P ₃₀ K ₃₀ Ф _{0H}	81
3			Ф _{0H} +N ₃₀	94
4			Ф _{0H} +N ₄₀	92
5			Ф _{0H} +N ₅₀	86
6		3,0	Control (without fertilizer)	77
7			P ₃₀ K ₃₀ Ф _{0H}	96
8			Ф _{0H} +N ₃₀	99
9			Ф _{0H} +N ₄₀	87

10		3,5	$\Phi_{OH}+N_{50}$	94,0	83
11			Control (without fertilizer)	89,1	79
12			$P_{30} K_{30} \Phi_{OH}$	92,1	80
13			$\Phi_{OH}+N_{30}$	97,3	92
14			$\Phi_{OH}+N_{40}$	94,2	85
15			$\Phi_{OH}+N_{50}$	93,6	82
16	Spring term (20-28.02)	2,5	Control (without fertilizer)	88,5	77
17			$P_{30} K_{30} \Phi_{OH}$	93,5	79
18			$\Phi_{OH}+N_{30}$	97,5	88
19			$\Phi_{OH}+N_{40}$	96,8	87
20			$\Phi_{OH}+N_{50}$	95,4	84
21		3,0	Control (without fertilizer)	87,6	76
22			$P_{30} K_{30} \Phi_{OH}$	90,2	81
23			$\Phi_{OH}+N_{30}$	97,6	89
24			$\Phi_{OH}+N_{40}$	95,3	86
25			$\Phi_{OH}+N_{50}$	92,3	81
26	3,5	Control (without fertilizer)	88,7	77	
27		$P_{30} K_{30} \Phi_{OH}$	91,6	83	
28		$\Phi_{OH}+N_{30}$	97,9	90	
29		$\Phi_{OH}+N_{40}$	95,2	87	
30		$\Phi_{OH}+N_{50}$	93,0	85	

These patterns were also observed in the second spring (20-28.02) planting period of the experiment. According to this, the planting rate is 2.5 million viable seeds, plant height in control (without fertilizer) option 16 is 88.5 cm and the number of leaves is 79 pcs. ha, Fon+N40 kg/ha, Fon+N50 kg/ha in options 17, 18, 19 and 20 respectively, the height of the plant is up to 93.5-97.5-96.8-95.4 cm, the number of leaves is 88-87 It was found that it was up to 84-76 units. Sowing rate 3.0 million seeds, control (without fertilizer) planted at the expense of 87.6 cm and 76 leaves in option 21, mineral fertilizers P30 K30 kg/ha- Fon, Fon+N30 kg/ha, Fon+N40 kg /ha, in variants 22, 23, 24 and 25 applied Fon+N50 kg/ha, it was observed that the plant height was up to 93.2-97.6-97.2-96.0 cm, the number of leaves was up to 80-88-86-81. Sowing rate: 3.5 million seeds were planted in the control (without fertilizer) in the 26th option, 88.7 cm and the number of leaves was 77, mineral fertilizers P30 K30 kg/ha- Fon, Fon +N30 kg/ha, Fon +N40 kg /ha, Fon+N50 kg/ha and in options 27, 28, 29 and 30, the height of the plant is up to 91.6-97.9-95.2-93.0 cm, the number of leaves is 83-90-87-85 organized.

Conclusion: Based on the obtained results, it can be concluded that in the conditions of dry, typical gray soils of Jizzakh region, when triticale is planted in the autumn period (1-10.11), the highest indicator of plant height and number of leaves is obtained at the rate of sowing 3.0 million pieces of fertile seeds, mineral fertilizers Fon+N30 when given, the height of the plant was 99.7 cm, the number of leaves was 99.0 pieces. This is 0.7 cm and 5.0 units compared to the planting rate of 2.5 million units, 2.4 cm and 7.0 units compared to the planting rate of 3.5 million units per hectare, mineral fertilizers Fon+N30 kg/ giving 2.3 cm and 12.0 units compared to Fon+N40 kg/ha, and 5.7 cm and 16.0 units compared to Fon+N50.

In the spring planting period (20-28.02), the highest indicator was observed when the planting rate was 3.5 million pieces of germinated seeds, mineral

fertilizers were given at Fon+N30 kg/ha, and the height of the plant was 97.9 cm, the number of leaves was 97.9 pieces .This is 0.4 cm and 1.0 grains compared to 2.5 million grains planted per hectare, compared to 0.3 cm and 1.0 grains compared to 3.0 million grains planted per hectare, mineral fertilizers are used at Fon+N40 kg/ 2.7 cm and 3.0 units compared to the one given to, and 4.9 cm and 5.0 units compared to Fon+N50 kg.

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