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## FERTILIZER APPLICATION DURING GERMINATION OF TRITICALE

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**Annatotsia:** It was observed that optimal conditions for the growth and development of the bean plant as a repeated crop after winter wheat in the conditions of the meadow soil of Fergana region are created when 250 kg/ha of seeds are used at a distance of 60 cm and mineral fertilizers are applied at the rate of N<sub>100</sub>R<sub>70</sub>K<sub>50</sub> kg/ha.

**Key words:** Repetitive crop, bean, triticale, planting method, seed consumption, fertilizer rate, growth and development.

Every hectare of irrigated land has the potential to be used effectively in the different soil and climate conditions of our republic, including the fertile soil and climate conditions of the Fergana region.

In particular, it is possible to plant more than 30 types of crops as a repeat crop on the land areas where the autumn wheat harvest has been harvested, and from them, grain and nutritious fodder for livestock can be grown.

In addition, repeated crops increase the yield and quality of the crops planted after them due to the improvement of soil fertility.

It is known that alfalfa plant used to occupy the main place in cotton rotation system. Because this plant is considered a high-quality food, it is important in increasing soil fertility, especially in reducing wilt disease fungi in the soil.

But this crop does not create a high food source in the first year when it is planted purely according to its biological characteristics.

Therefore, in the following years, in addition to alfalfa, for the development of animal husbandry, other annual grass plants (sudan grass, cereals) are being planted. Triticale is one of those nutritious crops. The interest in this plant, along with other cereals, is due to its high protein content and good amino acid content, Kh. Romanov [1].

In our research, manashu triticale "Farkhod" variety was sown together with pea (china) at a seed rate of 200, 150, 100 kg/ha, grown in rows of 15 and 60 cm, and fertilizers N<sub>100</sub>R<sub>70</sub>K<sub>50</sub> kg/ha and N<sub>130</sub>R<sub>90</sub>K<sub>65</sub> kg/ha were used. The germination dynamics of triticale seedlings were observed to be influenced by seed rates and planting methods. Table 1.

In options 1-2 and 10-11 of the experiment, the methods of planting beans were planted depending on the fertilizer standards, while the triticale plant was grown only together with beans.

In options where mineral fertilizers should be applied at the rate of N<sub>100</sub>R<sub>70</sub>K<sub>50</sub> kg/ha, triticale is planted at the rate of 200 kg/ha and corn at the rate of 250 kg/ha in the 4th option, 5 days after sowing of repeated crops, sprouts in the first period of observation are 19.8% and in the 2-3 periods it was found that 42.8 and 65.8% germinated, respectively.

**Table 1.**  
**Methods of planting triticale in the dynamics of germination, the influence of planting and fertilizer norms, (%), 2008.**

Option order	Types of crops	Planting methods	Planting standards, per kg / ha	N <sub>100</sub> P <sub>70</sub> K <sub>50</sub> kg/ga			N <sub>130</sub> P <sub>90</sub> K <sub>65</sub> kg/ga		
				Duration of observation					
				24.VII	30.VII	5.VIII	24.VII	30.VII	5.VIII
1; 10	Control	Uncultivated	-	-	-	-	-	-	-
2; 11	Corner	Row spacing 15 sm	250	-	-	-	-	-	-
3; 12	Corner	Row spacing 60 sm	250	-	-	-	-	-	-
4; 13	Planted by adding corner and triticale	The row was planted in a continuous row of 60 sm	250/200	19,8	42,8	65,8	20,1	43,1	66,5
5; 14			250/150	18,5	41,7	64,8	19,8	42,4	64,6
6; 15			250/100	17,2	40,4	63,2	16,5	44,5	63,1
7; 16		Row spacing 15 sm row spacing planted	250/200	19,3	42,3	65,1	18,7	43,1	65,1
8; 17			250/150	18,0	41,4	64,2	19,2	40,5	65,0
9; 18			250/100	16,9	40,4	62,9	17,1	40,8	62,6

In the experiment, it was observed that the degree (amount) of germination of triticale seedlings is directly proportional to the rate of planted seeds. It was found that the percentage of germination of seedlings decreases with the change of the seed rates used in planting: 200, 150, 100 kg/ha.

In the case where triticale seeds are sown at a rate of 150 kg/ha (corn 250 kg/ha), sprout germination is 18.5 in proportion to the observation periods; It was 41.7 and 64.8, or 1.3 of option (4) where 200 kg/ha of seed was used; It was less by 1.1 and 1.0%.

Also, when 100 kg/ha of seeds are used per hectare and (250 kg/ha of corn) is planted, these indicators are proportionately 17.2; 40.4 and 63.2%, 2.6 of the norm of 200 kg/ha; 2.4 and 2.6%, and 1.3 when planted at the rate of 150 kg/ha; It was observed that 1.3 and 1.6% were less.

In the options where corn and triticale are planted with a row spacing of 15 sm, germination of triticale sprouts is 19.3 in proportion to seed consumption and observation periods; 42.3; 65.1 and 18.0; 41.4; 64.2 and 16.9; 40.9; It was 62.9%. These indicators were generally 0.3-0.5% less than those of the options with a row spacing of 60 cm.

So, it was determined that the dynamics of germination of triticale sprouts was influenced by planting rates, but the effect of mineral fertilizers was not observed.

So, it was found that the dynamics of germination of triticale seedlings differed only according to the established seed standards.

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