TRITIKALE NAVLARI URUG‘LARINING UNUVCHANLIGIGA EKISH ME’YORLARINING TA’SIRI

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Abstrakt: *Ushbu tadqiqotning maqsadi tritikale navlari urug‘larining unuvchanligiga ekish me’yorlarining ta’sirini o‘rganishdan iborat bo‘lib, tadqiqot dala sharoitida amalga oshirildi. Olib borilgan tadqiqotda trititikalening ikki xil genotipli (“Sardor “va “Tixon”) navlaridan foydalanildi. Qishloq xo‘jaligida o‘simliklardan yuqori hosil olishda sifatli hamda saralangan urug‘lardan foydalanish muhimdir. Tritikaleni yetishtirish va hosildorligini oshirishda urug‘lik yetishtirish tizimini takomillashtirish lozim.*

Kalit so‘zlar: *Triticosecale, unuvchanlik, urug‘lar, navlar, Sardor, Tixon, ekish me’yori.*

ВЛИЯНИЕ НОРМ ПОСЕВА НА ЖИЗНЕСПОСОБНОСТЬ СЕМЯН ТРИТИКАЛЕ

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Аннотатсия: *Целью данного исследования было изучение влияния норм высева на всхожесть семян сортов тритикале. Исследование проводилось в полевых условиях. В исследовании использовались два генотипа тритикале: «Сардор» и «Тихон». В сельском хозяйстве использование высококачественных и отборных семян имеет важное значение для получения высоких урожаев растений. Для повышения урожайности и урожайности тритикале необходимо совершенствовать систему семеноводства.*

Ключевые слова: *Triticosecale, всхожесть, семена, сорта, Сардор, Тихон, норма высева.*

INFLUENCE OF SEEDING RATES ON THE VIABILITY OF TRITICALE SEEDS

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Abstract: *The aim of this study was to study the effect of sowing rates on the germination of seeds of triticale varieties, and the study was carried out in field conditions. In the conducted study, two genotypes of triticale ("Sardor" and "Tikhon") were used.In agriculture, it is important to use high-quality andselected seeds to obtain high yields from plants. It is necessary to improve the seed production system for growing triticale and increasing its yield.*

Keywords: *Triticosecale, germination, seeds, varieties, Sardor, Tikhon, sowing rate.*

INTRODUCTION

Nowadays, a large part of the world's population is facing the problem of food insecurity. Protein deficiency is especially common among young children. To solve this problem, it is necessary to widely use triticale, a grain crop with a high protein content and low cultivation technology. Triticale is of particular importance due to its large grain size and high starch, protein and carbohydrate content. At the same time, the grain composition of triticale varieties is rich in essential amino acids such as tryptophan and lysine [1]. Triticale is a promising grain crop obtained by crossing rye and wheat. Its high yield, stress resistance and versatility make it popular both in agriculture and in the food industry [2]. Global climate change requires a review of the structure of arable land and is an urgent issue requiring the introduction and expansion of drought-resistant, nutritious, and forage winter grain varieties [3]. Nowadays, climate change, increased abiotic and biotic stressors, and an increasing number of plant diseases and pests are unfavorable factors for plants. Triticale is a plant that is resistant to such unfavorable factors, which leads to an increase in demand for it [4].

In today's globalized world, unhealthy diets, unhealthy lifestyles, physical inactivity, food shortages, and droughts are becoming increasingly prevalent. Therefore, the development and implementation of a healthy nutrition system for future generations has become a priority of state policy. Currently, food products cannot fully meet the physiological needs of a person. This is especially true for bakery products, which make up 30-60% of the diet [5]. In 1875, triticale (× Triticosecale Wittmack) was developed by crossing rye (parent) and wheat (mother). World production of triticale has continued to grow over the past two decades and reached 17 million tons in 2014. The top producers are Poland, Germany, Belarus, France, and Russia. China is the largest producer outside Europe. [6]. The first triticale varieties were tall and late maturing with small grains. Today, triticale varieties are close to wheat in terms of yield, and sometimes even higher. Modern

triticale varieties developed later can yield up to 10-12 tons per hectare [7]. According to statistical analyses, the yield of spring triticale grain is positively and significantly correlated with the photosynthesis rate and chlorophyll index values throughout the growing season. However, grain yield and photosynthesis intensity are not correlated with leaf aging [8]. It was found that the grain yield and grain quality of winter triticale varieties were influenced by weather conditions, varietal characteristics, and the nitrogen fertilizer application regime [9]. Triticale is one of the cereal crops that can be used to obtain starch. Currently, the problem of starch production is a pressing issue for several countries [10].

During this research, we studied the field germination of triticale varieties. In field conditions, seeds of the "Sardor" and "Tikhon" varieties of triticale were sown in four rows at a rate of 300, 400, 500, and 600 seeds per 1 m2 of area.

In turn, the productivity of plants and the quality of the crop directly depend on the quality of the seeds sown. The harvested grain seeds are physiologically immature and they germinate slowly. Therefore, the amount of sowing and germination of triticale seeds is of great importance. During our research, we studied the extent to which the sowing rate can affect the germination of triticale varieties. The results of our practical research are presented in Table 1 below.

Table 1

Effect of sowing rate on field germination of triticale seeds, in%

Number of seeds planted	Varieties	
	Sardor	Tikhon
300	89,33 %	96,6 %
400	97,5 %	93,75 %
500	91,4 %	90 %
600	82 %	93,8 %

According to the data presented in the table, when 300 seeds were sown on 1 m2 of triticale varieties, field germination was found to be 89.33% (Sardor variety) to 96.6% (Tikhon variety).

It was found that germination was slightly higher in an area with 400 seeds than in an area with 300 seeds, i.e. germination was observed to be 93.75% (Tikhon variety) to 97.5% (Sardor variety). When the number of seeds was 500, field germination was found to be 90% (Tikhon variety) to 91.4% (Sardor variety). In an area with 600 seeds, field germination was observed to be 82% (Sardor) to 93.8% (Tikhon).

Conclusion

In conclusion, in the soil-climatic conditions of the Samarkand region, the field germination of triticale seeds was observed when 400 seeds (97.5%) of the Sardor variety were planted, while in the Tikhon variety, high germination was observed when 300 seeds (96.6%) were planted.

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