

EFFECTS OF PLANTING PERIODS ON PRODUCTIVE TILLERING AND PRODUCTIVE STALKS OF DURUM WHEAT CULTIVARS IN DRYLAND FARMING

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Abstract

In this article, the effect of planting dates on productive stalks and productive stems of new durum wheat varieties currently being planted in dry areas of our republic is highlighted, and recommendations are given on planting dates of new durum wheat varieties.

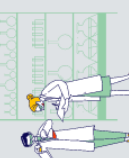
Keywords: Durum wheat, planting time, Mingchinor, Langar, Yoqut-2014 and Jawahir varieties, productive bunching, productive stalks.

Introduction

Today, there are 1.4 billion areas of dryland farming in the world. hectare or 85-87% of the total agricultural land [1]. The demand for the production of durum wheat (*Triticum durum*), which is the most important raw material for the pasta and confectionery industry in our country, is increasing day by day. Currently, pasta products are mainly made from soft wheat in the republic. Pasta made from soft wheat does not fully meet the requirements of the template. Effective use of arid lands, increasing the yield of grain grown in arid areas, taking into account the high demand for durum wheat grain in the domestic and foreign markets, resistant to adverse factors, yielding for dry areas and high grain quality, meeting the requirements of the state standard creation of new varieties of durum wheat that respond and taking into account the biological characteristics of these varieties, soil and climate conditions, the correct determination of the optimal planting periods of the elements of their scientifically-based cultivation technology, that is, the development and improvement of agro-technologies of cultivation of high and high quality ensuring product production is one of the urgent tasks.

The method of the research and materials

Field experiments were conducted in the conditions of the typical gray soils of the farm "Yashin-Yamin" in the dry hilly region of Yakkabog district, Kashkadarya region. All analyzes and calculations were carried out on the basis of "Methods of conducting field experiments" adopted at the Scientific Research Institute of Cotton Growing of Uzbekistan [2]. The



experimental data were mathematically analyzed based on B.A. Dospheov's "Metodika polevogo opyta" method [3]. In the conducted experiments, the dependence of grain yield and quality of the new varieties of durum wheat Javokhir, Mingchinor, Langar and Yoqut-2014 on 4 returns, on October 1, October 21, November 11, and December 1, was studied, and planting per hectare was 2.5 million germinated seeds.

Research results and analysis

Optimum bush thickness and productive stems of durum wheat plant are important for formation of high grain yield in dry lands. The degree of tillering of wheat sown in the fall depends on the growth rate, biological characteristics of the variety, thickness of the bush, soil moisture, air temperature, seed planting depth, planting periods and standards, fertilization and other factors[4.5].

The productivity of winter wheat depends not only on the number of stalks preserved in the winter, spring and summer, but also on the mass of grains in 1 ear and on the plant.

In our experiments, the rate of swelling of durum wheat varieties planted late in autumn decreased. Wheat seeds sown in the late period germinated late due to the decrease in temperature, and the formation of the nodule occurred in the spring period. It was observed that this affects the number of productive stems per plant (Figure 1).

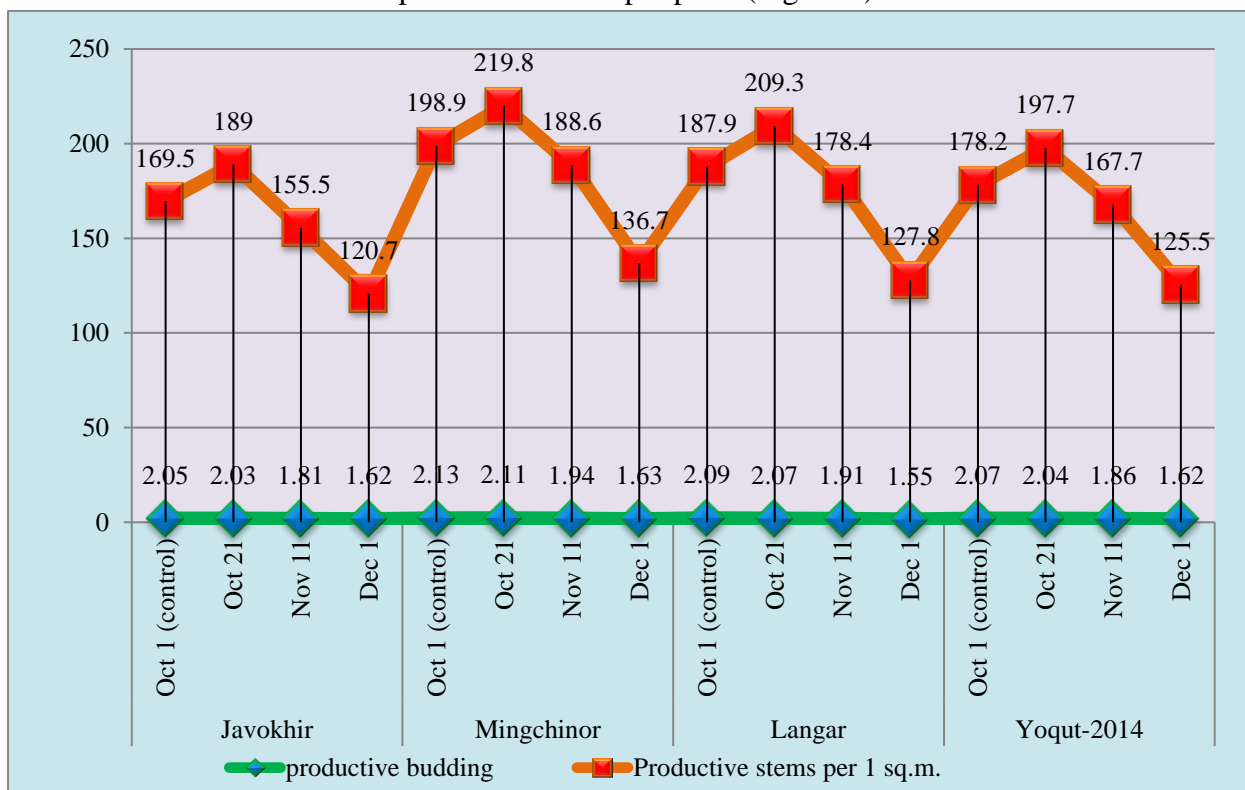


Figure 1. Productive harvest depending on planting dates and productive stems per 1 sq/m, in pieces (2017-2020).

In durum wheat cultivars, high yield accumulation was observed in early planted wheats. This indicator was 2.05; 2.13; 2.09; 2.07 for Javokhir, Mingchinor, Langar, Yoqut-2014 varieties,

respectively. The number of productive stems in one plant was lower in the Javokhir variety than in other varieties.

The highest rate of productive stems per 1m² was observed in all varieties at optimal planting periods. In Jawakhir, Mingchinor, Langar, Yoqut-2014 varieties, the number of productive stems increased by 19.5; 20.9; 21.4; 19.5 pieces in the optimal planting period compared to when planted in the early period.

This is mainly due to the increase in the thickness of 1 m² of the bush. The delay in the planting period reduced the number of productive stems per 1m² by 33.5; 31.2; 30.9; 35.3 pieces in Jawakhir, Mingchinor, Langar, Yoqut-2014 varieties, in accordance with the optimal planting period (Figure 1).

The productivity of the individual plant of durum wheat planted in the early period was acceptable and higher compared to the plants planted in the late period. However, the number of productive stalks per 1 m² increased due to the fact that durum wheat varieties were kept until harvest, i.e., had higher viability, compared to early and late planting, according to the varieties.

In conclusion, it can be said that plants adapt to the conditions themselves, striving to create an optimal bush thickness. When sparsely planted, the flowering increases, and when planted densely, on the contrary, because of unfavorable conditions, very weak plants die, and the development of the remaining plants is delayed, and the flowering decreases. Some factors are lacking in dense planting, resulting in the plant dying early without forming secondary roots when it produces two or three leaves at the time of emergence.

Thus, in the growth and development of the wheat plant, two opposite and interconnected processes occur at the same time, and the plant self-manages the optimum thickness of the bush. will give. Durum wheat varieties in the lands of the mountainous region of Laliculture produce many productive stalks per 1 m² when planted at the optimal time of 21.10 (the third decades of October).

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