



Bioecological Features of Wheat in Khorezm Conditions

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ABSTRACT: The article analyzes the ecology of wheat in the conditions of Uzbekistan.

Keywords: climate, ecological groups, soil, wheat, variety.

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Central Asia is one of the oldest centers of human civilization. There are several centers of ancient irrigated agriculture in Uzbekistan. According to archaeological data, by the end of the 2nd millennium BC. the agrarian civilization of ancient Khorezm in the Amu Darya delta already had highly developed irrigated agriculture, had a complex system of irrigation canals and widely cultivated wheat.

In the process of cultivating wheat for thousands of years in the harsh conditions of Central Asia, local wheat varieties have been created, adapted to local soil and climatic conditions. It is quite natural that they are characterized by early maturity and the need for heat in the last stages of development. Depending on the altitude at which the wheat is grown, and the temperature and humidity conditions during the growing season, landraces differ in their tolerance to drought, heat, salinity, and their ability to withstand harsh winters. From their grain, flour is obtained, which is in demand, because it gives a pleasant taste to the bread made from it. Typical landmarks varieties from the plains, foothills and mountainous regions are the rough texture of all parts of the plant, especially the spike: the lower and upper floral scales tightly cover the grain, making it difficult to thresh, and awns easily break off. The climate of Central Asia is not conducive to the development of dangerous annual pests and diseases; as a result, wheat landraces are extremely susceptible to them when conditions are favorable for their development. Solomin in staromestnyh grades fragile, frail, and with intensive cultivation of crops are heavily lodging. Landraces from Central Asian regions with low rainfall are more tolerant to pests and diseases than those from regions with higher rainfall, and the ear of the former is like a spelled ear.

The zone in the lower reaches of the Amu Darya includes the Khorezm region and the Republic of Karakalpakstan. The climate here differs from other regions of Uzbekistan, since this region is a transitional terrain from the hot deserts located to the south to the cold semi-deserts in the north.

Here wheat can only be grown on irrigation. The varieties of winter wheat grown here are frost-resistant. In this zone, the water table is close to the surface, which leads to high salinity, so resistance to salinity has always been a priority property of wheat varieties. Grades withdrawn from such staromestnyh wheat as Tokmakbash, Akzhaydari, Kzyl w Aydar and Hume ALAC - Bugdai and

homologated in a given zone in the presence of resistance to cold weather, salinity. The Khivinka variety had a high transpiration coefficient, which allowed it to withstand atmospheric drought. This variety was widely used in the famous Saratov breeding program in Russia; it is included in the pedigrees of valuable spring wheat varieties bred in the 50s. XX century In 1916, SK Kondrashov amounted review staromestnyh wheat on the territory which is today a district of KhivaKhorezm region. He reported on a wide cultivation in the irrigation of winter wheat Bukhara Bugdai and spring wheat Yazlyk-Bugday , and the complete absence of raised anija wheat in rainfed conditions .

Since gaining independence in the Republic of Uzbekistan, the area under winter wheat has increased many times, the yield increases, and the quality of the grown grain improves. To ensure high and stable yields, to improve the technological quality of grain, breeders are developing new varieties, and importing highly productive seeds is carried out .

Currently, about 10 varieties of wheat are located in the Kharezmmregion , as well as many varieties grown in personal subsidiary (dekhkan) farms, imported earlier, including varieties of local selection.

A large selection of varieties provides the ability to select high-yielding salt- and-drought-resistant, winter-hardy samples with high baking qualities of grain. At the same time , an excessive increase in the number of sown varieties can lead to certain difficulties in seed production and agricultural cultivation techniques. Placing several varieties in nearby areas leads to a mixture of varieties during harvesting, transportation, cleaning, storage, sowing seeds, because most of the harvesting and sowing work in order to increase labor productivity is carried out by a group (detachment) method. Placing varieties also increases the likelihood of close proximity of different varieties, which can lead to a certain percentage of cross-pollination.

In terms of agricultural technology, the annual change of varieties also reduces the ability of farmers to take into account the peculiarities of growing a certain variety, the accumulation of practical experience in the aspect of varietal agricultural technology.

Wheat growth and development can be constrained by many environmental factors, including unfavorable temperatures, insufficient sum of active temperatures during the growing season, lack of moisture and light, short day length, and physical and chemical properties of the soil. In addition, the wheat harvest can be limited by such weather events as frost, stress due to high temperatures during critical periods of plant development, etc. Farmers cannot fully control these factors. But in order to properly plan and apply agrotechnical measures and get the most out of the plant, you need to know what restrictions these factors have on the harvest in a particular year or geographical area. Wheat growth and development can be constrained by many environmental factors, including unfavorable temperatures, insufficient sum of active temperatures during the growing season, lack of moisture and light, short day length, and physical and chemical properties of the soil. In addition, the wheat harvest can be limited by such weather events as frost, stress due to high temperatures during critical periods of plant development, etc. Farmers cannot fully control these factors. But in order to properly plan and apply agrotechnical measures and get the most out of the plant, you need to know what restrictions these factors have on the harvest in a particular year or geographical area.

On the basis of the introduction of the achievements of science and the advanced experience of many scientific institutions, it is shown that the Republic of Uzbekistan has all the possibilities for obtaining high yields of grain crops. However, grain yield is often significantly reduced as a result of damage to plants by fungal, bacterial and viral pathogens, as well as diseases of unknown etiology. Among the latter diseases ,phytohelminthiases are of no small importance , which partly lead to a sharp decrease in the yield of grain crops, in particular, wheat.

It should be noted that the above mentioned parasitic nematodes were few in number and do not pose a serious threat to wheat. However, the identification in wheat fields of a complex of highly pathogenic parasitic nematode species - pratilenechus , helicotelenchus , Tylenchorinchus , Angwins

and *Ditylenchus* with a sufficiently high density of their populations, is of particular concern as a widespread dangerous disease.

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