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THE EFFECT OF DIFFERENT ENVIRONMENTAL SALT LEVELS ON AUTUMN WHEAT GROWTH

Khojaniyazova Barno Khushnudovna

Lecturer At The Department Of Biology, Bukhara State University, Uzbekistan

Karimova Lobar Fatulloyevna

Lecturer At The Department Of Biology, Bukhara State University, Uzbekistan

ABSTRACT: - Soil salinity i.e. the presence of a solution of salts in the soil solution above the alternative level for plants, leads to a decrease in productivity, which has a negative impact on the growth and development of wheat plants. Complex environmental conditions lead to a decrease in product quality, which is important for the economy, while reducing the yield of wheat. Improving the salinity resistance of wheat remains one of the most pressing issues today. The most effective environmentally friendly way to increase the resistance of plants to salinity is to create varieties that are resistant to these extreme conditions and to accelerate their introduction into production.

KEYWORDS: Salt, seawater, classical genetics, Briding style, autumn and spring wheat, medium ripening or late ripening, saline, drought.

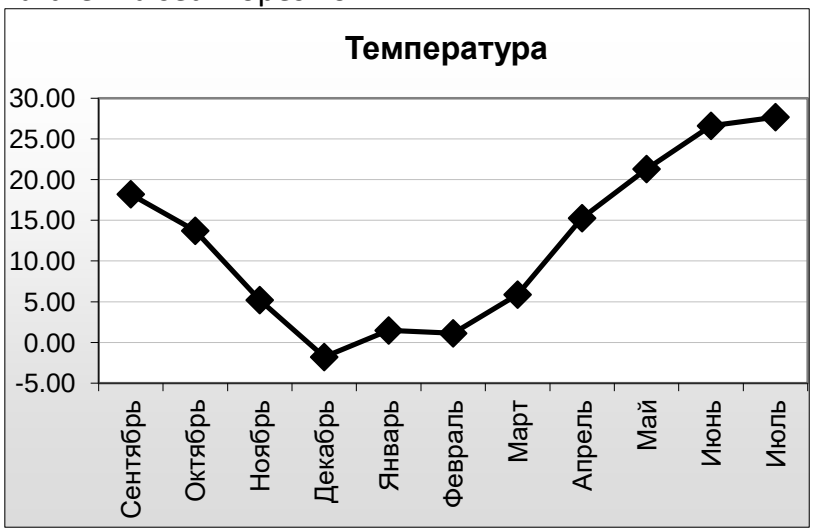
INTRODUCTION

For the first time, the salinity resistance of soft winter wheat varieties was studied on the basis of comparison and evaluated on the basis of valuable economic characteristics and salt resistance properties. As a result of the study, scientifically based recommendations were made on the use of selected varieties as a starting point for the development of new varieties of soft winter wheat resistant to salinity, early ripening, drought, heat and disease resistance, productivity, grain quality, salinity in 1000 grains. As the amount of fresh water decreases from year to year, there is a need to use mineralized and sea water in irrigated agriculture. There is also a problem of growing saline-resistant varieties and cultivars of agricultural crops on lands with natural and secondary salinization.

MATERIALS AND METHODS

Therefore, in the future, saline-tolerant species and cultivars will occupy a special

place among agricultural crops. Therefore, it is necessary to know the mechanisms of adaptation of plants to salinity, to study the genetic, physiological, biochemical and agrobiological properties of their resistance. Compared to modern commercial varieties, the ancient local varieties of Uzbekistan have a number of advantages, such as the high content of protein and minerals (Cu, Fe, Zn, Mg, Mn, Mb, P) in the grain. quality-level of gluten is much higher than that of modern varieties [3]. In this regard, it was necessary to conduct a deep study of these varieties in order to effectively use them in scientific agricultural programs to improve new varieties of wheat. Experimental testing of wheat's salinity resistance in genetic engineering, briding, and cell culture methods has shown that the cost-effectiveness of these three areas is not the same. In this experiment, good results were obtained in the method of Briding, ie the classical method of genetics, when the effect of this wheat on the growth of wheat was studied by diluting seawater with 10–40 g / l salt to 10 times. Cell culture in vitro has further raised hopes for the future. The possibilities of genetic engineering have been found to be endless, but it is said to be less reliable for now. It has also been proven that good results can be achieved due to the use of DNA recombination in increasing the salinity resistance of plants. To date, plant forms based on this technology have been developed that are resistant to antibiotics, herbicides, and other extreme factors of a monogenic nature.It should be noted that resistance to salinity is one of the characteristics of this organism, which was formed during a specific evolutionary process. It is based on the fact that two groups of executive mechanisms are mainly involved in maintaining the homeostasis of the cytoplasm at a certain level of extracellular ions (Udovenko, 1995). The air temperature is characterized by large daily and annual fluctuations. The hot and warm period of the weather lasts for 205-240 days, the total useful temperature is 2000-23000S. The first frost falls on October 31, the last on March 31.



1-picture. Air temperature during the winter wheat growing season, 0C

2-picture. Precipitation during the winter wheat growing season, mm

The main characteristics of wheat varieties are as follows: 1. Head with or without a sword 2. Hairiness 3. Spike color (white, red, black) 4. The color of the blade (same as the color of the spike or dark red) 5. Grain color (white, red, yellow, reddish, reddish-brown and brown) Each species itself is divided into several varieties. They are mainly distinguished by morphological, biological and peculiarities of application in production. In one species can be autumn and spring, medium ripening or late ripening. They differ from each other in resistance to winter cold, salt, drought, non-shedding after ripening, resistance to disease and pests. As a result of phenological observations on samples of wheat varieties planted and sprouted seedlings, their growth period was determined. According to him, it was divided into varieties with early, middle and late ripening characteristics. The germination phase was determined from the day when the first true leaf was formed in the plants. When we determined the transition characteristics of wheat varietal samples during this period, it was found that varietal samples had phase-to-phase variability from their biological specificity. According to the results of observations, the standard variety "Krasnodar-99" began to germinate on average 16 days after planting and fully germinated within 18 days.

Fertility of seeds sown in distilled water at different concentrations of NaCl (g / l) in 5 days

1	Krasnodar-99	99	100	100	100	100	99	100	100	99
2	10CWA-25	100	99	96	95	100	100	100	100	100
3	10UZMLY7	99	99	99	96	99	99	100	97	100
4	10UZMLY9	100	100	100	99	99	99	100	100	100

CONCLUSION

After studying the characteristics and properties of autumn soft wheat varieties in saline soils, the following conclusions were drawn: Based on the data obtained, it can be said that the salinity of the soil affects the germination of wheat varieties. In the future, local ancient varieties can be used as initial forms during hybridization

in order to obtain new genotypes with rays of quality indicators and other economically valuable traits. The most effective environmentally friendly way to increase the resistance of plants to salinity is to create varieties that are resistant to these extreme conditions and to accelerate their introduction into production.

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