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SELECTION OF VARIETIES AND RIDGES OF BARLEY RESISTANT TO STRESS FACTORS OF THE EXTERNAL ENVIRONMENT

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Abstract:

This article presents the selection of varieties and ranges of barley grown in the climatic conditions of the Hususan Kashkadarya region in the conditions of the southern regions on varieties and ridges that are resistant to stress factors of the external environment.

Keywords: Barley, stress factors, drought, heat, southern region, limestone length, spike length, yield, 1000 grains weight

INTRODUCTION: under the influence of the global warming process of the countries of the world (decrease in precipitation, water scarcity, temperature rise, acceleration of the process of water evaporation in the soil), it is necessary to create heat and drought-resistant varieties. At the same time in our Republic, the creation of drought-resistant varieties and primary sources of Bush grain crops in the southern regions of hususan is one of the urgent tasks of today's selection.

The southern region of the Republic, hususan, in the Kashkadarya region, is constantly changing the weather, and in some years of dexterity, the difficulties of nature and climate are testing the will of vultures. Even in such climatic conditions, a huge responsibility has been imposed on our dekhqans to eat barley, get a rich harvest of barley, bring up the harvest of sprouted barley without spoilage and prepare it for the desired harvest.

In this regard, first of all, the choice of varieties suitable for the climatic conditions of the territory, their introduction to our peasant farmers is the main first-line task of the field seekers. The era itself provides opportunities for this. Today, first of all, the hard work of our working people is taken into account, and then the contribution of new varieties created by our scientists in this regard is recognized.

The degree of drought resistance, the high yield of the variety, as well as the large number of grains in the bush, can be estimated by the grain size, fullness and the length of the last steam [2].

In most varieties and ridges, the sensitivity to soil drought is more observed during the period of spoilage and coagulation. Air droughts, on the other hand, cause particularly severe damage to plants during flowering and grain fullness. Until the beginning of this period, strongly rooted varieties remain drought-resistant [1].

RESEARCH METHODS. During the experiment, phenological observations, calculations and analyzes of the All-Union Institute of Plant Science, (VIR 1984) on the method and biometric analysis of agricultural crops issued by the state varietal testing Commission (1989), mathematical analyzes B.A. Dospekhov (1985) was implemented on the basis of style.

RESEARCH RESULTS: scientific research was carried out on 20 varieties and ridges of barley in the 2020-2022 period in the Central Experimental area of the Southern Agricultural Research Institute.

As cited in scientific sources, it has been proven that the length of the shaft of Bushy grain crops exhibits a drought tolerance property.

In the future, in order to obtain a high and high-quality harvest of barley even under the influence of unfavorable factors of nature (heat, drought), 20 varieties and ridges were planted in 3 recesses in the competitive variety testing nursery of the Central Experimental area of the southern agricultural scientific research institute, and the peculiarities of drought and heat resistance of autumn barley to In order to compare the ridges, the Oasis, Redcurrant and arbitrary varieties, which are currently planted in large areas in our Republic, were selected as templates.

From this point of view, in our scientific research, it was found that the length of the grooved joint of the barley variety and ridges was up to 28-59 CM in the average variety and ridges, when it was estimated by years. In this case, the length of the transverse joint of the template varieties from 36.7 CM to 39.5 cm according to the result of three-year studies was determined by biomethyrical measurements, while the number of ridges higher than the length of the last joint from the template varieties was 5, 44.5-48.8 CM. Of the default varieties, the length of the lower joint of the ridges with a short length of the lower joint was 35.9-27.3 CM.

An analysis of Spike length, one of the marphological changes found in barley varieties under the influence of drought and heat in the southern regions, found that the spike length of 3 varieties and 17 ridges of autumn barley

studied in studies averaged 6.6-12.4 cm over the years. Comparing the spike length of the 20 varieties and ridges studied with the spike length of the template varieties, it was observed that the spike length of the template "Voha" variety was 10.1 CM, the spike length of the "redcurrant" variety was 7 cm, and the "volunteer" variety was 6.8 cm.

Based on the results of the study conducted, it was determined on the basis of the results of biometric measurements that Kr_Arpa_2016-4 (Sultan) with a spike length higher than the template varieties, 7.4 CM for a ridge with a 6-row, KR17BRaqYT-P-29 (Asia) Ridge with a spike length of 12 cm, the ridge KR18_IBYT-3 with a spike length of 12.7 cm, (Figure 1).

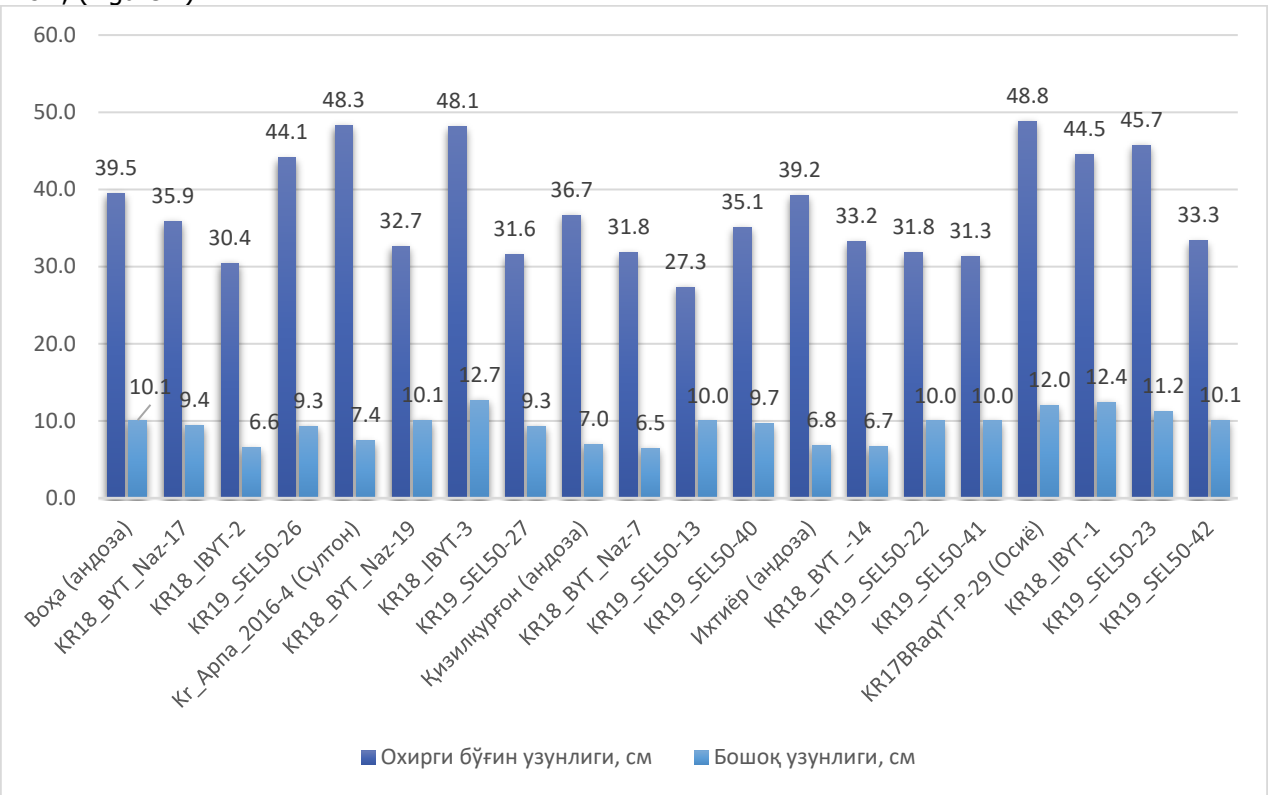

Figure 1: the length of the groin and spike of the barley variety and ridges, CM (side, 2020-2022 yy.).

In arid conditions, the water regime of the barley plant gradually changes. Usually drought does not cause the plant to die; the exchange of substances is disrupted, resulting in a decrease in the number of spikes, the number of grains in the spike and the weight of 1,000 grains [3].

Othe yield indicator, which is one of the most important characteristics of the variety and ranges of barley grown, is on average 35.7-59.4 s/Ha when analyzed by years, while the grain yield of the varieties "Voxa","Redcurrant" and "Volition" was from 49.1 to 51.4 s/Ha, while the grain yield of the varieties of the template was selected from 5 ridges with a grain yield of 3.3-8 s/Ha.

When the grain weight of barley varieties and ridges of 1000 pieces was studied, it was found that on average by year it was up to 35.6-47.8 g. In this case, the grain weight of 1000 units of the template varieties was on average 43.6 g per 40.4 g M, while the grain weight of 1000 units of the kr_arpa_2016-4(Sultan) range was 47.4 G, in the kr18_ibyt-3 range 46.1 G, in the KR17BRaqYT-P-29 (Asia) range 46.6 g, in the kr19_sel50-23 range 47.8 g and KR18_IBYT-1 in the range it was found that 47.1 G, and the template was 1000 grains higher than the "Oasis" variety in weight by 5.7-7.4 g(Table 1).

Table 1.

Indicators of yield and productivity of barley varieties and ridges (Qarshi, 2020-2022 yy.).

№	Name and origin	Productivity, s/ga	1000 grain weight, gr
1	Voha (andoza)	51,4	42,8
2	KR18_BYT_Naz-17	37	36,8
3	KR18_IBYT-2	37,7	39,8
4	KR19_SEL50-26	49,8	46,2
5	Kr_Arpa_2016-4 (Sulton)	59,4	47,4
6	KR18_BYT_Naz-19	35,7	35,6
7	KR18_IBYT-3	55,1	46,1
8	KR19_SEL50-27	43,7	38,7
9	Qizilqurg'on (andoza)	50,7	43,6
10	KR18_BYT_Naz-7	37,1	38,2
11	KR19_SEL50-13	41,4	36,4
12	KR19_SEL50-40	36,9	38,5

13	Ixtiyor (andoza)	49,1	40,4
14	KR18_BYT_-14	41,4	39,3
15	KR19_SEL50-22	38,9	38,2
16	KR19_SEL50-41	37,5	36,5
17	KR17BRaqYT-P-29 (Osiyo)	58,6	46,6
18	KR18_IBYT-1	56,9	47,1
19	KR19_SEL50-23	54,7	47,8
20	KR19_SEL50-42	40,9	36,5
O'rtacha ko'rsatkich		45,7	41,1
Eng baland ko'rsatkich		59,4	47,8
Eng past ko'rsatkich		35,7	35,6
NSR_{05}		1,26	1,54
$NSR_{05\ \%}$		2,689	3,66
S		0,767	0,94
Sv %		1,6	2,2

CONCLUSION. 5 KR18_IBYT-3, Kr_Arpa_2016-4(Sultan), ridges and KR17BRaqYT-P-29 (Asia), KR19_SEL50-23, KR18_IBYT-1 ridges with a higher grain yield and grain weight of 1000 units were selected when studying the resistance of barley to stress factors of the external environment over 20 varieties and ridges of recommended for the stage.

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