



THE DEPENDENCE OF THE LOCATION OF GRAINS ON THE EAR ON THE LABORATORY SPECIFICITY OF THE WEIGHT OF 1000 GRAINS AND THE LENGTH OF THE COLEOPTILY AND THE ROOT.

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Article history:	Abstract:
<p>Received: 28th April 2023 Accepted: 28th May 2023 Published: 30th June 2023</p>	<p>Seed production occupies a special place in the system of activities aimed at growing a high and sustainable yield from grain crops. One of the main tasks of seed production is to increase the high-quality seeds of newly created varieties included in the State Register and recommended for production, and to adequately satisfy the demand for production.</p> <p>In order to carry out seed breeding work properly, it is necessary to have a good knowledge of the biological and variability characteristics of the cultivated varieties. In the absence of selection, both self-pollinated and cross-pollinated cultivars are subject to biological and accidental contamination. Therefore, it is highly effective to carry out individual selection works in the field of seed breeding with a good knowledge of the valuable economic characteristics and characteristics of the varieties.</p>

Keywords: 1000 grains, location of grains in the ear, laboratory germination, caloptyla length, root length, Gozgon, Yaksart,

In the field of seed science, the influence of grains located in different parts of the ear in Gozgon and Yaksart varieties of autumn soft wheat on thousand grain weight, laboratory fertility, coleoptile and root length was determined. In Yaksart variety, the weight of grains in the tip of the ear was 37.8 g, in the middle part 42.2 and 39.0 g in the lower part, or the weight of the grains located in the middle part of the ear was 4.4 g higher than the weight of the grains located in the tip part and 3.2 g higher than the weight of the grains located in the lower part (Fig. 3.1).

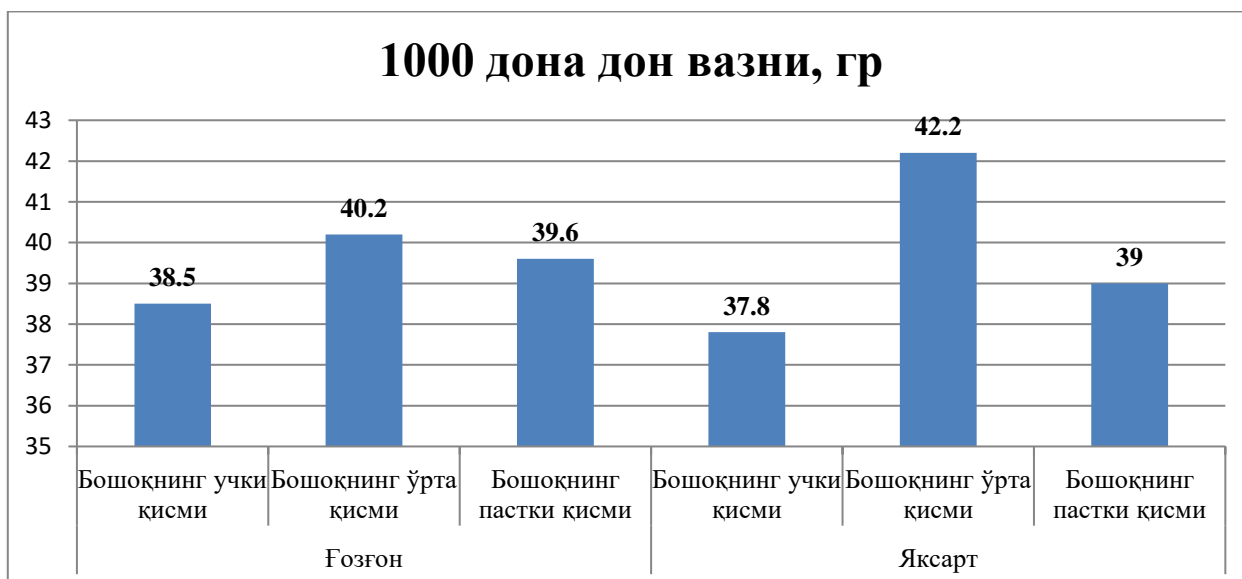


Figure 3.1: Effect of grain location on spike on 1000 grain weight. (Against 2023).

It was determined that the weight of grains in the tip of the spike is 38.5 grams, 40.2 grams in the middle and 39.6 grams in the lower part, or the weight of grains located in the middle part of the spike is 1.7 grams higher than the weight of grains located in the upper part and 0.6 grams higher than the weight of grains located in the lower part.

It was found that the germination rate of the grains in the upper and lower parts of the head of the Gozgon variety was 94 percent, and the grains in the middle part were 97 percent, while the grain germination in the middle part was 3 percent higher. In the Yaksart variety, the germination of seeds in laboratory conditions was 93-94 percent in the upper, lower, and middle parts of the grain, while there was no difference between the thousand grains (Fig. 3.2). As a result of the planting of the seeds of the varieties, as the year goes by, the seeds of other varieties are mechanically mixed with the seeds of other crops that are difficult to separate. Biological mixing occurs as a result of the variety itself changing some signs and characteristics under the influence of the external environment. It is achieved by planting selected high-quality seeds of the same variety in order to prevent the quality of the seeds from decreasing. This process is called seed replacement (sortobnovlenie).



Figure 3.2: Effect of location of grains on the ear on germination under laboratory conditions. (Against 2023).

In the Gozgon variety, it was found that the coleoptile and root length of the grains in the tip of the ear are 2.1 cm and 6.6 cm, in the middle part of the grains are 3.1 cm and 7.1 cm, and in the lower part of the grains are 2.7 cm and 6.8 cm. .5 cm and lower grains were noted to be 0.4 and 0.3 cm higher than coleoptile and root length (Table 3.2).

Table 3.2

Dependence of the location of grains in the spike on the weight of 1000 grains and laboratory fertility (vs. 2023).

	Ғозғон			Яқсарт		
	Бошоқнинг учки қисми	Бошоқнинг ўрта қисми	Бошоқнинг пастки қисми	Бошоқнинг учки қисми	Бошоқнинг ўрта қисми	Бошоқнинг пастки қисми
1000 дона дон вазни, гр	38,5	40,2	39,6	37,8	42,2	39
Унувчанлиги, %	94	97	94	93	94	94
Илдиз узунлиги, см	6,6	7,1	6,8	5,1	6,8	5,6
Калеоптиля узунлиги, см	2,1	3,1	2,7	2,8	3,5	3,2

It was determined that the length of the coleoptile in the grains in the middle part of the ear of the Yaksart variety is 3.5 cm, in the grains in the tip part it is 2.8 cm, and in the grains in the lower part it is 3.2 cm. According to this indicator, it was found that the length of the coleoptile in the middle part of the spike was 0.7 cm higher than in the upper part and 0.3 cm higher than in the lower part. It was determined in the experiments that the root length was 6.8 cm in the grains located in the middle part, 5.1 cm in the grains in the tip part, and 5.6 cm in the grains in the lower part (Fig. 3.3).

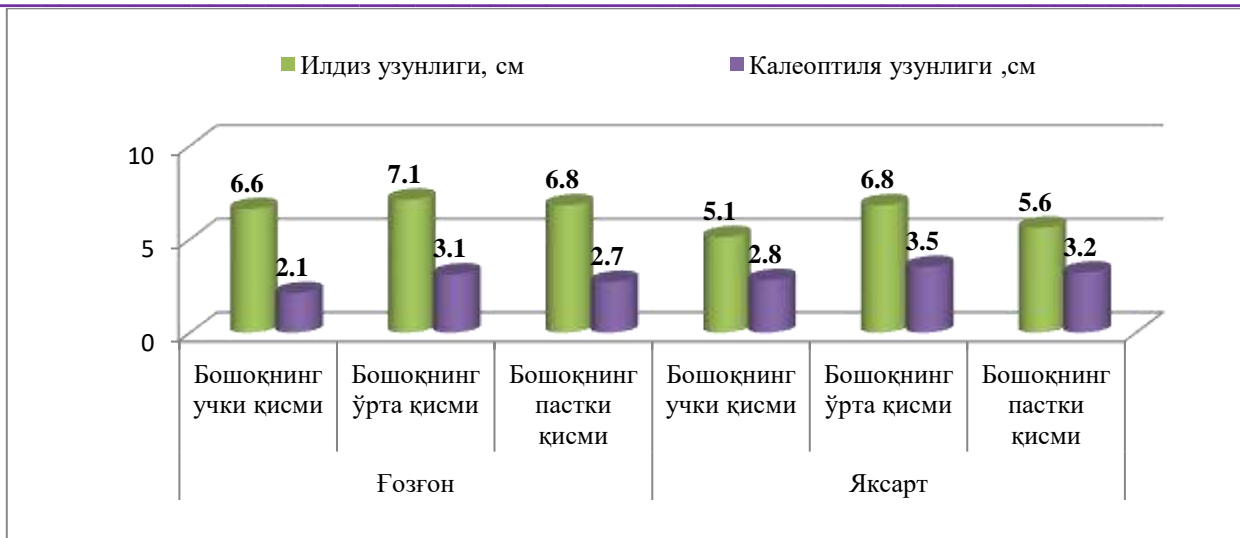


Figure 3.3: Dependence of the location of grains in the spike on laboratory fertility (vs. 2023).

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