



**KARAKALPAKSTAN INSTITUTE OF AGRICULTURE AND
AGROTECHNOLOGIES AGRICULTURE STANDARD
REQUIREMENTS FOR GRAIN PRODUCTS.**

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Annotation: *The quality of grain products is controlled upon delivery to the state or to the consumer. This process is carried out at the product acceptance points using standard and test methods.*

Keywords: *Inspection control is carried out when accepting grain products and checking the quality of the received products.*

In this case, when accepting products by the procurement address, the correct use of standard requirements, compliance of test methods with the standard, storage of products, sorting, and placement must be ensured. Based on the measuring instruments used in product quality control, the following types of control are distinguished: measurement, organoleptic control, calculation, sociological, and expert control.

2. The standards for grain products are as follows:


1) determination of product quality; 2) the level of marketability of the product; 3) technical specifications for products; 4) shipment and receipt of products.

Crops from which grain and cereals are obtained, in addition to the requirements of the standard and the purpose for which they are established, are subject to measurements for morbidity, contamination, and purity (color, smell, taste). Grain and grain products are oriented to basic dimensions based on standards. When moving from this norm to the positive side, the weight increases, and when moving to the negative side, the value corresponding to the amount of weight and grain mixture decreases (Boriav Kh.Ch.).

The content of foreign matter in the grain should not exceed 5%. The number of infected grains in corn grain is 2%, in rice grain the indicator is 0.5%.

Grains from which flour is obtained are divided into 6 types, and the content of impurities in each type is 3-5.5%. The accepted grain is evaluated based on its hardness and natural appearance.

Groat grains belong to standard types. Corn is used for fodder production. Grain and grain legumes are then processed after re-harvesting. Three main tasks are defined using cleaning and sorting.



1) separation of foreign substances and obtaining clean seeds of main crops in accordance with the standards of the state standard.

2) improvement of the physical indicators of seeds.

3) selection of the most necessary seeds for sowing.

Based on average samples taken from each batch of seeds, seed control controls seed germination. The weight of the average sample is controlled by the Uzbekistan Standardization Supervision Inspectorate.

For the purpose of controlling the average samples of seeds, they are sent to the seed inspection center, and a report in the form corresponding to standard indicators is necessarily drawn up. One seed sample from the certificate is added to the average seed sample, and verification is carried out for control purposes.

The prepared seeds are sent to the warehouse based on a certificate of suitability for sowing and must be transferred to the farm's accounting records.

After the storage period of the prepared seeds, 10-12 days before sowing, the seed quality check is repeated.

Germination is the main indicator of seed quality. Therefore, the standards of the Republic of Uzbekistan (UzRST) define the indicators of seed germination. The germination rate of main grain crop seeds should not be less than 98%.

Seeds whose germination rate does not meet the standard should not be used for sowing. The germination of such seeds is uneven. Blooming products are fragile. Field germination and yield decrease.


With the current technological processes used, it is difficult to separate the seeds of foreign minerals, organic grains, and other herbaceous plants. Therefore, according to the state standard, the content of impurities in the composition of varietal seeds and seeds intended for sowing was reduced.

In most cereal crops, their total amount is set at 1-1.5% depending on the weight and rises to 3-4% for the 3rd degree. According to the standard, the amount of various impurities is regulated. That is, 1st-grade grain seeds should contain no more than 5 weed seeds per 1 kg of seed, and if the amount of cultivated crops increases, it reduces grain yield.

In accordance with the requirements of the standard, impurities of wild plant seeds, as well as other grains and pest eggs contained in the infected seeds, are not allowed in relation to planting material.

Produced products are equivalent to the standard, and their quality and quantity are indicated using the base condition of the farm's products. The norms that satisfy the product's demand are indicated. The currently used forms of such conditions are as follows (X.Ch. Buriyev.)

1. Seeding rate.
2. Selection norm.
3. Production volume standard.
4. Sending to foreign countries.



1. Seeding rate - All prepared seed grains should be suitable for creating new varieties from special experimental plots and seed sizes, therefore corresponding to several groups of seeds.

2. The sorting standard corresponds to a certain size or a limited standard - based on the indicators for which these dimensions are established, the state accepts these products as a size standard. Grain products grown in agriculture exceed the specified norm. Seeds are evaluated for these products.

3. The production volume norm imposes a fixed requirement for grain production in some industries. For example, in obtaining alcohol. The carbohydrate compounds in these grains have high water solubility.

Table 1

Quality indicators	Size norm	Bounded rate
Humidity	13-15 %	13-15%
Contaminating mixture	1-1,5%	3%
Grain mixture	2-3 %	10%
Natural weight	400-780 gr	850 gr

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