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## Bringing State Standards To International Standard Requirements Used To Determine The Quality Of Seeds Of Agricultural Crops

**Abduvoxidov G'iyos Qurbonalievich**

Phase 2 Basic Doctoral Student, Research Institute Of Cotton Breeding, Seed Production And Agrotechnology Of The Republic Of Uzbekistan

### ABSTRACT

Standards that define the quality of seeds of agricultural crops, along with setting certain requirements, allow the cultivation of high quality seeds and serve to introduce new varieties in objectively successful production.

### KEYWORDS

Seed, standard, agricultural crops, seed production, seed quality, seed germination, seed moisture, standardization.

### INTRODUCTION

As you know, the new version of the Law of the Republic of Uzbekistan "On Seed Production" was adopted on February 16, 2019. The main goal of the new economic development process is to regulate relations in the field of seed production. Including:

organization and development of primary seed production; radical improvement of the system of seed production and seed production on a scientific basis; the task is to bring it in line with international requirements through the development of new State standards and other normative documents determining the quality of seeds.

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## MATERIALS AND METHODS

The requirements set by our government in the field of seed to some extent affect the issue of standardization and require the transition to new methods and forms of work. Development and implementation of science-based state standards on seed quality and sowing quality and methods of their determination, agricultural crops is one of the most important conditions for increasing productivity.

The development of the system of standardization of agricultural crops will be necessary to ensure the formation of an updated system in accordance with the current conditions of management, while maintaining the accumulated positive experience.

It is known that the standardization of agricultural crops is a field of activity aimed at developing and defining mandatory and recommended requirements and regulations, the purchase of quality products at reasonable prices, ensuring the rights to safety and convenience. Standards (templates) as well as allows the cultivation of high quality seeds and serves to introduce new varieties in objectively successful production.

One of the main tasks of the Law of the Republic of Uzbekistan "On Standardization" is to improve product quality and production of competitive products at the level of demand. In order to find a scientific solution to this problem, the Research Institute of Cotton Breeding, Seed Production and Agrotechnology conducted a series of scientific studies in the laboratory and field experiments to determine the growth rate, fertility, mechanical damage, mixing and disease with other seeds and compare them. being carried out. At present, research is

being conducted to develop "arbitration" analyzes to resolve disputes between different laboratories in assessing the quality of seeds. These studies will result in high yields and quality products in certain soil climates as a result of the use of regionalized seeds for future sowing.

Evaluation of seeds according to the standard, their varieties and sowing qualities (some standards only set requirements for sowing quality), the requirements are made depending on the designation of the seed.

Seed germination is a key indicator, the higher it is, the faster the seeds germinate and the higher the yield. Fertility rate depends on the type of crop. Another indicator of the quality of the seed is its purity and the presence of weeds. The presence of weed seeds is determined as a percentage of grain per kilogram or by weight. Seed materials are generally not allowed in the presence of quarantine weed seeds, diseased and pest-infested seeds. Seed moisture index is important because it determines seed storage.

## DISCUSSION

High humidity accelerates the respiration of seeds, increases their viability, creates conditions for the development of microorganisms and diseases, and as a result, germination decreases, seed quality deteriorates rapidly.

The International Seed Quality Control Association (ISTA) recommends:

- multiplying the working sample of the seed by 4 instead of 2, 400 seeds from 100 seeds each;
- The name of the samples recommended by ISTA should be taken as the primary sample,

the generalized sample, the submitted analysis sample, the working sample (sub-sample);

- The maximum allowable level between the results of the analysis - the difference between the four returns of 100 seeds in one analysis (2.5%) and the allowable level of 400 seeds provided by two different laboratories (determination rate 5.0%). The results of seed inspection, control and arbitration analysis should be used in the final admission rate indicator;
- The time of calculation and determination of seed growth energy and germination is determined in accordance with the ISTA recommendation.

All of the above recommendations have been tested many times at accredited seed control stations and adopted at congresses. It should be noted that ISTA has more than 60 member states, 120 scientific organizations and leading scientists from some countries.

It is important to use the method of detection in filter paper rolls to determine seed germination, as the advantage of this method is that the structure of the tumor and the development of roots during seed growth are clearly visible, which is not the case when growing seeds in sand. This increases the accuracy of the analysis in assessing the complete quality of the seed being studied. A laboratory test does not mean that the detection by the ISTA method is incomplete, it must show that the field conditions are valid. Seed germination is a percentage of pure seed that appears to be a normal tumor under laboratory conditions. The forgetfulness in the field is always different from the forgetfulness in the field. However, seeds in some good batches give high performance in field conditions on laboratory germination. The

nature of germination also depends on the conditions of harvesting, storage and, in some cases, the quiet transition period of the seed.

## CONCLUSION

Scientists of the Research Institute of Cotton Breeding, Seed Production and Agrotechnology are working hard to bring the state standards used to determine the quality of agricultural seeds in the country in line with international standards.

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