



The Main Characteristics of Metrological Testing in Agricultural Sectors

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Abstract: The article considers the growing trend of the role of metrological support of production in ensuring the quality of products, especially when performing operations of monitoring, accounting and assessing the safety of agricultural products.

Keywords: Metrological support, control, error, quality, losses.

INTRODUCTION

Control and measurement constantly accompany both the sphere of production and services, and they affect the cost and losses [1].

An objective feature of modern production is an increase in the share of social labor costs for performing measurements at all stages of development, production and operation of products [2], which averages about 10%, and for complex equipment this share increases to 50%.

MATERIALS AND METHODS

During operation, devices used in the areas of state regulation require verification, the rest require calibration. The use of measuring instruments, control and automation is always accompanied by the creation of methods for performing measurements and assessing the error.

As the requirements for product quality and safety are increased, new measuring instruments are used in agricultural enterprises to control processes [3]. The use of foreign measuring equipment, which comes along with machines and technical equipment, has also increased. At the same time, the dependence on imports of spare parts, standard parts, and materials is growing, and production costs are also increasing.

RESULTS AND DISCUSSION

Usually, improving the quality of machines, equipment, processes is strictly related to the requirements for tolerances on the characteristics of materials, parts, assemblies, increasing the accuracy of technological processes, and the need to control the production process [4]. This increases the requirements for accuracy and rational choice of measuring instruments.

The level of metrological support is of no less importance for correct quantitative accounting as the basis for saving and reducing losses of material assets, electrical, thermal energy, water resources, gas, oil products. In this case, the mass control should be especially noted.

Let us give just one example of losses during the weighing of grain during the harvesting campaign on stationary truck scales. Periodic verification of such scales is carried out at the place of their installation. The measurement error on verified scales does not exceed one percent, but taking into account the fact that the scales are installed outdoors, they become dirty, corrode, the weighing

technique also affects, and especially if the operator of the device does not provide appropriate maintenance during operation. As a result, the measurement error increases significantly.

The main subject of activity of Standard certification is:

1. Ensuring the quality and competitiveness of domestic agricultural products through the implementation of the state technical policy and ensuring the uniformity of measurements in the agricultural sector of Uzbekistan.
2. Development and examination of technical regulations, state, industry, inter-industry standards and other documents, within their powers, control over their use at enterprises, institutions and organizations of all forms of ownership that belong to the sphere of the agro-industrial complex.
3. Implementation of measures to guarantee food security, public administration in the agro-industrial sector by monitoring the uniformity of measurements and compliance with the requirements of standards and regulations.
4. Coordination of activities of enterprises and organizations of branches of agro-industrial production on the issues of metrological support of production and implementation of metrological control and supervision.
5. Organizing and carrying out work on certification of repaired, and within its competence, of new agricultural machinery and its components.
6. Participation in the commission for the certification of grain warehouses.
7. Carrying out attestation of measuring laboratories of enterprises, organizations and institutions of all forms of ownership in assigned sectors of activity; certification of the main and basic organizations of metrological services.

CONCLUSION

Having considered the issue of the implementation of standardization, certification and metrology in the agro-industrial complex, it can be concluded that the established body of state supervision (control) in the agro-industrial complex

- The State Agricultural Inspectorate ensures compliance with the requirements of standardization, certification and metrology by business entities in agriculture by carrying out inspections and issuing appropriate certificates.

Certification is the main organization of the metrological service of the State Agricultural Inspectorate and the national body for certification of measuring laboratories, the certification body for repaired agricultural machinery and carries out interregional and intersectoral coordination and ensures the performance of work related to the development and the introduction of standard reference data on the physical data and properties of substances and materials.

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