



Basic Principles for Assessing the Quality of Agricultural Products

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Annotation: In this article, the main principles of assessing the quality of agricultural products are explained in a thoughtful statement about the usus, and the appropriate conclusions are expressed.

Keywords: quality, expert, standard, certificate, bar code, quality indicators, conduit, critical control points, parameter high values, certificate.

Introduction

The Republic of Uzbekistan is famous not only for the cotton fiber it produces, but also for the fruits, grapes, vegetables and pulses that the peoples of the whole world eat well, and many types and varieties of them are distinguished by their taste and piquancy, which attracts raw materials that are not found in other countries. Fruit and vegetable products grown in Uzbekistan are highly competitive in the world agricultural products market, even because they are so unique due to the very favorable climatic conditions.

Today, Uzbekistan has great potential in the field of cultivation and processing of extremely valuable varieties of agricultural products, their export. Establishing the production of export-oriented products in the agrarian sector and elevating the processing industry to a leading position will ensure sustainable economic growth in agriculture. To solve this task, the first president of our country I.A.Karimov has repeatedly stated that he is calling for an increase in the quality of agricultural products and the efficiency of enterprises that process it, and further expansion of domestic and foreign sales markets.

Technological, physiological and aesthetic requirements are imposed on agricultural products. For this reason, the quality of the product will not be very accurate to be assessed on a given indicator. The quality of the product must be assessed in complex. For example, the quality of hemp cotton is determined from the sum of indicators such as fiber ripeness, fiber breaking strength, ripeness, color, appearance, elasticity, moisture, pollution, and damage by diseases and pests.

According to the purpose of using the product, the requirements for its quality also change. For example, with the requirements for barley used in food, the requirements for barley used for forage purposes or for seed barley do not overlap. The quality indicators of barley used for each purpose differ from each other.

The quality indicator of a product is a quantitative characteristic of a certain property of it and determines its quality under certain conditions. Quality indicators are expressed in certain units and are reflected in the standards individually or in a complex order.

The moisture content of the product, its impurity, its uniqueness, the amount of certain chemical and organic substances (protein, starch, carbohydrates, etc.), technological, agronomic, aesthetic, economic and other indicators are its one-indicator quality mark

Product quality control is the assignment of characteristics to its quantitative and qualitative properties, in which certain types of measuring equipment and various methods are used. It is controlled during the period of production and operation. Specialists play the main role in controlling the quality of products throughout production. They must ensure quality production, timely Assembly and delivery of products. At the same time, their processing should also be organized differently.

The quality of agricultural products is controlled when handing them over to the state or consumer. This process is carried out using the standard and testing methods used at the product reception points. When receiving Products, Inspection control is established when checking the quality of the received products. In this case, it is necessary to check the acceptance of products by the preparation point, the correct use of the standard, the compliance of testing methods with the standard, the preservation of products, their separation into sorts, placement, marking.

Depending on the means of measurement used in the quality control of the product, the types of control are divided into: measurement, organoleptic, recording, calculation, sociological and expert.

Measurement method. The control of the quality of the product is carried out with the help of certain measuring equipment. Ulceration methods can be chemical, physical, biological, mechanical, microscopic, physico-chemical, technological and physiological, depending on the basis of the method used.

When chemically determining the quality of a product, the main substances of its chemical composition are determined. For example, the amount of protein, carbohydrate, oil, starch, vitamins, etc. can be determined.

Determining the quality of products in a chemical way is an objective method, which determines the quality of products in a somewhat accurate way. In determining the chemical composition of a product, detection methods are used, which are used in organic, inorganic, analytical and colloidal chemistry.

Physical determination of the quality of products is based on the physical properties of the product. The physical properties of the product include its elasticity, liness, moisture, thermal properties, etc. Dielectric, refractometric, polarimetric and rheological methods are widely used in determining the physical properties of products. The dielectric method determines the moisture content of the product. The refractometric method is used to determine the quality of the product, its main chemicals. The polarimetric method is based on determining the optical contribution of substances, the rheological method is based on determining the structural and mechanical properties of products.

Chromatography used in determining the quality of products, current permeability of a conductometric solution, Potentiometric (determination of hydrogen ions in solution using a potentiometer), colorimetric, spectroscopic, fluorescent methods are included in the physico-chemical method.

The biological method determines the germination of seeds, their damage with toxic substances, microorganisms, diseases and pests.

The physiological method determines the nutritional value, calories and biological value of food, substances.

Microscopically determine the ripeness of cotton, linen and hemp fiber, the degree of damage to certain harmful microorganisms and products in them.

The technological properties and value of agricultural products are determined in a technological way. The technological properties of the product are directly linked to its quality.

Organoleptic method. It is the main method for determining the quality of agricultural products. In this way, the sensory organs of an individual serve as ulcerative devices (vision, taste and sense of smell, hearing, sense of stiffness, etc).

The organoleptic method is simple and does not require special equipment. At the same time, the method also has a number of disadvantages. When determining the quality of a product in this way, the quality indicators are of a relative nature, and there is no division with full knowledge about it.

When determining the quality of the product by organoleptic method, the batch of products is examined, and after that the dishes are washed and the condition of the product is determined, such as appearance, large size, color and color, smell, aroma, taste. In the organoleptic evaluation of the product, factors such as the light of the place, the number of product examiners and the qualification of the tester are greatly influenced.

Ethalone and standard samples are used to determine the quality of the product by an organoleptic method. Etalon and standard samples are compiled annually according to the state standard requirement.

Calculation method. Product quality is achieved by this method by linking theoretical and empirical indicators with product quality indicators. The calculation method is used when designing a product. The link between the quality indicators of the product is also determined by this method.

Recording method. Regular monitoring of the product, accounting for events, items and expenses is the basis of the recording method. For example, in the return of the product, the number and size of defects in them are taken into account. When assessing the quality of products, attention is paid to such information.

Sociological method. It is a way of assessing the quality of a product based on the collection of consumer assessments of the quality of the product and the analysis of the opinions expressed. In this case, questionnaires are distributed to consumers, opinions are solicited, special conferences, meetings, degustations, exhibitions are held.

Expert method. The quality indicators of the product are determined based on the decision of specialist experts. Often an expert method is used in case of difficulty in determining the quality of the product in objective methods. This method is often needed at a time when the quality of the product is determined by the organoleptic method.

When determining the quality of products in an expert way, an expert commission of specialists is formed, and by the general decision of this commission, an assessment of the quality of the product is made. When determining the quality of a product, an average sample of the product batch is taken.

The average sample should be able to characterize the entire mass of the product batch.

When initial samples are taken from specific areas of the product batch, an intermediate sample is formed from them. Sampling rules are specified in the relevant standards.

An indicator that economically evaluates the quality of a product is an integral indicator. An Integral indicator is expressed through the ratio of the sum of the benefits of a product to the cost spent on its creation, exploitation and consumption. This determines the profitability of the quality of the product, that is, the profit that falls on the spent sum.

Today, the GlobalGAP standard is used in more than 100 countries of the world, taking into account the impact on the quality and safety of agricultural products on various negative factors during the growing season. In most of these states, a National Technical Working Group was formed to introduce this standard and national standards based on GlobalGAP were adopted. For example, ChileGAP – Chilean national standard, AMAGAP – Australian National Standard, QS-GAP – German national standard, New Zealand – New Zealand national standard, JGAP – Japanese national standard, CHINAGAP – Xtoy national standard, etc.

Currently, there are no internationally recognized or harmonized regulatory documents that ensure the quality and safety of agrotechnical activities during the cultivation of agricultural products in our republic.

This situation in the period when international (European) markets require a GlobalGAP certification by consumers, the neglect of farms of this standard Republic can create obstacles in gaining our agricultural products a place in international markets.

Conclusion

Currently, increasing the export, quality and competitiveness of agricultural products grown in our country, as well as eliminating technical barriers to trade, is one of the important issues.

Therefore, in order for our republic to take a strong place in the international markets of agricultural products, it is advisable to certify agricultural products under the GlobalGAP system of growers.

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