RESEARCH AND ANALYSIS OF STORAGE WAREHOUSES OF AGRICULTURAL PRODUCTS

Q. A. Davronov,
Doctor of Agricultural Sciences, Associate Professor
Fergana Polytechnic Institute

Z. I. Turdimatova,
Graduate student of Fergana Polytechnic Institute

M. U. Yuldasheva
Graduate student of Fergana Polytechnic Institute

ANNOTATION:
This article will talk about the study and analysis of storage warehouses of agricultural products, modern storage facilities, storage methods for seed-grain products, fruit vegetables, refrigerated storage facilities

KEYWORDS: agricultural production, quality of products, unloading equipment, containers, microorganisms and insects

INTRODUCTION

Today, continuing to provide the world's population with food products continuously throughout the year is one of the most important tasks of the national economy, then it is necessary to maintain agricultural products in large volumes without compromising their quality and re-produce it in accordance with world standards and ensure uninterrupted supply of products in accordance with market requirements.

Modernization of the sphere of agricultural production is one of the pressing issues of today. The growing international standard and environmental requirements for manufacturing enterprises require industry experts not only to provide fully automated equipment, but also to use resource-efficient technologies. This in turn leads to an improvement in the quality of products produced in agriculture, a reduction in their cost, waste and loss of products during processing, as well as a maximum reduction in waste.

MAIN PART

Modern storage facilities are coolers equipped with all the necessary equipment for the reception, storage, commodity processing, packaging and storage of fruits and vegetables.

Warehouses must have loading and unloading equipment, conveyors, crate, baskets and other equipment. In modern warehouses, all departments are placed in a consistent sequence.

Storing fruits and vegetables in coolers is considered one of the promising methods. This creates the opportunity to create the same conditions in any seasons of the year. The shelf life of the product is greatly extended, and the loss of the product is reduced. When the products are cooled quickly, the biochemical processes and the development of microorganisms in them are eliminated, and the shelf life of the product is prolonged.

When storing products in compartments, special containers are used: boxes, trays, medium-sized boxes and containers. When placing products in containers, it is considered very convenient to use a rack. The size of the base is 800x1200 mm, and the crate with the product is laid on them. When this is done, boxes stand firmly. Most carrots (onions, cabbage, potatoes, carrots, beets) and some types of fruits are well stored in containers. Loading and unloading of products placed in containers is carried out using mechanization. Boxes and containers are placed on top of each other in a staple way in 3-5 layers.

For efficient use of Units, fast-selling products are packed closer to the central part where the car walks. In general, every day the product is packed in an amount of about 10% compared to the capacity of the unit.

Grain warehouses. Currently, there are the following five ways to store seeds in industry:

1. Storage in dried form;
2. Storage by alternating air in the space between seeds (active ventilation method).
3. Storage chilled (the temperature of the seed and the surrounding air is reduced to + 10 degrees),
4. Storage in an airless place;
5. Storage by processing with chemicals (preservation).

The method of storage of the seed in dried form is based on the fact that in a seed with low humidity, physiological processes go slowly, and since there is no such free water, the process of exchange of substances does not go away. The absence of free water causes discomfort to the development of microorganisms and insects in this environment. When storing, the optimal humidity is obtained as critical moisture, from which physiological processes are accelerated in the seed, with increased humidity breathing. Before storage in this method, the seed mass is dried in drying devices of various structures, in which the activity of microorganisms and insects contained in the seed is also put an end. During drying, the commodity and technological properties of the seed are improved.

The method of storage by processing with chemicals is carried out by injecting toxic substances (chlorpicrine and other oxygen – absorbing chemicals) for microorganisms and insects in the spaces between the seeds. Preservatives in quality are liquid, vapor and gaseous substances:

chlorpicrine, dichloroethane, sulfur anhydride and methylbrom are used. For the following reasons, the use of some substance that has a toxic effect is limited:

- toxic effects on human and animal organisms;
- the formation of a specific smell, taste, having the opposite effect on the quality of the seed;
-not to separate preservatives from seeds in full, etc.

Currently, scientific research is underway to cover the mass of seeds with special airtight covering agents. The grain mass is stored in specially built buildings, that is, in a warehouse. Warehouses should be built taking into account the physical and physiological characteristics of the stored donlama and meet a number of technological, technical, operational and economic requirements. Its walls must be made of resistant material, resistant to air changes, to some extent protected from pests. The type of grain warehouses ranges from a simple shed according to the period of Use and storage of grain to fully mechanized elevators of work processes.

Currently, scientific research is underway to cover the mass of seeds with special airtight covering agents. The grain mass is stored in specially built buildings, that is, in a warehouse. It should be built taking into account the physical and physiological characteristics of cereals stored in warehouses and meet a number of technological, technical, operational and economic requirements. Its walls must be made of resistant material, resistant to air changes, to some extent protected from pests. The type of grain warehouses ranges from a simple shed according to the period of Use and storage of grain to fully mechanized elevators of work processes.

CONCLUSION

The pits and tunnels that the warehouses accept raw materials must be dry, with good ventilation and convenient to observe. Before receiving raw materials, the warehouse must be thoroughly cleaned and diesenfected. all devices that are lshated must meet the requirements of technical safety, fire protection.

REFERENCES

1. X.B.Shaumarov, S.Ya.IsIamov. "Agricultural mabsuiotiarm storage and primary processing technology"" Tashkent: "Inovation-Zia", 2020, page 200
2. Sherimbetov, A. G., ADILOV, B. S., Kadirova, Z. N., Makhmudov, T. X., Mambetnazarov, A. B., Ruzmetov, D. R., ... & Karimov, E. Y. (2020). Molecular verification of species identity of some isolates of the genus Fusarium deposited in the phytopathogen collection in Uzbekistan. Plant Cell Biotechnology and Molecular Biology, 94-98.
3. H.Ch. Bo riyev. A. A. Ashurmetov. Biology and cultivation of melons, storage technology.- T.: "Labor", 2000. 114B.
4. Recommended agriculture for cultivation in the territory of the Republic of Uzbekistan. State Register of crops, Tashkent, 2006.