



THE TECHNOLOGY OF MAKING RAISINS BY DRYING GRAPES IN THE SHADE UNDER NATURAL CONDITIONS.

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Abstract: The article presents technologies for preparing various types of raisins from several grape varieties in dry climate regions and highlights their practical application. Raisins are considered to be a dry product with the highest natural sugar content, nutritional value, and energy value among food products made from grapes.

Keywords: shade, dry climate, raisins, technology, air flow, raisin quality, water rot, mold, ventilation.

INTRODUCTION

In the world fruit growing industry, grape products are widely processed into grape juice, grape molasses, and various juices. Most importantly, in regions with a dry climate, technologies for preparing various types of raisins from several grape varieties have been created and are being used in practice. Raisins are considered to be the most nutritious, transportable dry product among food products made from grapes. Raisin production is produced in a number of countries around the world, and has become one of the main industries in our country. Several types of raisins are produced, and they differ from each other in a number of ways. Raisins dried in natural conditions using the shade method are in particularly high demand due to their high commercial appearance and taste. Research is being conducted to improve methods and technologies for preparing high-quality raisins using the shade method.

When drying grapes in the shade method, due to the insufficient air flow in the middle of the grape head, when drying grapes with the capabilities of current dryers, wet rot or mold of grapes is often observed. As a result, the quality and quantity of dried raisins decreases sharply. The use of improved dryers in the shade method is an important practical solution to eliminate water rot and mold.

MAIN PART AND RESULTS

Raisins are a dry product with the highest natural sugar content, are nutritious, and highly transportable among food products made from grapes. Raisin production is produced in a number of countries around the world, and has become one of the main industries in our country. Several types of raisins are produced, which differ from each other in a number of aspects.

The use of improved dryers in the process of preparing raisins by the shade method is an important practical solution to eliminate water rot and mold. When drying grapes by the shade method, when the capacity of current dryers is insufficient, when drying grapes in the middle of the grape head, wet rot or mold of grapes is often observed. As a result, the quality and quantity of dried raisins decrease sharply.

Development and introduction into production of an improved dryer with high productivity, providing grape drying technology in the shade method. The role of equipment

and technology in grape drying in the shade method. Development of an improved dryer that effectively performs the grape drying process.

The expected scientific innovations are presented and the essence is briefly described:

- development of an improved shade method grape dryer with identified alternative parameters;
- theoretical justification of the spacing of grape heads on the shoulders of the improved dryer, taking into account the thickness of the grape heads;
- theoretical justification of the spacing of the shoulders in the vertical direction for high-quality drying of grapes;
- determination of the constructive and technological parameters of the dryer, which affect the efficiency of the dryer and the quality of the prepared raisins, based on the results of multifactorial experiments.

Practical significance of the work:

- an energy- and resource-saving, improved grape dryer is developed for the preparation of high-quality raisins prepared by the shade method;
- the watery rot and mold of grapes during the drying process in the new grape dryer is completely eliminated;
- rational technological and constructive parameters of the shade grape dryer are determined on the basis of practical research.

A review of foreign scientific research on the topic and the level of study of the problem are presented, the correspondence of the work to the priority areas of development of science and technology of the republic is indicated, the goals and objectives of the research, as well as the object and subject of the research are determined, and information is included on the scientific novelty of the research, practical results, reliability of the results, scientific and practical significance, implementation of the results into practice, publication, and structure of the work.

The advantages and disadvantages of grape dryers created and used in our country and foreign countries, the results of scientific and practical research work on further improving the quality of the dried product, achieving resource efficiency, and further reducing the process of water rotting during the drying process are studied and analyzed. Based on the studies and analyses, a technological scheme of the dryer is developed that increases the dryer's productivity and the quantity and quality of the dried natural pure product.

Based on the optimal parameters adopted as a result of the theoretical research, a pilot copy of the proposed dryer is developed. The pilot copy of the manufactured dryer is studied in laboratory conditions, and comparative research is conducted with the existing plate dryer. In the comparative studies, the effect of dryers on the dryer's productivity and the quality of the dried product is studied and results are obtained. Based on the results obtained, working drawings of an industrial pilot copy of a grape dryer with an improved design and shade method are prepared and a pilot copy is manufactured.

Experimental research will be conducted to compare the developed shade-type grape dryer with the plate dryer currently used in raisin production enterprises in our Republic. According to the results obtained, the expected economic efficiency from the introduction of the improved shade-type grape dryer is considered.

CONCLUSION.

Raisin production, which is produced in a number of countries around the world, has become one of the main industries in our country. Taking into account such factors, the most important thing is that technologies for preparing various types of raisins from several grape varieties have been created and are being used in practice in regions with a dry climate. Raisins are considered a dry product with the highest natural sugar content, are nutritious, and highly transportable among food products made from grapes. Raisin production, which is produced in a number of countries around the world, has become one of the main industries in our country. Research is being conducted to improve methods and technologies for preparing high-quality raisins using the soyaki method.

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