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Characteristics of Storage of Grapes in Normal Atmospheric Environment

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Abstract:
In the article, the influence of agrobiological and technological characteristics of storage of different grape varieties grown in Fergana region in refrigerated warehouses on shelf life is studied. 72,861 thousand tons were grown in Greece, 51,128 thousand tons in Chile, 37,049 thousand tons in South Africa. Among the developed countries of the world, in the first place in terms of grape cultivation, "Spain is 966 thousand hectares, with a yield of 56.9 s/ha, in second place is China with 855 thousand hectares, with a yield of 154 s/ha, and in Italy 782 thousand hectares. , gross yield 102.3 s/ha, followed by Turkey with 436 thousand hectares, gross yield 96.3 s/ha and USA 408 thousand hectare, gross yield 163.7 s/ha" requires the implementation of innovative technologies in the storage of cultivated grapes. In this regard, the use of modern technologies in the cultivation and storage of grapes is one of the urgent issues.

Keywords: quantity of marketable grapes, weight loss, shelf life, storage duration, amount of components, dissolved dry matter.

Introduction

It is important for grape-growing countries to organize storage in accordance with standards in order to meet the population's demand for food grapes throughout the year and increase the export potential. Currently, the volume of grape cultivation in the world is 72.7 million. tons. In particular, 353,167 thousand tons were grown in Turkey, 332,760 thousand tons in the USA, 122,595 thousand tons in Iran, 72,861 thousand tons in Greece, 51,128 thousand tons in Chile, and 37,049 thousand tons in South Africa. Among the developed countries of the world, in the first place in terms of grape cultivation, "Spain is 966 thousand hectares, with a yield of 56.9 s/ha, in second place is China with 855 thousand hectares, with a yield of 154 s/ha, and in Italy 782 thousand hectares. , gross yield 102.3 s/ha, followed by Turkey with 436 thousand hectares, gross yield 96.3 s/ha and USA 408 thousand hectare, gross yield 163.7 s/ha" requires the implementation of innovative technologies in the storage of cultivated grapes. In this regard, the use of modern technologies in the cultivation and storage of grapes is one of the urgent issues.

As it can be seen from the data of the analysis of grape marketability characteristics, the studied varieties differ from each other in terms of marketability, weight loss rate, waste yield, wrinkles, as well as the amount of total losses.

The most marketable product retention was observed in "Husayne Beliy" and "Nimrang"

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varieties, and 92.2% and 88.7% indicators were recorded in the corresponding ratio. The lowest rate was found in "Andijansky chyorny" and "Rizamat" varieties, which were 84.8% and 84.1%, respectively. The following indicators were recorded in other varieties: "Pobeda" variety - 89.0% and "Kishmish Sogdiana" 86.1%.

Information on changes in the chemical composition of grapes during storage is presented in Table 1. From the data presented in Table 2 , it can be seen that the amount of dissolved dry matter, sugar content, titratable acid and vitamin C content of the studied varieties differ from each other.

During the experiment, the changes of these indicators also differed depending on the variety. The highest amount of mass percentage of solids from the amount of dissolved dry matter was observed in "Rizamat" variety - 18% and "Pobeda" variety - 17.2%. This indicator was 15.6% in "Nimrang" variety, 15.6% in "Kishmish Sogdiana" variety, 16.4% in "Andijansky chyorniy" variety and 16.0% in "Husayne Beliy" variety. The main part of dissolved solids is sugar The composition of grapes is suitable for microorganisms, and there are conditions for their development. Various wild and cultivated yeasts are present on the surface of grapes.

Yeasts change the grapes during the processing (within 4 hours). Fungi and bacteria cause disease. These are oidium and mildew patients. Faced with these diseases, the surface of rhizomes becomes wrinkled and shed. Mold fungus produces gray and black mold on rhizomes.

It depends on the chemical composition of the juice, the structure of the grape, its yield, shape, taste, variety, soil and climate, land and storage conditions. As for the chemical composition, sugar is 5-24%, organic acids are 0.2-1.2, mineral ions in the pectin peel, carotene, vitamin V, S. From carbohydrates, fructose, glucose. 4-40 mg % of salts, C vitamins from mineral substances.

Fruit raw materials. There are 500 pomological varieties of grapes. 100 of them are varieties used in production. Depending on the variety, the shape, color, size and structure of apples differ from each other.

Grapes are not only a edible fruit, but also various juices, various preserves, confectionery, marmalade products, wine are prepared, dried, and marinated. In medicine, apples are recommended for the preparation of various medicines, especially for tooth protection, blood purification, and prevention of obesity. Iron ions in apples have an effect on the acceleration of oxidation-reduction reactions in the body

Grapes are mainly processed and ensure the quality of the finished product with fruit and dietary properties. Grapes are brought to the primary production plant with shingles. Describes the technical properties of the structure of grape shingle - band and other parts. Shingle size depends on size, shape, grape variety and external conditions. The shape of grape shingles can be conical, cylindrical, cylindrical-conical, egg-shaped, with many branches and different.

The length of the shingle depends on the size of the rib, the length of the band and other parameters. Two sizes are proposed for classification of grape varieties.

The size of the module is an indicator of the length of the shingle in relation to the middle diameter.

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E is the ratio of the density coefficient of rhizomes to the volume of the total shingles, the number of which depends on the grape variety. The number of rhizomes in one vine is a characteristic of the grape variety and depends on flowering, pollination and environmental factors. Grape rhizome is a thin flexible skin that covers the flesh around the seed. The flesh consists of large cells and is full of cell juice. All types of wine shrink in size when stored in barrels. If there is an air gap in the barrel, it creates favorable conditions for the development of microdermabrasion on top of the wine, and a thin layer of acetic acid bacteria appears. Therefore, the barrels are systematically filled with wine. Therefore, bottling is a purposeful operation to keep the reservoirs with wine (barrels, idols, reservoirs) full all the time, and filling is a measure to prevent the wine from opening and evaporating.

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Summary

Thus, it is necessary to create conditions in the early stages of plant life for good plant development and early opening of grapes, as well as abundant and high-quality harvest, at that time they are provided with enough nutrients, and the efficiency of fertilizers depends in many respects on their application to the needs of fertilizers in the stages of development of the grape.

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