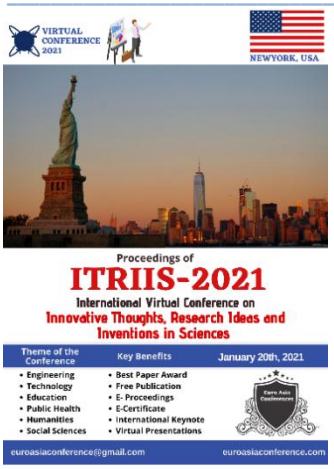

ENERGY SAVING STONE FRUIT DRYING TECHNOLOGY

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Annotation:

The relevance of this research is the development of energy-saving technologies, that is, the use of solar energy for drying apricots, which is of great practical importance for our country. Drying agricultural products using energy-saving technologies is an urgent problem in Uzbekistan.

Uzbekistan has very good conditions for drying fruits, vegetables and apricots. The length of summer, the heat of the day, the unique varieties of raw fruits, vegetables and apricots, the low relative humidity and drying methods left behind by our generations make it possible to obtain products by air-solar and shade methods, high quality and low cost. The importance of drying fruits and vegetables is that they make it easier to store fruits and vegetables for a long time and allow them to be transported to remote locations.

Key words:

Fruits, moisture, amount of dry matter, drying technology, chemical composition, drying cycle, drying rate.

The elements of the technology for drying high-quality and nutritious apricots and meeting the needs of the population were studied and recommendations for production were given. As a result of the study, high-quality dried apricots were recommended for further production at Realtrans Logistics JSC and their economic efficiency was determined.

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The high temperature and low humidity of the climate in the country make it very convenient to dry fruits and apricots in the sun.

Chemical composition and energy value of dried fruits and vegetables

Table 1

Product	Dry matter	Carbohydrates	Nitrous matter	Energy power
Apple	88	63.4	2.4	1129.2
Plum	77	62.1	3.4	1125.4
Raisins	77	61.0	2.5	1090.7
Apricot	87	68.6	3.2	1233.5

At the beginning of the drying cycle, the drying speed is very high because the moisture in the product is reduced by substances between the product surface and the large cell. Then the drying rate decreases, but remains constant. When setting the drying mode, the external and internal diffusion is practically the same, and the product is dried evenly. Drying temperature leads to overheating and excessive drying out.

In addition, the quality of the product changes, taste and smell disappear. Many vitamins lose their potency. The main thing is that it is kept at a constant temperature during the drying period. An increase in temperature leads to deformation of the food, which slows down the cooking process. The high quality of dried fruits and vegetables depends on the air temperature and the drying speed. The drying mode depends on the properties of the product, as on the morphological measure, on the degree of grinding, on the method of pre-treatment.

Mostly apricots, plums, cabbage, onions are dried, but other products can also be dried. Raw materials must meet the specified standards and be of high quality. The preparation of raw materials consists mainly of sorting, washing, selection by size. Many vegetables and fruits are peeled and eaten. The main process for preparing fruits and vegetables for drying is steam cooking. Apricots, peaches, apples are treated with sulfur dioxide during drying. This process is carried out in accordance with technological recommendations

Dried in sunny, rainless weather, in hot summer and autumn regions. Such drying is carried out on separate surfaces with a source of fresh water, patnissa and tables for cooking products, drying apricots. Apricot varieties: subhani, persimmon, isfarak, bobon, kandak. When you take seeds from an apricot tree, a leaf comes out. The fruits are burned with sulfur dioxide. Then it is dried to a moisture content of 16-18%. Care should be taken when drying apricots and peaches. Because the seeds get in the way. Drying is carried out within 12 days, the humidity drops to 18%. The next dried product is left to dry for several days until it retains its moisture. When fruits and vegetables are dried in the factory, they are processed and cleaned, sorted, washed and dried to the end, and the finished product is packed and sent to boxes.

The high temperature and low humidity of the country's climatic conditions make it very convenient to dry fruits and apricots in the sun.

The dried product is cleaned of weeds, blown in the wind, and poured in batches to maintain even moisture. The disadvantage of this method is that the dried product dries up for a very long time. There will be more pollution. The product yield will also be lower. The harvest time is determined taking into account the specifics of tree species and varieties, requirements for the fruit product, the nature and forms of its use. Fruits to be dried and consumed locally are cut when they are fit for consumption, that is, when they have a navigable color and taste. Fruits intended for long-distance transportation, long-term storage and conservation (ripening on the way and during storage, so as not to lose their appearance, quality during processing, transportation and storage), are harvested with technical stability,

The quality of the dried product is improved by blanching.

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