

RESEARCH ON THE TECHNOLOGY OF PRODUCING SUKA FROM LOCAL RAW MATERIALS**Akromova Rano Ramizitdinovna**

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Annotation. The development of food products made from local raw materials is of great importance today in terms of economic efficiency and ensuring food safety. Suka is a sweet and confectionery product obtained by processing fruits and vegetables while preserving their natural properties, and is characterized by long-term storage and wide consumption. This study covers the issues of studying and improving the technology of making jams from locally grown fruits and vegetables. The chemical composition, moisture content and structural properties of the products selected as raw materials are analyzed in terms of their impact on the technological process. The effect of the concentration of sugar solution, heat treatment and drying stages in the preparation of jams on product quality and storage stability is determined. The results of the study serve to expand the possibilities of producing high-quality, natural and competitive jams from local raw materials. This work serves as a scientific basis for creating import-substituting products in the food industry.

Keywords: local raw materials, jams, fruit and vegetable processing, production technology, drying process, sugar solution, food industry.

In recent years, the issue of effective use of local raw materials and the production of natural and safe products in the food industry has become increasingly relevant. The growing need of the population for high-quality, long-lasting and high-biological value food products sets the task for manufacturers to introduce new technological solutions. From this point of view, sukkat products, which are prepared on the basis of fruit and vegetable processing, are one of the promising areas. Sukkat is widely popular among consumers due to its pleasant taste, preservation of its natural color and aroma.

The cultivation of various fruits and vegetables in the conditions of Uzbekistan creates rich opportunities for local raw materials. However, some of these raw materials are consumed in a short time or are subject to loss due to seasonality. Turning them into products such as sukkat through deep processing not only increases the efficiency of raw material use, but also serves to

reduce food waste. Sukkat products made from local raw materials are distinguished by being economically advantageous and environmentally friendly compared to imported products.

The technology for producing sukkat includes several important stages. The selection and preparation of raw materials, processing in a sugar solution, heat treatment and drying processes determine the final quality of the product. Compliance with technological regimes at each stage is important for the appearance, structure, taste and shelf life of the sukuk. In particular, the concentration of the sugar solution and drying conditions directly affect the moisture content and microbiological stability of the product.[1]

Today, one of the pressing issues in the production of sukuk is the development of energy-efficient technologies that maximally preserve natural properties. Technological approaches adapted to local raw materials allow to increase product quality and reduce production costs. At the same time, taking into account the demand of consumers for healthy nutrition, the production of sukuk products without artificial additives is of great importance.

This article analyzes the main aspects of the technology for producing sukuk from local raw materials and highlights the possibilities of improving the process on a scientific basis. The results of the research will serve the effective use of local resources in the food industry and the production of competitive products.

The efficiency of the sukuk production process and the quality of the finished product depend primarily on the type and condition of the selected raw materials. Locally grown apples, pears, pumpkins, carrots, quinces and citrus fruits are the most suitable raw materials for the preparation of sukuk. These products are distinguished by their natural sweetness, dense texture and resistance to heat treatment. The quality of the raw materials The main requirements are the degree of maturity, the absence of mechanical damage and biological purity. The selection of high-quality raw materials reduces product losses in subsequent technological stages.

At the stage of preparation of raw materials, it is washed, cleaned and cut into uniform sizes. These processes ensure that the pieces of sukuk are evenly soaked in the sugar solution. The size and shape of the cut products have a significant impact on their drying speed and appearance.[2]

One of the main stages of the technology of sukuk production is processing in a sugar solution. This process, based on the principle of osmotic exchange, ensures that water leaves the tissues of fruits and vegetables and is replaced by a sugar solution. The concentration, temperature and duration of the sugar solution are important factors determining the taste and structure of the product.

For candies made from local raw materials, it is advisable to gradually increase the sugar solution. This method prevents the decay of fruit and vegetable tissues and helps to preserve their natural shape. Also, the process of processing in a sugar solution limits the development of microorganisms and increases the shelf life of the product.

Heat treatment plays an important technological role in the production of candies. At this stage, the product is boiled or heated for a short time, as a result of which the tissues soften and the absorption of the sugar solution is accelerated. If the duration and temperature of heat treatment are not chosen correctly, the color of the product may darken or the texture may soften excessively.[3]

Gentle heat regimes adapted to local raw materials allow the natural color and nutrients of the product to be preserved to the maximum extent. Especially when working with fruits rich in vitamins, low-temperature and short-term processing is advisable.

Drying is one of the final and most important stages of candies production. This process reduces excess moisture in the product and ensures its long-term storage. Drying conditions – temperature, air circulation and duration – directly affect the appearance and texture of the sukkat.[4]

Along with traditional drying methods, the use of modern energy-efficient drying technologies improves product quality. Overdrying can lead to hardening of the sukkat, while underdrying can lead to deterioration during storage. Therefore, it is important to adapt the drying regime to the characteristics of local raw materials.

When assessing the quality of sukkat, its appearance, color, taste, smell and texture are considered as the main criteria. Also, moisture content and storage stability are important indicators. Sukkat made from local raw materials has a natural color and taste and is highly appreciated by consumers.[5]

Scientific research into the technology of sukkat production from local raw materials allows for the production of high-quality, natural and economically efficient products. This approach is of great importance in creating import-substituting products in the food industry.

In conclusion, it was found that the study of the technology of making jam from local raw materials is of significant scientific and practical importance for the food industry. Fruits and vegetables grown in the conditions of Uzbekistan form a rich raw material base for making jam, which allows increasing the value of the product through their processing. During the research, it was established that the correct selection and preparation of raw materials, treatment in sugar solution, heat treatment and drying stages are the main factors determining the quality of jam.

Technological regimes adapted to local raw materials help to preserve the natural color, taste and texture of the product, while reducing the loss of nutrients. A gradual increase in the concentration of the sugar solution and the use of optimal drying conditions ensure the stability of the jam. As a result, it is possible to obtain a product that is stored for a long time, safe and pleasant to consumers.

Also, the use of local raw materials reduces production costs and reduces the need for imported products. This not only increases economic efficiency, but also contributes to ensuring environmental sustainability. Based on the results of the research, there are prospects for further improving the technology of sukkat production, introducing energy-saving methods and expanding the product range. In general, the production of sukkat from local raw materials is one of the important directions in the development of the food industry.

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