

INNOVATIVE ASPECTS OF THE TECHNOLOGY OF MAKING BAKERY PRODUCTS FROM MILLED GRAIN

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Abstract: First of all, small bakeries where all processes of bread production are done by hand were established. As a result of the mechanization of the process of kneading dough, kneading dough and baking bread, small and large bakeries equipped with machines and ovens manufactured in European countries began to be established. This article describes in detail the innovative aspects of the technology of making bread products from milled grain.

Key words: bread, features, bakery, equipment, taste, uzbek bread, grain, technology and etc.

ИННОВАЦИОННЫЕ АСПЕКТЫ ТЕХНОЛОГИИ ПРИГОТОВЛЕНИЯ ХЛЕБОБУЛОЧНЫХ ИЗДЕЛИЙ ИЗ МОЛОТОГО ЗЕРНА

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Аннотация: В первую очередь были созданы небольшие пекарни, где все процессы производства хлеба осуществляются вручную. В результате механизации процесса замешивания теста, замеса теста и выпечки хлеба стали создаваться мелкие и крупные пекарни, оснащенные машинами и печами, изготовленными в европейских странах. В данной статье подробно описаны инновационные аспекты технологии приготовления хлебобулочных изделий из молотого зерна.

Ключевые слова: хлеб, особенности, хлебопекарня, оборудование, вкус, узбекский хлеб, зерно, технология и др.

In Uzbekistan, at the beginning of the 10th century, such enterprises were first established in cities (such as Khorezm, Tashkent, Samarkand, Fergana). In these cities, along with national bread products, European types and varieties of bread began to be produced. In 1925, a decision was made to completely re-equip the

bakery, build bakery enterprises and create a machine-building base for the production of equipment. By the 1930s, there were bakeries equipped with machines and ovens in all large cities, including the regional centers of Uzbekistan. Later, mechanized bakeries began to operate in all district centers. It is well known that freshly baked bread has all its features: elegance, taste and pleasant smell. Such bread is eaten with appetite, it is quickly affected by gastric juice during digestion and is well digested. These bakeries have the ability to produce a wide range of bread products, and are also provided with a shop that supplies the population with hot bread products. The number of these bakeries is increasing year by year. In this regard, it can be noted that the network of bakeries established in the cities and villages of Uzbekistan is able to provide the population of the republic with bread products.

Uzbek bread is consumed not only in the territory of the Republic, but also outside it as a delicious product. It can be noted that bread baked in the oven based on a simple recipe by a master baker is a real delicacy. Our local craftsmen have achieved great success in making Uzbek bread. Currently, about 200 bakery enterprises are producing bread products in our republic. Most of them are small enterprises, more than 100 of them are equipped with foreign equipment. In order to meet the demand of consumers with freshly baked bread products, small bakeries are combined with shops and are located in densely populated areas. The import of raw materials at world market prices from the Commonwealth of Nations and abroad, high transport costs, affects the price of bread. Therefore, one of the important issues facing the bakery industry is the expansion of the raw material base of white. As a result of the carelessness of our government, the supply of bread products to the population is continuously increasing. The question of achieving grain independence was raised. Correct resolution of this issue will allow the bakery industry to be supplied with flour, which is the main raw material. The improvement of the assortment of bread products should be enriched due to the types of bread consumed by the population. At the same time, it is necessary to create new types of bread for different segments of the population. These are the production of bakery products for children, taking into account the climatic conditions of the republic, using local raw materials (secondary dairy products, fruit and vegetable juices, purees, powders, etc.) for the purposes of treatment and prevention. It is related to the continuous supply of bread products to the population, the effective use of technological equipment and the attraction of new machines and equipment to the bread industry. This is flour, water, salt, sugar, fat, milk and other products Yeasts and leavens made from yeast (or yeast). food obtained as a result of cooking the dough is a product. Bread is mainly made from

wheat and rye flour is used. Sometimes corn, barley, peas, soy or white wheat flour is used. High nutritional value, excellent taste, not unpleasant, good digestibility, ease of preparation, storage conditions Bread products with their simplicity and stability are the people of the earth the main food product, and in some countries in the diet is the first product. Eating warm, fragrant, soft and sweet bread is good for a person works quietly. Therefore, one of the scientists of the 20th century said "good A piece of baked wheat bread is a great human mind It is one of the scandals," he said. There are many wonderful things about bread proverbs are said: "Bread is the sultan of horses - honor bread", "Bread Abundance - fullness of hand", "Respect for bread - respect for hand" is one of them. Making bread as we know it has been known for 6000 years was cereal crops that people boiled in water in ancient times those who ate the seeds. Then grind and cook the grain who started to eat. During this period, mainly grain products It is consumed in a round shape. The invention of various mills as a result of being made, on the surface or between the heated stones, ceramic round loaves of dough were baked among the stones. Later, people kneaded and multiplied the dough into different shapes they learned to make bread. And the baking of the dough is ground fall of yeast and lactic acid bacteria from wheat and air caused as a result.

Since ancient times, people have honored bread, which is one of the main benefits of their consumption, comparing it to gold, the sun, and life, and sang hymns in its honor saying, "Bread is our sustenance." When a guest arrives, first of all, bread is placed in front of him. Bread is sacred. They are taught from childhood to respect his honor and not to be rude. Depending on the grain of the bread, it is wheat bread, obi bread, patir bread, bread, etc. there is The content of gluten in high-grade bread should not be less than 28%, first-grade flour should not be less than 30%, and second-grade flour should not be less than 25%. The gluten content of high-quality wheat flour used for making pasta products should not be less than 28%, and the gluten content of first-grade flour should not be less than 25%; Jaidari wheat flour's gluten content should not be less than 20%. The quality of gluten should not be lower than the second group. The amount of gluten is expressed in relation to the measured mass of crushed grain. There are two types of gluten: wet gluten that has absorbed water and dry gluten - the final amount of gluten after drying. Depending on the amount of gluten in the composition, wheat grain can be classified as follows. The main part of the protein in the grain of pea crops is water-insoluble (protein substance). Gluten is a flexible, sticky and stretchy mass that is extracted from the dough and does not wash away with water. It is mainly contained in wheat grain and can be up to 16-50%. Gluten consists of three amino acids, albumin, gliadin, and glutenin, which give the dough its bulkiness or porosity.

Gluten in the wheat grain is the reason for the good dough. In terms of quality, the gluten content of wheat grain is the highest.

The baking properties of wheat flour mean its ability to produce good quality bread when the technological process is carried out correctly. Well-baked wheat bread should have sufficient volume, full shape, evenly colored crust without cracks and tears, uniformly distributed, soft porous elastic core. It should be fragrant and tasty. The lighter the rind of a certain type of wheat bread, the more it is valued by consumers. The baking properties of wheat flour are mainly determined by its lower properties: - the ability to generate gas; - the ability to create dough with specific rheological properties - "strength of flour"; - the color of flour and the property of kneading in making bread. The size of the flour particles is also significant.

Determination of humidity is carried out according to GOST 82041-82. Grain moisture refers to the ratio of water content to its total mass as a percentage. Moisture content of grain is of great importance during its storage and processing. Wet grain quickly heats up by itself, and if the necessary measures are not taken in time, the composition of the grain mass may be completely destroyed. Microorganisms and pests develop very quickly and easily in grains with high moisture content. Grain with high moisture content cannot be processed. Depending on the amount of moisture in the grain, they are divided into four groups:

- dry;
- moderately dry;
- moist;
- wet.

300 gr of the average sample. grain is removed and placed in a hermetically sealed container. After the temperature of the grain is equal to the ambient temperature, a sample is taken and its moisture is measured in a moisture meter to select the drying time and option.

Grain moisture refers to the amount of free or bound hygroscopic water in its content expressed as a percentage of the weight of the sample. The amount of water in grain is its main quality indicator and one of the factors determining its storage durability. Excess water in the grain accelerates the respiration process and allows the development of microorganisms and storage pests in the pile. Under the influence of low temperature, grain loses its germination as much as possible and becomes unsuitable for planting. Excess moisture in grain (above 15.5-1.6%) is also known during processing. Such grain is poorly crushed, and the productivity of the

mill decreases. There are 4 types of grain moisture, which determines the grain's storage resistance and its dependence on standard processing possibilities: 1) dry 2) semi-dry 3) wet 4) wet. Rye grain is defined by the following indicators: dry moisture up to 14%, medium dry up to 14-15.5%, wet up to 15.5-17% and wet over 17%. The methods of grain moisture determination can be divided into two groups: directly and by other means. In the first group, the amount of water in grain is determined by measuring its volume after squeezing out water in special equipment. Other ways of determining grain moisture are widespread.

Based on this recipe, in the process of heating the dough balls from the dough state to the bread state, the temperature of the heating surfaces for baking bread and bakery products in the industry is 300-400 C and the temperature of the baking chamber is approximately 200-250 C. convection ovens are used. We cover our article on the innovative type of daily bread baking in small quantities at home. So, first of all, we use rye malt for our flour. By the way, it would be appropriate if we give information about malt here. Malt refers to grains harvested under artificial conditions at a certain temperature and humidity. Today, we add rye malt flour to our flour in innovative baking. When made from rye malt flour, it provides a dark brown core, pleasant taste and smell. Pour 250 ml of warm water into a medium-sized container, add 1 teaspoon of sugar and 1 teaspoon of yeast. Mix well and melt, then cover the bowl and let it rest for 5 minutes in a moderately warm place. Put 500 grams of flour on top of the sifted product, add 100 grams of rye malt flour to it and mix well. Add 1.5 teaspoons of salt to our product, then add 20 ml of vegetable oil and mix well. Cover the finished product with plastic wrap and let it rest for 1-1.5 hours. The next process is as follows: we take a simple pot that we always use at home using a gas stove, put it on the gas stove and heat the pot on a low flame. We take the rested dough and divide it into two pieces. We heat the lid of the pot on a gas stove, wet the back side of the bread with water, and cover the lid of the hot pot with the same lid as in the oven. Brush the top of the bread with egg yolk and sprinkle sesame seeds on it. Close the lid with the bread on the pot. Cook for 15 minutes on medium heat. It is cooked in a very tasty state. The bottom parts of the bread are also baked in good quality without burning. It would be appropriate if this method could be cooked without difficulty in any Uzbek household.

Wheat is one of the most common grain crops. Depending on its variety, wheat grain contains from 11% to 18-19% protein. Repeated study of the composition of rye and the practice of using it in nutrition have shown that if a person strives to be healthy, this is the first product with many useful properties that are difficult to find in any other. People suffering from lung, throat, esophagus, stomach, chest

and bladder should eat rye. Regular use of rye products can prevent the development of these diseases. Rye is a unique and healthy dietary product today. It is distinguished by its unique properties. Its protein contains lysine and threonine. The composition of rye includes water, proteins, fats, carbohydrates. The plant contains vitamin A - beta-carotene, which maintains the integrity of the cell structure and protects the body from aging, B1 - preventive thiamine, and B2 - which actively participates in the processes of protein, carbohydrate and fat metabolism. contains riboflavin. Contains vitamins B3 and PP. The use of rye products improves the functioning of the cardiovascular system.

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