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ADDITIVES ADDED TO BAKERY PRODUCTS

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Abstract:
In order to improve the quality of bread products, we can increase its nutritional value by adding various additives, such as protein additives, mineral additives, and fruit and berry products.

Keywords: Protein, mineral substances, fruits and berries, energy value.

Bread is flour, water, salt, sugar, fat, milk and other products Yeasts and leavens prepared by adding (or from k o shnias). 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 oat flour is used.

High nutritional value, excellent taste, not boring, good digestibility, ease of preparation, storage conditions Bread products with their simplicity and stability are the people of the earth staple food, 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 the hand", "Respect for bread - respect for the hand" are among 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 eaten as porridge. The invention of various mills as a result of being made, on the surface or between the heated stones, ceramic Round loaves of

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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.

The invention of making bread from the dough made by the human being Since its establishment, baking has developed. Bread for many centuries prepared at home. Residents of big cities, military the need to provide the army and others with bread, baking led to the development of the industry. First of all, all processes of bread production are done by hand small bakeries were established. knead the dough, mechanization of the process of kneading dough and baking bread As a result, the car produced in European countries and Small and large bakeries equipped with ovens are organized began to find.

The bread improver makes the kneaded dough soft, flexible, smooth, easy to use; It can improve the inspection performance, has good expansion activity, the specific volume increases by about 40-70%, the internal structure of the bread is uniform, the taste is soft and elastic, and it can extend the fresh service life. Dissolve it in water or add directly to it.

An emulsifier can be used as a dough softener to extend the softness and flavor of baked goods. Saturated distilled monoglycerides are the most representative and effective dough softeners. Starch aging in wheat dough is the natural enemy of dough softening. The amylose in starch swells in water and forms a relatively stable gel state after cooking and cooling to form the texture of bread, and when the temperature is lowered and the time is extended, the amylose recovers and becomes insoluble, making it hard and brittle. , so the softness of the dough is greatly reduced. When an emulsifier such as monoglyceride is added to the dough, it is absorbed by the starch molecules after mixing, and when the dough temperature reaches 55 °C, it reacts with amylose to form a spiral complex. This reaction increases the gelatinization temperature of starch granules, reduces the total amount of gelatinized starch in the face core at low temperature, and thus reduces the degree of crystallinity of starch molecules, and prevents the aggregation of amylopectin from the interior of starch granules, aging and rejuvenation of starch. . It also reduces the loss of moisture from the protein structure and delays the formation of hard proteins. All of the above will make the bread texture softer and last longer.

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Emulsifiers provide the main emulsification. Good bakery products require a good emulsification reaction. Hydrophilic and lipophilic groups of the emulsifier act separately in the dough to adsorb water and fat in the dough, thereby reducing the interfacial tension between the fat and water phases and homogenizing the previously incompatible polydisperse phase system in the dough. The resulting emulsion can be of two types: oil in water and water in oil. The first is variance and the second is variance. The emulsifying ability of an emulsifier is related to the number of hydrophilic groups and oleophilic groups.

GG quot; "hydrophilic lipophilic balance value" (ie HLB) can usually be used to indicate the difference in emulsification ability. If the HLB is larger, then the greater the hydrophilic effect, the more stable the oil-in-water emulsion; conversely, the smaller the HLB, the stronger the lipophilic effect and the more stable the oil-in-oil emulsion can be.

Has negligible ventilation effect. In the preparation of the cake, the whipped air enters the emulsion, and the saturated fatty acid chain in the emulsifier can make the boundary area of the dough and the air chamber into a smooth film structure, which increases the air chamber and the number of air chambers. The addition of emulsifier can reduce the specific gravity of the dough, increase the size of the cake, and improve its quality and appearance.

The food emulsifier produced by our company has the advantages of good effect, low price and easy storage. It is recognized by buyers in the market. The company's main export products are: E471, E472A, E472B, E472C, E472E, E475, E476, E477, E481, E482, etc., as well as bread improvers, cake gel emulsifiers, etc.

Bread is widely consumed every day in all regions and by the entire population, so it can be considered the first food product for life and human nutrition. (proteins, carbohydrates, fats, water, mineral substances, vitamins, nutritional tissues, etc.) is determined by the quantity. Moisture content of bread is one of the main factors affecting its energy value. The energy value of bread decreases with the increase of humidity. The more fat is used in the preparation of bread, the higher the energy value of the product. When 500 g of various bread products are consumed per day, the human body's energy needs are 40-42%, proteins - 43%, including 97% to plant proteins, 52% to starch, 19% to sugars, 79% to ballast substances (hemicellulose and cellulose, 28% to lysine

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from non-exchangeable amino acids, 19% to methionine, 13.1% to calcium from mineral elements, 24% to vitamins -50%. Amino acids: lysine and threonine, calcium salts, lack of vitamins are the shortcomings of bread production. milk, whey and milk yogurt, whole milk, food casein, protein preparations, etc.). The proteins of these products complement the proteins of bread in terms of amino acid composition.

To increase the protein value of bread among the protein products obtained from plants, soybean processing products, protein preparations from oily and leguminous plants, and dry proteins obtained from wheat are of great importance. These proteins are well absorbed, and vegetable proteins increase the easy digestibility of bread. Enrichment of bread with minerals. To optimize the ratio of calcium and phosphorus salts in bread, it is necessary to enrich it with calcium. Milk and dairy products are widely used in the industry for these purposes. They contain not only complete proteins, but also calcium in a sufficient amount and easily absorbed by the body, calcium in the form of lactate. Bread prepared with the addition of 3-5% dry milk contains a sufficient amount of high-quality calcium. To enrich bread with calcium and phosphorus, malt or malt grains are used, which contain phytase enzyme (decomposes phytic phosphorus compounds) and minerals: calcium, phosphorus, etc.[1]Enzymes in bread making. Enzymes, also called biocatalysts, are proteins with special properties. Each type of enzyme has its own substrate, which ensures perfect control of the process for use in bread making. , increases the size of the bread, ensures that the core has a thin membrane porosity, the crust is yellow-brown, and the bread is tasty and fragrant. In addition, bread contains easily digestible sugars, organic acids, macro and microelements (K, Na, Ca, P, Mg, Fe), vitamins (C, B1, B2, B6, PP), pectin and nutrients. enriched with fiber.[2]

REFERENCES

1. Luis Carlos Gioia, José Ricardo Ganancio and Caroline Joy Steel. // Food Additives and Processing Aids used in Breadmaking// Published: September 6th, 2017 DOI: 10.5772/intechopen.700872. M.G. Vasiyev, 2.Q. O. Dadayev, I. B. Isaboyev, Z. Sh. Sapayeva, Z. J. Gulomova. //Fundamentals of food technology//-T.: "Voris-nashryot", 2012.-400 p.

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3. E.Sanaev A.Sadikov N.Pulatova S.Karabaev. (2022). ORGANIZATION OF BABY FOOD BY CATERING. https://doi.org/10.5281/zenodo.7158229
4. Gansov, Sh. Yakon in the production of bakery products [text] / Sh. Gansov, V. Jin, P. Kononkov, N. Derkanosov / / Bread products. - 2010. - No. 6. - pp. 30-31.
5. Alekseenko, E. Unconventional natural raw materials for the production of bakery products [text] / E. Alekseenko / / Bread products. - 2008. - No. 9. - pp. 50-51.