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TECHNOLOGICAL MEASURES TO IMPROVE THE QUALITY OF BREAD AND BAKERY PRODUCTS

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Abstract: The bakery industry has witnessed changes with the integration of technological innovations that have revolutionized the production of bread and bakery products. These advances not only improved the efficiency of cooking processes, but also increased the quality, taste and nutritional value of the finished products. In this article, we consider the technological activities that play a decisive role in improving the standards of bread and bakery products.

Key words: bread and bakery products, baking process, mixing technology, production processes, dough, products.

Technological factors that improve the quality of bread are additives that improve the quality of bread by improving its structure, size and shelf life. These additives play an important role in activating the baking process and ensuring product quality during storage. Technological advances have allowed bakers to precisely control the fermentation process. This control leads to improved flavor of baked goods, improved crumb structure and longer shelf life. Intelligent baking control systems use automation and data analysis to monitor and adjust baking parameters in real time. These systems ensure consistent quality, reduce wastage and optimize production efficiency. Continuous mixing technology allows for a continuous and uniform mixing process, resulting in consistent dough quality and improved texture of bread products. This technology increases the overall quality and production efficiency in bakeries. Innovative formulas and special production techniques have been developed to meet the needs of consumers for unique and high-quality bread products. These new strategies are aimed at improving the stability and quality of bakery products and meeting the changing demands of the market. Technological factors that improve the quality of bread help to improve the texture of bread by improving softness, elasticity and crumb texture. This leads to a more attractive and pleasant eating experience for consumers. The technological factors of bread help to increase the volume of the bread, which results in a lighter and softer texture. This volume improvement contributes to the overall appearance and mouthfeel of baked products. Technological factors of bread play a crucial role in extending the shelf life of baked products by improving their moisture retention properties. This helps to keep bread fresh for a long time,

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reduce wastage and increase consumer satisfaction. Technological factors of bread increase the stability of the dough during the baking process, making it easier to handle and form. As a result, consistent and uniform products with improved appearance and structure appear. Technological factors of bread contribute to the development of the desired crust with properties such as clarity, color and brightness in baked products. It enhances the overall emotional experience of eating bread. Some bread technological factors are designed to enrich the nutritional profile of baked products by adding vitamins, minerals and other beneficial ingredients. This helps to meet the demands of consumers for healthy and nutritious bread products. In general, bread technological factors have played an important role in increasing the quality, consistency and consumer appeal of baked products. By improving various aspects such as texture, volume, shelf life and nutritional content, bread technological factors have become important additives in the bread industry and have contributed to the production of high quality and innovative bread products.

Technological development has significantly contributed to the improvement of the quality of bread and bakery products. Automated mixing and kneading machines ensure consistent dough development, resulting in better gluten formation and texture in the final product.Technological devices such as fermentation chambers that precisely control temperature and humidity help to optimize the fermentation process, resulting in improved bread taste and texture.Steam injection ovens create a moist environment during the baking process, which allows for better crust formation, color development and oven spring.Temperature and humidity controlled conduction chambers ensure proper proofing of the dough, which increases the uniform texture and volume of the baked products.Automated dough dividers and rounders help in proper distribution and shaping of the dough, ensuring uniformity of product size and shape. Retarder proofer systems control the proofing process by slowing fermentation, which improves the flavor and extends the shelf life of baked goods.Advanced cooking technologies such as convection ovens, deck ovens and rotary ovens ensure precise temperature control and even heat distribution, resulting in uniform cooking and consistent product quality.Technological tools such as sensors and monitoring devices help maintain quality standards by monitoring parameters such as temperature, humidity and cooking time to ensure consistent product quality.Improved packaging technologies such as modified atmosphere packaging (MAP) and vacuum packaging help to extend the shelf life and maintain freshness of bakery products.The use of digital tools and data analysis in bakery production helps to optimize production processes, monitor quality parameters and identify areas of improvement to improve product quality.Bakeries that include these technological measures can improve the quality, consistency and efficiency of bread and bakery products, meet consumer demands and remain competitive in the market.

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Conclusion:

The integration of technological activities in the bread industry has led to a significant improvement in the quality of bread and bakery products. From controlled fermentation techniques to intelligent baking control systems, these advances have raised the bar for bakery products, offering consumers a wide range of high-quality and innovative products. By using these technological innovations, bakeries can continue to improve product quality, meet consumer demands, and remain competitive in the ever-evolving bakery market.

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