

FEASIBILITY OF USING OIL SEEDS IN CIABATTA TECHNOLOGY

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The classic ciabatta technology uses flour, salt, water and oil. Manufacturers add various additional raw materials to the recipe (cereal flour, vegetable processing products, herbs, oil crops, malt and malt extracts, etc.). However, there are few such products on the market.

After analyzing the assortment of ciabatta, we found that there are few offers of ciabatta enriched with additional raw materials. The least number of products containing the seeds of oil crops, which have a valuable fatty acid composition, contain many proteins, rich in micro- and macroelements. Even some manufacturers of gluten-free products add oil seeds to ciabatta (for example, flax seeds in ciabatta produced by Dr. Schar). Despite the rather unstable gluten-free dough, the manufacturer ensured the high quality of gluten-free ciabatta with flax seeds.

The peculiarity of the ciabatta technology is the high humidity of the dough, which causes the formation of unstable dough and the formation of large pores in the dough. As a result of such features, the dough needs special careful processing, which does not destroy the formed structure. The use of additional raw materials can lead to deterioration of the porosity of the products. Therefore, the quality of the flour and its gluten content are of great importance, which will ensure the maintenance of the structure and the formation of the necessary porosity, even when using additional raw materials.

When using oilseeds in the ciabatta recipe, special attention should be paid to the quality of the flour. When choosing seeds of oilseeds for ciabatta, several criteria should be considered: cost and organoleptic indicators, which will significantly affect the products. Sunflower, golden flax, and pumpkin seeds were chosen for the research, given their availability on the Ukrainian market, light color, and valuable chemical composition. Oilseeds (sunflower, flax, pumpkin) are rich in fats, proteins, dietary fibres, minerals and antioxidants. Ciabatta, enriched with the proposed types of seeds, will appeal to consumers who are looking for products with additional health benefits.

Further research will study the technological parameters of preparing the dough for ciabatta with oilseeds and using food additives to stabilize the porous structure of the products.