

## STUDY OF OAT MALT INFLUENCE ON BUTTER BISCUIT STRUCTURING

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The usability of pastry items depends on the quality of formula components, their chemical composition and technological properties. Therefore, the use of new types of non-traditional raw materials for confectionery industry is one of the priorities in the creation of innovative technologies. The by-products of grain malt are classified as plant raw materials with high nutritional and biological value. The sprouted grains contain ingredients necessary for a balanced diet: low molecular weight proteins, amino acids, carbohydrates, food fibers, minerals, vitamins.

The scientists of NUFT have developed the modes of obtaining unfermented malts from different grain varieties with the high activity of enzymes and fermented malts. In the process of seed germination involving enzymes, the macromolecular substances are hydrolyzed to low molecular water-soluble components. Ratio of the essential amino acids to their total number is 34%.

Sugar content is an important aspect from the technological point of view, when using malt flour from various grain crops. It was found that the amount of reducing sugars in the oat malt flour is up to 13%.

When treating oat malt flour in a formula in an amount of from 20 to 50%, butter biscuits were characterized as having delectable taste and flavor as well as uniform porous structure. The studies of oat malt influence on the process of dough formation have been conducted in order to determine the optimal amount of new material and to form dough having specific structural and mechanical properties.

The results of theoretical and experimental studies have demonstrated the expediency of oat malt flour application aiming to improve the organoleptic quality of butter biscuit and to increase its physiological value. The use of oat malt flour in the recipes of butter biscuits allows to decrease the amount of sugar and fat and reduce its caloric content.

**KEY WORDS:** Oat malt, grain malt, oat malt flour, butter biscuits.