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8th Central European Congress on Food

Food Science for Well-being

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НАЦІОНАЛЬНА АСОЦІАЦІЯ ВИРОБНИКІВ ДИТЯЧОГО ХАРЧУВАННЯ, МОЛОЧНОКОНСЕРВНОЇ ТА СОКОВОЇ ПРОДУКЦІЇ "УКРКОНСЕРВМОЛОКО"

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The congress addressed the following topics:
FOOD EXPERTISE, SAFETY AND TECHNOLOGIES
- **Food Expertise and Safety**
- **Food Technologies**

ENERGY SYSTEMS FOR FOOD CHAIN
- **Energy Efficiency**
- **Machine Building for Food Chain**
- **Intelligent Control Systems**

NATURAL BIOACTIVE COMPOUNDS, FUNCTIONAL AND NATIONAL FOOD PRODUCTS, PACKING, STORING AND PROCESSING
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Poster Presentations

Section 1.
FOOD EXPERTISE, SAFETY AND TECHNOLOGIES

Subsection 1A

Food Expertize and Safety

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TECHNOLOGICAL SOLUTIONS FOR STABILIZATION QUALITY OF CONFECTIONERY PRODUCTS WITH DIFFERENT TEXTURES USING WAXY WHEAT FLOUR

According to the results of theoretical and experimental research complex, the chemical composition and technological properties of waxy wheat flour and its blends with bakery wheat flour has been studied and the selection of pastry types it is advisable to use in the production of has been justified.

The effect of bakery wheat flour to waxy wheat flour ratio and the stage of its introduction on the course of technological process of yeast-containing cakes has been determined. The advisability of waxy wheat flour usage in technology of hardtacks with lowered sugar capacity in order to ensure the intense course of main biotechnological processes during their production and stabilize product quality has been established. The impact pattern of mass fraction of wheat flour without amylose on dough properties and quality indices of spice-cakes has been determined, and the advisability of syrup temperature decrease during flour gelatinization has been demonstrated. The technological parameters of spice-cakes production based on new type of flour have been optimized.

It has been demonstrated that using waxy wheat flour during pastry production promotes the staling inhibition and stabilization of quality indices during its shelf life.

Based on the conducted research, recipes of differently textured pastry products with partial or full replacement of bakery wheat flour with the one without amylose — yeast-containing cakes, hardtacks, spice-cakes — technology of which has been approbated in working conditions and protected by declarative patents of Ukraine for utility models, have been developed.

The investment appeal has been confirmed by the shortening of technological production cycle, stabilization and improvement of quality, product freshness preservation during storage as well as social value — assortment expansion of pastry products with lowered sugar capacity.

KEY WORDS: *waxy wheat, amylopectin, pastry, quality*