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### **THEORETICAL AND PRACTICAL ASPECTS OF THE USING SURFACTANTS IN THE TECHNOLOGY OF HOT SWEET DISHES**

Hot sweet dishes are in great demand in the Ukrainian establishments of restaurant business among the large number of consumers. Due to the popularity of this group meals and acute need for improvement of the population as a whole, actual direction is the development of wellness products and products for special purpose.

As the object of study was chosen hot sweet dish is a fondant, which is very popular in the market of restaurant services. Despite its demand, the recipe composition of the classic fondant limits its accessibility for different groups of the population: the presence of wheat flour limits the production of fondant for the elderly and patients with celiac disease, sugar is contraindicated for the groups such as diabetics, obese patients, and dark chocolate is an undesirable ingredient in hypertension diet, for children up to 10 years and causes stress to the pancreas.

Given all of the performance targets has been developed recipe of dishes, which would satisfy the needs of a balanced diet for both children and the elderly.

For this purpose, theoretically was justified the expediency of selecting innovative ingredients: rice flour was offered as a gluten-free raw material, that making the product available for a group of people who can't metabolize the protein gluten. As a sugar-containing ingredient was selected the condensed milk. Cocoa butter is a plasticizer of the structure, and for increasing the nutritional value of fondant were taken citron powders.

However, in addition to technological difficulties while working off of recipes and technologies emerged significant differences between structure of fondants and the control sample. To leveling the negative manifestations the complex of the properties of the selected innovative raw materials theoretically justified the use of surfactants.

Experimentally proved the technological method of adding of surfactant in the dough of fondant — by direct kneading of all the ingredients of the recipe.

The effect of surfactants on the organoleptic and structural and mechanical properties was investigated, as well as physicochemical quality indicators of the dough and fondant.

Optimized the ratio of rice flour and surfactant, that allowed get the structure of dough, similar to the control sample, and a porosity of 55% (versus 50% in control). Wherein the adhesion strength dough on rice flour and surfactant expressed by 1.3 times greater than the strength of the control sample.

Proved that in the prototype is formed a more gentle structure. The total deformation of the dense part of fondant to 11% less than the control, due to the chemical composition of innovative recipe ingredients.

Thus, the using of surfactant provides a stable complex system, removes the technological difficulties in the production process, increases the quality of the fondants for health improvement and special purpose.

**KEY WORDS:** *fondant, surfactant, special purpose*

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### **STUDY CRITICAL MICELLE CONCENTRATION OF WASHING SOLUTIONS**

Search and selection of detergents for the processing of wool is an urgent task to improve the technology for cleaning costs reasonable minimum detergent and water and environmental safety of technological waste. Certainly detergent should be effective during washing, have the property and emulsify dirt stabilize in solution, adsorbed on the surface of the fibre. Indirectly efficiency detergent is determined by the critical micelle concentration. The critical micelle concentration a relatively narrow range of concentrations that indicates the limit below which micelles are not nearly as above almost all of superficially active substance, which is added to the solution, forming a micelle. Cleaning solutions with a concentration below the CMC detergent will not be sufficient to show their washing properties. Only by achieving the maximum effect is achieved CMC washing and concentration above CMC values lead to overspending detergent without improving the quality of washing. Determining CMC washing solutions stalohmetr conducted at 20 °C by counting the number of drops of the same volume of distilled water and detergent solution. It was believed that the test liquid density were not significantly different.

Revealed that CMC anion activity aqueous solution Sles 70 achieved concentrations of 0.9 g/l. That superficially active substance is a major component of shampoos and liquid detergents household use. Adding supplements like solution of alcohol reduces the CMC. Since the introduction of 1% alcohol reduces the CMC to 0.5 g/l. Adding universal aprotic polar solvent (DMSO dimethyl sulfoxide) gives an increase of 0.6% CMC to 1.1 g/l. To use dishwashing material slightest amount of detergent additive necessary to apply Sles alcohol. Alcohol is also in aqueous solution Sles 70 there is synergy with alcohol and surfactants reduce CMC detergent solution.