

IMPLEMENTATION OF NEW TECHNOLOGY OF CONFECTIONERY PRODUCTS IN RESTAURANT ESTABLISHMENTS

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Abstract

Modern confectionary production is devoted to the creation of new technologies which are taking into account current food trends for increasing their nutritional value. The aim of this research was to create new confectionary product with extended shelf life.

New and improved gingerbread was the target product. In its production we used vegetable pectin-containing raw materials (of hydrolyzed carrot and pumpkin puree), glucose-fructose syrup and a complex improver ("Magimix). The influence of new components on the quality of gingerbread was studied. The effect on the stability of the emulsion of the temperature parameters of the preparation of semi-finished products and the amount of pectin-containing puree was determined by a multivariate experiment using the Box-Wilson method. The shelf life of the product was determined by the thermographic method.

It was established that adding hydrolyzed puree to the dough increased the amount of osmotically and adsorption-bound moisture, as well as the energy of its activation. Part of the tightly bound moisture grows due to the interaction of biopolymers of flour and vegetable puree. This extends the shelf life of raw gingerbread up to 4.5 months. The addition of hydrolyzed carrot puree significantly increases the viscosity of emulsions and stabilizes their structure, in particular, the effective viscosity of the samples increases by 1.7 - 5.7 times, and the value of the viscosity anomaly by 6.1 - 6.5 times. The optimal parameters of technological modes for the preparation of raw gingerbread have been selected, in particular, the dosage of carrot and pumpkin puree in the amount of 15 and 10%, respectively, and the emulsion preparation temperature 48 - 50 °C.

The use of proposed components in gingerbread technology helps to increase the share of bound moisture in products, improves the structure of dough and gingerbread, and extends their shelf life. Proposed technology makes it possible to rationally use the material and technical base, energy resources and ensure stable high quality of the product for a long time in restaurants confectionery and bakeries.

Key words: Hydrolyzed carrot and pumpkin puree, Complex improvers, Dietary fibers.