SAT-ONLINE-P-2-BFT(R)-04

USE OF ALTERNATIVE SWEETENERS IN ICE CREAM

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Abstract: The article is devoted to research aimed at improving the technology of ice cream through the use of sugar substitutes and their compositions that exhibit functional and technological properties and improve the quality of the finished product. The feasibility of using starch syrup and polyols for the formation of recommended organoleptic, physical and chemical characteristics of ice cream, and their stabilization during the guaranteed period of storage is scientifically substantiated. The main criteria for the choice of sugar substitutes in the composition of different types of ice cream are selected such characteristics as the degree of sweetness, cryoprotective and structural ability. The article describes the results of analytical and experimental research methods: rheological characteristics and cryoscopic temperature of mixtures, organoleptic characteristics of ice cream, whipped cream, resistance to melting. According to the same criteria, the expediency of complete replacement of sucrose in the composition of ice cream with erythritol and its composition with glucose syrup in the ratio of 90:10 to 50:50 was confirmed. The conclusion about the possibility of purposeful technological effect in the cycle of ice cream production with erythritol and composite mixtures of starch syrup with different degree of saccharification is formulated.

Keywords: Cryoscopic Temperature, Ice Cream, Polyols, Structuring Ability, Sweeteners

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