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## STARCH SYRUPS AS SUBSTITUTES FOR SUGAR AND MILK POWDER IN ICE CREAM

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#### Abstract

The article considers the existing and promising ways to use starch syrup in milk-based ice cream recipes. The influence of substitution of sugar on dry skimmed milk starch syrup and starch on the characteristics of mixtures for the production of ice cream of classical types has been investigated. to study the possibility of simultaneous replacement of sugar and dry skim milk residue with starch syrup in milk-based ice cream, the degree of substitution of the milk component up to $30 \%$ is used, which will ensure its minimum possible content in the product (at least 7\%). Simultaneous replacement of milk powder and sugar on the composition of starch syrup with different carbohydrate composition has been carried out. 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. as a result of the conducted researches the multifunctional technological properties of starch syrup with low and high degree of saccharification in the composition of mixtures for ice cream production as sweeteners, cryoprotectants, thickeners and structure stabilizers has been revealed. Studies confirm the feasibility of using composite mixtures of low-sugar and high-sugar starch syrup as substitutes for sugar and milk powder in ice cream. on the basis of research, ice cream recipes with improved characteristics and reduced cost have been developed.


Keywords: sugar substitutes, ice cream, starch syrup, sweeteners

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