

SCIENTIFIC EXPLANATION OF COMPOSITION OF ACIDOPHILIC-WHEY ICE CREAM, ENRICHED WITH PROTEIN

Student: Artur MYKHALEVYCH,
Coordinating Professor: Prof. Ph. Galina POLISCHUK
*Scientific-Research Institute of Food Technologies,
National University of Food Technologies, Ukraine*

Abstract:

The work is devoted to solving the actual problem of the dairy industry - complex processing of food raw materials; rational use of production resources by reducing the technological process duration.

The aim of the research is to substantiate the composition of a new type of acidophilic-whey ice cream of high nutritional value due to enrichment with a complex of proteins, probiotic sourdough and pectin-containing vegetable paste.

In order to identify the rational content of protein concentrates in acidophilic-whey ice cream, was investigated the possibility of enriching the product with sodium caseinate (SC), concentrate of whey proteins obtained by ultrafiltration (CWP-UF) and soy protein isolate (SP).

Therefore, if necessary to enrich acidophilic-whey ice cream with protein in an amount of not less than 2.75%, it is advisable to use the following protein composition: 0.75% SC (the most effective moisture-binding stabilizing high-value protein); 1.0-1.5% CWP-UF (protein with foaming ability); 1.0-1.5% SP (cheap protein with moderate technological activity). The highest overrun of the ice cream was with content of vegetable paste at the level of 10% , which is explained by the rational ratio between the foaming and stabilizing properties of the protein complex and pectin substances.

Key words: *acidophilic-whey ice cream, probiotics, prebiotics, protein, pectin-containing purees, dairy products*