
TRADITIONS AND INNOVATIONS OF DAIRY INDUSTRY

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Abstract: Brief information-review provides an analysis of the textbook for students of higher educational institutions, authorized by Ministry of Agriculture to study "Foods of plant origin" and "Foods of animal origin" by N.B. Gavrilova, M.P. Schetinina - "Technology of milk and dairy products: traditions and innovations", Moscow: Colossus, 2012, 544 p.

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The authors of the textbook – famous Russian scientists of dairy industry – Natalja B. Gavrilova (Professor of the Department of Food and Biotechnology, Omsk State Agrarian University after P.A. Stolypin, Hon. Worker HS RF) and Michail P. Schetinina (Head of the Department of Food Production, Altai State Technical University after I.I. Polzunov and now a senator of the Federal Assembly of the Altai Territory) in accordance with the standard program for special disciplines for higher schools "Technology of milk and dairy products", of specialty standard 260303 managed to fit a huge file information on the complete range of products from raw milk on 544 pp. (44, 20 conv. printer's sheets). The book has an attractive design, good type and is neatly filed.

Substantial portion includes seven chapters (essentially parts), preface of the authors, introduction, conclusion and the reference list with the space for notes. Each chapter within the intellectual training ends with control questions and tasks. In general, the material in its form and substance matches to the XXI century brand textbooks, adopted in Russia.

In the preface and introduction, the authors outlined their position on the issue of the textbook, the contribution of predecessors and industry achievements. For example, they formulated the theme of food nanotechnologies related to dairy science. Students and industry professionals are to understand and accept it as an axiom for the modernization of technology of dairy products.

In the first chapter, departing from the traditional postulate, the authors first "dared" to begin with the presentation of raw milk monitoring and its technological modification processes. Given the limited scope of the textbook, they summarize information on the composition and properties of cow raw milk and that of other animals at the present legislative level. Further described are all currently known traditional (purification and separation, cooling,

normalization, homogenization, thermization, pasteurization, sterilization, concentration, drying) and new, innovative (molecular sieve separation – micro-, ultra-, nanofiltration, reverse osmosis, electro-membrane treatment – electro dialysis, high pressure, cryogenic freezing) techniques and methods for processing feedstock. Equipment sanitizing is referred too. In the future, this chapter seems to light the problem of raw milk conditioning and apparently characterize all industry's raw complex – cream, skim milk, buttermilk and whey.

In the next five chapters, systematically presented is the technology of milk and dairy products by currently accepted product groups. Just list them: milk products and ice cream, including cottage cheese and sour cream; canned condensed and dried milk, baby foods; butter, butter pastes and spreads; cheese and cheese products. Each chapter in all groups and subgroups provides a clear basic concept, adopted by the Technical Regulations (TR), in accordance with federal law, terms and definitions. The authors state (briefly) the theoretical backgrounds of processing line and describe technological schemes with a focus on some of the regularities of the processes and operations in classics and innovations. In the future, this information allows for us to form systematically Technological Platforms for the production of dairy products by world standards in the context of the world market globalization and WTO membership.

The seventh chapter specifically shows very detailed and qualified information on the so-called (according to TR) secondary raw milk material (SRM) and virtually the single current industry reserve to ensure food security for our country indispensable health (functional) food products. Besides logistics of this presentation allows us to obtain products with the full use of all the components their individual removing and synthesis of derivatives from SRM. This is fundamentally important to the technological

(without waste), environmental (environmental protection) and marketing (economics) aspects of the Engineer (BSc, MSc) activities.

The textbook conclusion appealing to students – go for it, is worthy of admiration. List of recommended literature in Russian is quite complete. On the whole,

the authors managed to do an impossible thing (in terms of publication volume) – to create a modern textbook, which organically "interlaces" traditions and innovations of AIC dairy industry. The textbook is certainly of great interest for dairy science professionals as well.

