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MICROBIOLOGICAL RESEARCHES OF A BUTTER WITH INULIN

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Abstract

In NUFT the technology of a butter with inulin (BI) is developed. Microbiological researches BI are carried out during storage at temperature 5°C during 30 day and at temperature -18°C during 12 months. The sample of a butter without additive (BC) which was made and stored in the same conditions was control. Moisture content in BC and BI made 25 %. Studied such microbiological parameters: amount of mezofil microorganisms (MM), bacteria of group intestinal sticks (BGIS) and proteolitically active microorganisms (PAM), moulds and yeast. In samples BC which were stored at 5°C, contents of MM has increased 10 times, BGIS in 1,4 times, PAM - in 0,4 times. During storage BC at -18°C contents MO and PAM increased insignificantly, and BGIS - increased in 1,4 times. In BI at temperature of storage 5°C contents of BGIS and PAM practically does not change, and MM increases in 1,6 times. A mould and yeast in all samples BC and BI are not found out.

Thus, entering of inulin results in delay of microbiological processes in a butter. Delay of microbiological processes of damage of butter speaks that entering inulin essentially changes structure of butter both on micro-and on nanolevel. It is established, that delay of ability to live of microorganisms occurs owing to changes of forms of connection of water and fatty phases and a high dispersion on nanolevel.

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