

STUDYING OF CONSUMER FEATURES OF THE ENRICHED SOURED CREAM

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Abstract: The article presents the technology and performance quality of a new type of cream-enriched products of plant origin. Dietary fiber contained in a new form of sour cream cleanses the body of toxic elements, strengthens the human immunity.

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According to the modern studies working out of new industrial technologies producing of functional feeding product is an important task in the dairy branch.

Enriched dairy products of functional proper purpose predominate in innovative projects. The most obvious decision in preparation of innovative enriched dairy products is using traditional raw material in one branch while producing of products of another branch. This tendency is not limited by enriching of dairy products with fruit and vegetable components. It also concerns preparation of dairy products containing the complex of plant, animal, microbiological substances (Musina, 2007; Shetinin and Motrunich, 2008).

Soured milk as a fermented milk product is in great everyday demand. The main raw material for producing of the given product is the raw material of origin (cow milk) and useful fermented milk micro flora.

It is possible to use different kinds of cereals goods enriching of soured cream. Cereals goods are referred to the products of plant origin and characterized by high containing of feed fibers (Fattachova, I., Silantieva, A., 2009).

On these grounds the technology of new soured cream of functional purpose has been worked out. The distinctive feature of the technology of a new product is putting a brew mixture of rice, buckwheat, pearl-barley cereals, reduced to fragments and taken in proportion, 3:1:1 into the cream, cooled to the temperature of fermenting to give sorbefacient features to soured cream. Investigation has showed that the chosen proportion of cereals, due to optimal contents of

feed fibers of rice cereals in them, is characterized by the high complex forming ability in regards to lead ion. Besides, a brew mixture of cereals enriches a new product with protein of plant origin balanced with amino acid complex, vitamins and mineral substances; it also raises its moister keeping ability.

The preparation process technology to produce this new kind of soured cream includes:

- normalization of cream, its pasteurization at the temperature 85-87⁰C with 5-10 minutes maintenance;
- homogenization at the temperature 65-70 ⁰C and pressure 7-10 MP, cooling to the temperature of fermenting 28-35⁰C;
- putting brew mixture of reduced to fragments cereals into the cream, cooling to the temperature of fermenting;
- putting leaven of fermented milk culture to soured cream or leaven prepared on pure culture of fermented milk bacteria *Lactococcus lactis* subsp. *Diacetylactis* (using proportion 1:1:1 in quantity of 3-5 % of general mass);
- mixing during 10-15 minutes, fermenting at the temperature 28-35 ⁰C for 7-9 hours till acidity 80-95 TA, second mixing for 5-10 minutes, packing at the temperature 17-27 ⁰C and maturing at the temperature 0-8 ⁰C for 6-12 hours in container.

Chemical composition and physico-chemical indicators of newly produced soured cream are shown in the Table 1.

TABLE 1. CHEMICAL CONTENT AND PHYSICO-CHEMICAL INDICES

Appellation of indices	Indices
Acidity, °T	80-85
Oil content, %	15
Dry substances, %	24.5
Proteins, %	3.1
Carbohydrates, %	3.8
Feed fibers, %	1.1

TABLE 2. MICROBIOLOGICAL INDICES OF THE NEW PRODUCT

Appellation of indices	Characteristic
Bacteria of groups of intestinal bacillus (colophon) in 1.0 cm of product	No
St.aureus in 1.0cm of product	No
Pathogen microorganisms including salmonellas in 50 cm of product	No

As the table shows the new kind of soured cream is characterized by high contents of dry substances. The rise of dry substances is caused by using filler. Content of proteins, carbohydrates is increased. The new product contains feed fibers.

According to food safety indices this product corresponds to sanitary norms (Table 2).

Enriching soured cream by a brew mixture of cereals goods appreciably improves consumer features of the ready product. The new kind of soured cream has original fruit taste and delicate fragrance. The used brew mixture of cereals gives to the product a pleasant slight cream color unlike traditional one.

References

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