

**GLOBAL FERMENTED DAIRY TRENDS
(СВІТОВІ ТЕНДЕНЦІЇ У СФЕРІ ФЕРМЕНТОВАНИХ
МОЛОЧНИХ ПРОДУКТІВ)**

У статті викладено матеріал про сучасні тенденції у виробництві молочної та кисломолочної продукції в світі, проаналізовано напрямки розвитку інновацій у даній галузі, що засновані на уподобаннях споживачів. Визначено переваги та необхідність ведення інноваційної діяльності у молочній галузі.

Ключові слова: *інновації, молочні продукти, кисломолочні продукти, тенденції, зниження цукру, зниження жиру, етнічні продукти.*

The article presents material on current trends in the production of dairy and sour milk products in the world, analyzes the directions of innovation in this area, based on consumer preferences. The advantages and necessity of innovative activity in the dairy industry are determined.

Key words: *innovations, dairy products, fermented milk products, tendencies, sugar reduction, low fat, ethnic products.*

Today the interest in dairy products among consumers is decreasing. This is mainly due to consumer distrust of manufacturers, an increase in the number of allergic reactions to lactose and components of combined dairy products, increased calorie content of products, tastes that are not interesting to the consumer, high cost of the product and other factors.

Since consumer demand determines the scale and goals of production, each company seeks to attract the attention of as many consumers as possible to its

products. To achieve this, manufacturers improve existing products and develop new ones.

Trends are constantly changing. Attempts to follow them increase competition between manufacturers, encouraging innovation in the direction of current trends.

Nowadays, the main popular trends are: healthy eating (reducing sugar and fat in foods), ethnic and traditional dairy products, snackification and convenience of consumption, plant-based and lactose-free products [3].

Healthy eating (reducing sugar and fat in foods). Percentage of dairy product launches tracked with specific claims for 2012 - 2017: low fat +0,3%; low cholesterol +6%; low calorie +11%; low sugar +31% (growth of percentage for 5 years).

It can be concluded that the popularity of reducing sugar in dairy products is growing rapidly. Several methods are used: replacing sugar with honey, stevia, fructose or artificial sweeteners (sucralose, aspartame) or by reducing added sugar and instead include fruit juice / puree [1].

Ethnic and traditional dairy products. Ethnic dairy launches have more than doubled since 2012 in countries outside of their origin, with the highest penetration of Skyr and Kefir [1; 2].

Positioning and product identity standards differ in all countries of the world. Today kefir in England, Turkey and Australia is much more popular than in Russia, and skyr has conquered not only northern Europe, but also reached the CIS. Consumer interest in the nation's dairy products is fueled by their nutritional value, the probiotic content that supports good digestion and the high protein content for satiety and excellent muscle health.

According to statistics, 34% of consumers buy yoghurts frequently, 38% do it periodically, and only 4% say they do not consume this category of products [4].

Snackification and convenience of consumption. According to Innova Consumer Lifestyle and Attitudes Survey 2018 63% of millennials are replacing meals with snacks because they are busy. 50% of Generation X are inclined to cut

down on their sweet snack consumption. 67% of boomers are making changes to their diet to become healthier. Based on this, manufacturers transform classic dairy products into a full-fledged snack, adding cereals or snacks to them, and also modernize packaging for ease of consumption. Therefore, there is a + 13% Average Annual Growth in the number of dairy product launches with snack claims (2014-2018) [1; 2].

Plant-based and lactose-free products. Since 2014, there has been a boom in plant-based milk plant start-ups all over the world, and with it the diversity of the raw material base is increasing. The most popular are soy milk, coconut, oat and almond milk. They are also produced in the largest quantities.

Also added plant ingredients continue to show strong growth in the dairy category. Fastest growing plant ingredients tracked in dairy launches are nuts and seeds (+21%), grains (+11%), vegetables (+9%), fruit (+9%).

Lactose-free dairy has moved from niche to mainstream, with a wish to avoid lactose but still consume dairy, with no change in taste. Lactose is increasingly associated with digestive discomfort, even for consumers not allergic to lactose. When turning to lactose free products, they demand same taste and texture as normal dairy [1; 2].

Thus, we can conclude that trends are directly dependent on consumer preferences. The challenge for each manufacturer is to create a competitive product based on them. R&D activities in the dairy industry are particularly developed and work in this direction. It plays a major role in the popularization of dairy products in society.

Література:

1. Global and EU fresh fermented trends and key market trends 3-5 ears from now. © 2019 DuPont (April 2019).
2. Innova Consumer Lifestyle and Attitudes Survey 2018. © 2021 INNOVA MARKET INSIGHTS.

3. Julian Melletin: New Nutrition Business/ DuPont EMEA Marketing 2018

4. The DairyNews — ежедневные новости молочного рынка. URL: <https://www.dairynews.ru/news/kislomolochnye-produkty-mira-chto-proizvodit.html>

УДК 811.111

Бондарчук В.

Саламатіна О. О.

EXTREMOPHILES AND THEIR BIOTECHNOLOGICAL EMPLOYMENT

В статті розкривається значення терміну “екстремофіли” та показане їх застосування в біотехнології.

***Ключові слова:** біотехнологія, біооб’єкт, екстремофільні організми, внутрішньоклітинні та мембранні структури.*

In the article the term “extremophiles” is explained and their biotechnological use is displayed.

***Key words:** biotechnology, bioobject, extremophilic organisms, subcellular and membrane structures.*

Modern biotechnology has great influence on development of medicine, agriculture, ecology and another industry sectors. Nowadays, biotech production has a high demand. However, in the development of biotechnology there is a series of problems associated with the impossibility of cheapening or expanding production capacity. Often, such problems arise in the event of non-compliance of the qualitative properties of the producer (bioobject) with the conditions that are necessary for the course of the process.