



Classification of Functional Products for Children's Food

**Nazirova Rahnamohon
Mukhtarovna**

Doctor of Technical Sciences (PhD), Associate Professor of the Department of Technology of Storage and Primary Processing of Agricultural Products, Fergana Polytechnic Institute;

**Usmonov Nodirjon
Botiraliyevich**

Senior lecturer of the department "Technology of storage and primary processing of agricultural products", Fergana Polytechnic Institute

Musayeva Iroda

Master student of group M 20-21, Fergana Polytechnic Institute; Fergana, Republic of Uzbekistan.

ABSTRACT

This article provides a classification of children's functional food products, their importance for a growing child's body. An overview of the baby food market is also given. The requirements for raw materials intended for the production of baby food are given.

Keywords:

Food, baby food, functionality, safety, immune bodies, body resistance, regulation of requirements, violation of the structure of nutrition

One of the main tasks of the state policy in the field of healthy nutrition is the development of the production of food products enriched with essential components, specialized baby food products, functional products, dietary (therapeutic and preventive) food products and biologically active food supplements in order to maintain and improve the health of the population. , prevention of diseases caused by inadequate and unbalanced nutrition.

Human health is laid in childhood. Consequently, proper nutrition, being one of the most important mechanisms for the formation of health, is especially important in childhood. In 2020, micronutrient deficiencies remain the most pressing nutritional problem worldwide. Most of the child population of Uzbekistan and the whole world have

malnutrition caused by both insufficient intake of nutrients, primarily vitamins, macro- and microelements, polyunsaturated fatty acids, and their irrational ratio.

Insufficient intake of vitamins and other micronutrients causes significant damage to health: infant mortality increases, growth and development of children slow down, physical and mental performance and resistance to various diseases decrease.

Optimization of the qualitative and quantitative composition of products consumed by the bulk of the child population is the most important task of the modern baby food industry. The most effective and economically affordable way to radically improve the provision of the child population with macro- and micronutrients, vitamins and other useful substances is the regular inclusion

in the diet of specialized foods that can compensate for the lack of these substances, fully corresponds to the physiological needs of the child, characteristic of this particular age. The problem of child nutrition in terms of strengthening the health of the younger generation through the introduction of specialized products containing all the necessary macro- and microelements into the diet can be solved through the introduction of milk products for baby food into the production.

The market is represented by two categories of cereals (cereals and mashed potatoes) and formulas (mixes). The Republic of Uzbekistan has a low share in the production of packaged baby food, so all products in this category are imported. The market of children's goods in Uzbekistan is almost completely dependent on imports. According to the analysis of foreign trade, 84.72% of the external turnover of baby food products falls on five countries: China (31.9%), Russia (27.9%), Poland (9.7%), Kyrgyzstan (4.5%), Turkey (3.9%), other countries (22.1%).

The main share of mutual trade in baby food falls on the Russian Federation - 72.6%, the Republic of Belarus - 27% and the Republic of Kazakhstan - 0.4%.

The birth rate in Uzbekistan per 1000 people in 2019 was 32.17%, while in 2009 this figure was 27.32%. The birth rate in Kazakhstan is on the rise: about 402,310 babies are born in the country every year; from 2009 to 2019, the average growth rate in the number of births was more than 12.9%. This ensures the growth of the children's goods market by 3% per year.

In the market, consumption is shifting towards natural, environmentally friendly products. Despite the fact that natural milk, sour cream, kefir and yoghurts are more expensive, they are increasingly chosen by the average buyer. Therefore, the future belongs to such natural products.

Uzbek producers of dairy products have every chance to occupy their niches in this market. And first of all, in the markets of China and Southeast Asia, where Uzbekistan has clear geographical advantages. For domestic

companies, the niche of baby food production, by and large, remains practically undeveloped.

The quality of what children eat and what their bodies are made of must be looked at, if only because from time to time you have to deal with irresponsible sellers who put expired goods on the shelves, or with manufacturers who violate all norms and create products that are actually dangerous to the child.

The child's body has high requirements for the quality of nutrition, and this is understandable, because it needs high-quality building material, and its liver and kidneys are not yet able to fully remove toxins and dangerous substances. Item exchange STV in the child's body is accelerated, and this also becomes a risk factor.

Thus, baby food should be:

1. Deprived of preservatives and concentrates
2. With specified and not expired expiration date
3. Consisting of those components that are not dangerous for the child

Only when all these factors, as well as a number of other deeper indicators, are taken into account, it can be said that the product is really suitable for the child and will not cause side effects. Only when all these factors, as well as a number of other deeper indicators, are taken into account, it can be said that the product is really suitable for the child and will not cause side effects. Each category of products has a different composition and has age restrictions. Complementary foods are the most popular, occupying about 80% of the Uzbek market share of all baby food. This is baby puree and mixtures that are used from birth to three years.

Food for children is made on the basis of such products:

1. milk. Milk mixtures are produced in the form of a powder or a ready-made solution, they are sour-milk and fresh. Mostly these are adapted mixtures, which are as close as possible in composition to mother's milk. This category includes baby food for newborns and children up to 12 months;

2. fruit and vegetable base. This category includes canned juices, purees and mixtures of

vegetables (zucchini, pumpkin, potatoes), berries and fruits (apple, blackcurrant, cherry, pear, citrus). Vegetable-based mixtures are baby food up to a year (from three months) and older;

3. grain base. For the manufacture of such baby food, flour is used from oats, wheat and buckwheat. The range of products includes children's pasta, milk porridge and instant biscuits. Age recommendation - from five months;

4. meat and fish. Mixtures based on meat raw materials are distinguished by the degree of grinding - coarsely ground, mashed and homogenized composition. The degree of grinding is selected according to the age of the child. Meat baby food contains cereals, milk protein and starch.

At each stage of growth and development of the child, specific products are selected. According to the production technology, all baby food products can be divided into two large groups - dry (dehydrated) and liquid or semi-liquid products, including ready-to-eat products.

The most widely represented in the baby food industry are dry

products with a moisture content not exceeding 10% - food concentrates.

The range of concentrates for baby food is diverse and includes both women's milk substitutes and complementary foods. Depending on the purpose and formulation, dehydrated cereal and vegetable products for children and diet food are divided into the following groups:

- the category has been developed - ready-to-eat products in portion packaging, the range of which also includes adapted milk formulas;

- Complementary foods - liquid cereals. These products do not require

- the addition of liquid and their shelf life is determined not by the presence of preservatives, but by the method of packaging.

Each country has its own regulation of requirements for the production and sale of baby food. Uzbekistan carries out constant quality control of products sold in the territory, as well as monitoring the implementation of

quality control at baby food manufacturing plants, which are widely represented in their markets.

References:

1. R.M.Nazirova, M.X.Xamrakulova, N.B.Usmonov. Moyli ekin urug'larini saqlash va qayta ishlash texnologiyasi. O'quv qo'llanma. Фергана-Винница: ОО «Европейская научная платформа», 2021. – 236 с. <https://doi.org/10.36074/naz-xam-usm.monograph>
2. Nazirova R. M., Sulaymonov O. N., Usmonov N. B.//Qishloq xo'jalik mahsulotlarini saqlash omborlari va texnologiyalari//O'quv qo'llanma. Premier Publishing s.r.o. Vienna - 2020. 128 bet.
3. Nazirova R. M., Qahorov F.A., Usmonov N. B.// Complex processing of pomegranate fruits. Asian Journal Of Multidimensional Research. 2021, Volume: 10, Issue: 5. pp. 144-149. <https://www.indianjournals.com/ijor.aspx?target=ijor:ajmr&volume=10&issue=5&article=020>
4. Мухтаровна, Н. Р., Ботиралиевич, У. Н., & ўғли, М. А. М. (2021). Особенности обработки озоном некоторых видов плодов и овощей для их долгосрочного хранения. Central Asian Journal Of Theoretical & Applied Sciences, 2(12), 384-388. Retrieved from <https://cajotas.centralasianstudies.org/index.php/CAJOTAS/article/view/367>
5. Mukhtarovna, Nazirova R., et al. "Study of the Influence of Processing on the Safety of Fruit and Vegetable Raw Materials." *European Journal of Agricultural and Rural Education*, vol. 2, no. 6, 2021, pp. 43-45. <https://www.neliti.com/publications/378976/study-of-the-influence-of-processing-on-the-safety-of-fruit-and-vegetable-raw-ma#cite>
6. Nazirova Rakhnamokhon Mukhtarovna, Qahorova Shohsanam Akram kizi, Usmonov Nodirjon

- Botiraliyevich//Biological Protection Of Plants. International Journal of Progressive Sciences and Technologies. Vol 27, No 1 (2021). <http://ijpsat.es/index.php/ijpsat/article/view/3168>
7. Nazirova Rakhnamokhon Mukhtarovna, Tursunov Saidumar Islomjon ugli, & Usmonov Nodirjon Botiraliyevich. (2021). Solar drying of agricultural raw materials and types of solar dryers. *European Journal of Research Development and Sustainability*, 2(5), 128-131. Retrieved from <https://scholarzest.com/index.php/ejrd/s/article/view/824>
 8. Nazirova Rakhnamohon Mukhtarovna, Sulaymonov Rustam Ismoilovich, Usmonov Nodirjon Botiraliyevich, Qosimova Komila Muhammadsoli kizi, & Abdullayev Dilmurod Dilshodjon ugli. (2021). Influence of storage conditions on preservation of potato. *European Scholar Journal*, 2(2), 68-70. Retrieved from <https://scholarzest.com/index.php/esj/article/view/265>
 9. Nazirova Rahnamokhon Mukhtarovna, Akramov Shokhrukh Shukhratjon ugli, & Usmonov Nodirjon Botiraliyevich. (2021). Role of sugar production waste in increasing the productivity of cattle. *Euro-Asia Conferences*, 1(1), 346-349. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/110>
 10. Nazirova Rahnamokhon Mukhtarovna, Akhmadjonova Marhabo Makhmudjonovna, & Usmonov Nodirjon Botiraliyevich. (2021). Analysis of factors determining the export potential of vine and wine growing in the republic of uzbekistan. *Euro-Asia Conferences*, 1(1), 313-315. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/99>
 11. Nazirova Rakhnamokhon Mukhtarovna, Holikov Muhridin Bahromjon oqli, & Usmonov Nodirjon Botiraliyevich. (2021). Innovative grain reception technologies change in grain quality during storage. *Euro-Asia Conferences*, 1(1), 255-257. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/79>
 12. Nazirova Rakhnamokhon Mukhtarovna, Tojimamatov Dilyor Dilmurod oqli, Kamolov Ziyodullo Valijon oqli, & Usmonov Nodirjon Botiraliyevich. (2021). Change in grain quality during storage. *Euro-Asia Conferences*, 1(1), 242-244. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/75>
 13. Nazirova Rakhnamokhon Mukhtarovna, Rahmonaliyeva Nilufar Nodirovna, & Usmonov Nodirjon Botiraliyevich. (2021). Influence of seedling storage methods on cotton yield. *Euro-Asia Conferences*, 1(1), 252-254. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/78>
 14. Nazirova Rakhnamokhon Mukhtarovna, Otajonova Baxtigul Bakhtiyor qizi, & Usmonov Nodirjon Botiraliyevich. (2021). Change of grape quality parameters during long-term storage. *Euro-Asia Conferences*, 1(1), 245-247. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/76>
 15. Nazirova Rakhnamokhon Mukhtarovna, Mahmudova Muhtasar Akhmadjon qizi, & Usmonov Nodirjon Botiraliyevich. (2021). Energy saving stone fruit drying technology. *Euro-Asia Conferences*, 1(1), 248-251. Retrieved from <http://papers.euroasiaconference.com/index.php/eac/article/view/77>