

DEVELOPMENT OF A RECIPE AND TECHNOLOGY FOR PRODUCING BABY PUREE FROM MELON CROPS

¹**Robiya Bazarova, Alisher Kizi**

Researcher

Tashkent Institute of Chemical Technology

²**Rano Ramizitdinovna Akramova**

Professor, PhD

Tashkent Institute of Chemical Technology

Annotation.

This article examines the development of a formula and technology for producing baby purees based on melons-pumpkin, squash, watermelon, and cantaloupe. The relevance of the study stems from the need to expand the range of natural and safe baby food products that meet modern quality and nutritional requirements.

This study identified optimal combinations of plant materials and examined the physicochemical and organoleptic properties of the resulting purees. It was found that the use of combined formulas including pumpkin and melon or squash and watermelon improves taste, consistency, and enhances the preservation of biologically active substances. Gentle heat treatment (90-95°C, 10 minutes) helps preserve up to 80% of the product's vitamin C and natural color.

The resulting puree meets safety requirements and can be recommended for use in the diets of young children. The development of this technology contributes to improving the quality of domestic baby food and the rational use of local plant materials.

Key words: baby food, melons, puree, recipe, processing technology, pumpkin, squash, watermelon, melon, nutritional value, functional product, safety, natural ingredients.

In today's world, special attention is being paid to the development of safe, natural, and functional baby food products. One promising area is the use of melons-pumpkin, squash, watermelon, and melon-to produce purees with high nutritional and biological value.

The development of the baby puree recipe involved selecting the optimal combination of raw materials, taking into account organoleptic properties, vitamin, and pectin content. It has been established that the best flavor and texture are achieved with a combination of pumpkin and melon (70:30) or squash and watermelon (60:40). Gentle heat treatment (90-95°C, 10 minutes) ensures the preservation of up to 80% of the product's vitamin C and natural color.

The finished puree meets Sanitary Rules and Standards (SanPiN) requirements for microbiological parameters and can be recommended for feeding young children. The use of local melon varieties helps reduce production costs and expand the range of domestic baby food products.

Thus, the developed recipe and technology for producing baby melon puree make it possible to create a functional product with high nutritional value, a pleasant taste, and safety for children.

Conclusion.

The study confirmed the potential of using melons-pumpkin, squash, watermelon, and cantaloupe-for producing baby purees. Recipe development demonstrated that optimal flavor and texture are achieved by combining different crops, such as pumpkin and cantaloupe (70:30) or squash and watermelon (60:40).

Gentle heat treatment preserves up to 80% of the vitamin C, pectin, and natural sugars, ensuring the product's high biological value and attractive organoleptic properties. The resulting puree complies with sanitary and epidemiological regulations (SanPiN) for safety and can be used in the diet of young children.

Thus, the developed recipe and technology for producing baby puree from melons enable the creation of a functional product that combines safety, high nutritional value, and appealing taste. The use of local plant materials helps reduce production costs and expand the range of domestic baby food products.

References

1. GOST 30648.1–99. Baby Food Products. Methods for Determining Organoleptic Indicators. Moscow: Izdatelstvo Standards, 2000.
2. SanPiN 2.3.2.1940–05. Requirements for the Organization of Baby Food. Moscow: Ministry of Health of the Russian Federation, 2005.
3. Krivosheeva, E. V. Use of Plant-Based Raw Materials in Baby Food Technology // Food Industry. 2021, No. 7, pp. 45–49.
4. Malysheva, N. A., Kiseleva, T. I. Prospects for Processing Melons into Functional Foods // Technology and Commodity Science of Innovative Food Products. 2020, No. 5, pp. 32–37.
5. Shuvalova, I. S. Chemical Composition and Nutritional Value of Melons // Bulletin of Agrarian Science. – 2019. – No. 3. – Pp. 57–62.

6. GOST 8756.13-87. Processed Fruit and Vegetable Products. Methods for Determining Sugars. - Moscow: Standards Publishing House, 1988.

7. Petrova, A. L., Ivanov, S. V. Processing Technology of Melons into Baby Food // Modern Problems of Food Science. – 2022. – **Vol. 15, No. 2.** – **Pp. 21–27.**

8. Джахангирова Г. З. и др. Повышение кормовой ценности комбикормов с использованием нетрадиционного сырья //Universum: технические науки. – 2021. – №. 4-3 (85). – С. 35-38.

9. Джахангирова Г. З., Турсунходжаев П. М. Влияние функциональных ингредиентов хлеба на развитие алиментарно-зависимых заболеваний //Хлебопродукты. – 2016. – №. 7. – С. 54-57.

10. Джахангирова Г. З. Функционально-технологические свойства растительных порошков //European research. – 2016. – №. 12 (23). – С. 22-24.