EUROPEAN JOURNAL OF LIFE SAFETY AND STABILITY (EJLSS)
ISSN2660-9630
www.ejlss.indexedresearch.org Volume 23, November-2022 ||

The Value and Consumer Properties of Pumpkin

Nazirova Rahnamohon Mukhtarovna, Ph.D
Doctor of Technical Sciences, 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;

Hojimatov Javlonbek Inomjon ogli
Master student of group M 20-21, Fergana Polytechnic Institute; Fergana, Republic of Uzbekistan

Annotation: *The article discusses the useful and dietary properties of pumpkin, the composition and chemical properties, as well as varieties of pumpkin. Its role as a product with pro and prebiotic properties is also considered. Pumpkin is rich in dietary fiber, so it serves as a breeding ground for anaerobic bacteria. They help in the digestion of food and inhibit the development of pathogenic intestinal microflora, absorb harmful substances and remove them from the body, acting as an enterosorbent.*

Keywords: *Pumpkin, consumer properties, functional properties, immunity, beriberi, dietary fiber.*

Date of Submission: 29-10-2022 ***Date of Acceptance: 30-11-2022***

Proper nutrition has been one of the most important and determining factors for human health for thousands of years. Nevertheless, due to the deterioration of the environmental situation around the world, as well as the rapid growth of production, difficult to solve problems increasingly arise in the issue of providing the population with quality food.

Great attention has always been paid to the development and production of products that are not only suppliers of nutrients, but also have a positive effect on individual organs and the human body as a whole.

One of the most effective ways to compensate for nutritional deficiencies is the constant inclusion of functional foods in the daily diet, as well as drinks with different functional orientations. Taking into account the nutritional deficiency of diets and the resulting general increase in morbidity, including deviations of the gastrointestinal tract, accompanied by disorders, it is considered relevant to develop products with prebiotic qualities that contribute to the natural strengthening of immunity by stimulating an increase in the number and development of lacto- and bifidobacteria, the basic component which are dry balanced compositions. These foods provide a more convenient and affordable form of obtaining important nutrients in quantities that correctly reflect the physiological needs of a healthy person. They have every chance of being used as a ready-made full breakfast, and also as a small snack during the intervals between the main meals; advice on their use can be given to people who lead an energetic lifestyle, are engaged in fitness and sports, or simply watch

their own weight. A distinctive feature of functional products obtained from balanced compositions is their multicomponent nature.

Commercially grown pumpkin is a valuable source of a number of important biologically active compounds. Its fruits contain a lot of zinc, which is so necessary for the brain.

Pumpkin is considered a dietary vegetable. Pumpkin contains many vitamins and vitamin-like substances, in particular vitamin C, which strengthens the immune system and promotes metabolism. Unlike citrus fruits, which contain 4 times more of it and often cause allergies when consumed in large quantities, 100 g of pumpkin contains 14 mg of the vitamin, which is sufficient, but does not cause allergies, the amount.

The main share of vegetable solids is represented by carbohydrates - digestible mono- (glucose and fructose), di- (sucrose) and indigestible polysaccharides (pectic substances). Simple sugars give the pumpkin its sweet taste, are the main energy providers, and promote the digestibility of nutrients. Sugars are mainly represented by sucrose (2.9%). Pectin substances are represented in a larger volume by protopectin (1.1%), which determines the density of the pulp. Easily digestible pumpkin carbohydrates are necessary for the nutrition of all cells.

The biological value of vegetables is low, since it contains 0.89% of proteins, most of which are defective. The mineral composition is characterized by the content of potassium, magnesium, and a small amount of phosphorus and calcium. The vitamin value of pumpkin is associated with a high content of β-carotene, which is necessary for the growth and development of the body, the formation of the skeleton, the functioning of epithelial cells and mucous membranes of the eyes, respiratory, digestive and urinary tracts.

Dietary fiber pumpkin serves as a breeding ground for anaerobic bacteria. They help in the digestion of food and inhibit the development of pathogenic intestinal microflora, absorb harmful substances and remove them from the body, acting as an enterosorbent.

Pumpkin has low acidity tew, as a result of which the sour taste is practically not felt, which is confirmed by a fairly high sugar-acid index - 48.4 from. Units Organic acids (mainly malic and citric) affect the metabolic processes of the human body, play the role of antioxidants, participate in oxidative processes, regulate the metabolism in the body.

Vitamins of group B are also present in pumpkin pulp. Vitamin B 1 has a beneficial effect on the nervous system, improves heart function. Vitamin B 2 affects blood formation, improves eyesight, vitamin B 3 helps with depression, high cholesterol and protects against various infections. This vitamin does not break down even when pumpkin is heat-treated, as a result of which pumpkin is useful in any form. Thanks to folic acid in pumpkin, the formation of erythrocytes and leukocytes occurs. Pumpkin also contains a rare vitamin T, which stimulates the formation of platelets and normalizes blood clotting. Vitamin E is a well-known antioxidant.

Pumpkin is also provided with macronutrients, in particular, a considerable amount of potassium - 200 mg / 100 g, which is responsible for the work of the heart, the removal of excess fluid, as well as calcium and phosphorus, necessary for the development and maintenance of bone tissue in a normal state. Magnesium also normalizes metabolic processes and is useful for the nervous system.

Trace elements are represented by iron, iodine, zinc, manganese, copper and rare cobalt. Thanks to these trace elements, immunity is activated, the functioning of the thyroid gland and the brain improves, and blood vessels are strengthened.

Pumpkin - Cucurbita - is the type of raw material that, firstly, grows in the internal territories of the state, and secondly, does not lose consumer qualities for a long time. Its therapeutic and

prophylactic properties were mentioned by the philosopher and physician Avicenna. The content of provitamin a in pumpkin exceeds its amount by 5 times compared to carrots and 3 times - beef liver.

Pumpkin pulp is considered a very light food, a low-calorie product. Due to the content of plant fibers and pectin, it is an excellent prophylactic against atherosclerosis. Pumpkin has a lot of water and potassium salts; therefore, it is a good diuretic.

Phenolic compounds contained in pumpkin fruits, including flavonoids, anthocyanins, flavonols, cinnamic acid derivatives and other substances, have high antioxidant activity. Both vegetative and generative organs, including flowers and seeds of large-fruited pumpkin, have high antioxidant activity and nutritional value. The pulp of pumpkin fruits is widely used to create functional food products, including new ones based on innovative processing technologies. Pumpkin occupies a separate place among the huge number of vegetable crops used in human nutrition. It is a favorite food product in many countries. It is used not only as a separate product, but also as a raw material for the canning and confectionery industries, and is even used in pharmaceuticals. Pumpkin is recognized as one of the valuable agricultural crops.

Pumpkin and products of its processing complexly combine pectin substances and β-carotene, thereby filling the human body with pectin, which has an excellent absorbent effect, and β-carotene, which is a source of unsaturated hydrocarbon, a fat-soluble vitamin. β-carotene, entering the body, is synthesized into retinol (vitamin A), having a beneficial effect on the human body.

According to the content of carotene, it occupies one of the first places among vegetables. Carotene is the basis of the yellow color of the pulp of fruits and flower petals. By the intensity of the color of the pulp, one can judge the content of carotene in it. In widespread varieties, it contains up to 5 mg per 100 g, in some cases - up to 38 mg. To meet the daily needs of an adult in carotene, it is necessary to consume 50-60 g of pumpkin. Therefore, pumpkin is a valuable raw material for the vitamin industry, which produces concentrates from carotene.

The antioxidant profile and many health benefits of pumpkin are largely determined by carotenoids. Their composition in fruits has already been studied by thin-layer chromatography and spectrophotometry: it was found that the pumpkin carotenoid complex includes beta-carotene (up to 294 μg/g), alpha-carotene (up to 82 μg/g), lutein (up to 129 μg/g), zeaxanthin (up to 9.7 μg/g), as well as violaxanthin, cucurbitaxanthin, alpha-cryptoxanthin, beta-cryptoxanthin, neoxanthin and trace amounts of other compounds.

The fractional composition of pumpkin carotenoids is represented by α-, β-, γ-carotene, violaxanthin, cucurbitaxanthin, crypoxanithine, lutein, zeaxanthin. The object of the study, performed Petenko A.I. and Gorobets D.V., pumpkin of the Muscat de Provence variety served. The mechanical composition of the pumpkin fruit consisted of: pulp - 81.1%, peel - 5.9%, fibers - 9.4%, seeds - 3.6%. It has been established that the content of the total number of carotenoids in natural moisture in various parts of the pumpkin and the resulting intermediates and products is equal, mg/kg: pulp - 230.96; peel - 95.23; fibers - 1100.9; seeds - 136.4; paste fermented with lactic acid bacteria - 643.0; puree - 155.1; juice with pulp - 194.7. The data obtained indicated that pumpkin parts can act as vitamin raw materials.

Another of the advantages of pumpkin is a beneficial effect on the processes of assimilation of proteins, fats and minerals. According to some scientists, the assimilation of nutrients increases when proteins and fats are consumed along with vegetables. Pumpkin seeds also contain a large amount of fat, however, there is less fat in the pulp of pumpkin fruits than in wheat flour. Pumpkin has long proven its positive effect on the human body. Pumpkin fruits contain from 4 to 7 grams of carbohydrates, 1 gram of protein, about 0.1 grams of fat. The calorie content of this melon culture ranges from 22 to 28 kcal per 100 grams, depending on the variety.

The general set of useful substances and vitamins in pumpkin helps to keep the body in good shape, slowing down the aging process and maintaining activity.

Pumpkin is baked, boiled, stuffed, added to pies and cereals, casseroles and pancakes. Due to the fact that pumpkin has low calorie content, it is often used in dietary and preventive nutrition. Also, the fruits are considered hypoallergenic, which allows them to be used in baby food. Along with natural vegetables, fruits and berries, natural powders are used.

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//0‘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/ejrds/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 ogli, & Usmonov Nodirjon Botiralievich. (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 ogli, Kamolov Ziyodullo Valijon ogli, & Usmonov Nodirjon Botiralievich. (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 Botiralievich. (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 Botiralievich. (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 Botiralievich. (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