

PROCESSING AND STORAGE OF FRUIT AND VEGETABLE PRODUCTS

Jumaeva Zamira Bustanovna

Asia International University, Bukhara, Uzbekistan

Annotation. The article highlights the importance of fruit and vegetable clusters in the agricultural sector of the economy and issues of improving the management mechanisms of fruit and vegetable clusters.

Keywords. Cluster, region, development, production, processing, fruit and vegetable growing, world market, foreign experience, management, organizational economic mechanism.

Sustained processing of fruit and vegetable products and extending their seasonality are also unused opportunities. The abundance of freshly stored fresh fruits in the market prevents an artificial increase in the cost of this type of product in the winter-spring season, positively affects the social protection of the population, and there is no need to import similar products in the winter season. One of the most important factors in the development of competitive product manufacturing and improvement of its assortment structure is the production of a wide range of food additives based on the processing of existing natural raw material reserves in our region. For example, the main part of sweet soft drinks and food additives is produced using artificial raw materials (infusions, extracts) imported at the expense of foreign currency. Meanwhile, the existing raw material potential of our republic, the raw material base of competitive, natural pure food additives, which can be obtained on the basis of processing fresh fruits, can reveal dozens of new facets of the assortment of soft drinks. At the same time, it is possible to restore the activities of hundreds of enterprises for the production of soft drinks of various capacities in the regions, which do not have foreign currency for imported raw materials. According to the results of the analysis, the annual increase in the volume of fruit and vegetable products requires the elimination of a number of problems and shortcomings in the storage and processing industry, a radical change in the reform of the industry with the widespread use of modern innovative, resource-saving digital technologies. In particular: - in relation to the total production volume in the republic, **18.9 percent** of fruits, **5.6 percent** of vegetables and melons, **9.5 percent** of grapes are processed at industrial enterprises;- the level of provision with refrigerators for storing grown fruit and vegetable products in the regions **3.7 percent** (refrigeration warehouses are provided with only **20-22%** of products during the year) ;- most of the existing refrigerators are obsolete, technologically not updated, modern technologies and digital innovative developments have not been implemented at the proper level;- it requires an innovative approach to the issue of training qualified personnel for Insufficient attention is paid to the training of specialists in the field of processing and storage, capable of working with advanced modern equipment;- a systematic approach is not taken to the issues of adequate provision of storage and processing enterprises with products in modern technological requirements and volumes;

- the sphere of transport and logistics lags behind the requirements of the time;
- in recent years, fruit and vegetable growing has been carried out based on intensive technology.

As a result, resources used in agriculture, including fuels and lubricants, chemicals (there is a shortage of 255 thousand tons of phosphorus and 290 thousand tons of nitrogen fertilizers for growing fruits and vegetables) and an increase in seed prices, low incomes of the rural population, as well as the use of mineral fertilizers, chemicals, heavy machinery, deterioration of the quality of land resources, lead to a disruption of the ecological balance. In this regard,

according to analyses and data from the Food and Agriculture Organization of the United Nations (FAO), losses during the harvesting, transportation and storage of fruit and vegetable products amount to 22-45 percent, and waste - 12-18 percent. Another important issue is the lack of information and consulting centers and digital technologies in the regions that provide buyers with the necessary information about the products grown. In addition, the problem of sorting, processing, packaging, and sending products to customers remains the unresolved problem of transport and logistics in the republic.

References:

1. Jumayeva, Z. (2024). RAQAMLI IQTISODIYOTNI RIVOJLANTIRISHDA ZAMONAVIY TEXNOLOGIYALARNING O'RNI VA UNING AHAMIYATI. Modern Science and Research, 3(6).
2. Jumayeva, Z. B., & Toshova, A. R. (2025). IQTISODIY O 'SISH OMILLARI: NAZARIYA VA AMALIY TENDENSIYALAR. Modern Science and Research, 4(5), 654-658.
3. Jumayeva, Z. (2025). ENHANCING THE COMPETITIVENESS OF LOCAL MANUFACTURERS THROUGH MARKETING METHODS. International Journal of Artificial Intelligence, 1(4), 105-107.
4. Jumayeva, Z. (2025). SCIENTIFIC AND METHODOLOGICAL FOUNDATIONS OF UTILIZING MOTIVATIONAL FACTORS IN DEVELOPING ENTREPRENEURIAL ACTIVITIES. International Journal of Artificial Intelligence, 1(4), 1571-1574.
5. Jumayeva, Z. B., & Toshova, A. R. (2025). MAMLAKATIMIZDA AHOLI DAROMADLARINI OSHIRISHDA XORIJ TAJRIBASIDAN FOYDALANISHNING INNOVATION YO 'LLARI. Modern Science and Research, 4(4), 429-434.
6. Bustonovna, J. Z. (2023). PECULIARITIES OF THE AGRICULTURAL ECONOMY IN THE COUNTRIES OF THE EUROPEAN UNION. (No Title).
7. Jumayeva, Z. B., & Bobojonova, M. J. (2024). TIJORAT BANKLARIDA RAQAMLI MARKETINGNI QO'LLASHNING KONSEPTUAL ASOSLARI. ANALYSIS OF MODERN SCIENCE AND INNOVATION, 1(3), 93-99.
8. Jumayeva, Z. B., & Bobojonova, M. J. (2024). IQTISODIY TEBRANISHLAR SHAROITIDA KICHIK BIZNESNING YASHOVCHANLIK DARAJASINI BAHOLASHNING NAZARIY ASOSLARI. MODERN EDUCATIONAL SYSTEM AND INNOVATIVE TEACHING SOLUTIONS, 1(3), 313-318.
9. Jumayeva, Z. B., & Bobojonova, M. J. (2024). BARQAROR RIVOJLANISHGA O 'TISH SHAROITIDA ISHLAB CHIQRISHNI BOSHQARISH VA TASHKIL ETISH. MODERN EDUCATIONAL SYSTEM AND INNOVATIVE TEACHING SOLUTIONS, 1(3), 307-312.
10. Bustonovna, J. Z. (2024). WAYS OF EFFECTIVE USE OF STATE FINANCIAL RESOURCES IN ENSURING THE STABILITY OF THE NATIONAL ECONOMY. Gospodarka i Innowacje, 49, 242-248.4
11. Bustonovna, J. Z. (2024). MOLIVAVIY RESURSLARDAN SAMARALI FOYDALANISH ORQALI MILLIY IQTISODIYOT BARQARORLIGINI TA'MINLASHNING USTUVOR YO 'NALISHLARI.
12. Jumayeva, Z. (2024). DAVLAT TASHKILOTLARINING FAOLIYATINI SAMARADORLIGINI OSHIRISHDA ISH YURITISH TIZIMINI

- RAQAMLASHTIRISHNING ZARURIY SHARTLARI. Modern Science and Research, 3(6).
13. Bustonovna, J. Z. (2024). DAVLAT TASHKILOTLARINING FAOLIYATINI SAMARADORLIGINI OSHIRISHDA ISH YURITISH TIZIMINI RAQAMLASHTIRISHNING ZARURIY SHARTLARI.
 14. Jumayeva, Z. (2024). JISMONIY SHAXSLAR DAROMADLARINI SOLIQQA TORTISH MEKANIZIMINI TAKOMILASHTIRISH. Modern Science and Research, 3(6).
 15. Bustonovna, J. Z. (2024). RAQAMLI IQTISODIYOT SHAROITIDA ELEKTRON TIJORATNING RIVOJLANISH ISTIQBOLLARI.
 16. Базарова, М. С., Шарипова, М., & Нуруллоев, О. (2021). “РАҚАМЛИ ИҚТИСОДИЁТ” ДА АҲОЛИНИНГ ИШ БИЛАН БАНДЛИГИ ХУСУСИЯТЛАРИ. САМАРҚАНД ДАВЛАТ УНИВЕРСИТЕТИ, 482.
 17. Supiyevna, B. M. (2024). O'ZBEKISTONDAGI XUSUSIY TADBIRKORLIKNI RIVOJLANTIRISH VA AHOLINI ISH BILAN BAND ETISH YO'LLARI. Scientific Journal of Actuarial Finance and Accounting, 4(08), 78-84.
 18. Bazarova, M. (2025). STRATEGIC MANAGEMENT IN THE SYSTEM STRATEGIC MARKETING. International Journal of Artificial Intelligence, 1(4), 1707-1710.
 19. Bazarova, M. (2025). O'ZBEKISTONDA TURIZM SOHASIDA MARKETING STRATEGIYALARINI KOMPLEKSINING XUSUSIYATLARI. Modern Science and Research, 4(6), 483-486.
 20. Bazarova, M. (2025). MECHANISMS, METHODS AND TRENDS OF IMPLEMENTING MANAGEMENT MODELS IN MODERN MANAGEMENT EDUCATION. International Journal of Artificial Intelligence, 1(1), 591-597.