



ASSESSMENT OF FACTORS AFFECTING THE PRODUCTION EFFICIENCY OF FARMS SPECIALIZING IN FRUIT AND VEGETABLES

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Аннотация. В данной статье рассматривается вопрос о том, как организована хозяйственная деятельность, а также определены элементы, служащие основой для поддержки ее деятельности в экономике, показатели, оценивающие производственную эффективность фермерского хозяйства, специализирующегося на плодовоовощеводстве в Узбекистане, занимающего важное место в структуре экономики страны.

Annotation. This article examines the issue of how economic activity is organized, as well as identifies the elements that serve as the basis for supporting its activities in the economy, indicators that assess the production efficiency of a farm specializing in fruit and vegetable production in Uzbekistan, which occupies an important place in the structure of the country's economy.

Kalit so'zlar: Iqtisodiyot, meva-sabzavotchilik, fermer xo'jalik, uzumchilik, hosildorlik, qishloq xo'jaligi mahsulotlari.

Ключевые слова: Экономика, плодовоовощеводство, сельское хозяйство, виноградарство, урожайность, сельскохозяйственная продукция.

Keywords: Economics, Fruit and vegetable growing, agriculture, viticulture, productivity, agricultural products

INTRODUCTION. In the world economy, the fruit and vegetable sector occupies a special place in providing the population with food products and raw materials for the processing industry. According to official statistics, over the past 20 years, the world's population's demand for agricultural products has been growing by an average of 5–7 percent per year¹. The European Union countries, the USA, Israel, Japan economic development of specialized farms based on their experience, increasing their efficiency, introducing advanced innovations, developing special state programs through economic-statistical research and their systematic formation, activity in modern forms such as industry clustering is being systematically implemented.

In Uzbekistan, the fruit and vegetable sector not only satisfies the population's demand for agricultural products, but also increases the country's export potential, which has increased significantly in recent years. During the period, special attention is paid to the issues of reforming the activities of specialized farms. In particular, the "Development Strategy of New Uzbekistan for 2022–2026" states that "... in order to consistently develop agricultural production, further strengthen the country's food security, expand the production of environmentally friendly products, significantly increase the export potential of the agricultural sector, farms, first of all, along with the production of agricultural products,

should process, prepare, store, and sell and creating favorable conditions for the promotion and development of diversified farms engaged in the provision of services ².

Meva specializes in vegetable growing **indicators evaluating the production efficiency of** the farm serve to determine how the economic activity is organized and the elements that are the basis for supporting its activity in the economy. He specializes in fruit and vegetable growing **When assessing the** statistical indicators of the economic efficiency of farms, the main attention should be paid to the analysis of productivity indicators and measures to increase them. Since productivity, as a natural indicator, is an important statistical indicator not only for assessing the efficiency of land use, but also for determining the level of other efficiency indicators.

Analytical part. in agricultural statistics, specializing in fruit and vegetable production Factors affecting crop productivity of farms are divided into natural, economic and organizational-agrotechnical categories, and it is appropriate to evaluate the role of each in the production process.

1.Natural factors

- 1) Natural soil fertility
- 2) The impact of diseases and pests
- 3) Natural and climatic conditions of the region
- 4) The level of water resources provision
- 5) The level of precipitation
- 6) Weather changes

2.Economic factors

- 1) Incentives for production
- 2) Timely payment and incentives for labor
- 3) Tax benefits
- 4) Credit benefits
- 5) Organization of cooperative relations

3.Organizational and technological factors

- 1) Crop rotation
- 2) Variety selection and preparation of seeds for planting
- 3) Qualitative organization of planting in due time and norms
- 4) Preparation of crop areas for qualitative planting
- 5) Improvement of the land reclamation condition
- 6) Organization of irrigation of crops in the irrigation regime
- 7) Effective organization of the harvesting process

Currently, the organizational and economic evaluation of the efficiency of the farms specializing in fruit and vegetable production is carried out. should be carried out using convenient methods of comparing the additional product and the additional costs incurred for its production. When implementing such measures, the additional net profit ($\Delta\Phi$) is defined as the difference between the value of the additional product obtained and the additional costs incurred for its production (ΔZ). The ratio of the value of the additional product to the amount of additional costs allows us to think about the level of recovery of the costs of the additional product produced. These indicators indicate how much additional output is

obtained for one soum of additional material and financial costs associated with the introduction of a certain innovation in the economy.

When analyzing data on the production of fruits, vegetables and grapes, it is necessary to take into account the uncertainties in statistical calculations. Official statistical bodies calculate the volume of fruits, grapes and vegetables grown on household farms based on expert estimates and data from budget surveys of individual farms and citizens. Therefore, the actual level of consumption of fruits, vegetables and grapes by the population may differ from the official data of statistical bodies. In addition, it is necessary to take into account the export of fruits, vegetables and grapes to other countries. Uzbekistan has historically been an exporter of these products, and this process continues today.

Exports of fruits, vegetables, and grapes should become an important source of foreign exchange earnings in Uzbekistan. Therefore, it is advisable to increase the productivity of fruit trees, vegetable crops, and vines in the future (Table 1).

Table 1³

Average yield of fruit and vegetable crops and vines in the Republic of Uzbekistan in 2024, c/ha

Regions	Vegetables	Fruits and berries	Grapes
1. Republic of Karakalpakstan	147.5	98 , 6	68 , 9
2. Andijan	294.4	228 , 1	243 , 9
3. Bukhara	229 , 8	192 , 7	236 , 8
4. Jizzakh	213 , 7	82 , 1	73 , 1
5. Kashkadarya	241 , 0	104 , 8	128 , 0
6. Navoi	281 , 0	161 , 0	160 , 1
7. Namangan	283 , 3	115 , 9	198 , 0
8. Samarkand	226 , 5	117 , 0	147 , 9
9. Surkhandarya	282 , 8	97 , 8	98 , 6
10. Syrdarya	201 , 2	90 , 3	119 , 3
11. Tashkent	259 , 8	62 , 3	99 , 6
12. Fergana	178 , 7	84 , 3	271 , 6
13. Khorezm	244 , 8	137 , 4	168 , 7
National average (x)	236.0	122 , 1	154 , 7

The table shows that the average yield of crops varies significantly across the regions of the republic. For example, the average yield of vegetables per hectare ranges from 147.5 centners in the Republic of Karakalpakstan to 294.4 centners in the Andijan region, i.e. 50.0 percent higher. The average yield of fruit crops ranges from 62.3 centners in the Tashkent region to 228.1 centners in the Andijan region, i.e. 3.6 times higher, and the yield of grapes ranges from 68.9 centners in the Republic of Karakalpakstan to 271.6 centners in the Fergana region, i.e. 3.9 times higher.

Increasing productivity is the main direction of further development of the republic's fruit-vegetable and grape sub-complex, as there are opportunities to increase production in the regions, agro-technical activities in due course and at the expense of expanding land areas.

We analyze the extensive and intensive factors affecting the gross output of the fruit-vegetable and viticulture sector. In this case, cultivated areas were taken as an extensive factor, and productivity as an intensive factor. For example, the influence of these factors on the development of vegetable growing in our republic was as follows:

a) change in gross output:

$$Q = Q_1 - Q_0$$

In this case:

Q_1 and Q_0 – gross yield in the current and base periods, quintals;

b) influence of the structure of cultivated areas on changes in gross productivity (extensive factor):

$$Q_{em} = (EM_1 - EM_0) \times U_0$$

In this case :

EM_1 and EM_0 - cultivated areas in the current and base period, ha

c) the effect of productivity on the change of gross yield (intensive factor):

$$Q_{\omega} = (U_1 - U_0) \times EM_1$$

2) due to both factors:

$$\Delta Q = Q_{EM} + Q_{\theta}$$

Average annual absolute growth value and trend stability of productivity in fruit and vegetable and viticulture sectors in our republic is calculated in this way.

Summary. Based on the economic-statistical analysis of the activity of farms specializing in fruit and vegetable growing, the following conclusions can be made:

Fruit and vegetable statistics is a set of economic relations related to the collection, processing, and analysis of quantitative data characterizing the state, development, and prospects of the fruit and vegetable sector in agriculture, as well as their qualitative assessment.

This direction of agricultural statistics is a complex and systematic statistical study of an important part of the agricultural network under competitive conditions, summarizing indicators such as the condition, size, structure, quality of fruit and vegetable products, the weight of land resources, productivity, and affects the effectiveness of decisions made for the purpose of in-depth analysis and management of the industry in the future.

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