

## WAYS TO IMPROVE THE STATE AND EFFICIENCY OF GROWING MEDICINAL PLANTS IN THE KASHKADARYA REGION

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### ABSTRACT

*This article explores and analyzes the problems and disadvantages of improving the state and effectiveness of growing medicinal plants. Conclusions and proposals have been developed based on indicators and analysis.*

**KEYWORDS:** *Medicinal plants, efficiency, processing, economic relations, gross harvest, exports, imports.*

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### 1. INTRODUCTION

Production of medicinal plants According to FAO data, the total area of production of medicinal and aromatic plants around the world is 77 million hectares and 330 million tons. More than 200,000 ha of medicinal and aromatic plant cultivation areas in Europe (52,000 ha in France, 30,000 ha in Poland, 27,800 ha in Spain, 16,800 ha in Bulgaria, 8,500 ha in Croatia, 7,225 ha in the Czech Republic, 7,191 ha in Italy, 6,800 ha in Greece and Austria 4136), there are more than 36,000 companies engaged in processing and distribution. In Germany, medicinal and aromatic plants are grown by 750 farmers on a total area of 12,240 ha [1].

New Uzbekistan has great experience in providing the needs of consumers of the pharmaceutical industry with medicinal and ecologically clean medicinal plants. The nature of the Kashkadarya region, especially the mountain and sub-mountain regions, is rich and diverse due to favorable climatic conditions. According to preliminary calculations, there are more than 1000 types of plants used in folk medicine and 120 used or recommended in scientific medicine. However, at the moment, there are no more than 40 types of medicinal plants that are officially used as raw materials.

The effectiveness of the cultivation of medicinal plants is explained by the activity of the existing mutual organizational and economic system between the relations of the processing system with enterprises and farms, entrepreneurs operating in this field. During the financial and economic activities of these organizations, economic relations are formed in the form of relations based on mutual economic interest. Cultivation of medicinal plants, their processing and delivery of the finished product to the consumer are carried out as a result of the relationship and interaction of the relevant branches of agriculture.

### 2. Analysis of relevant literature.

In economic literature, such issues as development, placement, specialization and cooperation of agriculture, mutual relations between farms growing medicinal plants and processing enterprises, and evaluation of their efficiency have been studied by economists.

Cultivation of medicinal plants and its role and importance in development have been the focus of attention of scientists of the world and our country. In particular, the scientific-theoretical,

methodological and practical problems of this problem were discussed by foreign scientists M. M. Karaman [2], V. E. Karachevskaya [3], N. I. Tarasenko [4], A. A. Terekhin [5], V. E. Cherkashina [6], Yu. E. Alekseev [7] and researched by several other scientists.

At present, studies of medicinal plants, identification of their stock, preparation, cultivation and planting and breeding of species imported from foreign countries are being carried out on a very large scale in Uzbekistan. In this regard, Uzbekistan's K.Z.Zokirov [8], R.Kh.Ergashev [9], M.S.Yusupov [10], N.D.Saidova, I.B.Rustamova, Sh.A.Tursunov [11], N.K.Abubakirov [12], A.Ya.Butkov [13], I.P.Sukervanik [14], M.B.Sultonov [15], the services of famous scientists are significant.

Organizational and economic mechanisms of medicinal plant cultivation, their specific characteristics in our country and regions, introduction of innovations in the field and problems of increasing efficiency were expressed in the scientific research of these economists. In these studies, issues related to the cultivation of medicinal plants were considered as an urgent problem.

### **3. Research methodology.**

In this article, the state and dynamics of the cultivation of medicinal plants in Kashkadarya region were studied and analyzed. In the process of research, the methods of dialectics, economic analysis, comparative comparison, statistical grouping, monographic observation, induction, deduction, logical and abstract thinking, and perspective forecasting are widely used.

### **4. Analyzes and main results.**

It is known that the most important thing for humanity is health. Therefore, there is a great need for tools that improve human health. For this reason, medicinal plants are among the most consumed products. In developed countries, people prefer to use natural medicines that are harmless to health as much as possible.

Medicinal plants are one of the most necessary and irreplaceable products for improving human health. In our country, improving the health of the population and continuously providing our people with natural medicines is considered as a priority task. In particular, in order to efficiently use the dry and irrigated lands of our republic, special attention is being paid to planting medicinal plants on large areas in the following years.

Medicinal plants are grown in all regions of our republic, in forestry and agricultural lands. In particular, in Kashkadarya region, 8 forestry enterprises are operating in the system of regional forestry department. About 50 types of medicinal plants are cultivated in them.

In recent years, the area of some types of medicinal plants in Kashkadarya region has increased significantly. We can see this in the example of forest farms in the province or in the example of medicinal plants grown in the private enterprise "BBU-AZAMAT".

**TABLE 12020-2022 DYNAMICS OF THE CULTIVATION OF THE MAIN TYPES OF MEDICINAL PLANTS AT THE PRIVATE ENTERPRISE "BBU-AZAMAT" [16]**

Group types	2020 y.		2021 y.		2022 y.		Change in 2022 compared to 2020, in %
		In relation to the total		In relation to the total		In relation to the total	
	area	in %	area	in %	area	in %	
<b>Area, ga</b>							
Chamomile flower	1	15,4	1	4,3	5	9,6	400
Gulkhairi flower	2	30,8	10	43,5	32	61,5	1500
Medicinal valerian root	1	15,4	5	21,7	7	13,5	600
Lobster root	0.5	7,8	5	21,7	5	9,6	900
Gulkhairi root	2	30,8	2	8,7	2	3,8	0
<b>TOTAL:</b>	<b>6,5</b>	<b>100</b>	<b>23</b>	<b>100</b>	<b>52</b>	<b>100</b>	700
<b>Gross yield, kg</b>							
Chamomile flower	810	10,5	955	2,9	4923	6,6	507,8
Gulkhairi flower	2260	29,2	12160	37,4	48920	65,6	2064,6
Medicinal valerian root	1310	16,9	6842	21,05	8450	11,3	545,04
Lobster root	920	11,9	9871	30,4	9565	12,8	939,7
Gulkhairi root	2430	31,4	2680	8,2	2708	3,6	11,4
<b>TOTAL:</b>	<b>7730</b>	<b>100</b>	<b>32508</b>	<b>100</b>	<b>74566</b>	<b>100</b>	864,6
<b>Productivity, kg/ga</b>							
Chamomile flower	810		955		984,6		21,6
Gulkhairi flower	1130		1216		1528,75		35,3
Medicinal valerian root	1310		1368,4		1207,1		-7,8
Lobster root	1840		1974,2		1913		4
Gulkhairi root	1215		1340		1354		11,4

In 2022, the area of the main types of medicinal plants cultivated at the private enterprise "BBU-AZAMAT" increased by almost 46 hectares or 8 times compared to 2020, of which the area of

marigold flower increased by 16 times and the area of medicinal valerian root increased by 600%. It can be seen that the areas of saffron root and saffron root have also increased during the study period. (Table 1).

For example, in 2022, the gross yield of medicinal plants increased by 66,836 kg or 9.6 times compared to 2020, while the gross yield of chamomile flower increased by 4,113 kg or 6 times, and marigold flower by 46,660 kg or 21.6 times. We can observe that medicinal valerian root increased by 7140 kg or 6.5 times, licorice root increased by 8645 kg or 10.4 times, and calendula root increased by 274 kg or 1.1 times during the study period.

In the private enterprise "BBU-AZAMAT" in 2022, the average yield of chamomile was 984.6 kg/ha, while this indicator was 1528.75 kg/ha for marigold flowers, 1207.1 kg/ha for valerian root, and 1207.1 kg/ha for licorice root 1913 kg/ha and 1354 kg/ha in cauliflower root. In other words, in 2021 compared to 2020, the average yield of marigold flower increased by 398.75 kg/ha or 35.3%, chamomile flower increased by 174.6 kg/ha or 21.6%, marigold root 139 kg/ha or increased by 11.4%. We can see that the yield of the root of the valerian increased by 73 kg/ha or 4% during the studied years, while the medicinal valerian root decreased by -102.9 kg/ha or -7.8%.

The goal of increasing the cultivation of medicinal plants is to effectively use the available land and water resources, to further strengthen the health of the population with the help of natural means, to provide the population with harmless natural medicines and to further increase export volumes, to use them rationally in the cultivation of medicinal plants. organization of placement and provision of economic and financial stability of product producers.

For this, necessary fuel and lubricants, mineral fertilizers, seeds and other material resources are calculated and measures are being taken for their timely delivery.

All these reforms will serve to reduce the import of medicinal products and increase the export of medicinal plants.

There is an increasing need to improve the health of the population and meet the demand for medicines, to use innovative technologies in processing enterprises and to increase their efficiency. At the same time, trends in the development of medicinal plants, in particular, the cultivation of kavark, are quite controversial. On the one hand, the low rate of technical and technological modernization of the sub-network of medicinal plants cultivation and processing, the lack of effective innovative infrastructures, despite the fact that the cultivation of medicinal plants has great internal potential in this regard, a large amount of medicinal products being imported.

Also, most of the seeds for growing many medicinal plants are imported from abroad. On the other hand, the organizational and economic methods of regulating the cultivation of medicinal plants, in particular, the cultivation and processing of raw materials, are not effectively used. As a result, the efficiency of farms growing medicinal plants remains low.

Currently, the following important issues related to the improvement of the organizational and economic mechanism of mutual relations between the enterprises that grow and process medicinal plants must be solved. Specifically;

> increasing the cultivation of high-yielding, disease- and pest-resistant species of medicinal plants suitable for various soil and climate conditions;

- > that the incentive mechanism for the cultivation and further development of medicinal plants, the development of seed production is not at a satisfactory level, as well as the slowness of the work of those operating in this field;
- > demonstrative, regional training with the participation of advanced scientists and specialists in providing practical assistance and advice to forest, farmer and peasant farms and homestead land owners on the use of modern resource-efficient technologies that reduce the cost of medicinal plants in obtaining and growing them that the work of organizing and conducting scientific-practical training seminars is not satisfactory;
- > due to the fact that the information necessary for researchers and scientists who want to carry out fundamental, practical and innovative scientific-research works aimed at the issues of further development of the network by deeply analyzing and studying the existing shortcomings, highly qualified specialist and scientific that there are delays in personnel training issues;
- > supply of resources for the cultivation of medicinal plants, i.e. funds, seeds, fuel-lubricants, mineral fertilizers, biological and chemical means, and mechanization services to provide the subjects with their own that it is insufficiently provided on time;
- > the cultivation of wild medicinal plants, the organization of primary seed production, the development of scientific recommendations, and the wide involvement of seed-scientists and specialists in the field are being carried out in an unsatisfactory manner;
- > lack of proper cooperation between scientific institutions and scientists of the republic and developed foreign countries in the issue of obtaining and processing high-quality raw materials from medicinal plants;
- > lack of study of the technological processes of finding alternative raw materials suitable for the soil-climatic conditions of our region, their cultivation and processing;
- > failure to obtain the specified harvest as a result of not paying attention to the placement of medicinal plants in a scientifically based manner. This causes shortages in the supply of raw materials to processing enterprises.
- > lack of technologies to ensure improvement of the quality of products by enterprises growing medicinal plants;
- > the complexity of concluding contractual agreements between farms growing medicinal plants and their processing enterprises and monitoring their execution;
- > due to the lack of systematic control, the lack of attention to scientifically based placement of medicinal plants, the failure to obtain the specified harvest;
- > the lack of specialized farms, the fact that the land for planting medicinal plants is not selected correctly, the modern advanced agro-technologies are not widely used, the quality of the harvest of medicinal plants in their terms and without destruction it was found that problems such as the lack of techniques have a negative impact on the efficiency of the network.

## **5. CONCLUSION AND SUGGESTIONS.**

To sum up, the time has come to optimize the management system and make structural changes in the structures in order to properly organize work in the network.

In the agrarian sector of the Kashkadarya region, there were deficiencies in the issue of personnel and the implementation of an innovative approach to production. It would be appropriate to implement some recommendations aimed at solving such problems in the field. In particular:

First, in order to ensure the need for highly qualified specialists who serve the cultivation of medicinal plants and its further development, the establishment of the department of "medicinal plants" in higher educational institutions in the field of agriculture and specialized training of a narrow range of "agronomists";

Secondly, in order to alleviate the need and dependence on medicinal plants, including kakrav seed materials, and to provide farms with seed materials grown and localized in our region, "after a thorough analysis of the soil and climate conditions of our region, in each district at least establishment of "seed farms specialized in the cultivation of seeds of medicinal plants" by establishing one business entity specializing in the cultivation of seeds of non-traditional medicinal plants;

Thirdly, for the purpose of mutual integration of science, education and practice and increasing the scope of scientific and research work on the issues related to the cultivation of medicinal plants, in the system of the National Center of Knowledge and Innovation in Agriculture "medicinal o establishment of "Plants" scientific-research institute or center and "Coordinating Scientific and Technical Council" on improvement of agro-technologies of selection, seeding and cultivation of agricultural crops;

Fourthly, in order to improve the organizational-methodical and personnel support of the management system in the field of cultivation and processing of medicinal plants, in the state management system in the field of agriculture, the "administration of medicinal plants" and its territorial branches in the regions and districts organization of linmas;

Fifth, to use the experience of foreign scientists and industry experts to work directly in Uzbekistan in order to apply advanced international agrosience, education and practical experience in the cultivation of medicinal plants in Kashkadarya region, etc.

The proposed main and additional management structures are intended for future researchers who want to systematically study the existing problems and shortcomings of enterprises operating in the field and conduct scientific research in order to integrate science, education and practice. It is possible to establish a "bank of network problems" covering problematic issues awaiting their solution.

In addition, a single management structure for the development of the cultivation of medicinal plants will be created in the region.

There will be favorable conditions for the establishment of specialized agricultural clusters in the regions. There is an opportunity to mitigate the shortage of raw material resources for the full use of the existing production capacities of enterprises throughout the year. Formation of fundamental, practical and innovative scientific and technical programs and carrying out scientific and research work on them will accelerate.

Participates as a leading link in making proposals and decisions on the issue of attracting investments from the republic and foreign countries for the development of cultivation and processing of medicinal plants, increases responsibility and interest. A single database will be



formed for in-depth analysis and study of this field. As a result, the possibility of comprehensive monitoring, control and analysis of network development is created.

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