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PROSPECTS FOR FURTHER DEVELOPMENT OF MEDICINAL PLANTS

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Abstract: In the article the essence of the cultivation of medicinal plants is presented end the scientific proposal in the economic bases of cultivation of medicinal plants in agriculture is presented.

Keywords: medicinal plants, economic basis, efficiency.

Introduction

In the early stages of human development, plants were not only a source of nourishment for humans, but also helped people get rid of diseases. Literary sources indicate that medicinal plants were also used in Egypt, India and China before 3000 BC. By the Middle Ages, the use of medicinal plants against various diseases in the Arab countries, Central Asia, Azerbaijan, Georgia, Armenia and European countries was also mentioned in various sources.

The growing interest in medicinal plants is due to the fact that they are widely used in various sectors of the economy, especially in industry, official medicine and folk medicine, agriculture and daily needs. The main areas of use of this group of plants are industry (perfumery-cosmetics, food, tobacco, cellulose-paper, dyes, textiles, soap, (pharmaceutical), pharmaceuticals, liqueurs), agriculture (beekeeping, exhibition and food crops, essential oils), medicine (phytotherapy and fragrance therapy), daily household (food additives, preservatives, cosmetics, dyes).

The reason for the further increase in demand for medicinal plants and their derivatives in medicine in the future is that long-term continuous consumption of any chemically obtained medicinal drug can lead to various adverse changes in the human and animal body. For this reason, the demand for medicinal plants has recently been increasing around the world.

It is known that about 50% of medicines produced by pharmaceutical companies worldwide are made from medicinal plant raw materials. The rapid development of the pharmaceutical industry in many countries, including the Republic of Uzbekistan, has led to a sharp increase in demand for such raw materials for medicinal plants. It should be noted that due to the limited reserves of naturally growing medicinal plants, the pharmaceutical industry is able to meet the demand of enterprises for raw materials for medicinal plants, mainly through the cultivation of medicinal plants.

Analysis of the literature on the subject

Natural preparations made from medicinal plants, which have served man as the main means of healing for thousands of years, began to be squeezed out in the twentieth and twenty-first centuries by chemicals that allow for quick and strong-acting relief. But, at the same time, the raw material of medicinal plants is a proven reliable tool that gives good results in the practice of treatment.

In the world today, the quality of consumption of medicinal plants is one of the most important components of a healthy lifestyle and environmental safety. The use of medicinal plants for medicine and, in part, for the food industry, as well as for the purpose of improving the human habitat, is becoming increasingly important. The situation in many leading countries of the world is proof of our opinion. For example, while acknowledging the growing demand for medicinal plant raw materials in the Russian Federation, it is worth noting that the world is experiencing a crisis of shortage of "medical products", the age of phytotherapy has begun [2].

Today, the demand for essential oils and raw materials of medicinal plants in Russian enterprises is estimated by experts at 2,500-3500 tons for essential oils, and more than 100,000 tons for medicinal plants [3].

VA Gushina, S.A. Kginikatkina, N.V. Nikolaychenko, I.A. Voronova, M.N. Khudenko, K.S. Pimenov, V.I. Norovyatkina and others on the issues of cultivation of medicinal plants in the Volga region of Russia. devoted to the research of others.

The study of flora in Central Asia dates back to antiquity. Abu Ali ibn Sina, the sultan of medicine, wrote his world-famous 5-volume "Laws of Medicine" (Kitab al-Qanun fit-tibb), as well as "On the Sachratki Plant" ("Phil-hindubo"), "Healing Medicines" (" Al-Adwiyat al-Kalbiyya ") states that more than 1,400 of the 2,600 medicines mentioned in his works are made from medicinal plants.

Scientific works of AS Yuldashev, MI Ikramov and VA Tileumuvatova are devoted to the distribution of medicinal plants in Uzbekistan, including Karakalpakstan and their raw material reserves.

Currently, a large-scale study of medicinal plants in Uzbekistan, identification of their reserves, preparation, cultivation and reproduction of imported species, including the Tashkent Pharmaceutical Institute, Tashkent, Andijan, Samarkand, Bukhara medical and pedagogical, agricultural and other institutes. , Tashkent, Samarkand and Nukus universities, as well as the Institute of Plant Chemistry, Bio-Organic, Botany and other research institutes of the Academy of Sciences of the Republic, as well as the relevant departments and laboratories of the Botanical Garden. In this regard, the services of the following prominent scientists of Uzbekistan are significant: S.Yu. Yunusov, OS Sodikov, K.3. Zokirov, H.A. Abduazimov, P.Kh. Yuldashev, N.K. Abubakirov, R.L. Khazanovin , A.Ya.Butkov, I.I.Granitov, I.P.Tsukervanik, I.K.Komilov, N.S.Kelginboev, M.B.Sultonov and others.

Research style

As a result of our research, the issues of further development of cultivation and processing of medicinal plants in agriculture have been studied, and scientific conclusions and proposals for the further development of the introduction of innovative technologies in the cultivation and processing of medicinal plants in agriculture have been developed. Methods such as abstract thinking, logical approach, comparative analysis were widely used in the research process.

Analysis and results

At present, 112 species of medicinal plants are allowed to be used in official medicine in the Republic of Uzbekistan, and 80% of these medicinal plants are naturally growing plants.

Indeed, the integration of education, science, production, uninterrupted supply of the pharmaceutical industry with raw materials that meet international standards, reduce imports, increase exports through plantation of high-demand species in foreign countries, storage and expansion of wild medicinal plants is one of the most pressing and important issues today.

Today, the demand for natural medicines in the world is growing by 6-7% per year, and according to international experts, in 2020 the annual trade turnover will exceed $ 35 billion.

Countries such as China, India, Canada and the United States have extensive experience and weight in the conservation of wild-growing medicinal and spice plants and their propagation by cultural plantation.

For example, China's average annual trade turnover of medicinal plants and medicines is 100 billion. USD, export volume 1 bln. dollars, while imports amounted to 274 million dollars.

Today, more than a thousand of 12,000 species of medicinal plants in the world, and 112 of 1,200 species of medicinal plants in Uzbekistan are used in the pharmaceutical industry.

In this direction, in order to effectively use the existing opportunities in the country, specific measures are being taken to systematize the cultivation of medicinal and spice plants in the wild and cultural methods, increase production, processing and export.

In 2018, medicinal plants were grown on 54.6 thousand hectares of land owned by farms and other organizations and enterprises in the country and directed to the domestic and foreign markets. In 2020-2023, it is planned to increase the plantations of medicinal plants to 103.7 thousand hectares. But even so, unfortunately, to this day we have almost stopped using natural medicinal plants. According to the data, only 2.3% of the 6,400 types of medicines consumed in our country are natural medicines.

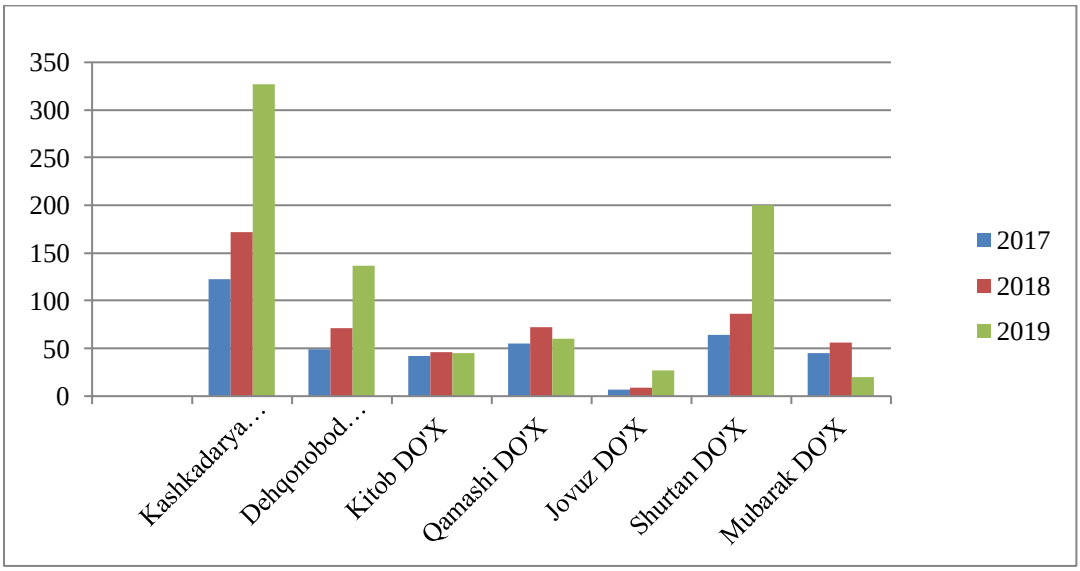
The reserves of raw materials for naturally growing plants are also limited, and the development of science-based methods for their protection, study of bioecological properties, proper use of raw materials and reproduction is one of the urgent problems. Therefore, it is necessary to meet the needs of the pharmaceutical industry in Uzbekistan with raw materials for medicinal plants, to enrich the local flora with new introducible plant species and to develop technologies for their cultivation.

In our country, special farms for the cultivation of medicinal plants in agriculture have been established in Bukhara, Kashkadarya, Samarkand, Surkhandarya and Tashkent regions.

The nature of Kashkadarya region, especially the mountainous and foothill areas, is rich and varied according to the favorable climatic conditions. According to preliminary estimates, there are more than 120 species of plants used or recommended in scientific medicine, and more than 1,000 species used in folk medicine. However, currently there are no more than 40 species of medicinal plants officially used as raw materials.

Today in Kashkadarya region there are 8 forestries in the system of the Regional Forestry Department. About 50 species of medicinal plants are grown in these forestries.

The following graph shows the change in the total volume of medicinal plants grown in the forestries of the region in 2017-2019. (1-graph)



1-graph. Information on the volume of cultivation of medicinal plants in forestry in the system of regional forestry management for 2017-2019 (tons)

Despite the growth of the above data, the current research and analysis of the cultivation of medicinal plants shows that not only in our region, but in the whole country, the existing opportunities in this area are not used enough.

Especially in today's world of viral and infectious diseases, there is a growing need for natural medicines that are made from plant raw materials and are harmless to the human body and enhance human immunity. This situation requires the wider use of medicinal

plants. In addition, the cultivation of medicinal plants is a good source of income. The financial difference between the sale of cultivated medicinal plants as a raw material and its processing and delivery to the consumer in the form of a finished product can be seen in the example of chamomile.

Today, one kilogram of dried chamomile flowers can be sold to processors for 25-35 thousand soums. However, in pharmacies, the sale price of chamomile in small 2-gram bags in a cardboard box with ten pieces is 5-6 thousand soums. The cost of 1 kg of chamomile packaged in such packages is 250-300 thousand soums. It can be seen that the difference between the price of a product sold as a raw material and a processed, directly consumed product is ten times higher. Experiments have shown that for cultivation of 1 hectare of valerian root in culture 11 mln. 50 million soums were spent. soums of income. At the same time, the net profit is 39 mln. soums. 45 mln. 63 million soums were spent. soums of income. Net profit was $ 18 million. soums. Kovrak juice is processed into a semi-finished product, as well as processed anise root extract in the form of a semi-finished product for 180 mln. can be exported up to $. As you can see, medicinal plants are not only medicinal, but also economically very useful. But it is the duty of human beings not to abuse the gifts of nature (Table 1).

Table 1. Efficiency of cultivation of medicinal plants in the Republic of Uzbekistan

№	The name of the medicinal plant	Ekin Maydo-ni, ga	Cost per 1 hectare, (million soums)	Income from 1 hectare of land, (million soums)	Net profit from 1 hectare of land, (mln. Soums)
1.	Valeriana	1	11	50	39
2.	Tajik kovrak	1	45	63	18
3.	Na'matak	1	21,1	48	26,9
4.	Ittikanak chereda	1	7,1	40	32,9
5.	Peppermint	1	8,3	33,8	25,5

Innovative ideas based on the protection of medicinal plants in nature, the creation of a favorable agribusiness environment for the further development of plantation cultivation and processing, strengthening the export potential of the industry, the integration of education, science and industry are important.

From this it is clear that the demand for medicines made from plant raw materials is growing day by day. This situation requires the wider use of medicinal plants. In this case, it is advisable to perform the following tasks:

- Gradual increase in the volume of cultivation of medicinal plants through the establishment of special plantations in areas suitable for their growth, including through the introduction of intensive cultivation technologies and the rational use of natural growth areas;
- Active involvement of foreign investments, foreign experts and consultants in the process of creation and development of new capacities for the cultivation and processing of medicinal plants, the introduction of advanced technologies in this field;
- Effective organization and coordination of training and retraining of specialists in this field, their training in higher and secondary special, vocational education institutions, as well as abroad.
- Effective organization of interaction of business entities with public administration bodies, local government bodies at all levels in the organization of plantations, deep processing of medicinal plants on an industrial basis and the production of export-oriented products with high added value;
- Participate in the development of draft regulations on the development of the cultivation and processing of medicinal plants, as well as the implementation of public environmental control;
- Coordination of implementation of investment programs and projects in the field of cultivation and processing of medicinal plants.

Conclusions and recommendations

Today, large-scale cultivation and processing of medicinal plants is important not only for improving the health of the population, but also with high economic efficiency and good income.

To achieve this goal, it is advisable to follow the following recommendations:

- Clarification of directions and prospects of state support for the cultivation of medicinal plants in agriculture;

-study of development issues on the example of foreign experience in the cultivation of medicinal plants;

- Improving the economic basis for the cultivation of medicinal plants, improving the system of indicators that reflect the effectiveness of agricultural services, their classification, identification and analysis, based on the conditions of innovation processes in the industry;

- Problems of development of cultivation of medicinal plants in agriculture and increase of sources of income in the future, development of methods of definition of internal possibilities for improvement of these indicators, etc.

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