

SCIENTIFIC RESEARCH METHODS OF MEDICINAL PLANTS AND THEIR CULTIVATION

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ABSTRACT:

Nowadays, stocks of naturally growing medicinal plants are declining under human influence. In order to compensate for this and meet the needs of our people, it would be expedient to increase the number of medicinal plants and plant them in irrigated areas, taking into account the soil and climatic conditions of Uzbekistan. In order to provide the pharmaceutical industry in Uzbekistan with raw materials for medicinal plants, it would be expedient to establish and increase the number of farms and specialized farms growing medicinal plants in the coming years.

KEYWORDS: reserve, medicinal plants, medicine, body, folk medicine, substance, content, private farms

INTRODUCTION:

It is possible to increase the yield of medicinal plants and the amount of biologically active chemical compounds in them by selecting high-yielding varieties of medicinal plants, mixing them or obtaining polyploid (increasing the number of chromosomes). There are 10,000-12,000 species of medicinal plants in the world. The chemical, pharmacological and medicinal properties of more than 1,000 plant species have been investigated. There are 577 species of medicinal plants in Uzbekistan. Of these, 250 species are currently used in scientific

medicine. The effect of medicinal plants on the body depends on the amount of compounds in them. These compounds accumulate in different amounts in different parts of the plant. Necessary parts of the plant for the preparation of the drug are collected at different times. For example, the bark, buds are taken in early spring, before or after flowering of the leaf plant, when the flowers are fully open, when the fruits and seeds are ripe, the underground organs (roots, rhizomes and bulbs) are taken in early spring or late autumn.

The active substance of medicinal plants are alkaloids, various glycosides (anthroglycosides, glycosides that affect the heart, saponins, etc.), flavonoids, coumarins, astringents and other mucous substances. May contain essential oils, vitamins, resins and other compounds. Many plants are rich in antibiotics and phytoncides that kill microorganisms and viruses. Typically, group-specific closely related chemical compounds occur in members of the same family or group, although some chemical compounds may also be present in plants belonging to different families that are not close to each other.

From ancient times the plants are used in the treatment of various diseases.

Nowadays, the variety of medicinal plants has increased, and folk medicine has been enriched with medicinal plants. Most of the medicinal plants used in scientific medicine are derived from plants that have been used by the people for centuries. Medicinal plants used

in folk medicine can not be used in scientific medicine. In Uzbekistan, pomegranate, bitter gourd, almond, medicinal cauliflower, walnut, jag-jag, zubturum, incense, itigek, omanqora, pistachio tree, sachratki, chayot, shildirbosh, shirinmiya, wormwood, yantak, beetroot, etc. are more common than medicinal plants in Uzbekistan. The alkaloids paxicarnin, incense garmin, feverfew anabazine, ammonium galantamine, and spherophysin are derived from sagebrush. From the pomegranate peel is prepared tanat and extract of worm-driving pelter. Medicinal herbs are used as expectorants and emollients, jaw and lagoxilus drugs to stop bleeding, pistachio buckthorn and tea leaves are used to treat gastrointestinal diseases. There are 2 different descriptions of medicinal plants:

1. Depending on the composition of active substances - alkaloids, glycosides, essential oils, vitamins, etc.;
2. Depending on the pharmacological indications - sedative, analgesic, hypnotic, as well as affecting the cardiovascular system, stimulating the central nervous system, lowering blood pressure and other medicinal plants.

Chemical and pharmaceutical plants in Tashkent produce a variety of medicines from medicinal plants grown and cultivated in Uzbekistan. For example, psoralen, which is used in the treatment of psoriasis, routine, which acts as a vitamin A from the buds of Japanese safflower, galantamine alkaloid from ammonia, strophanthin, cimarín, cardiac glycosides and other drugs have been extracted from the roots and fruits.

As mentioned above, about 250 plant products are currently used in medicine. 48% of the products of these medicinal plants are made from wild plants, 30% are produced in the areas of medicinal plants of farms located in different soil climates. The remaining 22% is

a "mixed" group, meaning that this group of medicinal plants is harvested from plants that grow both in the wild and on plantations. It is expected that the share of medicinal products from the "mixed" group of medicinal plants in the total amount of medicinal products collected will increase from year to year.

For what reasons is the production of medicinal plants grown on irrigated lands increasing year by year in excess of the total production?

There are many reasons for this, the main ones are:

1. As a result of growing demand for medicinal plant products, the amount of raw materials produced is increasing. This, in turn, leads to a decrease in the number of medicinal plants in the growing area, resulting in a sharp restriction or complete cessation of the preparation of their raw materials.

In Uzbekistan, as a result of over-harvesting of wild-grown bozulbang and buckwheat and onions, their stock (quantity) has significantly decreased at the place of natural growth. That is why these plants are now included in the Red Data Book of Uzbekistan. Therefore, the preparation of their natural raw materials at the place of growth has been stopped and they are being grown in farm fields as well as in places where they grow in the wild. There are many such examples.

2. As a result of the constant increase in demand for medicinal plant products and its unsatisfaction at the expense of wild-growing plants, these plants have to be grown in irrigated areas.

3. Although rare medicinal plants are sometimes in great demand, but they are found in the wild, in areas unsuitable for harvesting (e.g. belladonna growing in the mountainous regions of the Caucasus and Crimea, etc.) or in small quantities, scattered in large areas (e.g. in the European part of Russia). , but the rare

medicinal valerian, etc.) grows, the preparation of the product of these medicinal plants is more expensive than growing on irrigated lands. Therefore, it is advisable to grow such plants in the fields of farms.

4. The difficulty of preparing large quantities of raw materials for wild-growing medicinal plants, the complexity of using agricultural machinery to harvest it.

The product of medicinal plants grown in the plantation can be harvested under favorable conditions and during the period of accumulation of a large number of effective chemically biologically active substances using various mechanisms.

5. If a valuable, much-needed medicinal product for medicine is made from plants that grow in tropical or subtropical climates, which are not found in our country, it is advisable to grow these plants in our country, if possible.

Medicinal plants grown in irrigated areas are very different from wild-grown medicinal plants, i.e. there is no mixture of foreign plants in the medicinal plant product grown. Medicinal plants grown on the basis of agronomic rules are rich in nutrients and biologically active substances.

For the reasons mentioned above, growing some medicinal plants and preparing their products is much more economical than harvesting the products of wild-growing medicinal plants.

In Uzbekistan, medicinal plants are grown mainly on farms of the Ministry of Agriculture and Water Resources, located in different soil climatic zones.

For the first time in the Republic of Uzbekistan in 1973 in the farms of Bostanlyk district of Tashkent region began to plant medicinal plants. Later (1978) a farm for growing medicinal plants named after Ibn Sino was established in Pop district of Namangan region. These farms are planted with

peppermint, medicinal marmalade, medicinal cloves, namatak, bitter wormwood (Armenian), raisins, small-flowered turmeric and other plants. The products collected from them were sent to supply pharmacies in Uzbekistan, as well as to the Shymkent Chemical-Pharmaceutical Plant and other enterprises.

At present, special farms for growing medicinal plants have been established in Bukhara, Kashkadarya, Samarkand, Surkhandarya and Tashkent regions.

In almost all regions of the country under the production associations "Pharmacy" there are areas for growing medicinal plants, where the relevant plants are grown at the request of regional pharmacies.

At present, in the fields of the farm named after Akhunboboev, which specializes in medicinal plants of Chirchik district of Tashkent region, pepper mint, medicinal marmara (mavrak), medicinal cloves, medicinal chamomile, five-piece lion's tail, pol-pola, namatak and other medicinal plants are grown.

Former senior researcher of the Tashkent Botanical Garden of the Academy of Sciences of the Republic of Uzbekistan Q. H. Khodjaev, and later the head of the laboratory for the cultivation of medicinal plants and adaptation to the climate of the garden, senior researcher Yu. M. Murdakhaev in collaboration with researchers of the Department of Pharmacognosy and Botany of the Tashkent Pharmaceutical Institute managed to grow 67 species of medicinal plants imported from the sister republics and other regions of the world in the climate of Tashkent. According to them, the above include cloves, peppermint, medicinal marmara (mavrak), medicinal valerian, fennel (pharmacy dill), medicinal chamomile, black andiz, ajgon (cumin caramel), dill, common dastarbosh, namatak species, shrub amorphous, red angiosperm. spread erizimum, hemp species, Caucasian yamsi,

Manchurian island, mountain cumin, sano (cassia) species, patrinia, egg, five-piece lion's tail, medicinal zangvizorba, semi-shrub sekurinega, burigul species, buckwheat species, polladon-meks , sliced ituzum, confusing ice cream and other medicinal plants can be grown.

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