Volume 2, Issue 02, February 2024 **ISSN (E):** 2938-3757

MEDICINAL PLANTS AND THEIR USE

Fayziyev Xayrullaxon Omonilloyevich
Military Serviceman of the Ministry of Defense of the Republic of Uzbekistan
fayziyevxayrullaxon@gmail.com

Asqarov Ibrohimjon Rahmonovich
Professor of the Department of Chemistry of Andijan State University, Honored Inventor of Uzbekistan, Chairman of the Academy of Medicine of Uzbekistan

Islomov Akmal Xushvaqovich
Doctor of Chemical Sciences, Institute of Bioorganic Chemistry, Academy of Sciences of the Republic of Uzbekistan
info@biochem.uz

Atqiyayeva Sanobarxon Ismoilxon qizi
Doctoral Student (PhD) of the Institute of Chemistry of Plant Substances of the Academy of Sciences of the Republic of Uzbekistan
atqiyayevasanobarxon@gmail.com

Xabibullayev Abdullazizxon Omonillo o‘g‘li
Senior Teacher of Namangan State University
abdullazizxon@gmail.com

Abstract
This article provides information on medicinal plants found in nature and the history of their use, unique types of medicinal properties and methods of use, as well as the results of the impact of the human factor on them.

Keywords: Medicinal plant, alkaloid, glycoside, essential oil, vitamin, starch, phytoncide.

Introduction

It is known that when medicine was not yet developed, mankind used the blessings of nature to treat diseases. Regarding the use of medicinal plants for medical purposes, Abu Ali ibn Sina in his work "Al-Qanun" provided information about the medicinal properties of about 476 plants and the methods of their use.

There are different types of plants in all regions of our country. Currently, more than 4500 plant species have been identified. About 750 of them are medicinal. Of these, about 120 species of plants grown in natural conditions and cultivated are used in scientific and folk medicine. 47% of medicines used in medicine are obtained from plant raw materials.

In recent years, the demand for natural medicinal plants has been increasing year by year. Because medicines prepared from medicinal plants do not leave any negative complications in the human body. Therefore, the demand for medicinal preparations made from medicinal plants has increased significantly.

Licensed under a Creative Commons Attribution 4.0 International License.

Web of Technology: Multidimensional Research Journal
webofjournals.com/index.php/4

Plants are living natural chemical laboratories with complex structures and the ability to create complex organic substances or compounds from simple inorganic substances. Dried herbs, shoots, roots, rhizomes, nodules, bulbs, barks, leaves, flowers, buds, fruits (seeds), seeds, juice, paste, essential oil, etc. of medicinal plants are used as medicine [1].

2 different classifications of medicinal plants are accepted:

1) depending on the composition of active substances - alkaloidal, glycoside, essential oil, vitamin, etc.

2) depending on its pharmacological properties - sedative, pain reliever, hypnotic, affecting the cardiovascular system, stimulating the central nervous system, lowering blood pressure, etc.

The active substances of medicinal plants are alkaloids, various glycosides (anthraglycosides, glycosides affecting the heart, saponins, etc.), flavonoids, coumarins, astringent and mucilaginous substances, essential oils, vitamins, dyes, enzymes, phytoncides, starch, proteins, polysaccharides, may contain nitrogenous substances, oil and fatty acids and other compounds [2].

The effect of medicinal plants on the body depends on the amount of chemical compounds in its composition. These compounds accumulate in various parts of the plant. The period of high effectiveness and quality of the drug corresponds to the time of the beginning of their flowering and seeding period. Medicinal substances are collected in the bud, leaf or stem of some plants, in the flower or fruit of some plants, in the root or bark of some plants. Therefore, the part of plants with the most biologically active substances is harvested. Roots, rhizomes, bulbs and nodules of plants are usually prepared during the period when the plant goes into sleep - in late autumn or before the plant wakes up - in early spring. The fruits and seeds of the plant are collected when they are ripe, because they are rich in medicinal substances at this time. Freshly harvested medicinal plant product contains moisture (up to 85% in the above-ground organs, up to 45% in the roots). If this moisture is not removed (by drying), the plant will rot and the medicinal substances will break down and become unusable [3].

It is used depending on the chemical properties of the substances contained in the plants used for medicinal purposes.

Essential oils are a collection of organic substances that are genetically interconnected, consisting of a complex combination of several substances that accumulate in all organs of plants. The components of essential oils include hydrocarbon, alcohol, aldehyde, ketone, phenol, lactone, ether, quinone, acid, nitrogenous compounds and several substances. Medicines used in the treatment of various diseases are produced from essential oils in medicine. These drugs relieve pain, calm the nervous system, and improve gastrointestinal function. Essential oils are the main source of raw materials for the perfumery, pharmaceutical and food industries.

Starch belongs to polysaccharides and has a complex structure. It refreshes the body and increases its strength. Glucose is formed from it in a living organism. Medicines are prepared from starch, which are used in the treatment of gastrointestinal and skin diseases. Also, starch is widely used in industry and household work.

Phytoncides are organic substances with a complex structure that accumulate in plant organs and destroy microorganisms. These substances are called plant antibiotics or phytoncides.

Web of Technology: Multidimensional Research Journal
webofjournals.com/index.php/4

Licensed under a Creative Commons Attribution 4.0 International License.

Phytoncides can be in the form of alkaloid, essential oil, anthocyanin. Some phytoncides have been isolated from plants. For example, allicin phytoncide is extracted from garlic and consists of allin amino acids. It has bactericidal properties. Phytoncides kill bacteria and prevent their growth and reproduction. Phytoncides obtained from plants are used as antibiotics in medicine. It is especially used in the treatment of infectious diseases.

Organic acids are found in plant cell sap. In all organs of the plant, especially in its fruits, there are apple, lemon, wine, savoyl, ant, ascorbic, sometimes quinic and linolenic acids. Organic acids actively participate in the metabolism of substances in the body. Increases the efficiency of the glands that produce sap. It affects the secretion of bile and pancreatic juice. Organic acids have bactericidal properties. For this reason, it destroys various microbes. As a result, the transmission of diseases to the human body is prevented. Organic acids stimulate appetite and improve digestion.

Glucosides are found in all parts of plants. stored in fruits and roots. They are split into two under the influence of moisture and enzymes. As a result, it is divided into sugar glucoside and sugar-free (aglycon) components. Glucosides are divided into bitter, saponin-containing glucosides and anthraglucosides, which affect the cardiovascular system, depending on the nature of their effect on the human body. Unlike other substances that affect the cardiovascular system, glucosides directly affect the heart. Bitter glucosides increase the appetite of the gastrointestinal tract, open the appetite and improve digestion.

Alkaloids are substances composed of very complex organic compounds with nitrogen-retaining and alkaline properties, which accumulate in various organs of plants. These substances have specific physiological effects. Various drugs such as morphine, papaverine, quinine, caffeine, codeine are produced from alkaloids. They are widely used in medicine for the treatment of various diseases [4].

Dill tincture is made from fennel fruit, it has expectorant properties and improves bowel function. Zubturum leaf is drunk as an expectorant and an agent that increases the acidity of gastric juice. Dandelion tincture is made from the above-ground part of the plant, it has sedative and heart-improving properties. Hawthorn tincture is made from hawthorn flowers or fruits. It has a good effect when the heart function is functionally disturbed and to increase the human tone. Raspberry tincture is made from the fruit and is used as a diaphoretic for colds.

Tincture of linden is made from flowers and is used as a diaphoretic for colds. A decoction of oak bark is used as a mouthwash as an astringent when the gums become soft and bleeding. Namatak tincture is prepared on the basis of fruits and is used to increase the body's ability to fight diseases in vitamin deficiency. Tincture of Sana and Togjumrut is used as a surging medicine. Tincture of birch buds and corn cobs is used as a diuretic.

Medicinal products are prepared in field conditions only from non-poisonous medicinal plants. Usually, tinctures are made from thin and delicate parts of medicinal plants - leaves, tops, flowers and fruits and seeds, decoctions from underground organs, bark, fruits, seeds and some thick leaves. is prepared. Tinctures and decoctions are made from non-poisonous plants in a ratio of 1:10, that is, 100 parts of tincture or decoction should be obtained after squeezing and filtering 10 parts of the product by weight. The methods of preparation of infusion and decoction are as follows: in a glass or glazed container (small saucepan) heated for 15 minutes

Web of Technology: Multidimensional Research Journal
webofjournals.com/index.php/4
Licensed under a Creative Commons Attribution 4.0 International License.

in a water bath, put the necessary amount of crushed medicinal plant products, pour the required amount of water at room temperature, close the lid and keep it in the boiling water bath. (infusion — 15 minutes, boiling — 30 minutes).

During heating, the product is shaken frequently. Then take out the container (infusion or decoction) from the water bath and cool it at room temperature for 45 minutes (boil for 10 minutes). Then it is squeezed in two layers of cheesecloth. Infusion (or decoction) is usually drunk cold or warm in the specified amount. Instead of a water bath, you can use any container that has been boiled with water. At home, it is possible to prepare nastoyka from plant products in 40% or 70% alcohol. Such nastoyka is taken in a ratio of 1:5 (1 part of plant raw materials). For the preparation of nastoyka, crushed plant raw materials are stored in alcohol at room temperature for 7 days in a container with a lid, stirring and shaking from time to time. Then the mixture is filtered in cheesecloth and stored at a temperature of +8 °C for several days. The finished nastoyka is poured into tightly closed glass containers and stored in dark, cool places [5].

Conclusion

Based on the information given above, it can be said that today, along with the rapid development of the human world, various obstacles that hinder its vital activity are also increasing, which in turn is effective and harmless. It is no exaggeration to say that medicine is leading to the globalization of the drug problem. However, it is worth noting that it is no secret that natural remedies are the most effective in meeting this demand today, but it is a pity that such medicinal plants are disappearing under the influence of various factors, including the human factor. Various measures and laws are being developed to reduce and stop it.

Now the main issue is to get natural medicine from medicinal plants now and in the future. In this regard, it is appropriate to recognize that among the representatives of the field of chemistry, the Scientific Research Centers of Uzbekistan, including the Chemistry of Plant Substances, Institutes of Bioorganic Chemistry, and a number of institutes and universities are making innovations in their activities.

References

1. DORIVOR O‘SIMLIKLARNING INSON SALOMATLIGI VA TIBBIYOTDAGI AHAMIYATI// Yakubova Guldiyora Umedjon qizi. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ. Выпуск журнала №-38Часть–3_ Февраль – 2024.http://www.newjournal.org/.

2. DORIVOR O‘SIMLIKLAR VA ULARDAN XALQ TABOBATIDA FOYDALANISH// Aziza Gulmirzayeva. “JOURNAL OF SCIENCE-INNOVATIVE RESEARCH IN UZBEKISTAN” JURNALI VOLUME 1, ISSUE 5, 2023. AUGUST.

3. DORIVOR O‘SIMLIKLAR ULARNING TABIATDA VA INSON HAYOTIDAGI ROLI// Jovliyev F.B., Meliqulov O.J., Saydaxmadov S.S. "Экономика и социум" №10 (89) 2021. DOI 10.46566/2225-1545_2021_89_111

4. DORIVOR O`SIMLIKLAR VA ULARNING BIOLOGIK XUSUSIYATLARI// Sayramov Fayzullo Baratjon o`g`li Usmonova Zaynura Qodirjon qizi Akmaljonova Madinabonu

Web of Technology: Multidimensional Research Journal
webofjournals.com/index.php/4
Licensed under a Creative Commons Attribution 4.0 International License.

Ubaydullo qizi. «Новости образования: исследованиев XXI веке». № 5 (100), часть 1. декабрь, 2022 г.
5. O‘RMON DORIVOR O‘SIMLIKLARI// K.T.Berdiyev, M.X.Hakimova, G.B.Maxmudova. «Sano-standart» nashriyoti Toshkent – 2016
6. FERTILIZERS USED IN CULTIVATION OF MEDICINAL AMARANTH PLANT AND NATURAL SOURCES ENRICHED WITH COMPOUNDS OBTAINED FROM CHICKEN EGG SHELLS AS NATURAL BIOACTIVE FERTILIZER.// Fayziyev Xayrullaxon Omonilloyevich, Xabibullayev Abdullazizxon Omonillo o‘g‘li, Atqiyayeva Sanobarxon Ismoilxon qizi 2023/1/8
Finland International Scientific Journal of Education, Social Science & Humanities11,1, 321-325 S.https://doi.org/10.5281/zenodo.7523871

Web of Technology: Multidimensional Research Journal
webofjournals.com/index.php/4

Licensed under a Creative Commons Attribution 4.0 International License.