

RECEIVING NATURAL MEDICINES FROM THEM BY STUDYING THE ECOLOGICAL CHARACTERISTICS OF PLANTS

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***Abstract:** Medicinal plants have been used for centuries to treat various ailments and promote well-being. This article covers the process of extracting medicinal plants, a systematic approach that maximizes their therapeutic benefits.*

***Key words:** medicinal plants, preparations, essential oils, infusion, decoction.*

INTRODUCTION

Nowadays, the demand for medicinal plants is increasing. Therefore, the study of medicinal plants, their effect on diseases, and the preparation of medicines from them are relevant topics. It is known that approximately 50% of drugs produced in pharmaceutical enterprises worldwide are made from medicinal plant raw materials. In most countries, including Uzbekistan

The rapid development of the pharmaceutical industry in the Republic is causing a sharp increase in the demand for raw materials of medicinal plants of such enterprises. It should be noted that due to the limitation of naturally growing medicinal plant reserves, the pharmaceutical industry's demand for medicinal plant raw materials can be met mainly by growing medicinal plants.

LITERATURE ANALYSIS AND RESEARCH METHODOLOGY

Mamedov M.I., Engalychev M.R. to obtain natural medicinal preparations from plants. Morphological and reproductive characteristics of the plant *Physalis* ssp. V usloviyakh umerenogo klimata, Kilchevsky A.V. Khotyleva L.V. of Geneticheskie osnovy selektsii rastenii, Valikhanova G.J. Kultura kletok rastenii kak obekt biotekhnologii of Kultura kletok rastenii kak are covered in the books and lectures.

RESULT AND DISCUSSION

The first step in extracting medicinal plants is to select the right plant species based on their known therapeutic properties. This selection process is often based

on traditional knowledge, scientific research and regulatory guidelines. Once the plants are identified, they are harvested at the optimal time to ensure the highest concentration of bioactive compounds. After harvesting, the plants are carefully dried to preserve their healing properties. Proper drying methods such as air drying or dehydrating can help prevent mold growth and degradation of active compounds [1].

After drying, the plants are stored in a cool, dark place to preserve their potency until further processing. Extraction is the main stage of obtaining bioactive compounds from medicinal plants. Common extraction methods include maceration, where the plant material is soaked in a solvent to extract the desired compounds, and distillation, which involves heating the plant material to extract the essential oils. These methods help to concentrate the active ingredients for use in various preparations. After the extraction of biologically active compounds, they are formulated in the form of various preparations, for example, tinctures, teas, oils or capsules [2]. Formulation involves combining active ingredients with other ingredients to increase their effectiveness and stability. Quality control measures, including testing for purity and potency, are necessary to ensure the safety and efficacy of the final product.

Understanding the proper use and dosage of herbal medicinals is essential for optimal benefits. Dosage recommendations may vary depending on the individual's age, health status, and the specific condition being treated. A consultation with a health care provider or herbalist can help determine the appropriate dosage for each individual. Extracting medicines from medicinal plants is a holistic approach that uses the healing potential of nature. These drugs are used in traditional remedies, supplements, and integrative therapies to promote health. Plants synthesize many bioactive compounds with medicinal properties. From the soothing effects of chamomile to the immune-boosting properties of echinacea, plants offer a rich source of natural remedies. The process of extracting natural medicinal preparations from plants involves a delicate dance between science and tradition [3].

Botanists carefully select and collect plant materials using a variety of

extraction methods to extract the plant's beneficial compounds. Whether cultivating a home herb garden or purchasing herbal remedies from reputable suppliers, the journey of using natural remedies begins with a deep respect for the healing power of plants. In a world where synthetic drugs often dominate health care, the resurgence of interest in natural remedies signals a return to a more holistic approach to treatment [4]. Extracting medicinal plants involves a careful and systematic process to extract and use the therapeutic compounds found in these botanical wonders. Several main stages of obtaining preparations from medicinal plants:

The first step is to carefully select medicinal plants based on their known therapeutic properties and the specific health problems they address. Different parts of a plant, such as leaves, flowers, roots, or bark, may contain different concentrations of bioactive compounds. Harvesting the plants at the right time is very important to ensure the potency of the medicinal compounds. Factors such as season, time of day and stage of growth can affect the concentration of active substances in the plant. After harvesting, the plants are usually dried to preserve their medicinal properties. Proper drying techniques help prevent mold and degradation of active compounds. After drying, the plants are stored in a cool, dark place to preserve their potency [5]. The next step involves extracting bioactive compounds from the plant material. Common methods of extraction include maceration, infusion, decoction, and distillation. Each method is adapted to the specific characteristics of the plant and the necessary preparation. Once the active compounds are extracted, they can be formulated into various preparations, such as tinctures, teas, oils, ointments, or capsules. The formulation process involves combining isolated compounds with suitable carriers or solvents to create a stable and effective product.

Quality control measures are important to ensure the safety and efficacy of medicines. This may include testing for purity, potency and contaminants to meet regulatory standards and ensure consumer safety. Understanding the proper use and dosage of medications is critical to achieving optimal therapeutic efficacy. Dosage recommendations may vary based on individual health, age, and other factors. By

following these steps carefully and attentively, it is possible to effectively extract medicinal preparations from plants and unlock the healing potential of nature's pharmacy [6].

CONCLUSION

Extracting medicinal plants involves a systematic process that begins with the selection of plants based on therapeutic properties. Harvesting, drying and storage at the right time is very important. Extraction methods such as maceration and distillation are used to obtain bioactive compounds. It is formed in the form of tinctures, teas, oils, etc. Quality control ensures safety and efficiency. Understanding proper usage and dosage is key to optimal benefits. This process uses nature's healing powers for traditional medicines, supplements, and integrative therapies.

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