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GLYCYRRHIZA GLABRA, CRATAEGUS PONTICA, HORDEUM BULBOSUM SPECIES CROSS-SECTIONAL STUDY OF RAW-FOOTED PLANTS OF UZBEKISTAN

Jumabaeva Feruzabonu
3rd year student of the Faculty of Natural Sciences

Аннотация: Статья посвящена на описание ботанических свойств сырьевых растений Узбекистана на примере таких растений, как Glycyrrhiza glabra, Crataegus pontica, Hordeum bulbosum.

Ключевые слова: Солодка, ячмень луковичный, боярышник, сырьевые растения, лечебные свойства.

Abstract: The article is devoted to the description of the botanical properties of raw plants of Uzbekistan on the example of plants such as Glycyrrhiza glabra, Crataegus pontica, Hordeum bulbosum.

Keywords: licorice, bulbous barley, hawthorn, raw plants, medicinal properties

Annotatsiya: Maqola Glycyrrhiza glabra, Crataegus pontica, Hordeum bulbosum kabi o'simliklar misolida O'zbekiston xomashyo o'simliklarining botanika xususiyatlarini tavsiflashga bag'ishlangan.

Kalit so'zlar: qizilmiya, arpa, do'lana, xom o'simliklar, dorivor xususiyatlari

In recent years, consistent reforms have been carried out in our republic on the protection of medicinal plants, the rational use of Natural Resources, the cultivation of medicinal plants and the creation of plantations for their processing.

Of the more than 4,300 plant species of the local flora, 750 are considered medicinal, of which 112 species are listed in official Medicine, of which 70 species are actively used in the pharmaceutical industry.

According to P.K. Zakirov (1976), the raw materials of Uzbekistan are classified into 3 categories:

1. Medicinal plants: consists of 116 species. Some species were previously used by local people to treat certain diseases. The most valuable species are Glycyrrhiza glabra, Adonis turkestanica, Peganum garmala and species of Salsola, Ephedra, Anabasis, Rosa, Berberis.

Licorice (Glycyrrhiza glabra L.)- general appearance; root-raw materials

Botanical description of licorice. The rhizome is large, multi-branched, Woody. Forms a simple and poorly branched STEM up to 5 meters long. The rhizome and Root are brown on the outside. The leaves are arranged in series on the stem, 5-20 cm long. The flowers are 8-12 mm in diameter, the inflorescence is 3-5 cm long. The fruit is scaly, whitish Brown with 6 seeds inside. Seeds are 2-3 mm long and 4-5 mm wide. The seeds are kidney-shaped in appearance. Blooms from June to August. Fruiting is observed in August and September. It reproduces vegetatively and with the help of seeds.

Distribution of the plant. Licorice is often spread along the river valleys of the Adir and chala desert districts of Central Asia. A characteristic feature of the places where it occurs is the relatively high levels of groundwater and temporary flooding

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during the spring – summer period. At the same time, Licorice also grows on the banks of dried up rivers, low-water streams, ditches and canal banks. It is also found as a weed among crops.

Preparation of plant raw materials and its quality. Depending on the place of preparation and weather conditions, the roots and rhizome of the dessert are prepared for harvest from March to November. When collecting raw materials, it is necessary to choose only 50-75% of the total reserve of roots and rhizomes. It is necessary to leave 25-50% of the rhizomes in the soil, since in this way it is possible to ensure the restoration of sweetened shrubs by vegetative reproduction. It is from this area that in order to repeatedly prepare the raw materials of shimmery, in the middle of which 6-8 years should pass, in the middle of this time the bushes are usually completely restored.

The restoration of the raw material base of the dessert can be carried out in two ways:

1. by culturing wild shrublands;
2. by expanding industrial plantations.

Application and chemical composition in medicine. In medicine, the licorice is used to obtain the medicinal preparations glyciram, lycviriton and flacarbin.

The erusty part of the sweetener holds saponin, additives, flavonoids, essential oils, carbohydrates, pigments and other substances. This, in turn, can be used in a promising way in the medical field in the preparation of anti-colds, pain relievers and antiviral drugs.

Licorice is used as a cough reliever in lung diseases accompanied by coughing in the case of decoctions, decoctions, extracts or powder, as an anti-inflammatory and pain reliever in gastrointestinal diseases, as part of medicinal mixtures – as a laxative and urine-driving agent. Licorice powder is used in pharmaceuticals as a primary agent in improving the taste and aroma of drugs.

The following medicinal preparations from the licorice: glyciram – based on glycirrizine acid (bronchial asthma, allergic rashes, eczema, etc.). in the treatment of diseases), lycviriton and flacarbin – obtained on the basis of flavonoids (in the treatment of peptic ulcer and duodenal diseases).

Preparation of a decoction, which is prepared from the root of licorice – 10 g (one tablespoon) of grated licorice is taken and placed in an enameled container, put 200 ml of boiling water, cover the mouth and boil in a water bath for 15-20 minutes. Then it is cooled at room temperature for 45 minutes, passed through gauze, the rest of the product is removed. The resulting tincture is diluted with boiling water until the initial volume is 200 ml. As a cough suppressant, drink a tablespoon 3 times a day. The prepared tincture can be stored in a cooler place for up to 2 days.

Up to 23% saponin-glycyrrhizin and up to 4% flavonoids (lycviritine, lycviritoside, isoleucviritine, etc.) from the roots and rhizomes of licorice.), glabro, glycyrretic acids, steroids, essential oils, asparagine, asparginic acid, pigments and other substances have been isolated.

2. Food plants: consists of 44 species. These plants are used in food as condiments or in their preparation. The leading families of food plants are Rosaceae, Moraceae, Malvaceae, Asteraceae, Fabaceae, Juglandaceae, Brassicaeae. Food plants are divided into the following groups in terms of chemical composition and application:

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a) starch preservatives: significantly starch preservatives in different organs (e.g. Agropyron repens, Phragmites communis, Typha angustifolia, Typha latifolia);

b) sugar keepers: these are at least 8-10% sugar keepers (the leading of these are Saccharum spontaneum, Alhagi pseudalhagi, Alhagi persarum, Ferula assa-foetida, Ferula tadshikorum;

c) wet-fruited: this group includes Berberis oblonga, Berberis nummularia, Perus communis, Malus sieversii, Crataegus pontica, Rosa canina, Rosa fedtschenkoana, Prunus sogdiana, Nitraria schoberii, Elaeagnus angustifolia;

d) dry or hard fruit and hard seeds: dry fruit or seeds are used as food (these include Juglans regia, Amygdalis communis, Amygdalis bucharica, Pistacia vera);

e) used as a drink: used as a drink or used in the preparation of a drink (Ephedra distachya, Ephedra equisetina, Glycyrrhiza glabra, Hypericum perforatum, Polygonum coriarium, Calligonum leucocladum, Calligonum aphyllum, Eremurus olgae, Eremurus regelii;

f) flavoring: in the states of Central Asia, representatives of this group have long been used (these include Ferula assa-foetida, Ferula tadshikorum, Salvia sclarea, Mentha asiatica, achillea millefolium, Artemisia dracunculus).

Hawthorn (Crataegus pontica)

Description of The Botanist. A tree up to 10 meters high. The branches are black-brown. Without thorns. The leaves are flat, dark green, the lower ones are inverted ovoid, the above ones are 4.5-6.5 cm long and wide, rhombic or testicular in appearance. The flowers are pointed, 1.5-2 cm in diameter. The fruit is up to 1-2, 15-28 mm in diameter, yellow. May-July blooms and fruits in September.

Abandonment of the plant. It grows on Rocky and fine chalk slopes, between cliffs, in gypsum sand and in thickets, river banks and tributaries, in montane-Apple, pine and maple forests, in Remnant mountains. Turkestan Hawthorn is distributed in Kyzylkum, Tyanshan.

Preparation of raw materials and its quality. Picking Hawthorn fruits usually begins in late October and continues until spring. Hawthorn fruits are dried in dryers at a temperature of 80-900s. They can also be dried by spreading them thinly on well - ventilated roofs and often rolling.

In the pharmaceutical industry, the demand for Hawthorn fruits is high.

Raw material indicators: it is necessary that the humidity does not exceed 15%, the total ash content does not exceed 4%, other parts of the Hawthorn do not exceed 2%, blackened, burned, diseased fruits do not exceed 3%, crushed pieces of the fruit do not exceed 3%, the unripe fruit does not exceed 5%. The product should not contain poisonous plants and their parts, mold, a sharp unpleasant odor.

Application and chemical composition in medicine. The drug Hawthorn is used in diseases of cartilage, stenocardia, antigeoneurosis, arrhythmia, tachycardia, atherosclerosis and climacteric neurosis.

The fruit of Hawthorn contains 9.9%-carbohydrates, up to 0.3% sucrose, 4.0% - pectin, vitamin C, additives, catechins: epicatechin, leukoantocyanides, etc.

3. Forage plants. It contains 107 species. Notable forage plants include Carex pachytylis, Carex physodes, aellenia subaphylla, Salsola orientalis, Kochia prostrata

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and Artemisia, Aeluropes litoralis of the Salsola order, Gamanthus gamocarpus, Halimocnemus longifolia.

In the plains zone: Artemisia sogdiana, Artemisia tenusecta, Agropyron trichophorum, Carex pachystalis, Poa bulbosa, Hordeum bulbosum;

In the mountain zone: Agrostis turkestanica, Lathyrus pratensis, atraphaxis spinosa, Aegilops triunciali.

Edifiers: Cobresia capilliformi, Poa alpine, Festuca valesiaca, Festuca rubra, Carex pseudofoetida, Carex stenocarpa, Carex stenophylla and others form Meadows consisting of large populations on high mountain ranges.

Bluegrass (Hordeum bulbosum L.)

Description of The Botanist. Bluegrass plant 50-100 cm high. The STEM is hairless, the leaves are 3-7 mm wide, flat, flexible, the upper ones are hairy. The spike is flexible, 6-13 cm long and 6-9 mm wide. Blooms in May and June.

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