

SYSTEMATIC ANALYSIS OF MEDICINAL PLANTS OF BUKHARA REGION

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Abstract:

The article describes in detail the botanical description, geographical distribution, used parts, above-ground parts, chemical composition, and use of medicinal plants found in Bukhara region.

Keywords: Isiriq Bangidevona (*Datura stramonium*) - Solanaceae. Wormwood (*Ermon*).

INTRODUCTION

According to the World Health Organization, 60% of the available medicines are preparations obtained from raw materials of medicinal plants. Currently, 112 types 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. Natural resources of medicinal plants are also limited, and their protection, study of bioecological properties, proper use of resources and development of scientifically based methods of reproduction are urgent problems.

Therefore, today there are specific problems in the breeding of medicinal plants in the Bukhara region. That is, climate, water supply, topography, and soil are of special importance.

The relief of the territory of Bukhara region has many geomorphological features according to consists of somewhat complex planes. The highest place Kuljuktov ridge. With Kuljuktov Zarafshon Oyokogitma bog is located between the valley of the river. Plains Amudarya slope towards the core.

The climate is strongly continental: summer is hot, long, dry, the average temperature in July rises to 28-32°, in the sand dunes it rises to 60-70°. Average January temperature From 0° to -2°. Annual rainfall is 90-150 mm. Basically spring and it rains in winter. Vegetation period 220 day. [43]

It created opportunities for the population of Bukhara region and its economy to use Amudarya water almost completely (Nazarov, Allayorov 1994). caused fundamental changes in the ecosystem

94.4% of fertile land in the Bukhara region has varying degrees of salinity. Desert in the zoneless humus brown colorful sur, sandy desert, barren soils and shorhok widespread.

Datura stramonium belongs to the Solanaceae family. Perennial (one-year cultivation), herbaceous plant reaching 60-150 cm in height. The stem is erect, greener or reddish-purple in color, stiff, branched. The leaf is simple, the fcheti are slightly carved and arranged in a row on the stem, and it has a heady unpleasant smell. The flowers are large, white, bloom only one night. The calyx is erect, five-toothed, swollen and elongated, the base remains with the fruit, the corolla is tube-shaped, funnel-shaped, five-toothed, and the tips are pointed; 5 paternal

nodes, the maternal node is located above. The fruit is a multi-seeded, spherical, gray-green or brown colored and prickly pod.

Mexican banguidova blooms in July-October, the fruit ripens from August.



Figure 1. *Daturastramonium*-

All parts of the plant are poisonous.

Geographic distribution. Native to Central and South America. It is grown in Poltava and Shymkent regions, Krasnodar Territory, Crimea and the Republic of Moldova.

Chemical composition. In all parts of the plant (0.23-0.39% in the leaf, 0.15-0.24% in the stem, 0.21-0.46% in the root, 0.76-0.83% in the fruit, 0.0 in the seed) .83%) will be alkaloids. The main alkaloid is scopolamine. The fruit contains 0.38-0.55% scopolamine and the seed contains 0.31-0.77%. Apart from scopolamine, hyoscyamine, norhyoscyamine and other alkaloids were isolated from the fruit.

Enough(boritikan) The root of *Acanthop-hyllum gypsophiloides* species contains 10-30% triterpene saponins and other substances. Its root is used as an expectorant in bronchitis and other respiratory diseases. Pure saponins are obtained from it. The root of this plant is widely used in food, light industry and other sectors of the national economy. Because of its foaming properties, Yetmak root has been used for a long time in cooking and preparing various halwa.



Figure 2. *Acanthophyllum gypsophiloides*-enough, beh (boritikan)



Figure 3. **Horseradish** (*Rumex*) air-dried in the sun

Horseradish *Torondoshka* is a perennial herb, 60-150 cm tall, belonging to the *Polygonaceae* family. Its roots are dug up in the fall - after the topsoil dries up, cleaned of soil, washed with water and cut into small pieces, open.

The root contains up to 4% anthracene derivatives, 8-15% additives, flavonoids, 0.19% essential oils, resins, vitamin K and other substances. Root decoction and powder are used to treat dysentery, colitis, enterocolitis and other gastrointestinal diseases. Buckwheat medicinal

preparations have the properties of constipation in small doses and laxative properties in large doses.

To Sebar (*Trifolium*) Leguminous plant is a perennial herb, 25-50 cm tall, belonging to the *Fabaceae* family. In folk medicine, the above-ground parts and flowers of sebarga are used. When the plant blooms, its above-ground parts or some flowers are collected and the seeds are dried on the ground. The above-ground parts of meadowsweet contain vitamins of group C and B, carotenoids, coumarins, 2.7% flavonoids (trifolin, isotrifolin, quercetin, isoquercetin, kaempferol, isoramnetin), 4.5% sugars, 0.36% anthocyanins, salicylate and other organic acids, additives and other substances.

Decoctions and tinctures made from its flowers and ground parts are used in folk medicine for spasms, asthma, whooping cough, chest anemia, hypertension, malaria, stomach ulcers, burns, dangerous swellings and colds, and phlegm. used as a putative, diuretic and antiseptic medicine.

I. WORMWOOD (ERMON)

1. In folk medicine, 500 grams of wormwood is boiled in 6 liters of water for 10 days and 50 grams is taken 3 times with a diet.
2. If 50 grams of wormwood decoction is taken 3 times a day for 10 days with a diet, it cures malaria, improves appetite, restores sleep, and removes worms.
3. If the decoction is applied to hard-to-heal wounds twice a day for 15 days, it will heal.



Figure 4. Wormwood (Ermon)

4. Wormwood decoction is useful for old eye patients if it is instilled 3 times for 12 days.
5. If the decoction is drunk 2 tablespoons 3 times a day for 10 days, it will make menstruation irregular.
6. The juice squeezed out of wormwood when wet is useful for jaundice and dysentery, if it is drunk 1 tablespoon 3 times for 20 days.
7. Drinking 2 tablespoons of the decoction 3 times a day on an empty stomach for 15 days prevents colds, anemia, rheumatism, bronchial asthma and insomnia.
8. Wormwood decoction revives the work of the gastrointestinal tract, increases the secretion of bile and the function of the pancreas, and improves digestion. It kills harmful bacteria and fungi in food, has an anti-inflammatory effect, stimulates the central nervous system, and restores the heart's function.

Preparations of the bitter wormwood plant are used as an appetite suppressant and digestive aid, as well as in liver, gall bladder and gastritis diseases.

Chamazulene obtained from the plant is used in the treatment of bronchial asthma, rheumatism, eczema and X-ray burns.

Medicinal preparations. Tincture, nastoyka and dark extract are prepared from the plant. The plant is part of appetizer and laxative preparations - teas, tablets used for stomach ailments, and bitter nastoika.

Licorice root - radices glycyrrhizae (radices liquiritiae) The name of the plant. Hairless (ordinary) licorice (sweet licorice, sweet licorice) — *Glycyrrhiza glabra* L.; Legumes belong to the Fabaceae family. Licorice is a perennial herb, 50-100 cm tall, with a strongly developed underground part. The rhizome is multi-headed, short, thick, horizontally underground on all sides, with branches ending in buds and one main vertical shoot growing downwards. The length of the main 13 shoots is 4-5 m. The stem is several, erect, unbranched or sparsely branched, hairy, covered with small point-shaped glands or small spines. The leaf is composed of 3-7 pairs of leaves with odd feathers, complex. Leaf elliptic, oblong-ovate or lanceolate, flat-edged, covered with sticky glands. Additional leaves are small, lanceolate and shed. The flowers are gathered in a peduncle that emerges from the axils of the leaves. The calyx is

tubular, 5 lanceolate, with sharp teeth, the corolla is purple-purple, and the structure is characteristic of butterfly-florets. Paternity is 10, 9 are united with each other, the tenth is not united. The maternal node is located above. The fruit is a pod that does not open when ripe or opens after the stem dries. It blooms in June-August, the fruit ripens in August-September. Geographic distribution. This plant grows in deserts with salty soil, on ditches, canals and rivers in the marshes, as a weed in cultivated fields. Mainly in desert and semi-desert regions of Central Asia, Kazakhstan, North Caucasus, It is found in Transcaucasia and Ukraine, Moldova, Belarus, in the south of the European part of Russia. The product is produced in the valley of the Ural River, Dagestan, Turkmenistan and Uzbekistan (along the Amu Darya and Syrdarya Rivers) and South Kazakhstan.

Product preparation. The time of product collection is determined by the climate of the place of collection. For example, in the Urals, products are made from May to October, in Dagestan from March to June, and in Turkmenistan from October to April next year. At the same time, 50-75% of the roots are removed, and the rest is left on the ground for reproduction.

Re-production is possible after 6-8 years. In medicine, the raw root of licorice - *Radix Glycyrrhizae naturalis* and the root cleaned from the tube part - *Radix Glycyrrhizae mundata* are used. Appearance of the product. The finished product consists of unpeeled and cleaned root from the tuber part. Root pieces are cylindrical, of different lengths, 5-50 mm thick and more. The thickness of the root adjacent to the rhizome is sometimes 15 cm.

The surface of the untreated rhizome is slightly wrinkled and brown, while the surface of the cleaned rhizome is light yellow (type I) to brownish yellow (type II). The inside of the product is light yellow and sertola. The product is odorless and has a very sweet taste. Microscopic structure of mafasulot. The preparation is prepared by cutting the root softened by the cold method crosswise. The preparation seen in the small lens of the microscope is stained with chlorine-zinc-iodine solution, and the one seen in the large lens is stained with phloroglucin solution and hydrochloric acid (Fig. 19). In the cross-section, the root is covered with cork from the outside (if the cork part is not scraped off), and the bark parenchyma and phloem are located inside. A multi-row plant from the center of the root to the bark

In the parenchyma of the bark and in the cells of the core ray, there are many round-shaped starch granules. In the phloem between the core ray cells, there are thickened sieve-like tubes, which have lost their function and cellular shape, and many lobular fibers (steroids) located in groups. Cambium is located between phloem and xylem. The xylem contains very large and tracheid-enclosed water tubes and sclerenchyma in groups. Parenchyma, core light cells are stained blue under the influence of chlorine-zinc-iodine solution, and water tubes, steroids, sclerenchymal fibers are stained red under the influence of phloroglucin and hydrochloric acid. In the longitudinally cut preparation, various water spouts are visible. Among them is a barrel-shaped water pipe (with a rimmed hole) licorice plant. characteristic of the root. In phloem and xylem, sclerenchyma fibers covered with thick-walled and pointed, crystalline cells are found in groups. Licorice root powder is visualized under a microscope using a chloral hydrate solution. A characteristic feature of this powder is the presence of a group of fibers covered with crystalline cells and fragments of barrel-shaped water tubes and parenchyma cells containing starch grains 15 .

Chemical composition. The product contains up to 24% glycyrrhizin (potassium and calcium salt of tribasic glycyrrhizin acid). Glycyrrhizin is a substance similar to glycosides and belongs to triterpene saponins. It is 40 times sweeter than sugar, and when hydrolyzed, instead of sugar, it forms two molecules of glucuronic acid (therefore not a true glycoside) and monobasic glycyrrhetic acid (aglycone). Licorice root contains about 28 (about 4%) flavonoids (liquiritin, liquiritoside, glabroside and other glycosides and their aglycones), 2-4% bitter substance, triterpenoid-oleanan, vitamin C, asparagine, 6-34% starch, 20% contains mono- and disaccharides, pectin and other substances. Licorice root is rich in flavone glycosides. In addition to flavonoids, the root part also contains saponins, essential oil,

Usage. Preparations of the licorice plant are used as an expectorant for respiratory tract infections, and as a mild expectorant for chronic constipation. Medicinal preparations prepared from the root - glycirram are used for asthma, eczema, allergic dermatitis and other diseases. Herbal preparations and glycyrrhizin and glycyrrhetic acids regulate water-salt exchange in the body and have effects similar to dezoocorticosteroids. Liquiriton, a collection of flavonoids extracted from the root, is used as an anti-inflammatory, antispasmodic and antiseptic agent, as well as for the treatment of gastric and duodenal ulcers. Licorice powder, cut root and dry extract are used in pharmaceutical practice as a basis for the preparation of pills, as well as in potions, teas malar is used to improve the taste. Licorice root is widely used in the food industry (to sweeten the taste of beer, lemonade and kvass) and in technology (for the preparation of foaming liquid for extinguishing fires). 16 Medicinal preparations. Dry extract, dark extract, juice, glycirram, liquiriton (released in tablet form) and flacarbin preparations, root powder is a complex licorice powder, elixir used in breast diseases, and shaved (crushed) root pieces are used in breast and cystic diseases. It is used as a part of diuretic and laxative teas. Along with ordinary licorice, the Ural licorice plant, which is identical in chemical composition, is also used in medicine. Ural licorice — *Glycyrrhiza uralensis* Fisch. the fruit of the plant is sickle-shaped, transversely wrinkled, covered with glands and glandular spines.

Geography. This plant is abundant in Siberia, Kazakhstan (around Syr Darya and Lake Balkhash) and Uzbekistan (along the Syr Darya), and it is prepared in these districts. The underground part of the plant contains 3.2-15.3% glycyrrhizin, a small amount of triterpene saponin - uralenoglucuronic acid (when hydrolyzed, the aglycon - oxyglycyrrhetin - decomposes into uralenic acid and one molecule of glucuronic acid), up to 4.3% flavonoids, up to 11% sugar, starch and other substances, the root part contains up to 3.3% flavonoids and other compounds.

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