

MEDICINAL AND BIOECOLOGICAL PROPERTIES OF WEEDS

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Abstract: *As you know, weeds grow among agricultural crops and cause damage, that is, they share sources of moisture and nutrients with cultivated plants, and together with shading of cultivated plants during the growing season, they are not only a source of diseases and pests, but their role in human health is incomparable.*

Key words: *Botany, weed, plant, pharmaceutical, medicinal, medicinal, chemical, treatment, family, vitamin.*

Scientific research on weeds has been going on for a long time. As a result of joint botanical, chemical and pharmaceutical research, the medicinal properties of many weeds have been identified and medicines are produced. They are widely used in folk medicine and modern medicine for medicinal purposes.

In this area, the merits of the scientific staff of the Botany research center of the Academy of Sciences of the Republic of Uzbekistan and the Research Institute of Chemistry of Plant Substances are unparalleled. Thanks to the results of their effective scientific research, the ecology and chemical composition of not only weeds, but also all plants, have been studied, their medicinal properties have been determined, and they are widely used in various sectors of production and the national economy.

Tribulus terrestris L) is a medicinal weed belonging to the Zygophyllaceae family. It grows in Central Asia, the Caucasus, Altai and Eastern Siberia, in deserts, on plains, along the sides of roads and railways, along the banks of rivers

and streams, in cultivated fields. In Uzbekistan, milk thistle is more often found along railway tracks, roadsides, along the banks of streams and rivers, as well as on gravel and small stone areas.

Not very sensitive to moisture, grows well in dry conditions. The sea buckthorn plant has been used in folk medicine for many years. Until now, its aspects are manifested in scientific medicine, and in the pharmaceutical industry, necessary medicines are prepared from it. The aerial part of the sea buckthorn plant contains steroid saponins, harman alkaloid, up to 0.6% flavonoids, coumarins, up to 160 mg% vitamin C, resins, dyes, astringents and a number of other biologically active substances and high-molecular compounds.

The drug tribasaponin was developed on the basis of saponins isolated from the aerial parts of the plant. This drug in tablet form is used in the treatment of atherosclerosis. A drug called diosgenin is extracted from the surface of the earth, and in the pharmaceutical industry progesterone, cortisone and other hormonal drugs are synthesized from it.

As mentioned above, the *Tribulus terrestris* plant was used by people in ancient times to treat various diseases. The famous physician and scientist Abu Ali ibn Sina used this plant to treat tumors, wounds, especially purulent gum ulcers, and also as a diuretic to remove kidney and bladder stones.

Purslane - *Portulaca oleraceae* L. representatives of the genus *Portulaca* are very common plants in the world, and there are many species of them. As a weed, Purslane is common in crop fields, especially in fields where melons and melons are grown. Warm spring rains make it easier for them to hatch.

Purslane is an annual plant (of the *Portulaca* family) about 30-35 cm high. The stem is fleshy, hairless, the stems are branched or semi-recumbent. The leaves at the bottom of the stem are arranged in a row, and the leaves at the top are opposite. Purslane contains a large amount of vitamin C (300 mg), vitamin K, glucose, alkaloids, glycosides, phosphorus, calcium, elements.

The fenugreek plant has been used as a medicinal plant in folk medicine since ancient times.

Abu Ali ibn Sina used the sap of the fatty tree to stop internal bleeding, to treat hemoptysis, and also as a medicine for pain in patients suffering from eye and liver diseases.

The great scientist reported that oil mixed with wine can treat head wounds, and a tincture prepared on its basis stops pain in the kidneys and bladder, colds and uterine bleeding. In folk medicine, the oil is recommended as an antipyretic, and the powder as a remedy for intestinal ulcers and bloody diarrhea.

The juice of the leaves is used to treat hemorrhoids. As mentioned above, *Portulaca* contains vitamins C and K, as well as elements of phosphorus and calcium, so people eat it by adding it to various salads and soups. The consumption of this plant can be continued throughout the year.

Black nightshade (*Solanum nigrum* L.) is one of the annual medicinal weeds widely distributed in natural and cultivated areas. The genus *Solanum nigrum* L is one of the largest genera of flowering plants, with more than 1,300 species worldwide. Its representatives grow mainly in Central America, South America, Africa, partly in Eurasia and in temperate regions of America.

There are 7 species of Black Nightshade in Uzbekistan. Some of their species are widely used in agriculture in our republic. In addition, there are representatives of this generation that are found like weeds.

Black nightshade is one such species. Black nightshade is considered a medicinal plant, long used in folk medicine. The plant is a weed found in almost all irrigated areas of Uzbekistan. The stem, leaves and fruits of the plant are used in folk medicine.

The aboveground part of the vine is harvested when the plant blooms and the fruits ripen. The top part of the soil is dried in the shade, and the fruits are dried in the open air.

The unripe fruits and aerial parts of Black Nightshade contain glycoalkaloids, vitamins, organic acids, flavorings and other substances. In folk medicine, a tincture of its leaves and fruits or ripe fruits was used to remove worms in children, to treat sore throat and gout. A tincture of its flowers is used for gout, as a diuretic and expectorant. Freshly picked leaves are used to relieve headaches and heal wounds. To do this, the leaf is crushed and applied to a headache or wound. The juice of the leaves is dropped into the ears and nose to treat earaches, chronic flu and nasal ulcers.

Datura common or *Datura stinking* *Datura* - *Datura stramonium* L. is an annual or perennial medicinal alkaloid plant belonging to the nightshade family. The plant is distributed in almost all regions of Uzbekistan. The *Datura* plant is found mainly along roadsides, along ditches, near residential areas, as a weed in fields, gardens and other cultivated areas.

Datura is found as a weed on abandoned land, around residential areas, along roads and ditches, and in fields and gardens. All parts of *Datura* are poisonous, so the plant is used for various medicinal purposes. The leaves and fruits of the plant are widely used for medicinal purposes. Its leaves are collected from the moment the plant blooms until the autumn frosts.

The collected leaves are dried in the shade and dry place. The fruits are collected after ripening. The collected fruits are dried, crushed and sifted to remove seeds. The plant *Datura vulgaris* occupies an important place among alkaloid-containing plants.

Some alkaloids, such as hyoscyamine, atropine, scopolamine, are found in various organs of the plant.

In addition to them, the plant, especially in the leaves, contains some essential oils, carotene, flavorings and other unidentified substances. Oil obtained from the seeds of the *Datura vulgaris* plant is applied to swollen areas of the large intestine to relieve pain due to colon disease. In scientific medicine, the leaf of the

plant is part of the astmatol powder, which is smoked by patients with respiratory diseases.

In conclusion, it should be noted that, as is known, weeds grow among agricultural crops and cause damage, that is, they share sources of moisture and nutrients with cultivated plants and, together with shading of cultivated plants during the growing season, are not only a source of diseases and pests, but also their role in human health is incomparable.

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