BIOLOGY, DISTRIBUTION, AND MEDICINAL USES OF THE INTRODUCED MEDICINAL PLANT "MILK THISTLE"

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Since ancient times, mankind has been a healer in the treatment of many ailments they prepared ointments, tinctures, herbs from plants and used them in the treatment of patients suffering from diseases. People have used plants not only as medicine, but also for food, dyes, clothes, and pest control. Stevia plant is one of the medicinal plants that stand out with its properties. Interest in this plant as a natural low-calorie food source is due to the increase in the number of patients with diabetes, metabolic syndrome, and the many negative effects of using synthetic food sources. related to the increase.

The Uzbek name of the plant called rastaropsha on many Uzbek-language sites is olabota, and it belongs to the genus of the complex flower family. The genus Olabuta (Silybum) includes two species. One of them is the spotted aspen (Silybum marianum), which grows in the southern regions of Uzbekistan.

BOTANICAL DESCRIPTION

The life form of a one-year (in cultivated forms) or two-year thorny plant reaches a height of 1-1.5 meters. The stem is simple or branched, without thorns. The leaves are arranged in a row on the stem, elliptic, with carved edges, large (up to 80 cm in length). Yellow spines are located along the edge of the leaf and the veins on its back surface. The leaf plate is shiny green, with white spots on the surface he flowers are dark red, pink or white and are collected in a large spherical single basket. Thorny leaves surround the flower. The flower head is thick and covered with hairs. All flowers are bisexual, tubular. It blooms in July-August. The fruit is a bean.

Milk thistle (Silybum marianum L.) is a medicinal plant widely used in folk and official medicine. Among the biologically active substances released from the fruits of milk thistle, the dominant components are silybin, silydianin,

silycristin, the sum of which is called silymarin, used as a hepatoprotector. is a high-value source of biologically active compounds in the diet of young cattle.

Milk thistle is characterized by high biological plasticity and adaptability, perfectly combines high productivity with excellent ecological stability and uses the agro-climatic conditions of the zone wisely. However, it is especially common in Russia (Samara, Ulyanovsk and Penza regions) due to weed competition during the mass emergence of seedlings and in the early stages of plant growth. Expanding production by improving the technology of growing it can be a source of increasing the amount of raw materials used. At the same time, technologies for growing this crop have not been developed in relation to the specific soil-climatic conditions of the Yaroslavl region. Therefore, research related to the development of elements of milk thistle cultivation technology is very relevant and of scientific and practical importance.

GEOGRAPHIC DISTRIBUTION

Spotted pike (Rastoropsha) is native to the Mediterranean Sea, the Balkans and the Iberian Peninsula, and it can be found in almost all regions of the Earth. It is naturally acclimatized to many places. In countries such as North America, Iran, Australia, New Zealand, it is registered as an invasive species. It grows in many fields in the southern regions of Uzbekistan. Cultivated due to its medicinal properties. It is planted in large areas in many countries, including Australia, Germany, Poland, Russia, Ukraine, China and Argentina. In European countries, it is planted in March-April.

CHEMICAL COMPOSITION OF OLABUTA (RASTOROPSHA)

Olabuta contributed to a significant decrease in the dry mass of young plants and the total dry mass of weeds, as well as a 2.7-fold decrease in the dry mass of perennial species. The separate application of NPK also led to a decrease in the dry mass of all biogroups (young children 37.5%, perennials 16.3%). As for the species composition of perennial weeds, their community is represented by seven species: large plantain (Plantago major), horse sorrel (Rumexcon fertus), sorrel (Equisetum arvense), field thistle (Sonchus arvensis), field thistle 'nmas (Cirsium arvense), medicinal dandelion (Taraxacum offi cinalis), bindweed field (Convolvulus arvensis). The largest share was

occupied by large onion (68,394.6%), the share of participation was on average 7.3%, other species occupied from 1.0 to 4.3% of the average total number. The most harmful and difficult to eradicate rooting species (field thistle and field thistle) averaged 2.0–4.3% and were present in greater amounts for var. the main active ingredient is flavonoids and flavonolignans (silibinin, silicristin, silidianin). In addition, the plant contains alkaloids, saponins, fatty acids, protein, vitamin K, tar, tyramine, histamine and many macro and microelements.Oil squeezed from its seeds, alcoholic and aqueous extracts, teas and syrup made from its fruit are used in medicine. Ripe fruits of the plant are collected for medicinal purposes. Olabuta (rastroropsha) is mainly used for liver (hepatitis, cirrhosis, poisoning), liver diseases, gallstones, cough and other diseases. Herbal preparations increase the production of bile in the liver.

Belonging to the Asteraceae family, milk thistle is one of the most beautiful and largest species of thistle. The plant is primarily used to treat the liver, stomach and intestines. This plant has proven itself well in the fight against skin and gynecological diseases, cardiovascular pathologies, diseases of the ENT organs. What does it look like? The height of this two-year plant reaches 60-150 cm (with proper cultivation, the height of milk thistle can exceed two meters). The erect, branching stem of the plant is covered with dark green or lime green leaves covered with silver-pearl spots. In addition, milk thistle has long yellow spines on the edges of its leaves. The inflorescences of the plant are collected in lilac baskets with a diameter of 5-6 cm. The fruits of milk thistle are gray, light brown or black achenes. The leaves surrounding the basket are also equipped with sharp spines.

Where does it grow? Milk thistle grows in Central and Southern Europe, as well as in Central Asia. But in Russia, this plant is widespread in the Southern regions of the European part of the country, as well as in the Southern part of Western Siberia. Mainly milk thistle can be found in vacant lots, abandoned lands and along roads. Collection and storage The underground and above-ground parts of the plant have medicinal properties, but nevertheless, the main value of milk thistle is primarily the seeds.

Baskets with seeds are cut with pruning shears. The roots of the plant are dug up in autumn (after the seeds have ripened) and washed under water prepared for drying. At the same time, milk thistle leaves are harvested. Drying of milk thistle cut baskets are placed on the grid with a thin layer, under which paper or fabric is previously spread. The room where the baskets are dried must be ventilated, but at the same time strong drafts must be

avoided (otherwise "parachutes" with seeds will fly away). After drying with scissors, cut the thorns in the basket, then break them and shake out the seeds. For drying, the seeds are placed in a thin layer on paper. In addition, you can collect milk thistle baskets in a bag and grind it well with a stick. Seeds are stored in fabric bags in a well-ventilated place. Roots, like leaves, are crushed and dried, either in a room or in a drying cabinet, the temperature of which should be regulated.

The roots and leaves of milk thistle are stored in closed glass containers. The shelf life of seeds is three years, roots and leaves are one year. The content of milk thistle As mentioned above, the composition of milk thistle contains a large number of biologically active substances. Let's describe the effect of their main ones on the body. Silymarin, a rare substance found in nature, protects and heals the membrane that covers the cells of our body. Effect of silymarin: strengthening of cell membranes; contribute to the formation of new cells; stimulation of protein synthesis; increasing bile production; neutralizing the effects of toxic substances. Thus, Silymarin is an excellent preventive and therapeutic agent that can help prevent or treat liver diseases as well as gall bladder. Fatty oils action: stimulate the regeneration of tissues, as well as body cells; reduce inflammation; normalization of metabolic processes; contribute to the wound healing process; protect against the negative effects of carcinogenic substances.

Effects of essential oil essential oil:

normalizes the activity of the central nervous system; increases the secretion of glands several times;

regulates (that is, enhances) the movement of the gastrointestinal tract. Resin action:

disinfection of wounds; neutralization of pathogenic microbes and bacteria; increase the body's defenses.

Mucous movement: eliminate the foci of inflammation; accelerate wound healing; contribute to the elimination of phlegm.

Lignans act: remove toxins, thereby preventing the development of cancer; reduce the concentration of cholesterol, which prevents the formation of sclerotic plaques;

normalization of hormonal balance; acceleration of metabolic processes;

improve oxygen exchange; regulating the activity of the nervous system. Flavonoids action: strengthen capillaries; detoxification of free radicals;

normalization of blood pressure; Regulation of the activity of the central nervous system; stimulating the work of the adrenal cortex; reduce inflammation; normalization of heart rhythm.

Action of saponins: increase secretion of bronchial glands; contribute to the process of synthesis of corticosteroids; regulation of water and salt exchange;

activation of hormone functions; reduce inflammation. Organic acids act: increase appetite; activation of all metabolic processes leading to the normalization of fat breakdown; strengthen immunity;

elimination of toxins; regulation of the digestive process. Protein action: providing the body with hormones, antibodies and other important enzymes; normalization of hormonal balance;

transportation of hemoglobin; strengthen immunity.

Alkaloids The effect of alkaloids: normalizes blood circulation; neutralizes the pain syndrome;

stimulates the central nervous system in small doses and inhibits it in large doses, B vitamins action: providing energy to muscles, nervous system, brain; remove mental and physical fatigue, strengthen immunity; synthesis of hemoglobin; contributing to the production of sex hormones, improving the condition of the skin, hair, and nails. Vitamin C action: neutralizes the harmful effects of free radicals that destroy enzymatic reactions that cause serious damage to the body. It directly reduces the amount of uric acid in the blood; regulates the redox processes of cellular respiration, enhances the growth and development of bone tissue. increase capillary permeability, strengthen immunity. Vitamin K action: ensures complete metabolism in bone and connective tissue. contributes to the absorption of calcium and its normal interaction with vitamin D, prevents the development of age-related inflammation, because it reduces the amount of special substances in the body that the immune system perceives as a signal for aging, childbirth prevents possible bleeding during; neutralizes toxins, has a harmful effect on the liver and causes the development of serious diseases, one of which is cancer. Milk thistle contains many useful micro and macronutrients, including potassium, boron, iodine, calcium, magnesium, chromium, manganese, zinc, iron and copper, vitamins a, D and F. milk thistle composition and vitamin and selenium deserve special attention.

LIST OF REFERENCES:

1. The Red Book of the Republic of Uzbekistan. - T.: Fan, 2003.
2. Belolipov I.V. Kratkie itogi pervichnoy introduktsii rastenii pridronoy flori Sredney Azii v Botanicheskom sadu AN UzSSR Introduction to plant acclimatization. -T. Science. 1976.
3. Belolipov I.V. Introduction travyanistikh rastenii pridronoy flor Sredney Azii. Monograph. -T. Science, 1989.
4. Ashurmetov O.A., Tokhtayev B.Yo. History, problems and prospects of the introduction of medicinal plants Problems and prospects of the introduction of plants Proceedings of the republican scientific and practical conference. - Khiva: XMA, 2003.
5. Hasanov O'. Centers of origin of cultivated plants. T.: Labor, 1986.
6. Oripov R., Khalilov N. Plant science. Tashkent. 2006.
7. Murdakhaev Yu. Introduction lekarstvennix rasteniy Uzbekistan. -T. 1992.
8. Bakhanova M.V., Namzalov B.B. Introduction plant: ucheb.-method. posobie Ulan-Ude. - Izd-vo Buryatskogo gosuniversiteta, 2009.
9. Karshiboyev H.Q., Ashurmetov O.A. Karshiboyev J.H. Methodological instruction on conducting scientific-research works in the field of reproductive biology of plants. - Gulistan, 2008.
10. Khudoykulov S. M., Nazarenko L. N. Practical training on systematics of plants. "Teacher", Tashkent, 1984.
11. Ozolin P.K. Materialy po kulture nekotorix lekarstvennix rasteniy v okrestnostyakh Tashkenta Byul.Sr.Az.Gos.Un-ta, 1934.
12. Abdurakhmanov A.A, Valikhodjaev S.P. Itogi introduktsii dalne-vostochnyx travyanistyx rasteniy v Botanicheskom sadu AN UzSSR Introduktsiya i acklimizatsiya rasteniy. - T.Fan., 1980.
13.www.gov.uz - the government portal of the Republic of Uzbekistan.
14.www.lez.uz - the national source of information on legal documents of the Republic of Uzbekistan.