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Morphology, Chemical Composition and Medical Use of Ocimum Plant

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Abstract: In this article, the morphology of basil plant, propagation ecology, agrotechnical measures, preparation of raw materials and its quality, use in medicine and folk medicine, chemical composition and recommendations on the use of the plant are highlighted. Today, traditional medicine (folk medicine) is a very rich and vast body of experience and knowledge, imbued with folk ingenuity. It is an inexhaustible resource that enriches scientific (official) medicine with new, effective medicinal preparations. The value and role of folk medicine in this field is priceless. For this, as an example, it is enough to remember that most of the medicinal plants used in modern medicine were taken from the treasury of folk medicine in a short period of time, or that modern scientific medicine developed on the basis of folk medicine.

Key words: basil, essential oils, additives, glycosides, saponins, mineral substances, ascorbic acid, sugars, cellulose, protein, vitamin R, provitamin A, camphor.

Among the drugs used in the treatment of various diseases that occur in the human and animal body, drugs prepared from medicinal plants have a significant place. Many medicinal plants are not sold in pharmacies, but are considered the main source of raw materials for the production of medicines. When we use medicines, we often do not even think about the fact that they are made from medicinal plants. For example: Cardiovalen is one of the high-quality drugs used in the treatment of heart diseases, and it is a complex compound made from hawthorn, valerian, adonis and several other types of plants. Currently, one third of the more than 900 different medicines used in medicine are products of medicinal plants. 77% of drugs used to treat heart diseases, 74% of drugs used to treat liver and gastrointestinal tract diseases, and 80% of drugs used against uterine diseases are made from medicinal plants.

Basil (Ocimum) is a group of annual grasses, shrubs and low shrubs belonging to the family of labradoraceae; decorative, medicinal and spice crop. 60 (according to some reports, 150) species grow in tropical and subtropical regions. Eugenol basil (Ocimum gratissimum) species is cultivated as an annual crop (in small quantities) in South Africa, India, Sri Lanka, Georgia, the south of the Krasnodar Territory of the Russian Federation. Heat-loving, moisture-loving, light-loving, drought-resistant plant. The leaves are large, egg-shaped, the flowers are white or pink, collected in a spike-like inflorescence inside the stem and branches. Green pulp contains 0.3% essential oil (70% of essential oil is eugenol, used in food industry and medicine). The seeds are sown in greenhouses and greenhouses in early spring, and planted as seedlings in the field. Productivity is 40-80 s/ha of blue mass. Originating from South Asia, O. basilicum (common basil) is grown in Uzbekistan as an ornamental, ornamental and spice crop. 25-40 cm tall, 2-lipped corolla, flowers and seeds in May-October, planted as seedlings. Depending on the color of the leaf and the shape of the plant, it is divided into types such as white basil, soup basil, sada basil, black basil, Haji basil. They have more than 300 varieties.

Plant propagation. It is naturally distributed in Iran, India, China, the south of Asia, Africa and the tropical zones of America. The homeland is Africa. It spread to Europe through Alexander the Great's warriors returning from Asia. It is propagated by seeds and seedlings.

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Agrotechnical activities. It is known from experiments that the basil grown by planting is light-loving, chooses the soil (especially in irrigated conditions), and is resistant to weeds. The main plowing is carried out in November at a depth of up to 25 cm. 50 tons of manure and up to 100 kg of phosphorus are added to each hectare of bare, barren, barren land. In the spring, the field is plowed and leveled. Usually, in March-April, seeds are sown at the rate of 5 kg per hectare in vegetable planting equipment. In order for the seed to fall evenly, 1/5 of sand or other filler is mixed with it and planted at a depth of 0.5 cm. After that, the sown land should be slightly compacted with a roller. When the grass is harvested, but during the dry season, when the surface of the soil is dry, as well as during planting, the tractor is used for sowing equipment. It is irrigated by successive folding and soaking, otherwise the crop may be completely washed away. Seeds can germinate only if the compacted soil layer is kept moist for 2-3 weeks. After 10-16 days after sowing, the grass starts to appear. At first, growth is slower and weedy. Therefore, after every two irrigations, the soil is softened and planted, and if the crop is dense, it is unified. It is watered up to 12 times during the season in the first year, up to 8-9 times in subsequent years (April-1, May-2(1), June-July 2 times, August-2(1), September-1). Nitrogen fertilizer is applied at the rate of 50 kg per hectare before harvesting in mid-July.

The above-ground part of basil (stalk 80 cm long) is harvested during the full flowering period (end of June - beginning of July). For this, a mower and a sickle are used, and in large areas, a silage harvester or a hay harvester is used. In this case, the cutting parts and tools must be sharp, because blunt tools can damage the basil crop, the plant can even be uprooted. Harvested basil is spread in the shed up to 7 cm thick and is periodically turned over to dry. After it dries well, it is passed through a 2-2.5 cm sieve, and the flowers and leaves are separated from the stems. Productivity is 10-12 centners per hectare.

Preparation of raw materials and its quality. Plant raw materials are collected at the beginning of full flowering, in early July. In this case, only the upper flowering part of the branches is cut. When harvesting is delayed, the quality of essential oils and raw materials decreases. 2/3 of the generative branches are cut. It is necessary to collect raw materials from the fields that have rested for at least 2 years. The harvested raw materials are spread with a thickness of 5-7 cm by placing paper under the awning and turning it over all the time. Then it is dried in special dryers at a temperature of 350C, crushed and coarse stems are removed. 5-15 kg of unchopped plants are placed in bags, and 10-30 kg of chopped ones. Stored in dry, ventilated rooms. The shelf life is 2 years. Moisture content of raw materials should not exceed 13%, essential oil should not be less than 0.2%, calculated in absolute dry state. Mold and rot should not be allowed. Ready raw materials are placed in bags of 25 kg or in bales of 50 kg. It is stored for up to one year.

Use in medicine and chemical composition. Rayhon is a source of eugenol and camphor essential oils. Essential oils and eugenol are used in perfumery and food industry. Leaves are a source of carotene and rutin. In medicine, the above-ground part of basil (without stems and woody lower parts) is used. It has astringent, anti-cold, wound-healing and antiseptic effects. Therefore, it is useful to use the plant during the flu epidemic. Basil improves dizziness, digestion, relieves toothache, relaxes smooth muscles of the uterus, and reduces swelling of the rectum.

Angina - 1 g essential oil of basil 50 g. mix with powdered sugar and take 1 tablespoon after meals with tea. Flu - 2-5 drops of essential oil taken 2-3 times a day with honey. Urinary tract stone disease - 2 tablespoons of basil flowers are boiled in 1 glass of water, cooled and passed through gauze and used as a diuretic. Nervous tension and severe fatigue - add 1 tablespoon of basil to 1 cup of boiled water, infuse for 15-20 minutes and drink with sugar or honey. It should not be more than 2 times a day. Nausea - add 1 tablespoon of basil to 1 cup of boiled water and let it rest for 20 minutes. It is passed through gauze and drunk in case of nausea. Toothache - soak a cotton ball with essential oil and apply it to the aching tooth. Infuse 1 tablespoon of basil in 1 glass of boiled water for 15-20 minutes and rinse your mouth. In angina, gargle with this tincture. Yutal - essential oils of basil and eucalyptus are mixed in equal amounts, diluted in

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1 cup of boiled water and inhaled with its steam (covered with a towel). Otitis - 2 tablespoons of ground basil are put in 0.5 l of water and kept until boiling over low heat, let it rest for 10 minutes and apply a compress to the sore ear. Kopress can be done for 1-2 hours every day until the ear pain stops. Wounds - put 1 tablespoon of basil seeds in 1 cup of boiled water and leave for 15 minutes, and then wash the wounds. Basil essential oils soften and nourish the skin. Its drugs are not recommended for heart disease, diabetes, thrombophlebitis.

The above-ground part of the plant contains 1-1.5% essential oils, up to 6% additives, glycosides, saponins, mineral substances, ascorbic acid, sugars, cellulose, protein, vitamin R, provitamin A, camphor. Essential oil is a plant containing eugenol (70%), methyl havinol, cineole, linalool, camphor otsimenes.

Recommendations. It can be grown in unlimited quantities in all regions of Uzbekistan.

Summary: Today, traditional medicine (folk medicine) is a very rich and huge complex of knowledge, imbued with the wisdom of the people. It is an inexhaustible resource that enriches scientific (official) medicine with new, effective medicinal preparations. The value and role of folk medicine in this field is priceless. For this, as an example, it is enough to remember that most of the medicinal plants used in modern medicine were taken from the treasury of folk medicine in a short period of time, or that modern scientific medicine developed on the basis of folk medicine.

List Of References:

1. Karimov V., Shomahmudov A. Medicinal plants used in folk medicine and modern science. — Tashkent, 1993.
2. Kursanov A. I. and others. Botany Volume 2 - Tashkent, 1963.
3. Mustafoyev.S.M. Botany - Tashkent, 2002.
4. Nabiyev M. Botanical atlas-dictionary. —Tashkent, 1969.
5. Nabiev M. Lechebnyedary Chatkala - Tashkent, 2004.
6. Oripov.R.O, Khalilov.N.Kh. Plant science - Tashkent, 2007.
7. Pratov.O`.P, Nabiyev.M.M. Uzbekistan is a modern country of tall plants system - Tashkent, 2007.
8. Yusupova, Z. A., & Baratjon ogli, S. F. (2022). LABGULDOSHLAR OILASI VAKILLARINING HAYOTIY SHAKLLARI, MORFOLOGIYASI VA TARQALISHI. IJODKOR O'QITUVCHI, 2(24), 472-479.
9. Yusupova, Z. A., & Baratjon o'g'li, S. F. (2022). LAMIACEAE OILASINING EFIR MOYIGA BOY BO'LGAN BAZI TURLARINING MORFOLOGIYASI. Scientific Impulse, 1(2), 692-695.
10. Yusupova, Z. A., & Baratjon o'g'li, S. F. (2022). BIOECOLOGICAL PROPERTIES OF MEDICINAL SPECIES OF THE MINT FAMILY (LAMIACEAE). Finland International Scientific Journal of Education, Social Science & Humanities, 10(11), 183-190.
11. Yusupova, Z. A., & Baratjon ogli, S. F. (2022). NATURAL MEDICINAL HERBS OF THE LAMIASEAE FAMILY AND THEIR MEDICAL PROPERTIES. JOURNAL OF INNOVATIONS IN SCIENTIFIC AND EDUCATIONAL RESEARCH, 2(13), 64-68.
12. Haydarov, M., Sayramov, B., Rahmonova, O., & Eshnorova, J. (2022). TARKIBIDA MONOSIKLIK MONOTERPENLAR BO 'LGAN EFIR MOYLAR VA DORIVOR O 'SIMLIKLAR. Science and innovation, 1(A7), 337-343.
13. Teshaboyeva, M., Mamanazarov, B., & Sayramov, F. (2022). LAMIACEAE OILASINING ZIRAVORLIK XUSUSIYATIGA EGA TURLARI. Science and innovation, 1(D8), 509-514.

ISSN NO: 2771-8840
Date of Publication: 11-02-2023

14. Yusupova, Z. A., Sayramov, F., & Azizov, R. (2023). RAYHON OSIMLIGINING MORFOLOGIYATI, KIMYOVIY TARKIBI VA TIBBIYOTDA QOLLANILISHI. Eurasian Journal of Medical and Natural Sciences, 3(1), 14-19.
15. Baratjon o'g'li, S. F. (2022). SPECIES OF THE LAMIACEAE FAMILY WITH SPICE PROPERTIES. Finland International Scientific Journal of Education, Social Science & Humanities, 10(11), 85-89.
16. Baratjon o'g'li, S. F. (2022). LAMIACEA OILA VAKILLARINING DORIVORLIK XUSUSIYATLARI. INNOVATIVE ACHIEVEMENTS IN SCIENCE 2022, 2(13), 41-43.
17. Yusupova, Z. A., & Baratjon ogli, S. F. (2023). CHEMICAL COMPOSITION OF MEDICINAL PLANTS AND USE IN MEDICINE. PEDAGOG, 1(5), 30-36.
18. Yusupova, Z. A., & Baratjon ogli, S. F. (2023). ESSENTIAL OIL PRESERVATIVE CONTAINING TIMOL REPRESENTATIVES OF THE LAMIACEAE FAMILY. SO 'NGI ILMIY TADQIQOTLAR NAZARIYASI, 1(6), 104-108.
19. Yusupova, Z. A., & Baratjon ogli, S. F. (2023). LIFE FORMS, MORPHOLOGY AND DISTRIBUTION OF REPRESENTATIVES OF LAMIACEAE FAMILY. Finland International Scientific Journal of Education, Social Science & Humanities, 11(1), 288-295.