

MEDICINAL PROPERTIES OF CUMINUM CUMINUM L. AND ITS IMPORTANCE IN THE NATIONAL ECONOMY.

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Annotation: Cuminum cyminum L. is a medicinal plant, commonly known as cumin or cumin. It has long been of great importance in Eastern medicine, especially in the medicine of Central Asia, India, Iran and Arab countries. Cumin is widely used not only for its medicinal properties, but also in the food industry, perfumery and other sectors of the national economy. This article will comprehensively cover the biological and chemical composition, pharmacological effects, role in folk and modern medicine, as well as economic importance of Cuminum cyminum L.

Keywords: Cuminum cuminum L, medicinal properties, cumin and cumin.

Cuminum cyminum L. has been cultivated since ancient times in ancient Asian regions - in countries such as Iran, Turkmenistan, Afghanistan, Uzbekistan and India. The plant is thermophilic and well adapted to semi-desert and dry climatic conditions. Currently, cumin is cultivated in many countries of the world, including southern Europe, parts of North Africa and some parts of the American continent. Cumin is an annual plant belonging to the Apiaceae family. The stem is erect, up to 20–40 cm high. The leaves are thin, feathery, with small lobes. The flowers are located in umbellate inflorescences of white or pink color. The fruit consists of two seeds, oblong, pungent odor, gray-brown in color. The main medicinal part of the plant is the seed.

The composition of Cuminum cyminum L. and its beneficial properties are given below.

1. Chemical composition: Cumin seeds are rich in the following biologically active substances:

- essential oils (2.0–5.0%): cuminaldehyde, γ -terpinene, p-cymene, cuminol;
- fatty oils (10–15%);

- flavonoids: quercetin, apigenin;
- alkaloids and tannins;
- minerals: iron, calcium, phosphorus, magnesium;
- vitamins: A, C, E, group B. These substances determine its medicinal properties.

Medicinal properties of cumin: Cumin is famous for its versatile pharmacological effects. Its main medicinal properties:

- Improves gastrointestinal function.
- Reduces gas accumulation (carminative effect).
- Increases the secretion of digestive enzymes.
- Stimulates appetite.

Antimicrobial and antiseptic properties: Cumin essential oils are active against many bacteria (E. coli, Staphylococcus aureus), fungi, and parasites.

- Anti-inflammatory: reduces inflammation in internal organs;
- provides relief from diseases such as colds and bronchitis.
- Scientific studies have shown that cumin extract helps normalize blood glucose levels.
- Strengthening the immune system: The vitamins in cumin, especially vitamin C, boost immunity.
- Calming properties: Essential oils relax the nervous system and normalize sleep.
- Antiallergic effects: Antioxidants in the plant reduce histamine release.
- Use in folk medicine: Cumin has long been used to treat the following diseases:
 - gastrointestinal colds;
 - gas and constipation;
 - coughs, colds, bronchitis;
 - liver dysfunction;
 - anti-parasitic;
 - women's health: reduces menstrual pain, increases lactation;
 - aromatherapy with essential oils in moments of fainting and dizziness.

Importance in modern medicine. Today, cumin is used scientifically in the following areas:

- pharmaceuticals: in tablets, extracts, teas, syrups;
- dietology: as a natural substance that increases metabolism;
- aromatherapy: as an essential oil that reduces stress.
- It is widely used in kitchens and restaurants as a spice.
- It is used in the preparation of sausages, meat, fish, bread and sweets.
- One of the main spices in the canning industry.
- Cultivation of *Cuminum cyminum* in Uzbekistan: Uzbekistan is one of the world's leading countries in the cultivation of cumin. It is planted in large areas in Navoi, Bukhara, Kashkadarya, Surkhandarya regions. Local cumin has a high quality, strong aroma and is in great demand in the international market.
- Ecological and agronomic properties:
 - Cumin is drought-resistant.
 - Grows well on sandy and light soils.
 - Sensitive to excessive moisture.
 - Vegetation period 100–120 days.

Economic efficiency of cumin:

- 3–6 centners of seeds are obtained from 1 hectare.
- Low cost, high profit margin.
- Export income is increasing every year.

Conclusion: *Cuminum cyminum* L. is a plant of great medicinal, economic and cultural importance. Its chemical composition is rich in biologically active substances, which have a positive effect on the digestive system, immunity, nervous system and inflammatory processes. Cumin is widely used in folk medicine and modern medicine. It also plays an important role in the food, perfumery and pharmaceutical industries. For Uzbekistan, it is an export-oriented, economically profitable agricultural product. Scientific study of this plant, the creation of high-yielding varieties and improvement of cultivation technology will further strengthen the country's economic potential.

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