

Oriental lentil - a biological description of the plant *Lens orientalis* Schmall**Mukimjonova U.V**PhD, Department of chemistry, Kokand State Pedagogical Institute,
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ANNOTATION: There are several types of leguminous plants on earth, of which the types, biological description and mineral composition of the lentil plant are listed. At the same time, we will see the effects of the lentil plant on people's health in medicine.

Key words: lentil plant, leaves, flowers, mineral content, health benefits.

Lentil is an annual grain herbaceous plant belonging to the legume family, a grain crop. 10 species are distributed in the Mediterranean Sea, Asia Minor, Transcaucasia and Central Asia. Large-seeded and small-seeded lentil varieties have long been cultivated in European countries, North Africa, Colombia, Chile, Russia and other countries. The root of the lentil is thin, 60-70 cm tall. The leaf is complex, double feathery, with curls at the tip. The flowers are small, pink, purple, blue, often white, 2-4 in leaf axils, self-pollinated. The fruit is a pod, the seed is round, yellow, pink, green, brown. The seed contains protein, fat, starch, ash, fiber, as well as vitamins B₁ and B₂. Dishes are prepared from large-seeded lentils. It ripens quickly and is crushed, flour and gruel are produced, it is added to sausages, the small-seeded ball of blue mass of Lentil is a valuable feed for livestock. Lentil spring, heat-loving, moisture-loving, short-day and long-day plant. The seed germinates in 8-10 days at 4-5°C. The growing period is 80-120 days, depending on the variety. Resistant to short-term frosts. It is sown in wide rows in early spring. It blooms in April-May and seeds in May-June. Grows mainly with ephemeral plants. Lentils are distributed in Tashkent, Samarkand, Fergana, Kashkadarya and Surkhandarya regions of the Republic of Uzbekistan. The pods in the middle and lower part of the stalk are harvested when they turn yellow.

The seed contains starch, fats, proteins and mineral salts. Wounds are washed with a tincture made from its seeds. It is gargled for sore throat and drunk for jaundice. Lentil is a plant rich in iron, besides it is rich in other minerals such as potassium, magnesium, phosphorus and calcium.

The amount of magnesium that one serving of lentils provides to the human body is equal to 20% of the daily needs for this body. Magnesium is a very important mineral for our health because it is involved in many organic functions, bone tissue and nervous systems. It is important for athletes that involve muscle mass movement, because it improves the recovery of the fiber. It is also beneficial for the immune and cardiovascular systems.

Although the calcium content of lentils is lower than cow's milk, when balanced with other minerals such as phosphorus and magnesium, they can be considered an excellent food for bone health.

In addition, lentils contain a lot of fiber, a complex carbohydrate that is similar to other carbohydrates only in its chemical structure. Fiber is indigestible in the stomach and small intestine, and plays an important role in maintaining the gastrointestinal tract and weight control. Passing through the entire gastrointestinal tract, it removes undigested food residues from the walls, absorbs

toxins and expels all this from the body, stimulates peristalsis. By cleaning the intestines from food residues and toxic substances, fiber cleans the whole body. If it is not consumed in sufficient quantities, the residual masses circulate through the intestines, settle on its walls and get absorbed into the bloodstream, poisoning other organs and systems.

Another reason to add saffron to the diet is their high antioxidant value. These legumes are rich in polyphenols, powerful plant compounds that slow down oxidative stress in the body, reducing inflammation and the risk of chronic disease. Fighting free radicals with antioxidants is recognized as one of the main causes of premature aging. Therefore, lentils are an excellent helper in keeping the youth of not only the skin, but also the whole body.

Lentils come in different varieties that differ in color and taste. All types of lentils are about the same in terms of nutrients, but green lentils have more protein and calcium and retain their fiber-rich shell better than red lentils. Red lentils set a record for the amount of iron and potassium. These substances are necessary for proper protein metabolism, as well as the control of hemoglobin levels in the blood. But black lentils can provide the bulk of vitamin E and zinc. The tandem of these two substances has a beneficial effect on the functioning of the endocrine, reproductive and nervous systems.

Lentils are rich in useful trace elements such as calcium, magnesium, potassium, phosphorus, and iron. There are also fatty acids, such as omega-3 and omega-6, which are beneficial for skin and hair.

Lentils contain more folic acid than other legumes. Soluble fiber in lentils improves digestion. Regular consumption of porridge made from this product improves metabolism in the body and increases immunity.

This leguminous product is rich in vitamins of group B, RR, A, and C. With its nutritional value, lentils can replace bread, cereal and even, in a certain sense, meat. Like other legumes, the presence of magnesium in lentils contributes to the normal functioning of the heart and nervous system. It also contains tryptophan, and when this amino acid enters the human body, it turns into serotonin, which is called the "hormone of happiness".

Experts recommend eating lentils to lower blood sugar levels for people with diabetes. Porridge made from it is also recommended for the treatment of stomach and duodenal ulcers, colitis (constipation). Chinese healers say that lentils are among the best products for customers. Therefore, dishes prepared from it are considered healing in cold days.

It should not be forgotten that this product, along with its beneficial aspects, also has its harmful aspects. For example, lentils are not recommended for those suffering from gout, hemorrhoids, diathesis, diseases of the genital organs, kidney disease.

Like any other product, lentils have their own contraindications. First, there are legumes that cause bloating and intestinal discomfort. Therefore, it is better to be careful with lentils if you have a sensitive gastrointestinal system or chronic diseases of the stomach and intestines. Second, since lentils are difficult to digest, people with conditions such as gout should avoid them.

Due to the high content of phytic acid in lentils, it reduces the absorption of nutrients, especially calcium and iron. If your body is tired of lack of vitamins and minerals, excessive use of lentils is not dangerous.

References:

1. Исаков В.Ю., Исаков М.Ю., Мукимжонова У.В. Микробиогенные элементы в системе «порода – почва – растение» на лугово-оазисных почвах Западной Ферганы // U55 Universum: химия и биология: научный журнал. – № 9(99). Часть 1. М., Изд. «МЦНО», 2022. – С. 45-51
2. V.Muqimjonova, M.Yu.Isaqov, N.T.Xujayevavigna sinensis, phaselous ayreus, arachhis hypogaea o'simliklar donlari va poyalarining organik tarkibi. Товарлар кимёси ва халқ табобати журнали Андижон, 2022 №2.
3. Қодирова Ш.М., Исаков М.Ю., Мукимжонова У.В..The connection of the elemental composition of grains and stalks of the mung bean plant to the soil // In Volume 1 of The ASEP Journal ISSN: 1097-9751 Journal Impact Factor: 7.718, August 2022, pp.92-94.