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# The Big Life-Giving Miracle of the Little Red Fruit

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**Annotation:** The article provides complete information about the goja plant. Goja fruit plant is a very decorative and honey-producing plant. Its roots reach a depth of 3-4 m and prevent soil erosion in hilly and mountain areas. Makes a very decorative living wall. Propagated from seeds and cuttings. 2 years after planting, it is partially harvested, and 3rd year gives a full harvest. The fruit is dried and eaten after it is fully ripe.

**Keywords:** Goja plant, honey-producing plant, decorativ, complete information, propagated, seeds and cuttings, fruit, dried, fully ripe.

### Introduction

According to statistics, the Himalayan people do not have problems with excess cholesterol, impotence, depression (mental exhaustion), they do not suffer from liver cancer, diabetes, heart-vascular diseases, and live a healthy, long life compared to the peoples of many European and other countries. For several years, scientists who studied the secrets of longevity and nutrition of the people of the Himalayas came to the conclusion that they constantly eat the fruit of the small red Goji plant that grows in this region.

Goji is a plant belonging to the Solanaceae family, light-loving, cold (-30  $^{\circ}$ C), heat (+40  $^{\circ}$ C), resistant to soil salt, growing up to 2.54 m tall, the scientific name is Lycium barbarum (Deraza obyknovennaya).

The leaves are ellipsoidal or inverted ovate, young branches are solitary, in old ones there are 2-5. The flowers are bluish in color and have a very pleasant smell.

The fruit is a longer (1.5-2.5 cm), dark red berry. It blooms from late May to September and ripens from June to late autumn. During this time, the plant's willow-like hanging branches, leaves, flowers and red fruits form a very beautiful sight, the flowers attract millions of bees, and the beautiful red fruits attract birds(fig-1).





Fig-1

Goja fruit has been used in Chinese medicine since ancient times, and the plant was cultivated in the 13th century.

Goja fruit is grown in China on an industrial scale (82,000 ha), and 95,000 tons of dried fruit are exported to the world market annually. The medicinal properties of the small red fruit of the Goja plant are popular in Asia, America and Europe.

The price of 1 kg of dry fruit is sold from 50 to 143 US dollars, depending on the quality and size.

## Method and results

This is what was known from the results of experiments goja fruit is richer in mineral composition and vitamin content than all fruits and vegetables known to science.

Goja fruit contains:

- $\checkmark$  19 different amino acids;
- $\checkmark$  21 different macro- and microelements, even germanium, which is rare in food products;
- ✓ protein (13% more than wheat grain);
- ✓ 400 times more vitamin C than oranges;
- $\checkmark$  vitamins B<sub>1</sub>, B<sub>2</sub>, B<sub>6</sub>, B<sub>12</sub> and E;
- $\checkmark$  many gamma carotenes (even beta carotene) and zeaxanthin;
- ✓ some unsaturated fatty acids, even linoleic and alpha linoleic fatty acids;
- $\checkmark$  betain (participates in the production of choline in the liver);
- $\checkmark$  antioxidants and carotenoids;
- ✓ 8 different polysaccharides and 6 different monosaccharides.

#### It has healing properties

It has been proven that signs of aging in human cells have stopped after 6 hours of consuming goji berries.



If 15-20 g of goji fruit is consumed every morning, as a result of its healing effect:

- strengthens the body, increases its endurance, resistance to mental shocks, and adaptability to weather changes;
- > normalizes the level of cholesterol in the blood and prevents atherosclerosis;
- Iowers the level of sugar in the blood, prevents the development of diabetes;
- > as an antioxidant protects against aging, oncological and cardiovascular diseases;
- prevents liver diseases hepatitis, liver cirrhosis, fatty liver dystrophy, improves metabolism in liver cells;

American Kansas State University scientists found in their clinical trials that zeaxanthin, lutein, polysaccharide and polyphenols contained in goji fruit improve human vision, prevent age-related macular dystrophy, glaucoma and diabetic retinopathy;

- Iowers arterial blood pressure, "rejuvenates" the blood of the elderly, improves blood supply to body organs. Stimulates blood renewal function;
- pituitary hormones known for the development and growth of the organism, pancreatic hormones that ensure the activity of inulin, sexual activity stimulates the normal functioning of prostate hormones;
- ➢ increases immunity, i.e. defense forces.

Also, Goji fruit is recommended against headache, dizziness, insomnia, dry cough, intestinal atony.

Cancer and AIDS patients raise the level of the body's defense forces (immunity). Reduces complications of chemotherapy and light therapy.

Goja fruit plant is a very decorative and honey-producing plant. Its roots reach a depth of 3-4 m and prevent soil erosion in hilly and mountain areas. Makes a very decorative living wall(fig-2).



Fig-2

Propagated from seeds and cuttings. 2 years after planting, it is partially harvested, and 3rd year gives a full harvest. The fruit is dried and eaten after it is fully ripe.

Toshkent davlat agrar universitetining biofizika va fiziologiya kafedrasida fizik kimyoviy usullar yordamida to'liq tarkibi, hamda qozoqiston respublikasi ilmiy tekshirish instituti olimlari birgalikda bu o'simlik ustida ilmiy tajribalar olib borilmoqda.



# Conclusion

Dried goji berries do an excellent job of normalizing our mood. Taking them helps relieve mood swings and bouts of depression. With the help of these berries it is very easy to normalize sleep and cope with insomnia. They can help increase natural endurance levels and restore strength after strenuous physical activity. They will also help cope with many hormonal problems, as they can normalize hormonal imbalance. In addition, another beneficial effect of taking this storehouse of nutrients will be a decrease in blood sugar levels, which is a beneficial effect on the health of many of us.

Goji has gained enormous popularity for weight loss. And this is not without reason: their popularity for these purposes has been proven repeatedly. Weight loss is achieved by the following methods: by taking this natural remedy, your metabolism and blood circulation are significantly improved, the metabolic process begins to proceed more gently and at the same time quickly due to the effect of beneficial antioxidants. Blood sugar and cholesterol levels decrease. Such a deep cleansing of the body naturally leads to health improvement and weight loss. Therefore, berries for weight loss are extremely popular due to the gentleness of the weight loss process itself and lasting results.

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