

INDUCTION OF GOJI (LYCIUM BARBARUM) AND UZBEKISTAN GROWING CONDITIONS

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Annotation- Present, Uzbekistan is one of the fastest growing countries in the world. New innovative innovations are taking place, new ideas and innovations are being created in the field of science. In addition, inter-production is developing and new plant varieties and species are being adapted to our region. There are more than 4,500 species of plants in our region, of which 1,150 are used in folk medicine. Rapidly developed countries such as the United States, European countries, China, and Russia are unable to supply raw materials for the food, pharmaceutical, and perfumery industries. Much of the natural vegetation cover has been reduced. That is why we started to buy medicinal plants that are common in our region (licorice, kovar, kovrak, namatak, sitanhe, etc.) for a large amount of money. Thus, a widespread plantation of medicinal plants is being created in our region.

More than 90 species of the lycium family are widespread on Earth, most of which are halophytes. Under natural conditions, this species can be found in the Caucasus, Central Asia, as well as in the Lower Volga region of the European part of Russia. There are 3 naturally occurring species of Lycium in our region and they are called jingil in the vernacular. These are white jungle (*L. turkomanicum* Turcz.), Black jingle (*L. ruthenicum* Murr.), Wild jungle (*L. dasystemum* Pojark.) And are found naturally in desert and semi-desert areas. The Lycium family is native to Tibet, China, and is known locally as Goji. It is widely used in Chinese folk medicine and is a world-famous plant.

Keywords: Goji, Lycium barbarum, Orange, Solanaceae, Southeast Europe, China, Ningxia, USA, Serbia, Greece, polyphenols, flavonoids, alkaloids, vitamins, Introduction

INTRODUCTION

The Latin name Goji (Tibetan olive) (*Lycium barbarum*) belongs to the family Solanaceae. It is distributed in all regions from Southeast Europe to

China at an altitude of 2500-3000 m above sea level. It consists of hanging branches in the form of a bush and has thorny branches. It reaches a height of 3 m. The leaves are elongated, simple light green. The leaves reach a length of 25-50 mm. The flowers are located in the leaf axils separately. The flowers are purple (purple-pink) in color, bell-shaped. The flowering period lasts from June to September. The number of petals is 5. Pollination is done by insects or self-pollination. After fertilization, bright red or orange, egg-shaped berries are formed. Goji berries are small, up to 1.5 cm in length. The fruits ripen from August to October. They contain up to 20 brown-yellow round seeds.

Easily tolerates all the unpleasant whims of the weather - heat, drought, rain, cold. It does not require special care, almost does not suffer from diseases and pests, and can produce large yields, even in northern areas. Goji can withstand temperatures down to -26 ° C in winter and +37 ° C in summer.

Goji leaves are rich in bioactive substances, including polyphenols, flavonoids, alkaloids, vitamins, 21 minerals, 18 amino acids, 8 of which are not produced in the human body, 4 non-substituted polysaccharides (LBP-1, LBP-2, LBP-3, LBP-4), they are not present in any food. It therefore has antioxidant, enzyme inhibitors, and antimicrobial and antimutagenic effects.

Goji berries are full of vitamins A, C, B and antioxidants as well as essential fatty acids. According to an alternative medicine specialist, it is traditionally used to treat vision loss and improve overall health. Some think that antioxidants can fight cancer. Medicinal goji berries contain 500 times

more vitamin C than citrus fruits and are unlike any other flora in terms of mineral content.

In the East, the wonderful and healing properties of goji berries have long been known to bear fruit for thousands of years. According to him, goji berries rejuvenate the body, prolong life, reduce the risk of cancer, reduce weight, normalize blood pressure, improve sexual function, lower cholesterol, normalize vision, support liver and kidney function, normalize blood sugar, improves sleep, strengthens the heart, increases resistance to disease, improves blood composition and treats bone marrow diseases, restores hormonal balance, promotes infertility, strengthens muscles and bones, improves memory, relieves stress and more.

Goji's place in the world market.

"The demand for goji is growing, and we can't meet the demand for goji from buyers from Japan, the United States and Europe," said the gardener who planted the plant in China. The harvest from a large number of plantations created in China is being exported. From year to year, the total volume of exports in demand has grown steadily, reaching 82,182.08 tons and 696.622 million dollars. Gojini came from 31 provinces and autonomous regions and was exported to 105 countries and regions through 21 ports. Most of Goji fruit exports are sold to Asian and European markets.

Due to its good adaptation to the Goji desert, the plant is grown in China, Serbia, Greece and other countries in areas with high erosion and desertification.

In January-May 2019, the export value of goji berries in Ningxia Province reached 90.3 million yuan (about \$ 12.8 million). Exports to the U.S. amounted to 25.08 million yuan, an increase of 57.4%.

Where can I grow goji?

At present, gojini is the main crop in the form of plantations in open fields, other crops in open field plantations include soybeans, wheat, cotton, and others. The garden or crop area can be

planted thicker in the border area. Can be sown in undeveloped areas. Goji doesn't require much. A plant that does not require much water. . It grows in a wide range of pH soils in different soils. It is disease resistant and does not require much care. Due to its shrub and wild distribution, it can grow in any environment.

Goji cultivation technology

There are so many types of goji berries. At present, goji seeds are sown from early March to the first ten days of April. In a special seed-growing cup, or because the seed is small, it is leveled by sprinkling the seed on a gross flat crop area consisting of a mixture of biohumus and soil. Irrigation is carried out taking into account the humidity due to precipitation. In dry weather, the plants are allowed to water 2 times a week. Goji seedlings germinate from the second week.

Seeds are sown in soil containing a mixture of soil and biohumus in special seed-bearing cups for sowing seeds. The upper part is covered with a layer of half a centimeter of peat and covered with a transparent film. The box is kept in a warm and dark room until the first buds appear.

Immediately after the appearance of the first buds, the container should be moved to a well lit room or put on a window sill. Constant humidity is maintained in the container. Transplantation of seedlings is carried out only after the appearance of a full fourth leaf. Each young plant is planted in a field without separate parts of the soil from the root system.

The land prepared for the creation of plantations and other purposes is prepared for planting crops. Seedlings can be planted from spring to late May for plantations and other purposes. Seedlings were planted at 2x4 intervals. When planting seedlings, sand is mixed with local manure. For each seedling, sand and local manure are planted together. Goji seedlings are watered 6-10 times a year as they do not require much water. Goji plantations are pruned and seedling tags are softened 2 times a year. The established plantation

will produce 0.4-0.6 kg per goji seedling in 3 years. The fruits are small, 1.5-2 cm long. The fruit is picked by hand and dried under a roof or in special drying ovens. It is also spread 2 cm on a flat open area (concrete or asphalt) and covered with a soft cloth (so that the pigments on the fruit do not decompose under the influence of sunlight). Once a week, the fabric is removed and the dried fruit is turned over. The fruit dries in 20-30 days and the fruit is blown by the wind and put in bags. Dried fruits are stored in a place free from moisture or sunlight.

If the goji is treated well in time and manure and mineral fertilizers are used properly, the yield will increase from year to year and can yield from 3 to 1 kg.

It is also propagated by goji cuttings. In early spring, goji cuttings are prepared before the leaves emerge from the buds. To do this, 2 or 3-year-old goji branches are cut from 10 cm. A field with a spacing of 40 cm is prepared and the upper part is buried with a gap of 3 cm. The furrows of the cuttings are watered 3-4 times a week, depending on the temperature and humidity.

CONCLUSION

The demand for medicinal plants is growing every year. Today, plantations and sanctuaries are being set up to ensure the proper use of naturally occurring medicinal plants, to protect their natural distribution and to prevent their decline. With the growing demand for natural products from year to year, the creation of raw material bases and the production of natural products is developing rapidly. Goji berries the wonderful and healing properties of goji berries in the East have been bearing fruit for a long time, for thousands of years. According to him, goji berries rejuvenate the body, prolong life, reduce the risk of cancer, reduce weight, normalize blood pressure, improve sexual function, lower cholesterol, normalize vision, support liver and kidney function, normalize blood sugar, improves sleep, strengthens the heart, increases resistance to disease, improves blood composition and treats bone marrow diseases, restores hormonal

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