

# Morphological Structure and Medicinal Properties of Licorice

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**Abstract:** This article describes the botanical description, systematics, morphology, phenology, importance, chemical composition, application in scientific medicine and folk medicine of licorice "*Glycyrrhiza glabra*", as well as morphobiological indicators of natural plant species and hybrids, cultivation technology detailed information is given.

**Keywords.** Licorice, legumes, reproductive biology, humus, biologically active substances.

## Introduction

Licorice is a perennial herbaceous weed of the legume. Stems erect, rough, 40-150 cm tall, erect. The leaves are complex, oddly oblong, oblong. The flowers are purple, clustered in clusters. The fruit is an elongated pod. It blooms and bears fruit in April-June. Propagated by seeds and rhizomes. The root system develops strongly, penetrating to a depth of 3 m. The rhizomes form surface branches, the seeds are hard-shelled and germinate at 30-35 °. It is widespread in all regions of Central Asia, including Tashkent, Fergana and Kashkadarya. It is found in all legumes, especially alfalfa and cereals, and grows along irrigation canals, ditches, orchards and vineyards.

Control measures: removal of root residues during plowing, deep tillage between seedlings after emergence, spraying of herbicides on cereals. Licorice is described as a "miracle plant". This is not in vain, of course. It

produces more than 110 types of medicines and is used in 20 industries. This feature is rare in other plants. The smooth licorice of this plant is widespread in our country and grows naturally. Dry and dark extracts of licorice root are used in colds, tuberculosis and diseases of the lungs, liver, respiratory tract and cardiovascular system, in the normalization of metabolism, in the treatment of asthma, oncology, food poisoning, stomach, stomach and intestines.

Recommended in duodenal ulcers, skin burns, as well as in other diseases. In the food industry, licorice root is used in the preparation of low-calorie beverages, confectionery and bakery products, jams, molasses, canned food, food concentrates, chewing gum, toothpaste and others. Color dyes are used in the light industry, in the metallurgical industry in the hydrolysis of metals, in the chemical industry in the preparation of ink, and in the dyeing of paper. Its waste can be used to make paper thermal insulation boards and paper products. Therefore, today this plant is in high demand in the United States, Great Britain, the Netherlands, Japan, Germany, Hungary, China, South Korea and many other countries. Licorice is also very useful in agriculture. For example, mixing 1 milligram of the active ingredient with 1 liter of water to process potatoes increases the budding rate by 28 percent, accelerates the budding and flowering phases, and increases yields by 17 percent. The morphological-anatomy and reproductive biology of licorice and methods of its cultivation in different conditions have been studied in our country due to scientific research. In particular, the plant has proven to be a good ameliorant that grows well in the saline soils of Mirzachol, increasing soil fertility. This method was found to be highly effective, especially in crop rotation.

Licorice root also penetrates the gypsum layer of the soil and feeds on groundwater. Therefore, it can be maintained even in conditions of natural humidity. It is advisable to expand the cultivation of licorice, which has a mysterious effect on the soil, and no part of it is thrown away as waste. The Resolution of the Cabinet of Ministers of February 15, 2013 No. 138 "On additional measures for the effective organization of cultivation and industrial processing of licorice and other medicinal plants" It is important to note. According to the decision, the Association of Licorice Growing and Processing Organizations was established to increase licorice planting in the Republic of Karakalpakstan to 25,000 hectares by 2019-2023. At the same time, it was noted that licorice is grown in areas with low scores.

This is because in 5 years, when the licorice is grown, the salinity of the soil is reduced by 2.5 times and saturated with nitrogen and humus. It is estimated that it will cost 20 million soums to grow licorice on one hectare of unprofitable land for 5 years and produce 14 tons of roots. In the world market, its price is high. In addition, 8,000 tons of dry products will be extracted from the crop stalks. Land reclamation will improve and productivity will increase.

### Conclusion

If no other crop is planted on the land where the root crop was harvested, the plant can be replanted and harvested again every year on the ground and again after 4 years underground by carrying out the necessary agro-technical measures. This is very beneficial for both farmers and entrepreneurs, in short, for our economy. The work that has entered a new stage at the initiative of the head of our state is significant in that it serves such noble purposes.

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