

Botanical description of *Medicago lupulina*, its significance and distribution in the urban ecosystem of Fergana

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Аннотация: в данной статье описаны морфологические свойства люцерны хмелевидной, её распространение в урбаноэкосистеме Ферганы, а также значение данного растения.

Ключевые слова: люцерна хмелевидная, почковидный боб, тройчатые листья, светолюбивое растение, сапонины, дубильные вещества, витамин Д.

Abstract: this article describes the morphological properties of *Medicago lupulina*, its distribution in the urban ecosystem of Fergana, as well as the importance of this plant.

Keywords: *Medicago lupulina*, kidney bean, triple leaves, light-loving plant, saponins, tannins, vitamin D.

Annotatsiya: ushbu maqolada chala se barganing morfologik xususiyatlari, uning Farg'ona urbanoekotizimida tarqalishi, shuningdek, bu o'simlikning ahamiyati tasvirlangan.

Kalit so'zlar: chala se barga , buyrak shaklidagi loviya, uch bargchali barglar, fotofil o'simlik, saponinlar, taninlar, D vitamini.

Medicago lupulina is usually an annual herbaceous plant, a species of the genus *Medicago* of the Legume family (Fabaceae). It has a number of distinctive morphological characteristics, due to which it is allocated to the section (or subgenus) of *Lupularia* within the genus.

Description of *Medicago lupulina*

Medicago lupulina is an annual or biennial herbaceous plant endowed with a taproot that will penetrate into the soil to a depth of forty centimeters. It is

noteworthy that there are forms that can develop even more than three years. The stems of this plant will be ascending or may be spread out on the soil, their length will vary between ten and fifty centimeters, such stems are leafy and branched. The leaves of the *Medicago lupulina* is endowed with a short petiole, they are threefold. The leaves of this plant can be both almost rhombic and obovate, they are endowed with a wedge-shaped base and a notch, which is located at the very top. The inflorescences of the hop-shaped alfalfa will be glabrous and dense, as well as oblong-ovate, they will come out of the leaf axils. The flowers of *Medicago lupulina* are quite small in size, they are endowed with a yellow corolla, the length of which is about one to three millimeters. The fruit of this plant is a kidney-shaped bean, its length is two to three millimeters, and its diameter is one millimeter. When mature, such a fruit will be almost black in color, while the seeds are colored in brown or yellow tones.

$2n = 16, 32$. Polymorphic species, represented by spring and winter forms. One -, two-, less often a perennial herbaceous plant. It reproduces by seeds and vegetatively. The root is taproot. The stems are thin, branched, well-leafed, recumbent, in spring forms 15-70 cm long, in winter - 25-90 cm or more. The leaves are threefold. The inflorescence is an elongated ovate or almost rounded head with 15-35 small yellow flowers. The calyx is broadly cubate-bell-shaped. The corolla is no more than 1-3 mm long. The beans are kidney-shaped, single-seeded, and black after ripening. The seeds are yellowish-olive, elongated-elliptical and characterized by increased seed hardness. The weight of 1000 beans is 1.7-1.8 g. Flowering is June - October, fruit formation is July-November. Optional self-pollinator.

The flowering of this plant will last throughout the summer period. In natural conditions, this plant is found on the territory of all regions of Russia, Ukraine, the Caucasus, Belarus, and Central Asia. For growth, this plant prefers meadow steppes, places among shrubs, meadows, and as a weed this plant can be found in fields. It is noteworthy that in the mountains, hop-shaped alfalfa can rise to a height of two and a half thousand meters above sea level.

Ecology.

The plant is light-loving, grows better in open areas as part of a low variety of grasses. It is characterized by cold resistance and resistance to slight frosts in spring and autumn. It does not tolerate acidic, waterlogged and heavy soils. With low drought resistance, it forms a high seed yield in dry years, and a good herbage in wet years.

Description of the medicinal properties of *Medicago lupulina*

Medicago lupulina is endowed with very valuable healing properties, while for medicinal purposes it is recommended to use the herb of this plant. It is recommended to prepare such raw materials throughout the entire flowering period of this plant.

The presence of such valuable healing properties should be explained by the content of saponins, tannins, estrogenic substances and calcium salts in the composition of the aboveground part of alfalfa hop. The leaves of this plant contain carotene, vitamin D and ascorbic acid.

The herb of this plant is used in Tibetan medicine and medicine of Transbaikalia as a softening, wound healing and hemostatic agent. It is recommended to sprinkle cuts and bleeding wounds with the powder of dry grass of this plant.

As for the traditional medicine of Belarus, a decoction based on this plant has become quite widespread here. Such a decoction of hop alfalfa is used in trichomonas colpitis for douching. The herb extract of this plant is endowed with a very effective hemostatic effect and will accelerate blood clotting due to the fact that there will be an increase in the content of prothrombin in it.

In the Caucasus, powdered dried *Medicago lupulina* grass is used: such a remedy is used as a wound healing and hemostatic agent, especially for cuts. It should be noted that such a tool is very effective when used correctly.

Distribution in the territory of Ferghana

The plant is found in meadows, steppes and even mountainous areas of the territory of Fergana. It can be found in large quantities in irrigated fields and among lawns.

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