



Greek-valerian polemonium

Product Images

Short Description

Greek-valerian polemonium. Rhizomes with polemonium roots

Description

Specification & Spread

Greek-valerian polemonium rhizomes — rhizomata cum radicibus polemonii

Greek-valerian polemonium — polemonium caeruleum L.

Phlox family — polemoniaceae

Other names: great valerian, carrion flower, Jacob's-ladder, polemonium, Salmon Jacob's Ladder, Greek valerian, abscess Root.

It is a perennial herbaceous plant 35-120 cm tall with a horizontal thick short rhizome densely seated with light greyish-yellow root lobes.

The stems are erect, unclear ribbed, branched at the top and hollow. The leaves are alternate, unpaired, pinnate, glabrous, the lower ones are long-petiolate, the upper ones are sessile, resemble the leaves of valerian preparation. There are 15-27 small leaves, it is ovate-lanceolate, entire, acuminate, sessile. Large beautiful pentamerous blue flowers are gathered in rare brushes, which form paniculate, glandular pubescent inflorescence. In the first year of life, only the basal rosette of leaves develops, in the second, a stem appears, the plant blooms and bears fruit.

The fruit is a three-leaved, almost spherical capsule with numerous seeds.

It blooms in June - July, the fruits ripen in August - September, in terms of culture - in July.

Spreading. Greek-valerian polemonium - Euro-Siberian species. It is widely spread in the forest and forest-steppe zones of the European part of the country and in Western Siberia. Outside Russia is found in the countries of Eastern and Western Europe.

Habitat. It grows in damp places, on rather rich soils, in conditions of moderate shading. Typical habitats - river banks, wet meadows and bushes in the river valleys. It occurs quite often, but does not form thickets

suitable for harvesting, therefore the plant is widely cultivated in farms (Belarus).

Composition

The chemical composition of greek-valerian polemonium

The main active ingredients are triterpenic pentacyclic saponins of the beta-amyrin group (polmoniozidy) - up to 20-30%. Its aglycones are represented by esters of highly hydroxylated triterpene alcohols and acetic, tiglinic, angelic, and other acids.

In addition to saponins, there are contained:

- resin (1.2%),
- organic acids,
- coumarins,
- flavonoids,
- starch,
- fat and essential oils.

Harvesting and storage of raw materials

Harvesting. In farms, the harvesting is conducted by a mechanized method, re-equipped with a plow or potato tender. The harvest begins in September, during the period of wilting of the aerial parts of the plant. The rhizomes are dug with the roots, cleaned from the ground and the remnants of the stems, quickly washed in cold water.

Security measures. When harvesting wild-growing raw materials, it is necessary to alternate the places of harvesting in 5-7 years.

Drying. After cleaning, the raw material is dried in air and dried in a dryer at a temperature of 50-60 ° C.

Storage. In pharmacies it is stored in boxes, in warehouses it is stored in bags.

External signs of raw materials

Whole raw materials

There are whole or cut along the rhizome with roots. The rhizomes are horizontal, straight or slightly curved, sometimes branching, with numerous adventitious roots; the length of the rhizomes is 0.5–5 cm, the thickness is 0.3–2 cm. The surface of the rhizomes is wrinkled, the fracture is smooth or grainy. In the center of it often there is a cavity due to the destruction of the core.

The roots are thin, 7-35 cm long, 1-2 mm thick, small, rough, cylindrical, knotty, brittle. The colour of the rhizomes from the surface is greyish-brown, on the fracture - yellowish-white or white. The roots are yellow on the outside, white on the break.

The smell is weak, peculiar. The taste is bitter. Milled raw materials

The pieces of rhizomes of various shapes are passing through a sieve with openings with a diameter of 7 mm, and pieces of roots up to 20 mm in size. The colour is greyish-brown, yellow, yellowish-white. The smell is weak and peculiar. The taste is bitter.

Properties and application

Pharmacotherapeutic group. Expectorant and sedative agent.

The pharmacological properties of Greek-valerian polemonium has:

- antitussive,
- expectorant,

- sedative (superior to valerian),
- pronounced hemostatic,
- wound healing,
- diuretic and
- disinfectant action.

Antibacterial properties are expressed in relation to the coccal group of microbes.

In the past, cyanosis was used in folk medicine along with valerian as a sedative for:

- insomnia,
- epilepsy.

Greek-valerian polemonium entered the medical practice relatively recently, when it is established the presence of saponins and offered it as a domestic raw material with expectorant properties, instead of senega imported from North America (proposed for the first time in Tomsk by M.N. Varlakov). Greek-valerian polemonium is not only not inferior to the expectorant effect of imported senega, but also slightly exceeds its therapeutic effect, especially with bronchitis. A clinical study of greek-valerian polemonium as an expectorant was first conducted at the Tomsk Medical Institute in patients with tuberculosis, acute and chronic bronchitis, lung abscess, and pneumonia in the resolution stage. In most patients, positive dynamics was detected on the 2-3rd day of treatment. The amount of sputum increased, its separation was facilitated, the inflammation in the lungs decreased, the cough became softer, the pain decreased. Somewhat later, the sedative properties of cyanosis were noted. VILAR confirmed the hypothesis of the inhibitory effect of greek-valerian polemonium saponins on the development of atherosclerosis. Under the influence of greek-valerian polemonium saponins, the blood cholesterol content in animals with experimental atherosclerosis is significantly reduced, while the level of blood pressure also decreases. In therapeutic doses, greek-valerian polemonium is low toxic and does not cause side effects.

Application of greek-valerian polemonium

Greek-valerian polemonium preparations are used mainly as:

- expectorant and
- sedative.

It is preferable to prescribe greek-valerian polemonium for chronic bronchitis. As an expectorant, it is effective in the accumulation of mucus in the airways, especially in debilitated patients, the elderly.

Sedative properties of greek-valerian polemonium have been studied in psychiatric practice. The healing effect was expressed in a calming effect. greek-valerian polemonium saponins and preparations based on them can be used as a sedative for various disorders of the central nervous system, as well as for pathological conditions associated with cholesterol metabolism disorders.

Contraindications

Individual intolerance to the components, pregnancy and breastfeeding.

With caution with increased blood clots and blood pressure.

Additional Information

Influence	Antidepressant, Diuretic, Expectorant, Hypocholesteremic, Sedative, Wound-healing
Apparatus	Cardiovascular, Excretion, Integumentary, Nervous, Respiratory
Organ	Jelly coat, Kidney

