

MORPHOLOGICAL FEATURES FOLIAGES CYTISUS RUTHENICUS

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Ordinary broom (*Cytisus ruthenicus*) belongs to the genus broom (*Cytisus* L.), subfamily papilionaceous (*Papilionacea*), which is part of a large family of legumes (*Leguminosae*) and includes 30 to 70 species. Forms undergrowth in the forest-steppe and steppe zones of European Russia, in Western Siberia and the Caucasus. It can be found in the desert, and in the meadows and on rocky slopes. This is the only shrub that settles as undergrowth in dry pine forests on poor sandy soils. Light-mezokserofit. Low to 1.5m tall, deciduous shrub with straight or curved, gray branches. Shoots with silky pubescence. Growth of shoots from the first half of May and lasts until the end of August. Leaves are small, up to 2 cm, lanceolate-elliptic, on top of the spines, gray-green top, bottom, densely hairy. Flowers large, yellow, 3-5 in the axils of leaves, bloom after leafy within 25 days. Fruits - flat beans to 3 cm long, blackish or dark gray, covered with gray hairs pressed, ripen in September. Inside the bean is oval, flat, shiny, 3 mm long, yellowish or greenish seeds.

Winter-hardy, drought-resistant, undemanding. It grows well in lit areas, sandy and sandy loam soils. Propagated by seeds, root suckers.

As a medicinal herb stimulates uterine contractions, helps the body get rid of excess fluid, increasing urine formation, sometimes causes a sharp increase in blood pressure, treating congestive heart failure, with smoking can have a calming-hypnotic effect. With the purpose of treatment harvested aboveground parts of the plant, usually leaves. *Cytisus ruthenicus* contains alkaloids (spartein, cytosine) flavanoyid (genistein). *Cytisus ruthenicus* is a poisonous plant, so it should be used with caution, as it is contraindicated for use for children, people over 55 and people with hypertension because the plant contains a cytosine, which raises blood pressure.

The use of biologically active substances of plant origin today is important for medicine and cosmetology. So in the global pharmaceutical industry a third drug is made from medicinal plants. Medicines and cosmetics based on natural substances exhibit virtually no side effects. Their low toxicity (as biologically active substances of natural origin are easily digestible by the human body complexes and concentrations) the possibility of long-term use without significant side effects allows the use of herbal medicines for children and the elderly, especially in chronic forms

of disease. Thus, the development of drugs based on medicinal plants a promising direction of pharmaceutical science.

The aim of our work was to identify major anatomical features diagnostic leaf *Cytisus ruthenicus* usual for further identification of medicinal plants.

The object of the study was an *Cytisus ruthenicus* leaves collected in May and June 2014 in the Botanical Garden of the National University of Pharmacy during blooming. Cross-sections and surface specimens were manufactured from fresh, dried material and fixed with a mixture of glycerin-alcohol-water (1: 1: 1). Production and micropreparations study was carried out by conventional methods. Diagnostic microscopic signs recorded using microscope "Lomo Mikmed 1" and the camera Sony Cyber-shot (DSC-W80).

Morphological characteristics of raw materials. Leaf blade Dorzoventralnom type of structure. The cells of the upper epidermis polygonal, warehouse, have clear membrane thickening. Epidermal cells are papilliform formation. Stomata anatomotsytynoho device type. Stomata occur on both sides of the leaf blade - amfistomatychnyy type of leaf.

The lower epidermis presented polygonal cells wall-sided, clearly visible from thick shells. The cells of the lower epidermis smaller than the cells of the upper epidermis of the leaf blade. Cells with papilliform grow. Epidermal cells of the central vein prozenhimni, warehouse. The underside of the leaf blade abundantly, evenly covered with hairs. Hairs on the upper side only along the edge of the leaf blade: simple, two-cell consisting of short and long basal cell terminal, pressed to the surface of the sheet. The terminal cell with little warty cuticle. Thickened cell walls, cavity inside the hair is tremendous. The base is surrounded by a rosette hair with 6-8 epidermal cells. Hairs on the edge of the leaf blade and along veins 2-3 cell. All the hairs nestled to the surface of the leaf blade and sent to the top of the sheet. On cross-section is clearly visible all layers of the anatomical structure of the leaf. Epidermal cells are large enough. The cuticle is clearly visible. Palisadna parenchyma 1-2 row. The cells are small, are tight. Spongy parenchyma 4-5 row, the cells are loosely with large intercellular spaces. Central vein single beam. A bunch of collateral. Crystal no lining. Petiole overlooks sheet cushion. Epidermal cells almost rectangular, arranged in rows. The walls are thickened hairs, the hairs to 3 lengths cells. The bottom surface richly covered with hairs evenly.

The main morphological and anatomical features of an *Cytisus ruthenicus* leaves that will identify and standardization plant material. These investigations are necessary for the development of the analytical documentation.