

MEDICINAL PROPERTIES OF THE FERULA PLANT AND TECHNOLOGY OF PREPARATION OF MEDICINES

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ANNOTATION

The article provides information about the biologically active substances of the plant *Ferula assafoetida* of the *Ferula* L family and their use in medical and veterinary practice, as well as the technology for preparing medicines from this plant material.

Keywords. *Ferula* L., *F.assafoetida*, coumarin, terpenoid, ether, vitamin, trace element, tefestrol, saffron, tincture, tincture, mg/kg.

INTRODUCTION

Today, the use of natural remedies for the prevention and treatment of various diseases of livestock and poultry is being proved in practice.

This is due to the fact that it has been scientifically established that chemically synthesized drugs, i.e. substances that are not found in nature in nature, together with the treatment of diseases, have their negative impact on various organs and tissues of the body. In this regard, the pharmacological study of the medicinal properties of medicinal plants is one of the main requirements of our time. In order to develop this sector, a number of measures are being developed in the republic, including Presidential Decree No. PD-3617 dated March 20, 2018 "On measures to create marginal plantations in the republic and increase their processing and export of raw materials".

The plant *F. assafoetida* (rotten bark) of the *Ferula* L family belongs to the Celery (umbellate) family - Apiaccae (Umbelliferae) and is a perennial plant up to 1.5 m tall. Sessile fracture plant (*F.assafoetida*) grows straight in 8-9 years with a stem and branches, forming a thick stem. The anterior leaves are oblong and oblong, while the petiole leaves are finely spaced. Мураккаб соябон тўпгулга жойлашган гуллари беш бўлаккли, оқ сариқ рангда бўлади. The *Ferula assafoetida* plant mainly blooms in March and April, and the double pistachio fruits appear in April-May [1].

Many scientists have identified more than 50 species of the *Ferula* L family, which are found in desert, semi-desert, mountainous and foothill regions of the republic [4].

Paroxycoumarin in the dry matter of *F. assafoetida* plants contains 6-8% pinene, 9.3-70% wax, 12-49% solids, 0.06% vanillin, 0.68% asaresinolanol, asaresinol and its ferula ester with acid,

1.28% free ferulic acid, umbelliferone, asaresin A, farnesiferol A, B, C, essential oil 4-29%, sulfur preservatives 6%. The wax content of ferula is reported to be 9.35-65.15%.

Umbelliferon (coumarin) is a central nervous system depressant that exhibits narcotic, fungicidal, bactericidal and antispasmodic effects when used in large quantities. Wax is the main raw material for cutting the roots and stems of the plant.

Biologically active substances derived from the plant *Ferula assafoetida* speed up the heartbeat, treat headaches, dizziness, diarrhea, mood swings, diseases of the teeth and gums, and also stimulate the sense of smell and taste.

Now, when checking the amount of B vitamins in green leafy vegetables, the amount of vitamin B1 in them is 0.68 mg / kg, vitamin B2 - 0.15 mg / kg, vitamin B4 - 164 mg / kg and vitamin B6 - 1.3 mg / kg. kg, the amount of vitamins in the dried state in the open air is 0.74 mg/kg, 0.17 mg/kg, 180 mg/kg and 14.2 mg/kg, respectively, and in an absolutely dry state, respectively, 3.50 mg/kg, 0.80 mg/kg, 845 mg/kg and 6.70 mg/kg indicate that fennel is a pasture plant rich in carotene and B vitamins [3].

Examination of *ferula assafoetida* leaf samples for trace elements showed that trace elements of copper were 1.7 mg/kg in its green leaves and 8.25 mg/kg in a completely dried state. [4].

In studies, the amount of the trace element iron in the green leaves of the *Ferula assafoetida* plant is 63.21 mg/kg, and in a completely dry state - 308.4 mg/kg, 10-30 mg per 1 kg of hay. It has been established that the need of sheep for this trace element is fully satisfied due to the fragility of the leaves.

Alcoholic extract of *ferula* root is used for dyspepsia, diabetes, neuroses, rheumatism, bronchial asthma, pneumonia, pulmonary tuberculosis, liver, kidneys, impotence and gastrointestinal diseases [2; 5].

To prepare a tincture from the leaves of a brittle plant, the raw materials are placed in a preheated dish in a water bath for 15 minutes, and then watered as needed. Raw materials and water are in the ratio of 1:30, an additional 20% of water is added, taking into account the wetting of the leaves and the evaporation of water. The mixture is poured into a boiling water bath, stirred and kept for 15 minutes, then the solution is removed and cooled for 45 minutes. Then the dripping liquid is squeezed out of the plant material, passed through a sieve and placed in a special container. Duration of drinking 2 days. Recommended for hypovitaminosis and micronutrient deficiencies.

The preparation of tincture from the brittle seeds of the plant is carried out by soaking.

First, crumbly grain is dried at a temperature of 60°C, and then crushed. Raw materials are placed in special (porcelain, enamelled, glass) containers, to which a 40% alcohol solution is added in a ratio of 1:10. Then this mixture is cooled at a temperature of 15-20°C for 7 days (constantly stirring). Then the liquid is separated from the raw material, and the remaining liquid in the precipitate is also squeezed out and washed again with an alcohol solution. The liquid is re-cooled for 2-3 days, filtered and recommended for consumption. Used to activate reproductive activity as an estrogenic agent in sheep and rabbits.

CONCLUSION

Based on these data, the presence of various biological preparations in the root, body and seeds of the *Ferula assafoetida* plant showed that it is effective in the prevention and treatment of diseases in animals and birds.

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