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EFFECT OF CLINICAL AND PHYSIOLOGICAL INDICATORS OF RABBITS IN FERULA ASSAFOETIDA

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ABSTRACT

In the second experimental group, rabbits reported a worsening of their general condition from the 27th day of the experiment, as well as changes in their attitude to food and water, changes in the condition of the mucous membranes and skin, and an increase in the size of the pupil.

KEYWORDS: *Ferula-Assafoetida, Coumarin, Terpenes, Pulse, Respiratory Rate, Body Temperature, Body Weight.*

INTRODUCTION

The new edition of the Law of the Republic of Uzbekistan "On Veterinary Medicine" in the normative legal acts of the President of the Republic of Uzbekistan dated March 20, 2018 No PP-3617 "On measures to establish the Republican kovrak plantations and increase the volume of processing and export of their raw materials" this research serves to a certain extent in the performance of the assigned tasks.

Galban (galban, Iraniangalbani) from *Ferula L.* family is a part of heating, greases (plasters). Abu Ali Ibn Sino [1]. In the book "Laws of Medicine" it is noted that their sins of the genus *Ferula L.* are used for joint pain, to strengthen the digestive process, to drive worms, to abort the fetus.

In Turkmenistan, young branches of the *Ferula L.* genus are used in the treatment of colds, lung and intestinal diseases, to strengthen immunity [6]. Their sin obtained from the plant is used in the treatment of asthma, nervous diseases, superficial wounds, various wounds and tumors in the form of tinctures, emulsions, plasters, as well as in the prevention of miscarriage. It is also used in the preparation of canned food as a flavoring agent.

The use of Tajik ferulain Tajik folk medicine has a long history. *F. tadshikorumis* used as analgesic in arthritis, the plant-based substances have expectorant properties and are used in the

treatment of pulmonary tuberculosis, otitis and lymphadenitis. Many sources say that mixing this plant with milk is so effective in treating some dangerous allergies [2].

Subsequent pharmacological and biological studies of scientists have information that these plant substances have antioxidant, antiviral, anti-diabetic, anti-influenza properties, they can be used as anti-tumor molluscicides, hypotensive agents [3,4,5].

The relevance of the topic

The new version of the Law of the Republic of Uzbekistan "On Veterinary Medicine", the Law of the Republic of Uzbekistan dated March 20, 2018 "On measures to increase the volume of processing and export of raw materials and their export" This research to some extent serves in the implementation of the assigned tasks. Galula (galban, Iranian galbani) obtained from *Ferula L.* species is a component of heating and lubricants (plasters). Abu Ali ibn Sina [1]. In the book "Laws of Medicine" *Ferula L.* states that the resins of the genus are used in joint pain, to enhance the process of digestion, to expel worms, to abort the fetus. In Turkmenistan, young shoots of *Ferula L.* are used to treat pneumonia, lung and intestinal diseases, and to strengthen the immune system. The plant-derived resin is used in the treatment of tinctures, emulsions, plasters, asthma, neurological diseases, external wounds, various wounds and tumors, as well as in the prevention of miscarriage. The series is also used as a flavoring agent in the preparation of canned food. The use of Tajik *ferula* in folk medicine in Tajikistan has a long history. *F. tadshikorum* is used as a painkiller in arthritis, the plant-derived substances have expectorant properties and are used in the treatment of pulmonary tuberculosis, otitis and lymphadenitis. Many sources say that mixing this plant with milk is effective in the treatment of some dangerous diseases [2]. Subsequent pharmacological and biological studies have shown that these plant substances have antioxidant, anti-viral, anti-diabetic, anti-influenza properties, can be used as anti-tumor molluscicides, antihypertensive agents [3,4,5].

Research methodology

Considering the fact that alcohol extract from the juice extracted from the *ferula-assafoetida* plant has estrogenic properties when ingested to ovariectomy rats, taking into account the consumption of coumarin, terpenes and other biologically active substances in *ferula assafoetida* grains by sheep and other animals, Scientific laboratory experiments were conducted to study the effect of the grain of the plant *Ferula-assafoetida* on the clinical and physiological parameters of rabbits in rabbits of individual entrepreneurs living. A total of 15 female rabbits with an average live weight of 3-3.5 kg and a total of 9 male rabbits with an average live weight of 3.5-4 kg were used for the experiments based on the principle of similar pairs.

Rabbits of the first experimental group were given 5% of the seeds of the plant in *Ferula assafoetida* daily to the mixed feed, and rabbits of the second experimental group were added 10%. The third group of rabbits served as a control group and they were fed only the mixed feed itself. The experiments lasted 30 days. During this period, each of the rabbits in the control group received a total of 4.5 kg of mixed feed. The first experimental group of rabbits consumed 4,275 kg of mixed feed and 7.5 grams per head, a total of 225 grams of 3% coumarin, terpene and other biologically active substances containing *Ferula assafoetida* plant seeds, ie 64 mg / kg per rabbit body per day. a total of 6.75 grams of coumarin, terpene and other biologically active substances were recorded. The second experimental group of rabbits consumed 4.05 kg of mixed feed and a

total of 450 grams of 15 grams per person, 3% coumarin, terpene and other biologically active substances containing *Ferula assafoetida* plant seeds, ie 128 mg / kg per rabbit body per day. A total of 13.5 grams of coumarin, terpene and other biologically active substances were recorded from

Research results and their analysis. Prior to and during the experiment, daily experimental rabbits were monitored through clinical examinations, their general condition, response to food intake and external environmental influences, pulse, respiratory rate, body temperature.

Clinical manifestations and changes in body weight of the mother rabbits in the experiment The first experimental group in which 5% of the plant grain *Ferula-assafoetida* was added to the mixture, showed the general condition of the animal, body temperature, pulse, respiration, attitude to food and water, weight, mucous membranes and skin. the condition indicators of the coating did not differ from those of the control group rabbits.

In the second experimental group of rabbits, in which *Ferula-assafoetide* was added 10% of the plant grain to the mixture, in the first days of the experiment, their general condition, body temperature, pulse, respiration, food and water, weight, mucous membranes, and skin condition did not differ from those in the control group. , from the 27th day of the experiment, they reported a worsening of their general condition, as well as changes in their attitude to food and water, changes in the condition of mucous membranes and skin, enlarged pupils, increased heart rate and respiration.

Analysis of live weight and daily growth of rabbits in the experiment showed that the average daily growth in mother rabbits in the first experimental group was 24 grams at the end of the experiment and the total growth was 720 grams, in the second experimental group the daily growth was 19 grams and the total growth was 570 grams. in the mother rabbits in the control group, the daily gain was 21 grams and the total gain was 620 grams.

The daily growth in male rabbits in the first experimental group was 28 grams and the total increase was 840 grams at the end of the experiment, in male rabbits in the second experimental group the daily growth was 20 grams and the total increase was 600 grams at the end of the experiment. 24 grams and 710 grams, respectively.

Thus, in experiments, 5% of *Ferula-assafoetida* plant grains were added to the compound feed, ie 4,275 kg of compound feed and 225 grams of 3% coumarin, terpene and other biologically active substances were fed to *Ferula assafoetida* plant grains. in rabbits, which increased by 3 and 100 grams, respectively, and in the second experimental group by 5 and 150 grams, respectively, in male rabbits consuming 5% *Ferula-assafoetida* plant seeds in compound feeds, compared with those in the daily and total growth control groups, respectively. and 130 grams, compared with 8 and 240 grams, respectively, for the second experimental group of male rabbits.

Analysis of the results showed that each head of rabbits in the experiment fed *Ferula-assafoetide* 5% of the plant grain, ie

He consumed 4,275 kg of mixed feed and 7.5 grams per head of animal, a total of 225 grams of 3% coumarin, terpene and other biologically active substances containing *Ferula-assafoetida* plant seeds, which contained 6.75 grams per rabbit (64 mg / day). kg) The general condition of rabbits exposed to coumarin, terpene and other biologically active substances, body temperature,

pulse and respiration rate, attitude to food and water, weight, condition of mucous membranes and skin, as well as indicators and productivity did not change negatively for 30 days. However, in the experimental rabbit diet, the mixed feed was supplemented with *Ferula assafoetida* containing 10% of plant seeds, ie 4.05 kg of mixed feed, and *Ferula-assafoetida* containing 3% coumarin, terpene, and other biologically active substances at a total of 450 grams per 15 head. When consuming *assafoetida* plant seeds, rabbits receiving 13.5 grams (128 mg / kg per day) of coumarin, terpene, and other biologically active substances per animal did not show signs of poisoning for a long time, ie 30 days, but lost live weight and total a decrease in growth was observed.

CONCLUSION

The second experimental group of rabbits reported a worsening of their general condition from day 27 of the experiment, as well as changes in their response to food and water, changes in the condition of mucous membranes and skin, enlarged pupils, and increased heart rate and respiration.

Ferula-assafoetida is explained by the ferulin alkaloid in the plant, especially ethyl ether - acetic acid 4-oxycoumarin, and the cumulative effect of umbeliferons on organs and tissues.

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