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# DIAGNOSTICS AND EPISOTOTIC STATUS OF RABBIT EMERIOSIS IN CERTAIN DISTRICTS OF FERGANA REGION

**Akhmadaliyev N.T. - graduate student,**
**Khushnazarov A.Kh. - junior research fellow,**
https://orcid.org/0009-0007-3144-4965
**Davlatov R.B. – professor,**
https://orcid.org/0009-0002-2408-319X
Samarkand State University of Veterinary Medicine, Animal Husbandry and Biotechnology, Veterinary Scientific Research Institute.

**Abstract.** In this article, rabbits in farms specializing in modern rabbit breeding in Fergana city and Koshtepa districts of Fergana region were examined for eimerosis, and information on the extent and intensity of infestation in farms in these districts is presented.
**Annotatsiya.** Ushbu maqolada Farg‘ona viloyatining Farg‘ona shahri va Qo‘shtepa tumanlaridagi zamonaviy quyonchilikka ixtisoslashgan xo‘jaliklardagi quyonlar eymeroz uchun tekshirishlardan o‘tkazilgan va ushbu tumanlardagi xo‘jaliklarda invaziyaning ekstensivlik va intensivlik holati bo‘yicha ma’lumotlar bayon qilingan.
**Keywords.** Rabbit, eimeria, eimeria, protozoa, apicomplexa, sporozoa, coccidiida, oocyst, invasion, Darling's method, extensiveness, intensity.
**Kalit so‘zlar.** *Quyon, eymerioz, eymeriya, protozoa, apicomplexa, sporozoa, coccidiida, ootsista, invaziya, Darling usuli, ekstensivlik, intensivlik.*

**Enter**. The decision of the President of the Republic of Uzbekistan No. PQ-120 dated February 8, 2022 approved the 2022-2026 program for the development of the livestock sector and its branches in the Republic of Uzbekistan, and increased the production of livestock products in the country. ensuring food security at the expense of breeding, wide introduction of modern methods of production, thereby creating an added value chain, developing cooperative relations, state support of the livestock industry and its branches, as well as modern in this field in order to organize the effective use of information and communication technologies and the achievements of science: when analyzing the current state of the livestock sector and its branches, today there are 254 rabbit farms operating in our republic, based on advanced foreign experience, the weight of products produced in the rabbit breeding sectors of the livestock sector to increase increase the competitiveness of rabbit meat products in domestic and foreign markets and adapt local products to international quality requirements; revision of the recommended minimum consumption norms of rabbit meat, as well as increasing the population's healthy eating culture; further development of the rabbit breeding network and increase of production volume based on the cooperation system. Within the framework of these priorities, it is envisaged to raise the level of consumption of high-quality rabbit meat in our republic and to increase its share in the total volume of meat products, and it is required to accelerate the activities of all organizations and enterprises responsible for its implementation.

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The expected results of the implementation of the program are in the direction of the development of the rabbit breeding industry: increasing the volume of rabbit meat production from 100 tons to 23 thousand tons provides an opportunity to increase the volume of rabbit meat consumption per capita from 3 kilograms; in order to establish rabbit breeding on a scientific basis, to establish rabbit breeding farms in the republic and take measures to increase the number of breeding rabbits; adaptation of meat rabbit breeds to local conditions and establishment of specialized rabbit breeding farms, introduction of cooperative system and creation of added value chain; Systematic integration of science and production, wide introduction of innovative technologies into practice, training of personnel taking into account the current and prospective need for highly qualified specialists in the rabbit breeding industry, educational and methodological guide and there is a need to prepare and publish practical recommendations.

**Relevance of the topic.** At the moment, the weight of parasitic diseases has a significant effect on the morbidity and productivity of rabbits, the main reason for which is the lack of skills of rabbit breeders, lack of involvement of veterinary specialists, non-compliance with zoohygiene and sanitary rules, planned preventive measures against parasitic diseases is not seen [15,17,19,21,23,25,50].

At the present time, when ensuring food safety is considered an urgent task, it is important to improve the efficiency of the rabbit breeding network. In order to fulfill this urgent task, introduction of effective methods of prevention and treatment of diseases in rabbits is a necessity in production for this industry. Because in recent years, parasitic and other diseases of rabbits in our Republic have not been studied by scientific researchers.

**The purpose of the study.** The purpose of this study is to study the diagnosis and epizootological status of Eimeria among purebred rabbits (Hycole breed) being bred in Fergana city and Koshtepa districts of Fergana region.

**Research object and methods.** Researches on spontaneously (naturally) infected rabbits of different ages being bred in Fergana city and Koshtepa districts of Fergana region, farmers and farms, “Halol quyon naslli chorvasi” LLC and “Vodiy naslli quyonlari” LLC. was carried out. In the studies, the Darling method was used to examine dung samples taken from rabbits.

**The level of research of the problem.** The causative agent of rabbit eimeria belongs systematically to Protozoa animal kingdom, Apicomplexa type, Sporozoa class, Coccidiida order, Eimeriidae family, Eimerinae subfamily and Eimeria genus. One of these species of coccidia, [16,18,20,22,24,26,51] Eimeria stiedae, parasitises the liver of rabbits and causes eimeriosis, while other species, E. perforans, E. media, E. magna, E. irresidua, parasitize in the intestine, and the pathological process lasts for a long time (30-50 days) [2,4,6,8,10,12,14,52].

Like all spores, rabbit eimeria undergoes three stages of development: stage 1 - reproduction by schizogony or multiple asexual divisions; 2nd period - gametogony or sexual reproduction; The 3rd period is the formation of sporozoites by sporogony or asexual reproduction and the formation of spores that protect them from external influences in the presence of a host[41,42,43,44,45,53].

Three forms of rabbit eimerosis are distinguished depending on the location of eimeria in the animal's diet: 1. Intestinal, 2. Liver, 3. Mixed forms. In practice, the mixed form of invasion plays an important role. At the beginning of the disease, the intestines of the rabbit are damaged, then the liver is invaded, and as a result, the mixed form

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begins[28,30,32,34,36,38,40,54]. After the latent period of infection, the rabbits become limp, lose their usual mobility, and lie on their stomachs. His appetite decreases and he stops eating. Abdominal cavity swells and gives pain, stool becomes fluid, sometimes mixed with mucus and blood. Sick rabbits stop growing, lose weight, and their fur is wrinkled. Urinary excretion is accelerated[1,3,5,7,9,11,13,55]. Sometimes the secretion of saliva increases, the mucous membrane of the nose becomes catarrhally inflamed, and conjunctivitis develops. With the start of inflammatory processes in the liver, the body becomes sluggish, the rabbit becomes indifferent to the external environment and lies down for a long time. He loses his appetite, his abdomen is swollen, and he feels pain when he presses on his right side. The visible mucous membranes turn yellow, the muscles of the legs and neck become paralyzed and begin to tremble, and then they die in 7-10 days[27,29,31,33,35,37,39,56].

Research methods and results. Our research was conducted in Fergana city and Koshtepa districts of Fergana region. Experimental, microscopic and statistical methods were used during the scientific research. 3-5 g of dung samples of suspected and infected rabbits were mixed with water until the density was semi-liquid, filtered into centrifuge tubes and centrifuged for 1-2 minutes at 1000-1500 rpm. The liquid part was poured out, a mixture prepared from a saturated solution of glycerin and table salt in equal amounts was added to the precipitate, the centrifuge tube was thoroughly shaken and centrifuged again for 2 minutes at 1000-1500 speed/minute. Eimeria oocysts that floated to the surface of the liquid were removed with a wire loop, placed on a glass slide and examined under a microscope. Eimeria oocysts were found in the dung sample of examined rabbits[46,47,48,49,57].

**Table 1.**

**Results of coprological examination of rabbit eimeria**

| Name of the farm | Number of rabbits | Check method | The extent of the invasion | |
|---|---|---|---|---|
| | | | the number | interest |
| “Halol quyon naslli chorvasi” LLC | 125 | coprological | 36 | 28,8 |
| “Vodiy naslli quyonlari” LLC | 355 | coprological | 24 | 6,2 |

According to this table, 36 heads of 125 rabbits kept at “Halol quyon naslli chorvasi” LLC in Fergana city were found to be infected with eimeria, and the extent of infestation was 28.8%.

24 out of 355 rabbits being bred in Koshtepa District “Vodiy naslli quyonlari” LLC were infected with Eimeria using coprological method and the extent of infestation was 6.2%.

According to the results of the research, the spread of the disease in the two regions depends on the conditions of storage, nutrition and planned implementation of preventive measures. If the rate of disease is relatively low as a result of the efficient use of the latest modern technologies and the use of enriched supplements for feeding at “Vodiy naslli quyonlari” LLC, as well as the use of eumerostatic agents for the purpose of prevention, “Halol quyon naslli chorvasi” LLC has a high rate of infestation, because the main reason is that the rabbit house of this LLC does not have sufficient hygienic facilities for care, does not use eumerostatics for preventive purposes, and does not use high-quality soft feed for feeding.

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**Summary.** According to the data obtained in this study, 36 heads of 125 rabbits kept at “Halol quyon naslli chorvasi” LLC were infected with Eimeria, and the extent of infestation was 28.8%. 24 out of 355 rabbits being bred in Koshtepa district “Vodiy naslli quyonlari” LLC were infected with eimeria using coprological method and the extent of infestation was 6.2.

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