

## STUDY OF OBSERVATION CHANNELS IN EXPERIMENTAL EXPERIMENTS

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**Abstract:** Special experimental experiments were conducted by infecting sheep with ixodid ticks. For the experiments, 3 groups of 5 sheep were formed. Of the sheep in groups 1, 2 and 3 selected for our experiments, the sheep of groups 2-3 were of great importance and were specially selected. Sheep taken for the experiment and control from the sheep infected with ectoparasites of group 1 were used for special experimental experiments. It was determined that within 30 days, the weight of 1 sheep infected with ectoparasites, in particular ixodidosis, decreased by 2.700 kg, and the daily rate by 90 g. It was found that the weight productivity of the sheep in the control group increased by 1,800 kg per head. The daily rate increased by 60 gr.

**Keywords:** Ixodidosis, experimental, sheep, experiment, productivity, weight, Ixodid tick, excrement, discomfort.

## ИССЛЕДОВАНИЕ КАНАЛОВ НАБЛЮДЕНИЯ В ЭКСПЕРИМЕНТАЛЬНЫХ ЭКСПЕРИМЕНТАХ

**Аннотация:** Были проведены специальные экспериментальные опыты по заражению овец клещами ихтиофтириусом. Для экспериментов были сформированы три группы по 5 овец. Из овец в группах 1, 2 и 3, отобранных для наших экспериментов, особи в группах 2-3 имеют большое значение и были специально отобраны. В опытно-контрольных целях для проведения специальных экспериментальных опытов использовались овцы, отобранные из группы 1, зараженной эктопаразитами. Установлено, что в течение 30 дней масса овцы, зараженной эктопаразитами, в частности иксодидозом, снизилась на 2700 кг, а суточная норма снизилась на 90 г. Весовая продуктивность овец контрольной группы составила 1800 кг на голову. Было обнаружено, что он увеличился до. Суточная норма — 60 граммов. Было обнаружено, что он увеличился до.

**Ключевые слова:** Иксодидоз, экспериментал, мелкий рогатый скот, опыт, продуктивность, масса, иксодовый клещ, линька, беспокойство.

## INTRODUCTION

**Relevance of the topic:** Important measures are being taken in our country to increase livestock and their productivity. However, in newly established livestock farms and microfarms, especially in the bodies of sheep in the care of the population, the number of ticks, which are vectors of dangerous transmissible diseases, is increasing. With the increase in animal migration, the distribution areas of endemic ticks are also expanding. As a result, productivity in sheep farms and farms is decreasing and the sanitary and epidemiological threat is increasing.

Ticks (Arachnidae, Acari) belonging to the order of parasitic (free-living) arthropods (Arthropoda) are widespread in the nature of our republic, and parasites belonging to this group are dangerous for the population and livestock as carriers of local and even foreign (Zika, Ebola, influenza, etc.) diseases, such as transmissible - infectious, viral transmissible - parasitic (plague, tularemia, hemorrhagic fever, ephemeral fever, tick-borne encephalitis, trypanosomiasis, leishmaniasis, malaria, theileriosis).

Therefore, the study of ixodidosis in experimental experiments and the fight against it are of important scientific and practical importance.v

**Research objectives:** To study the incidence of ixodidiasis in newly formed and privately owned sheep farms in experimental experiments with artificially induced disease. To determine the productivity and clinical indicators of sheep infected with ixodidiasis.

**Research object:** To study ixodidiasis in sheep under the care of private households, as well as clinical changes in the course of the disease and productivity in experimental experiments.

### RESEARCH METHOD

The type of ectoparasites collected was determined in the arachnoentomology laboratory using the manual and identification tables "Determinant of Mallophaga domestic animals", "Atlas of isoid ticks", "Determinant of arthropods harmful to human health" and other special experimental studies.

### RESEARCH RESULTS

In the course of the research, in order to directly study the pathological processes occurring in sheep infected with ixodidiasis, 3 groups of 5 sheep were formed in a private sheep farm under the care of the population in the Toylok district of the Samarkand region.

When examining group 1 - 5 sheep, that is, 3 rams and 2 ewes, the presence of a large number of ectoparasites (ixodid worms) in their bodies was revealed. Sheep in this group were observed to be naturally infected with ixodidiasis and their clinical signs were compared with those in the experimental group.

2 - All healthy sheep in group 2, completely free of ectoparasites and in good general condition, were selected as experimental animals.

Sheep in group 3 were also healthy, in good general condition, and no ectoparasites were found on their bodies. Sheep in this group were taken for control.

1 – 5 sheep in the experimental group were naturally infected with ixodidiasis, and when examining the sheep's body, it was revealed that they had a large number of ectoparasites (on average 15-20 copies) mainly in the area of the rump and ear flaps and on the body. The ectoparasites in the body of these sheep were collected as samples.

Microscopic and morphosystematic species of ixodid tapeworms collected from the bodies of infected sheep were determined in the laboratory (*Rhipicephalus bursa*, *Rh. turanicus*). The anamnesis and clinical signs of infection with ixodid tapeworms in these sheep were studied. According to the information of the owner of the farm, sheep infected with ixodidiasis experience severe itching (mainly in the area of the hooves and ears), severe anxiety, decreased appetite, decreased sensitivity to external influences, and a negative change in the general condition of the sheep. Along with this, skin lesions were observed in the areas of the ears and hooves. In the research, two groups of 5 healthy sheep were formed for the purpose of conducting experimental experiments. That is, group 2 - experimental sheep and group 3 - control sheep.

Information about sheep in group 2 - experimental: Sheep in this experimental group were specially selected from healthy, ewes not infected with ectoparasites, and in good general condition. The weight of the ewes in the experimental group was measured before the experiment and 1 (one) head was 63 (sixty-three) kg. The average age of the sheep in this group was (4) and their color was dark brown.

3 - Information about sheep in the control group: The sheep in the control group were also healthy, not infected with ectoparasites, and in good general condition. The weight of the sheep in the control group was also measured before the experiment and 1 (one) head was 64 (sixty-three) kg. The average age of the sheep in this group was (4.5), the color was gray.

Of the sheep in groups 1, 2 and 3 selected for our experiments, the sheep of groups 2-3 are of great importance and were specially selected. The sheep taken for the experiment from the sheep infected with ectoparasites of group 1 were used for special experimental experiments.

Before the experiment, the general condition of 10 sheep in the experimental and control groups was determined to be free from ectoparasites, especially ixodid worms.

The weight and meat yield of all sheep in the experimental group before and after infection with ixodidiasis were studied.

In order to conduct experimental experiments on 5 sheep from the 2nd group, which were free from ectoparasites, ixodid worms were collected from the bodies of 5 sheep from the 1st group in order to artificially induce ixodid diseases in them.

To conduct the experimental experiment, these collected ectoparasites were placed in the body of the ixodid worms (on the supra-ear, occipital area and body) of each sheep from the 2nd group, 20 copies each. Only the nymphal form of the ectoparasites collected for the experiment was selected.

A special feeding regimen was established for the sheep selected for the experimental experiments. They were fed the same diet as before the experiment, and were fed the same diet during the experiment.

We conducted our scientific experiments for 1 month from the beginning of June (2024). During our scientific and practical experiments, we monitored the clinical changes in weight and meat yield, as well as their physiological state, observed during the course of ixodidosis in sheep (mother sheep) every 5 days for 30 days.

On the 1st to 5th day of the experiment, each sheep in the experiment was examined individually. During the examination, the general condition of the sheep was good, no changes in weight gain were observed. In addition, the experimental sheep were also checked for other ectoparasites and underwent a clinical examination. A decrease in the weight of the sheep (per head) by 200 g was noted.

On the 2nd and 5th days of the experiment, the experimental sheep were first checked for other ectoparasites. During the examination, no clinical signs typical of other ectoparasites were observed. The body temperature of the sheep was also measured and the temperature was within the normal range. In the general condition of the sheep, itching (in the groin area, above the ears), restlessness were observed, and a decrease in the weight of the sheep (per head) by 300 g was noted.

On the 3rd to 5th day of the experiment, we observed a relatively increased itching and anxiety symptoms in the experimental sheep, and a relatively decreased appetite. Body temperature was normal, and the weight of the sheep (per head) decreased by 500 g.

On the 3rd and 5th day of the experiment, when the bodies of our experimental sheep were examined, it was revealed that they had redness in the earlobe and crotch area and an increase in ectoparasites. It was noted that the sheep had itching, restlessness, decreased appetite, and a relative decrease in sensitivity to external influences. It was observed that the ectoparasites placed on their bodies for the experiment were in an active state, and it was determined that the weight of the sheep (per head) decreased by 500 g.

On the 4th and 5th day of the experiment, when we examined the body of the experimental sheep, we observed redness in the earlobe and the area of the rump. The general physiological state of the sheep changed to the negative side and they were very restless and resisted when touched. It was found that the weight of the sheep (per head) decreased by 500 g.

On the 5th and 5th day of the experiment, we took the usual examinations of the experimental sheep. We observed itching, restlessness, decreased appetite, and decreased response to external stimuli in the sheep. It was determined that the weight of the sheep (per head) decreased by 600 g.

On the 5th day of the experiment, we observed an increase in the number of Ixodes mites on the bodies of the experimental sheep, and a general change in the negative side, increased itching, signs of anxiety, signs of a relative decrease in appetite, a decrease in the sensitivity of the sheep to external influences, and the sheep were exhausted. We observed a decrease in the weight of the sheep (per head) by about 600 g.

When we observed the ectoparasites placed on the body parts of the sheep in the experimental group for the experimental experiment (artificially placed), we determined that they were in an active state. At the end of our experiment, the ixodid tapeworms placed on the body of each sheep in the experiment were collected in compliance with veterinary and sanitary requirements.

After the ectoparasites were collected from the bodies of the experimental sheep, it was found that the blood-sucking sites of the ectoparasites, the skin surface became red, hard, and lumpy blood clots appeared.

In the framework of our above-mentioned experimental experiments, the general changes observed in this disease in sheep artificially infected with ixodidiasis for 30 days were studied.

In the course of our scientific experiments, it was found that when sheep become ill with ixodidiasis, their physiological state changes to the negative side, their appetite decreases (significantly) compared to normal, their response to external influences decreases, itching and signs of anxiety increase, and blood clots appear in the earlobe, wattle area, and on the skin surface, as well as in the form of red, raised bumps. was observed.

In the experimental group, it was found that the weight productivity of each head of sheep infected with ectoparasites decreased by 2,700 kg over 30 days, and the daily weight gain was reduced by 90 g. In the control group, the weight productivity of sheep increased by 1,800 kg per head, and the daily rate was increased by 60 g (Tables 1 and 2).

**Table 1. Weight productivity indicators in sheep in the experimental group**

№	Animal type Small-bodied cattle (sheep)	Species of soil parasites that have been introduced to sheep for experiments	Pre- experiment al productivit y (weight/kg)	Weight values after the experiment, observation days. (gr)						
				5 days	10 days	15 days	20 days	25 days	30 days	total
1	Sheep black- brown, 4 years old, local		63	200	300	500	500	600	600	2.700
2	Sheep black- brown, 4 years old, local		63	200	300	500	500	600	600	2.700

3	Sheep black-brown, 4 years old, local	Rhipicephalus bursa, Rh. turanicus.	63	200	300	500	500	600	600	2.700
4	Sheep black-brown, 4 years old, local		63	200	300	500	500	600	600	2.700
5	Sheep black-brown, 4 years old, local		63	200	300	500	500	600	600	2.700

Thus, it was determined that within 30 days, the weight of a sheep infected with ectoparasites, in particular ixodidiasis, decreases by 2,700 kg, and the daily rate decreases by 90 g.

**Table 2. Weight productivity indicators in sheep in the experimental control group**

№	Animal type Small-bodied cattle (sheep)	Pre-experimental productivity (weight/kg)	Weight values after the experiment, observation days. (gr)						
			5 days	10 days	15 days	20 days	25 days	30 days	total
1.	Sheep gray, 4.5 years old, local	64	100	200	200	400	400	500	1.800
2.	Sheep gray, 4.5 years old, local	64	100	200	200	400	400	500	1.800
3.	Sheep gray, 4.5 years old, local	64	100	200	200	400	400	500	1.800
4.	Sheep gray, 4.5 years old, local	64	100	200	200	400	400	500	1.800
5.	Sheep gray, 4.5 years old, local	64	100	200	200	400	400	500	1.800

It was found that the weight productivity of the sheep in the control group increased by 1,800 kg per head, and the daily rate increased by 60 g.

### CONCLUSION

Thus, from our scientific, practical and experimental experiments, it was found that the weight and meat yield of sheep infected with ixodidiasis decreases by 2,700 grams within 30 days. Their appetite decreases compared to normal, their response to external influences decreases, they show increased signs of itching and restlessness, and there are reddened bumps and blood spots

on the ears and in the groin area, as well as on the skin surface of the body. Negative changes occur in the general physiological state of the sheep.

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