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CHARACTERISTICS OF AUTOCHTHONOUS PIROT SHEEP AND ITS REACTION TO THE PRESENCE OF PARASITES

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Abstract: The research was conducted in the population of the Pirot's autochthonous sheep in the area of Stara Planina Mountain, East Serbia. The production characteristics of sheep - quantum of lactation and body weight.were observed. Before experiment flock from which separated animals from examination we were examined to presence of parasitic infection, with coprological examination. A total of 21 animals were examined after slough. milk yield of sheep. After that, from herd were separated 100 one year old sheep were divided into two groups of 50 animals each - experimental and control group. First group has treated with the albendazole-based anthelmintic in dose 7.5 mg/kg through food. The second group has treated after the examination with same anthelmintic. A comparison of the obtained results indicates that in the group of treated animals body weight was average higher by 4.4 kg and milk yield was average higher by 231.08 g.

• Introduction

Autochthonous Pirot sheep is a Serbian local population, one of the domestic strains of pramenka. It is an old sheep adapted to the conditions of the Stara planina Mountain but also in the entire Pirot region, throughout time, and especially after the Second World War, and like other strains in Serbia, due to improved nutrition and care conditions has made visible progress in terms of production properties. It is a sheep with triple production abilities (meat, milk, wool), overgrown with white fleece all over the body, except the face and lower parts of the legs.

Research in the world and in our country has shown that diseases of parasitic etiology dominate in sheep in terms of both prevalence and incidence of which they have accompanied by significant morbidity and moderate mortality.

The aim of this paper is to check out the production potential of sheep of the autochthonous Pirot pramenka and the influence of parasites on their production.

• Material and method

Before experiment flock from which separated animals from examination we were examined to presence of parasitic infection, with coprological examination. A total of 21 animals were examined after slough. milk yield of sheep.
After that, from herd were separated 100 one year old sheep looking to have approximately the same body build and weight. All sheep individually coprology examined to confirm the presence of parasite infections. After the confirmed presence of parasites, the sheep were divided into two groups of 50 animals each - experimental and control group.
Both groups were examined for the effect of parasites on growth and milk yield. First group has treated with the albendazole-based anthelmintic in dose 7.5 mg/kg through food. The second group has treated after the examination with same anthelmintic.

• Results and discussions

The influence of the presence of parasites on the body weight of sheep can be seen in Table 1. The average weight of sheep before the experiment was 55.4 kg. In the treated group of animals, after one month, the average weight was 59.92 kg. In the group of untreated animals, the average weight was almost identical to that at the beginning of the experiment with a variation of +/- 1 kg per animal ($P>0.05$). A comparison of the obtained results indicates that in the group of treated animals, the body weight was higher by 4.4 kg on average, which as in Table 2, showed as very significant ($P<0.01$)

Table 1 Body weight of sheep before and after treatment

Item		Min	Max	Mean	Std. Error
Before treatment	Average weight of groups	52.00	59.00	55.4000	.25873
After treatment	Treated	56.00	64.00	59.9200	.27381
	Untreated	52.00	59.00	55.4800	.26839

Table 2 Paired Samples Test of sheep body weight

Item	Paired Differences				T	Sig. (2-tailed)
	Mean	Std. Error Mean	95% Confidence Interval of the Difference			
			Lower	Upper		
Treat- Control	4.44000	.40118	3.63379	5.24621	11.067	.000
Treat - Before	4.52000	.39408	3.72807	5.31193	11.470	.000
Control-Before	.08000	.06905	-.05875	.21875	1.159	.252

During the entire duration of the experiment, morning and evening milking was performed and the obtained milk was measured with a graduated beaker for each sheep in the groups. The results were presented collectively for each experimental group.In the treated group, the amount of milk after one month of treatment ranged from 267-1023.5 g per animal, or 645.25 g on average.In the group of untreated animals, the average daily amount of milk individually ranged from 109-604 g, while for the group it averaged 414.17 g (table 3).Comparison of the obtained results indicates the fact that in the group of treated animals the average daily amount of milk was higher by 231.33 g. Paired samples test of sheep milk amount (table 4) shows very significant differences between groups ($P<0.01$).

Table 3 Amount of milk after one month of treatment

Group	Minimum	Maximum	Mean	Std. Error
Treated	267.00	1023.00	645.5000	32.22033
Untreated	109.00	604.00	414.1700	15.75803

Table 4 Paired samples test of sheep milk amount

Group	Paired Differences				T	Sig. (2-tailed)
	Mean	Std. Error Mean	95% Confidence Interval of the Difference			
			Lower	Upper		
Treated – Untreated	231.33000	35.82042	159.34617	303.31383	6.458	0.000