

EFFECTS OF „PANAMIN“ ON THE GROWTH OF YEANLING LAMBS

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The purpose of the present study was to determine the effects of the product „Panamin“ on the weight growth of lambs - Synthetic Population Bulgarian Dairy (SPBD).

MATERIALS AND METHODS

In 2017 in AI - Stara Zagora a test was carried out with yearling lambs - Synthetic Population Bulgarian Dairy (SPBD) in order to determine the effects of the food additive „Panamin“ on the growth until day 70.

Two groups of ewes were formed - trial /36 animals/ and control /40 animals/

The ewes of the trial group received 10 g „Panamin“ /daily for 30 days before yearning and 5 g until the weaning of the lambs. The lambs born by the trial animals received this additive together with the concentrated fodder after 15 days of age. In the first week the lambs received 1 g per day, after which the quantity was increased by 1 g each week to 5 g/day.

The live weight of the lambs was controlled at birth, on the 10th, 30th and 70th day. The sheep and lambs of the two groups were bred under the same conditions and same rations, while the difference was only in the additive received by the trial group of sheep and lambs.

From the 10th to the 30th day the lambs received a granulated concentrate mixture and free alfalfa hay. Table 1 presents the composition of the mixture.

Table 1. Information about the granulated combined fodder

Indicators	Quantity
Components, g.kg⁻¹	
Corn	0,260
Soft wheat	0,220
Rapeseed groats	0,110
Linen seed	0,080
Soybean groats 44%	0,220
Wheat bran	0,050
Molasses	0,030
Chalk	0,010
salt	0,005
pre-mix	0,005
propylene acid	0,010
1 kg granulated combined fodder contains:	
Dry substance, g	868
Food units for growth	1,326
Crude protein, g	207,13
Protein, digestible in the intestines, g	123,81
Protein balance in the rumen, g	39,36
Crude fat, g	48,1
Crude fibers, g	45,86
Calcium, g	5,50
Phosphorus, g	4,74

After the 30th day the lambs received bulk concentrate mixture (Table 2) and alfalfa hay.

Table 2. Information about the combined fodder

Indicators	Quantity
Components, g.kg⁻¹	
Wheat mash	315
Corn mash	300
Sunflower groats, 35% SP	370
Chalk	5
Table salt	5
Vitamins and microelements premix*	5
1 kg combined fodder contains:	
Dry substance, g	873
Food units for growth	1,313
Crude protein, g	155,688
Protein, digestible in the intestines, g	100,970
Protein balance in the rumen, g	9,050
Crude fat, g	16,005
Crude fibers, g	54,395
Calcium, g	10,198
Phosphorus, g	5,791

* 5 g of the vitamins and microelements premix contains (per 1 kg combined fodder): 10 000 IU vitamin A, 1 200 IU vitamin D, 30 IU vitamin E, 10 mg thiamine (B₁), 1 mg riboflavin (B₂), 125 mg choline chloride, 50 mg magnesium, 107,5 mg iron, 75 mg zinc, 0,2 mg selenium, 3,4 mg iodine and 2,03 mg cobalt.

RESULTS AND DISCUSSION

Table 3 shows the live weights of lambs in both groups. The animals of the trial group - males and females - have a higher live weight at all ages compared to the animals of the control group. The difference in the live weight at birth and on day 70 is significant.

Table 3. Weight growth in lambs during the trial period

Indicators	Live weight at birth		Live weight at day 10		Live weight at day 30		Live weight at day 70	
	n	kg	n	kg	n	kg	n	kg
	<i>male</i>							
trial	24	4,41	24	6,8	24	12,36	24	24,00
control	86	4,12	86	6,3	86	11,90	86	22,45
	<i>female</i>							
trial	22	4,20	22	6,55	22	11,91	22	22,97

control	93	4,00	93	6,39	93	11,11	93	21,00
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The male lambs in the trial group have a higher live weight than the controls at the four control weights, the difference at birth is 7.04%, on day 10 it is higher by 7.94% and on days 30 and 70 is higher by 3.94% and 6.90%, respectively.

The same trend is observed in the female lambs. The test animals have 5% higher live weight on the second weighting, while the difference between the groups decreases to 2.5%, it is 7.2% on the third weighting and is highest at the end of the trial -9.38%.

In our opinion, at day 70 there is effect of the additive Panamin both through the mother and through the individual intake. Probably, the better results in the trial groups are due to detoxification of the organism and the better utilization of the nutrients through the intake of Panamin.

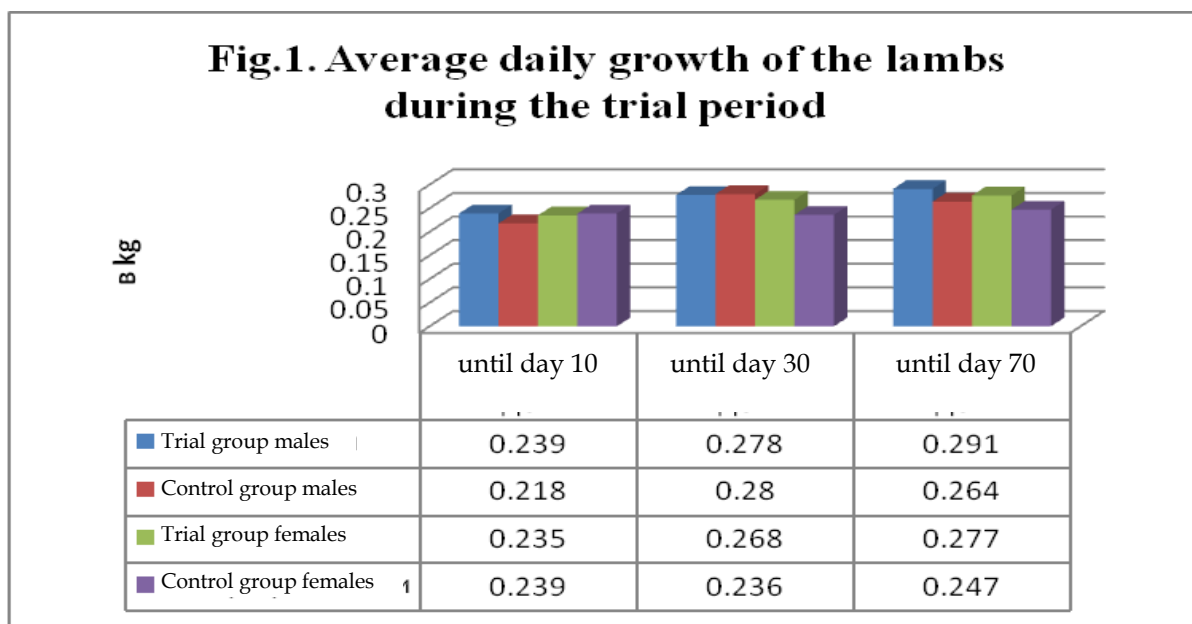


Figure 1. reflects to the average daily growth during the trial period. As the age increases, the growth in all four groups increases. It is noteworthy that the male lambs of the trial group have the highest growth

during the trial period, while the lowest growth is of the female lambs of the control group.

CONCLUSIONS

As a result of the conducted trial and the analysis it was found that:

The adding of „Panamin“ in the sheep fodder for lambs SPBD stimulates the metabolism and increases the growth rate, while this effect is at its highest between days 30 and 70 after the birth of the lambs.