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Feed efficiency broilers at different levels of threonine in feeds

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Experimentally determined digestibility of nutrients and nitrogen balance in broiler chickens cross "Cobb-500" at different levels of threonine in the fodder. Found that the best utilization of feed in broiler chickens were at threonine content of fodder: the first age period – 0,81%, the second – 0,76% and the third – 0,74%. Different levels of the studied factors were not significantly affected the performance digestibility of nutrients, but in the second and third periods of cultivation can see some changes. In particular, in the second period of growth, increased threonine fodder in broiler chickens of 3 to 0,76% resulted in an increase digestibility of crude protein 1,1% of those in control. Digestibility of crude fat, fiber and birds FNS 3 groups increased, respectively, 0,6; 0.4 and 2,4% ($p<0,05$). Further improvement of the studied amino acids to 0,78% does not significantly influence digestibility of nutrients compared to the control group, these figures even slightly decreased. Reduction of threonine in the fodder chicks in this period of growth, no significant effect on digestibility of nutrients compared to the control group. The most significant changes in the use of feed broiler chickens were observed in the third age period. Thus, the reduction in threonine fodder chicks 2 groups led reduce digestibility of essential nutrients. In particular, the digestibility of crude protein decreased by 1.9% ($p <0,05$), and crude fat and FNS, respectively, 1,4 and 2,2%. Increased investigated factor in the fodder chickens 3 groups in the third period of growth contributed to higher crude protein digestibility by 2,0% ($p <0,05$), fat – 2,7% ($p<0,05$) and FNS – 2,2% ($p<0,05$). A further increase in threonine content in fodder to 0,76% resulted in decrease digestibility of essential nutrients to the level of the control group.

Evidence of nitrogen balance in the body broiler chickens indicate that in the first period of growth, despite the slight changes in protein digestibility can observe a slight increase of nitrogen in the body laying chickens 3 experimental groups. By this measure, they control ahead by 5,0%. The bird 4 group that consumed feed with the highest threonine, although it was not observed changes in the putting off of nitrogen in the flesh, but in terms of "retained the adopted" them behind the controls of 1,6%.

In the second period of growth was observed a similar trend - increasing the nitrogen in the body laying chickens in group 3, 6.4% compared to the Control. In terms of "retained the adopted" they control ahead by 1,5%. In birds, other research groups both reduced and increased levels of threonine not caused significant changes in the metabolism of nitrogen.

The third age period in 3 groups of birds just noted the highest rate of nitrogen in delaying the body, they control ahead by 6,7% ($p<0,05$). This figure was 4 groups of chickens at control group and 3 are inferior to 3,6%.

So, the best indicators of broiler chicken feed were recorded for threonine content of fodder: the first age period – 0,81%, the second – 0,76% and the third – 0,74%.