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The effect of Immunovet-HBM[®] supplement on broiler turkey production results

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Abstract

Feeding experiment was concluded on an industrial farm. The experimental group consisted of 9100 male and 9600 female, that of control consisted 8700 male and 9300 female turkey poults. 1 g IMMUNOVET-HBM[®] was added to 1kg standard commercial feed pound in the experimental group. The weight gain, gender-based feed consumption, mortality rate (together with culling) were examined during the experiment both in the experimental and control groups. During the growing period losses were caused by impacted gizzard, aortic rupture and foot deformations in the control groups, while foot deformations and aortic rupture were not found in the experimental groups (consuming Immunovet-HBM[®]). The average weight gain in the experimental groups was higher by 13,32 % (female) and by 9,89 % (male) than that of the control ones. The gender-based feed consumption (the feed conversion rate:FCR) was 3,09 kg/kg (female) and 3,05 kg/kg (male), while that of the control groups was 3,27 kg/kg and 3,24 kg/kg respectively.

Introduction

In the past few decades Hungary's turkey meat consumption has grown nearly fivefold. However, primary obstacles to increased turkey production are the poor capital stocks of the Hungarian turkey breeding system, lack of financial support and low profitability, resulting low yields and high fodder consumption. To overcome the low yields, animal keepers have generally used higher doses of antibiotics, vitamins and other supplements. Thus experiments for finding suitable probiotics or prebiotics are continued in Hungary as well. The authors describe the effect of Immunovet-HBM[®] a wheat germ based prebiotic.

Material and Methods

The authors conducted feed-related experiment on turkey poults (Gigant) amongst industrial conditions using Immunovet-HBM[®] in an amount of 1g per 1 kg commercial mixed feed pound during the entire growing period. 9600 female and 9100 male turkeys (experimental groups) and 9300 female and 8700 male turkeys (control groups) were kept in deep litter houses according to the prescribed technical specifications. Starter, grower and finisher turkey feed (produced according to the HUNGAPIG (Herceghalom) recipe) was fed to the animals. The following parameters were collected and evaluated during the experiment (from day old age to the slaughtering):

- clinical state,
- mortality rate (including culling),
- body weight (based by measuring 500 birds from each groups),
- feed consumption,
- slaughtering results (breast, thigh).

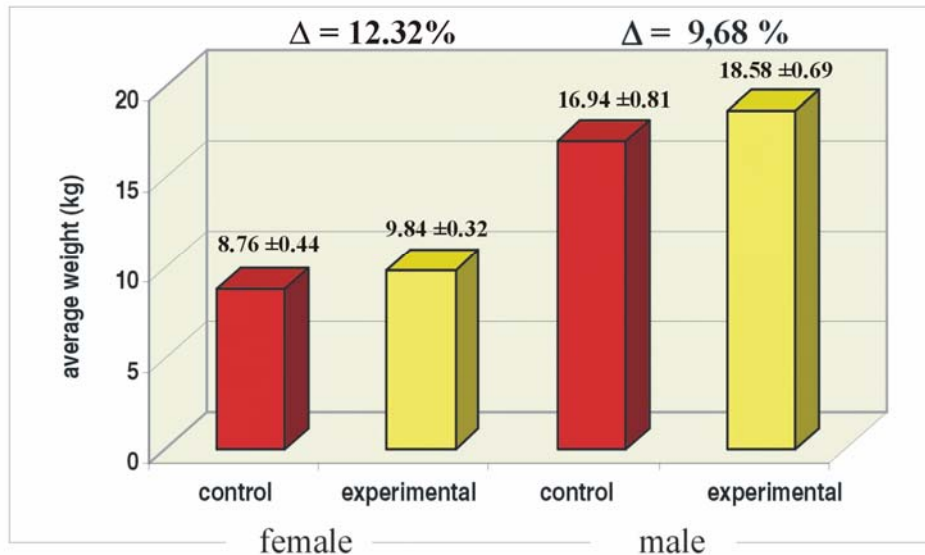
Results and Discussion

During the regular weekly weighing the experimental animals (receiving Immunovet-HBM[®]) weighed more than those in the control groups and they maintained their plus body weight

until slaughtering. The body weight of experimental group (female), was higher by 12,32 % than that of control females. The body weight of experimental male group was higher by 9,68 % than that of the control group.

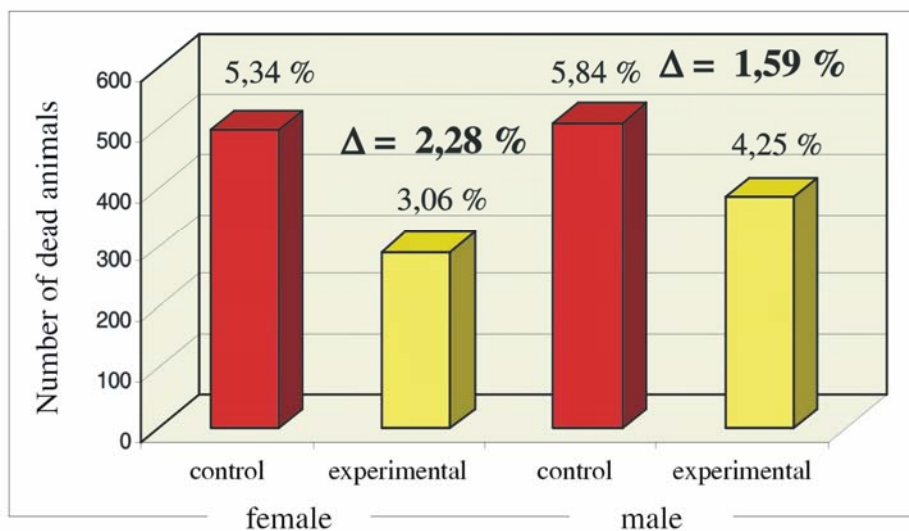
See: Figure 1.

Figure 1. Average concluding weights (kg)



The mortality rates are shown in Figure 2.

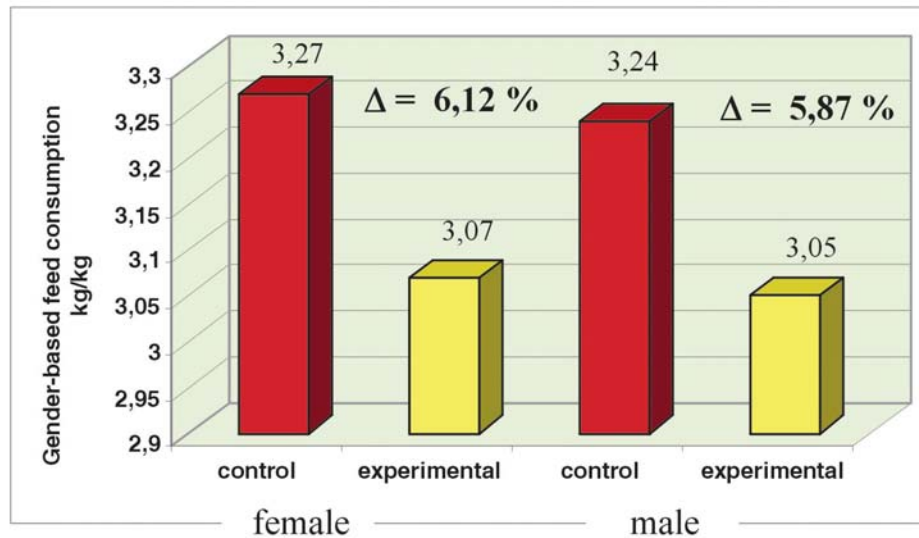
Figure 2. Evolution of mortality rates (%)



As may be seen from the results, the mortality rate of the experimental group (female) was lower by 2,28 %, than that of control and lower by 1,59 %, than that of the control (male) respectively.

The gender-based feed consumption (FCR) in the experimental female groups were lower (3,07 and 3,05 kg/kg respectively) than those birds receiving traditional mixed feed (3,27 and 3,24 kg/kg respectively). The data can be seen in Figure 3.

Figure 3. Gender-based feed consumption (kg/kg)



When slaughtered, the breast meat weight of female birds in the experimental group was higher by 2,8 % and that of male birds was higher by 7.3% than that of control birds respectively. The thigh meat weight of the experimental birds was higher by 3,8% (female) and higher by 4,8% (male) than that of control groups respectively. And last, but not least, the proportion of fat in the subcutaneous connective tissue was lower by 3-5% in the experimental, than those of the control birds.

Conclusion

The experimental results proved the claim, that use of Immunovet-HBM[®] is beneficial and it can be used economically in the industrial turkey meat production. This publication draws the attention of turkey meat producers to the fact, that use of Immunovet-HBM[®] according to schedule ensures a safer rearing period for turkeys. In this way, farmers can increase the economic profit derived from turkey production. Besides there is no need to use antibiotics or plus vitamins to reach higher production results, when Immunovet-HBM[®] is used.

Statistical analyses: The experimental data were evaluated by one way analysis of variance using SPSS 9.0 programme package. Female $P < 0.001$, male $P < 0.01$.

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