



EFFECTS OF CHLORELLA SUSPENSION AND SUPERVITA-M MULTIVITAMIN COMPLEX ON THE DEVELOPMENT OF INTERNAL ORGANS AND MEAT YIELD IN RABBITS

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Abstract

The rabbit breeding industry plays a crucial role in the production of highly nutritious meat. The development of industrial rabbit farming requires the implementation of various biologically active substances and feeding systems aimed at improving the physiological condition, growth rate, and productivity of rabbits. In this regard, studying the effects of Chlorella suspension and the SuperVita-M multivitamin complex on the development of internal organs and post-slaughter meat yield in rabbits holds significant scientific and practical importance. This study aims to determine the mechanism of action of these supplements on the rabbit's body, assess the development of internal organs, and evaluate their impact on post-slaughter meat yield indicators.

Keywords: Rabbit, chlorella, suspension, supervita-M, multivitamin, internal organ, meat, yield.

Introduction

Currently, the rabbit breeding industry is rapidly developing and plays a crucial role in providing humans with a high-quality protein source. Rabbit meat stands out from other types of meat due to its easy digestibility, low cholesterol content, and high biological value. As a result, the global demand for rabbit products is increasing.

In industrial rabbit farming, it is essential to scientifically improve feeding and management conditions to enhance productivity and ensure the healthy growth of rabbits. In particular, the use of biologically active substances and multivitamin complexes is of great importance for improving the development of internal organs, normalizing metabolism, and increasing meat yield.



In rabbit farming, along with ensuring the rapid growth and high productivity of rabbits, there is an increasing demand for the quality parameters of the products obtained from them. In this regard, special attention should be paid to housing conditions and the composition and nutritional value of the feed provided to the rabbits.

This study focuses on examining the effects of Chlorella suspension and the SuperVita-M multivitamin complex on the development of internal organs and post-slaughter meat yield in rabbits. The findings will contribute to the establishment of an efficient feeding system in rabbit farming and the enhancement of productivity.

Research Materials and Methods

The research was conducted on Hycole breed rabbits in a rabbit farm located in the Jomboy district of Samarkand region, under the “Jomboy ko‘chatchilik tomorqa xizmati” LLC. The study aimed to determine the effects of Chlorella green algae suspension and SuperVita-M multivitamin on the development of internal organs and post-slaughter meat yield in rabbits.

Three groups were examined in the study: one control group and two experimental groups. The first experimental group consisted of rabbits administered with Chlorella green algae suspension, the second experimental group consisted of rabbits receiving SuperVita-M multivitamin, and the control group received only the farm's standard feed without any additives.

After 120 days, the rabbits were slaughtered, and their internal organs were separated using the evisceration method. Pathological and anatomical changes in the organs were observed, the weight of certain organs was recorded on an analytical scale, and the meat yield was determined after separating the internal organs from the rabbits.

Results and Analysis

After eviscerating the rabbits, we observed the changes in their internal organs. No pathological or anatomical changes were recorded in the internal organs of the control and two experimental groups. However, when measuring the weight of certain internal organs, differences were observed between the results of the control and experimental groups. In this case, the weight of the heart, liver, lungs with

trachea, and kidneys was recorded, and the following results were obtained (Figure 1).

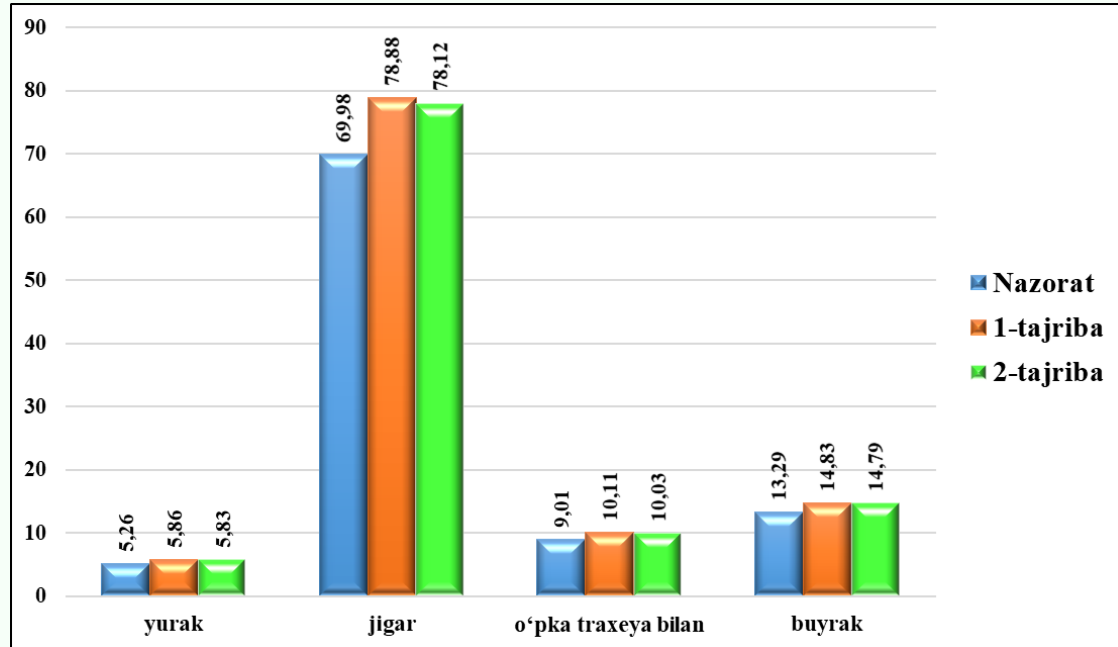


Figure 1. Development indicators of rabbit internal organs (g).

According to the obtained results, the rabbits in the first experimental group, which were administered Chlorella suspension in addition to their feed, had the following organ weights: heart - 5.86 g, liver - 78.88 g, lungs with trachea - 10.11 g, and kidneys - 14.83 g.

Furthermore, in the second experimental group, where rabbits received SuperVita-M multivitamin complex in addition to their feed, the organ weights were as follows: heart - 5.83 g, liver - 78.12 g, lungs with trachea - 10.03 g, and kidneys - 14.79 g. In the control group, the corresponding organ weights were: heart - 5.26 g, liver - 69.98 g, lungs with trachea - 9.01 g, and kidneys - 13.29 g.

During the determination of meat yield after slaughtering the rabbits, the following results were obtained (Table 1).

Table 1.

Groups	Pre-slaughter body weight (g)	Post-slaughter meat weight (g)	Meat yield (%) (%)
Control	3401,3	1670	49,1
1 st experimental	3704,1	1996	53,88
2 nd experimental	3592,8	1849	51,46



In terms of meat yield indicators in rabbits administered with Chlorella suspension, SuperVita-M multivitamin complex, and the control group, the results showed that rabbits in the first experimental group, which received Chlorella suspension as a feed supplement, had a pre-slaughter body weight of 3704 g, a post-slaughter meat weight of 1996 g, and a meat yield of 53.88%.

For the rabbits in the second experimental group, which received the SuperVita-M multivitamin complex, the pre-slaughter body weight was 3592.8 g, the post-slaughter meat weight was 1849 g, and the meat yield was 51.46%.

In the control group, the pre-slaughter body weight was 3401.3 g, the post-slaughter meat weight was 1670 g, and the meat yield was 49.1%.

Conclusion

When examining the development indicators of internal organs and meat yield in rabbits administered with Chlorella green algae suspension and SuperVita-M multivitamin complex, it was found that compared to the control group, the heart weight of the rabbits in the first experimental group increased by 11.4%, the liver by 12.7%, the lungs with trachea by 12.2%, and the kidneys by 11.5%.

For the rabbits receiving the SuperVita-M multivitamin complex, the organ weights were higher than those of the control group rabbits: the heart weight increased by 10.8%, the liver by 11.6%, the lungs with trachea by 11.4%, and the kidneys by 11.3%.

Furthermore, the meat yield of rabbits administered with Chlorella suspension was 53.88%, while the rabbits receiving the multivitamin complex had a meat yield of 51.46%, and the control group had a yield of 49.1%.

Based on the obtained results, it was found that the rabbits receiving additional supplements had higher internal organ development indicators and higher meat yield post-slaughter. However, the Chlorella green algae suspension proved to be more effective than the SuperVita-M multivitamin complex in the conducted experiments.

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