THE INFLUENCE OF LIGHT INTENSITY ON HEMATOLOGICAL INDICATORS OF JUVENILE CARP REARED IN A RECIRCULATING SYSTEM

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Abstract

This paper aims to analyze the effects of light intensity on the main hematological indicators of carp, reared under a recirculating system condition. Two light intensity levels were tested, each in duplicate: 280 lx and 90 lx. In both experimental lighting variants, the hemoglobin concentration showed an upward trend at the end of the experimental period. The analysis of hematocrit values showed a similar trend to that observed for hemoglobin concentration. Regarding the dynamics of erythrocytes, a significant decrease in their number was observed under white light exposure ($p<0.05$), and a slight increase was recorded in the blue light variant. The values for MCV and MCH showed a statistically significant increase ($p<0.05$) in both lighting variants at the end of the experiment. The MCHC decreased significantly in the white light variant, while in the blue light variant, there was a significant increase ($p<0.05$). The results obtained indicate that hematological indicators suggest that juvenile carp were able to adapt due to judicious feed management and, to a lesser extent, due to light intensity.

Key words*: carp, light intensity, hematological parameters*