PHYSIOLOGICAL APPROACH TO PRODUCTION EFFICIENCY OF RAINBOW TROUT (*ONCORHYNCHUS MYKISS* WALBAUM) AT DIFFERENT AMBIENT TEMPERATURES

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A satisfactory fish growth can be achieved with adequate feed, for that it is necessary to know which nutrients fish need in different stages of growth and how to make proper balance of nutrients for their maximum utilization. In this study, growth physiology was investigated in rainbow trout under experimental (optimal) conditions at two different ambient temperatures, 9 °C and 14 °C. During the experiment, the fish were fed with pelleted feed. Daily feed quantity was determined proportionally to fish weight and ambient temperature. Individuals used in the experiment were of the same kind, old up to one year, taken from pond fish farm „Tropic". During the experiment, the following water quality parameters were monitored: oxygen concentration, pH and COD. Water in aquariums was changed twice a day, and daily feed rations were equally disposed. The aquariums were provided with adequate devices for aeration and water purifications. At the end of experiment the fish bred at temperature of 14°C, had a higher growth than the fish bred at 9°C, but feed conversion ratio was better in fish bred at temperature of 9°C. All differences are statistically significant ($p<0.05$)

Key words: physiology, trout, growth, experiment.