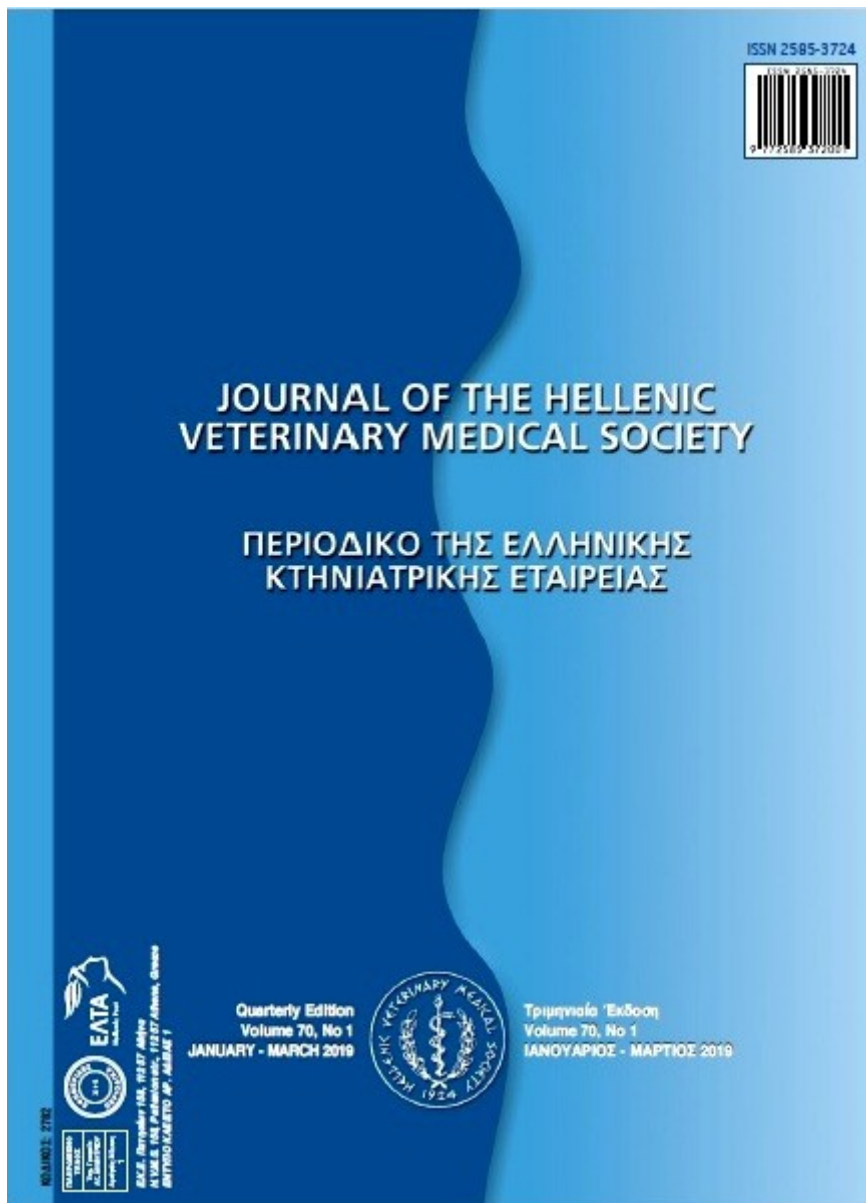


Effects of diet supplementation with different level of Celmanax® in rainbow trout (*Oncorhynchus mykiss*)



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**Abstract**

The aim of this study was to evaluate the effect of a prebiotic (Celmanax®) containing yeast cell wall with mannan oligosaccharides on the haematological and serum biochemical parameters in rainbow trout. Three levels of prebiotic (0, 0.1, 0.5 and 1 %) were mixed into pellets. Fish ( $19.08 \pm 1.45$  g) were fed a supplemented commercial diet for 60 days. Blood samples were collected from the onset and on days 30 and 60 of the trial to measure the haematological and serum biochemical parameters in rainbow trout. The results showed significant differences in haemoglobin, mean corpuscular volume, mean corpuscular haemoglobin concentration, white blood cells and neutrophil count between control and all test groups ( $p < 0.05$ ). The highest and the lowest white blood cells and neutrophil count (on day 60) were observed in the 0.1 %, prebiotic-received and control groups, respectively. Also, the result showed significant differences in Alkaline phosphatase enzymes, serum glutamic oxaloacetic transaminase, Serum glutamic-pyruvic transaminase, between the test and control groups ( $p < 0.05$ ) while non-significant elevation of blood urea nitrogen, creatinine and total protein levels was found in the Celmanax®-received groups ( $p > 0.05$ ). These results suggest that the Celmanax® supplementation enhances white blood cells and neutrophil count, and changes some biochemical parameters in rainbow trout.

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