

INTISARI

Pengaruh Pemberian Tributyrin pada Pakan terhadap Aktivitas Enzim Pencernaan dan Histologi Usus Udang Vaname (*Penaeus vannamei*, Boone 1931)

Penelitian ini bertujuan untuk mengetahui pengaruh suplementasi tributyrin pada pakan terhadap aktivitas enzim udang vaname (*Penaeus vannamei*) dan mengetahui pengaruh suplementasi tributyrin terhadap histologi usus udang vaname (*Penaeus vannamei*). Udang vaname dipelihara selama dua bulan di dalam akuarium *indoor* dengan aerasi. Penelitian dilaksanakan menggunakan Rancangan Acak Lengkap (RAL) dengan 5 perlakuan dan masing-masing 3 ulangan. Perlakuan yang diberikan yaitu tributyrin 0,00 g/kg pakan (kontrol, P0), tributyrin 1,00 g/kg pakan (P1), tributyrin 1,25 g/kg pakan (P2), tributyrin 1,50 g/kg pakan (P3), dan tributyrin 1,75 g/kg pakan (P4). Perlakuan diberikan selama dua bulan. Parameter aktivitas enzim lipase, amilase, dan protease, serta histologi usus diamati di akhir penelitian. Hasil penelitian menunjukkan bahwa suplementasi tributyrin pada pakan dengan dosis 1,25 g/kg pakan atau lebih berpengaruh nyata terhadap peningkatan aktivitas amilase, namun tidak berpoengaruh terhadap lipase dan protease usus udang vaname (*Penaeus vannamei*). Suplementasi tributyrin pada pakan tidak berpengaruh terhadap diameter usus udang vaname (*Penaeus vannamei*).

Kata kunci: udang vaname, tributyrin, aktivitas enzim pencernaan, histologi usus

ABSTRACT

Effect of Tributyrin-Supplemented Diet on Digestive Enzyme Activity and Intestinal Histology of Pacific White Shrimp (*Penaeus vannamei*, Boone 1931)

This study aims to determine the effect of tributyrin supplementation in feed on the enzyme activity of vannamei shrimp (*Penaeus vannamei*) and to determine the impact of tributyrin supplementation on the intestinal histology of vannamei shrimp (*Penaeus vannamei*). Vannamei shrimp were reared for two months in an indoor aquarium with aeration. The study was conducted using Completely Randomized Design (CRD) with 5 treatments and 3 replications each. The treatments given were tributyrin 0.00 g/kg feed (control, P0), tributyrin 1.00 g/kg feed (P1), tributyrin 1.25 g/kg feed (P2), tributyrin 1.50 g/kg feed (P3), and tributyrin 1.75 g/kg feed (P4). The treatments were given for two months. The parameters of lipase, amylase, and protease enzyme activity, as well as intestinal histology, were observed at the end of the study. The results showed that tributyrin supplementation in feed with a dose of 1.25 g/kg feed or more significantly affected the increase in amylase activity but did not affect lipase and intestinal protease of vannamei shrimp (*Penaeus vannamei*). Tributyrin supplementation in feed did not affect the diameter of the vannamei shrimp (*Penaeus vannamei*) intestine.

Keywords: vannamei shrimp, tributyrin, digestive enzyme activity, intestinal histology