INTISARI

Pengaruh Pemberian Tributirin Dosis Rendah pada Pakan terhadap Pertumbuhan dan Imunitas Udang Vaname (*Penaeus vannamei*, Boone 1931)

Suplementasi tributirin telah terbukti dapat meningkatkan pertumbuhan, memondulasi mikroba usus dan imunitas udang meskipun juga dapat menyebabkan terjadinya peradangan pada saluran pencernaan ketika suplementasi dengan dosis yang terlalu tinggi. Penelitian ini dilakukan untuk mengetahui pengaruh tributirin dosis rendah terhadap pertumbuhan, imunitas udang vaname, serta kualitas air budidaya udang vaname. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan 5 perlakuan dosis suplementasi tributirin, yaitu 0; 1; 1,25 ; 1,5 ; dan 1,75 gr/kg pakan, dengan tiga kali ulangan. Penelitian dilakukan selama satu bulan dengan menggunakan udang vaname DOC-30 dan pakan komersial. Hasil penelitian menunjukkan bahwa penambahan tributirin dosis rendah tidak memiliki pengaruh terhadap pertumbuhan, sintasan, FCR, aktivitas phenoloxydase (PO), *respiratory burst* (RB), superoxide dismutase (SOD), dan parameter kualitas air, seperti suhu, pH, amonia (NH_3), serta nitrat (NO_3) (P>0,05). Hal ini menunjukkan bahwa penambahan tributirin dosis 1,75 g/kg pakan (atau lebih rendah) selama satu bulan pemeliharaan tidak memiliki pengaruh terhadap parameter pertumbuhan, FCR, imunitas, serta kualitas air budidaya udang vaname.

Kata kunci : udang vaname, tributirin, pertumbuhan, imunitas.

ABSTRACT

Effect of Low-Dose *Tributyrin* Supplementation in Feed on
Growth and immunity of Pacific Whiteleg Shrimp (*Penaeus vannamei*, Boone 1931)

Tributyrin supplementation has been proven to enhance growth, modulate gut microbiota, and improve the immunity of shrimp, although it can also cause inflammation in the digestive tract when supplemented at excessively high doses. This study aimed to determine the effect of low-dose tributyrin supplementation on the growth and immunity of Pacific white shrimp (Penaeus vannamei), as well as its impact on water quality parameters. A Completely Randomized Design (CRD) was employed with five tributyrin supplementation treatments at doses of 0 ; 1 ; 1.25 ; 1.5 ; and 1.75 g/kg of feed, with three replicates each. The study was conducted over one month using 30-day-old shrimp (DOC-30) and commercial feed. The results indicated that low-dose tributyrin supplementation had no significant effect on growth, survival, feed conversion ratio (FCR), phenoloxidase (PO) activity, respiratory burst (RB) activity, superoxide dismutase (SOD) activity, and water quality parameters such as temperature, pH, ammonia (NH_3), and nitrate (NO_3) ($P>0.05$). These findings suggest that one month of low-dose tributyrin supplementation in feed does not influence growth parameters, FCR, immunity, or the water quality of vannamei shrimp culture.

Keywords: pacific whiteleg shrimp, tibutyrin, growth, immunity.