

ABSTRACT

THE EFFECTIVENESS OF SYNBIOTICS ON THE GROWTH PERFORMANCE OF BARRAMUNDI LARVAE (*Lates calcarifer* Bloch 1790)

By

MEYLINDRA CICILIA NINGRUM

Barramundi is one of the seawater fish commodities which has high economic value. But the production of barramundi has not reached its target. One obstacle to barramundi cultivation is the limitation of barramundi larvae. Barramundi larvae in the size range 3-7 cm are prone to be stress and have a body's defenses that are vulnerable to disease. Therefore it is necessary to make efforts to increase the production of the barramundi. One effort that can be used to increase the growth rate of barramundi is by giving synbiotic application into the feed. This study aims to determine the effectiveness of synbiotics on the growth performance of barramundi larvae. The dosage composition used is, 1 (Prebiotic 4ml/100g Feed, Probiotic 4ml/100g Feed), 2 (Prebiotic 4ml / 100g Feed, Probiotic 6ml / 100g Feed), 3 (Prebiotic 4ml/100g Feed, Probiotic 8ml/100g Feed), 4 (Prebiotic 6ml /100g Feed, Probiotic 4ml/100g Feed), 5 (Prebiotic 6ml/100g Feed, Probiotic 6ml/100g Feed), 6 (Prebiotic 6ml/100g Feed, Probiotic 8ml/100g Feed). Prebiotic and probiotic treatments significantly affect the growth of absolute weight, daily growth rate, feed conversion ratio and protein retention. Synbiotic treatment only has a significant effect on protein retention. Prebiotic doses of 4 ml/100 g of feed and probiotics of 4 ml/100 g of feed are the best doses.

Keywords: *Barramundi, growth, synbiotic.*

ABSTRAK

EFEKTIVITAS SINBIOTIK TERHADAP PERFORMA PERTUMBUHAN BENIH IKAN KAKAP PUTIH (*Lates calcarifer* Bloch 1790)

Oleh

MEYLINDRA CICILIA NINGRUM

Ikan kakap putih merupakan salah satu komoditas ikan air laut yang memiliki nilai ekonomis yang tinggi. Namun produksi kakap putih belum mencapai target produksinya. Salah satu kendala budidaya kakap putih yaitu keterbatasan benih kakap putih. Benih kakap putih berukuran 3-7 cm mudah mengalami stres dan memiliki pertahanan tubuh yang rentan terhadap serangan penyakit. Oleh karena itu perlu dilakukan upaya untuk meningkatkan produksi kakap putih tersebut. Salah satu upaya yang dapat digunakan untuk meningkatkan laju pertumbuhan kakap putih yaitu dengan pemberian aplikasi sinbiotik ke dalam pakan. Penelitian ini bertujuan untuk mengetahui efektivitas sinbiotik terhadap performa pertumbuhan benih ikan kakap putih. Komposisi dosis yang digunakan adalah A (Kontrol) B (Prebiotik 4ml/100g pakan Probiotik 4ml/100g pakan) C (Prebiotik 4ml/100g pakan Probiotik 6ml/100g pakan) D (Prebiotik 4ml/100g pakan Probiotik 8ml/100g pakan) E (Prebiotik 6ml/100g pakan Probiotik 4ml/100g pakan) F (Prebiotik 6ml/100g pakan Probiotik 6ml/100g pakan) G (Prebiotik 6ml/100g pakan Probiotik 8ml/100g pakan). Perlakuan prebiotik maupun probiotik berpengaruh nyata terhadap pertumbuhan berat mutlak, laju pertumbuhan harian, rasio konversi pakan serta retensi protein. Perlakuan sinbiotik hanya berpengaruh nyata terhadap retensi protein. Dosis prebiotik 4 ml/100 g pakan dan probiotik 4 ml/100 g pakan merupakan dosis terbaik.

Kata kunci : *kakap putih, pertumbuhan, sinbiotik.*