

## ABSTRACT

This study aimed to analyze the effect of adding jeruju leaf extract (*Acanthus ilicifolius*) to feed on the growth performance and survival rate of saline tilapia (*Oreochromis niloticus*), as well as to determine the optimal dosage of jeruju leaf extract in the diet. The research was conducted for 30 days at the Hatchery and Aquaculture Technology Laboratory, Aquaculture Study Program, Faculty of Agriculture, Malikussaleh University. The study employed a laboratory experimental method using a Completely Randomized Design (CRD) consisting of four treatments with three replications. The treatments included treatment A (0 ml/100 g feed), treatment B (12.5 ml/100 g feed), treatment C (15.0 ml/100 g feed), and treatment D (17.5 ml/100 g feed). The observed parameters included absolute weight gain, absolute length gain, survival rate (SR), feed conversion ratio (FCR), feeding response, water quality, and organoleptic test of the feed. The results showed that the addition of jeruju leaf extract had a significant effect on absolute length gain, survival rate (SR), and feeding response of saline tilapia, but had no significant effect on absolute weight gain and feed conversion ratio (FCR). The best performance was obtained in treatment D (17.5 ml/100 g feed), which resulted in the highest absolute length gain of 7.898 cm, the highest survival rate of 93.33%, the fastest feeding response of 2.71 minutes, and the lowest FCR value of 1.28. Water quality during the study remained within the optimal range for the growth of saline tilapia. It can be concluded that the addition of jeruju leaf extract to the diet can improve the growth performance and survival rate of saline tilapia, with the optimal dosage being 17.5 ml/100 g feed.

Keywords: jeruju leaf, feed, growth, survival rate, tilapia

## ABSTRAK

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan ekstrak daun jeruju (*Acanthus ilicifolius*) pada pakan terhadap pertumbuhan dan sintasan ikan nila salin (*Oreochromis niloticus*), serta menentukan dosis yang optimal ekstrak daun jeruju dalam pakan. Penelitian dilaksanakan selama 30 hari di Laboratorium Hatchery dan Teknologi Budidaya, Program Studi Akuakultur, Fakultas Pertanian, Universitas Malikussaleh. Metode yang digunakan adalah metode eksperimental laboratorium dengan Rancangan Acak Lengkap (RAL) yang terdiri dari 4 perlakuan dan 3 ulangan. Perlakuan yang diuji yaitu perlakuan A (0 ml/100 gr pakan), perlakuan B (12,5 ml/100 gr pakan), perlakuan C (15,0 ml/100 gr pakan), dan perlakuan D (17,5 ml/100 gr pakan). Parameter yang diamati meliputi pertambahan berat mutlak, pertambahan panjang mutlak, kelangsungan hidup (SR), nilai konversi pakan (FCR), respon pakan, kualitas air, dan uji organoleptik pakan. Hasil penelitian menunjukkan bahwa penambahan ekstrak daun jeruju memberikan pengaruh nyata terhadap pertambahan panjang mutlak, kelangsungan hidup (SR), dan nilai respon pakan ikan nila salin, namun tidak berpengaruh nyata terhadap pertambahan bobot mutlak dan nilai konversi pakan (FCR). Perlakuan terbaik diperoleh pada perlakuan D (17,5 ml/100 gr pakan) dengan nilai pertambahan panjang mutlak tertinggi sebesar 7,898 cm, tingkat kelangsungan hidup terbesar 93,33%, respon pakan tercepat 2,71 menit, serta nilai FCR terendah sebesar 1,28. Kualitas air selama penelitian berada pada kisaran optimal untuk pertumbuhan ikan nila salin. Dapat disimpulkan bahwa penambahan ekstrak daun jeruju pada pakan mampu meningkatkan performa pertumbuhan dan sintasan ikan nila salin, dengan dosis optimal sebesar 17,5 ml/100 g pakan).

Kata Kunci : Daun Jeruju, Pakan, Pertumbuhan, sintasan, Nila