ABSTRAK

Ikan nila salin merupakan komoditas perikanan yang memiliki nilai ekonomis dan mampu beradaptasi pada lingkungan dengan salinitas tertentu. Keberhasilan budidaya salah satunya dipengaruhi oleh kualitas pakan yang diberikan. Penggunaan bahan pakan alternatif yang memiliki kandungan nutrisi dan senyawa bioaktif berpotensi meningkatkan pemanfaatan pakan dan pertumbuhan ikan. Tepung daun kelor (*Moringa oleifera*) merupakan salah satu bahan alternatif yang memiliki kandungan protein, vitamin, mineral, asam amino, dan senyawa antioksidan. Penambahan vitamin C juga berperan dalam mendukung pertumbuhan dan meningkatkan daya tahan tubuh ikan. Penelitian ini bertujuan untuk menganalisis pengaruh penambahan tepung daun kelor dan vitamin C terhadap pertumbuhan dan kelangsungan hidup benih ikan nila salin. Penelitian dilaksanakan pada bulan Mei sampai Juni 2026 di Laboratorium Hatchery dan Teknologi Budidaya, Program Studi Akuakultur, sedangkan uji proksimat pakan dilakukan di Laboratorium Tanah dan Konservasi Fakultas Pertanian Universitas Malikussaleh. Penelitian menggunakan Rancangan Acak Lengkap (RAL) non faktorial yang terdiri atas empat perlakuan dan tiga ulangan. Perlakuan A (pakan buatan), perlakuan B (5% tepung daun kelor dari 500 g pakan + vitamin C 200 mg), perlakuan C (7,5% tepung daun kelor dari 500 g pakan + vitamin C 200 mg), dan perlakuan D (10% tepung daun kelor dari 500 g pakan + vitamin C 200 mg). Analisis data dilakukan menggunakan analisis ragam (ANOVA), penambahan tepung daun kelor dan vitamin C berpengaruh nyata terhadap pertumbuhan panjang mutlak, pertumbuhan bobot mutlak, dan rasio konversi pakan (FCR). Hasil terbaik diperoleh pada perlakuan C dengan rata-rata pertumbuhan panjang 1,95 cm, pertumbuhan bobot mutlak 2,49 g, FCR 1,86. Hasil uji organoleptik menunjukkan bahwa pakn perlakuan C memiliki aroma menyengat dan warna coklat pekat. Kualitas air selama penelitian berada pada kisaran optimal dengan suhu 25,2–29°C, salinitas 10 ppt, oksigen terlarut 4,9–6,6 ppm, dan pH 8–8,9.

Kata kunci: nila salin, daun kelor, vitamin C, pertumbuhan, kelangsungan hidup.

ABSTRACT

Saline tilapia is an important aquaculture commodity with high value and adaptability to environments with varying salinity levels. The success of its culture is strongly influenced by the quality of the feed provided. The use of alternative feed ingredients containing nutrients and bioactive compounds has the potential to improve feed utilization and fish growth. *Moringa oleifera* leaf flour is a potencial alternative feed ingredient because it contains protein, vitamins, minerals, amino acids, and antioxidant compounds. In addition, vitamin C plays an important role in supporting growth and enhancing fish immunity. This study aimed to analyze the effect of moringa leaf flour and vitamin C supplementation on the growth and survival of saline tilapia fry. The study was conducted from May to June 2026 at the Hatchery and Cultivation Technology Laboratory, Aquaculture Study Program. Proximate analysis of feed was conducted at the Soil and Conservation Laboratory, Faculty of Agriculture, Malikussaleh University. The study used a non-factorial Completely Randomized Design (CRD) consisting of four treatments and three replications. Treatment A (artificial feed), treatment B (5% moringa leaf flour from 500 g feed + 200 mg vitamin C), treatment C (7.5% moringa leaf flour from 500 g feed + 200 mg vitamin C), and treatment D (10% moringa leaf flour from 500 g feed + 200 mg vitamin C). Data were analyzed using analysis of variance (ANOVA). The results showed that the addition of moringa leaf flour and vitamin C significantly affected absolute length growth, absolute weight growth, and feed conversion ratio (FCR). The best results were obtained in treatment C with an average absolute length growth of 1.95 cm, absolute weight growth of 2.49 g, and FCR of 1.86. Organoleptic evaluation showed that the feed in treatment C had a pungent aroma and a dark brown color. During the study, water quality parameters remained within the optimal range, with a temperature of 25.2–29°C, a salinity of 10 ppt, dissolved oxygen of 4.9–6.6 ppm, and a pH of 8–8.9.

Keywords: saline tilapia, *Moringa oleifera*, vitamin C, growth, survival.