INTISARI

PENGARUH SUBSTITUSI TEPUNG KEDELAI DENGAN TEPUNG ALFALFA TROPIS TERFERMENTASI DALAM PAKAN TERHADAP SINTASAN DAN PERTUMBUHAN BENIH NILA MERAH (*Oreochromis* sp.)

Penelitian ini bertujuan untuk mengetahui pengaruh penggunaan tepung kedelai dan tepung alfalfa tropis terfermentasi (TATT) dalam pakan terhadap sintasan dan pertumbuhan benih nila merah (*Oreochromis* sp.). Penelitian ini dilaksanakan selama 60 hari mulai Agustus sampai dengan September 2024. Perlakuan pakan yaitu P0 (pakan komersial), P1 (TATT 20% : tepung kedelai 80%), P2 (TATT 25% : tepung kedelai 75%), dan P3 (TATT 30 % : tepung kedelai 70%) dengan masing-masing tiga ulangan. Ikan nila merah yang digunakan berukuran 8-12 cm dengan padat tebar 15 ekor/bak, pemberian pakan sebesar 3% berdasarkan persentase biomassa dengan frekuensi sebanyak dua kali sehari (pagi dan sore). Analisis data menggunakan analisis variansi dengan tingkat signifikasi 95%, apabila ada beda nyata dilanjutkan dengan uji lanjut *Dunnet* dan analisis regresi polinomial ortogonal. Hasil penelitian menunjukkan bahwa substitusi tepung kedelai dengan tepung alfalfa tropis terfermentasi belum dapat menghasilkan performa yang lebih baik jika dibandingkan dengan pakan komersial (P0). Pakan komersial menghasilkan nilai optimum sintasan, pertumbuhan mutlak (berbasis panjang dan berat), laju pertumbuhan spesifik (berbasis panjang dan berat), serta FCR dengan nilai masing-masing 100%, 3,74 cm, 19,31 g, 0,63 %/hari, 1,72 %/hari, dan 1,60.

Kata kunci: nila merah, pertumbuhan, serat kasar tepung alfalfa tropis terfermentasi, tepung kedelai

ABSTRACT

EFFECT OF SUBSTITUTION SOYBEAN MEAL BY FERMENTED TROPICAL ALFALFA MEAL IN FEED ON SURVIVAL AND GROWTH OF RED NILE TILAPIA (*Oreochromis* sp.) FRY.

This study aims to determine the effect of using soybean meal and fermented tropical alfalfa meal (FTAM) in the feed on the survival rate and growth of red tilapia (*Oreochromis* sp.) fry. The research was conducted over 60 days, from August to September 2024. The feed treatments were P0 (commercial feed), P1 (20% FTAM : 80% soybean meal), P2 (25% FTAM : 75% soybean meal), and P3 (30% FTAM : 70% soybean meal), with three replications for each treatment. The red tilapia used had an initial size of 8-12 cm, with a stocking density of 15 fish per tank, and feeding was provided at 3% of body biomass, twice a day (morning and evening). Data analysis was performed using Analysis of Variance (ANOVA) at a 95% significance level, followed by Dunnett's post-hoc test and orthogonal polynomial regression analysis if significant differences were found. The results of the study indicated that substituting soybean meal with fermented tropical alfalfa meal did not produce better performance compared to the commercial feed (P0). The commercial feed resulted in optimal survival, absolute growth (based on length and weight), specific growth rate (based on length and weight), and feed conversion ratio (FCR), with the following respective values: 100%, 3.74 cm, 19.31 g, 0.63%/day, 1.72%/day, and 1.60.

Keywords: red tilapia, growth, crude fiber, fermented tropical alfalfa meal, soybean meal