ABSTRAK

Pakan merupakan salah satu penunjang keberhasilan budidaya ikan. Harga pakan yang relatif tinggi menjadi tantangan pembudidaya sehingga memerlukan alternatif pengganti pakan. Substitusi dengan bahan nabati lokal seperti tepung daun ubi jalar fermentasi berpotensi menurunkan biaya produksi dan berpotensi meningkatkan pertumbuhan ikan nilem (*Osteoshillus* sp.) dari segi indeks morfoanatomi. Penelitian ini dilakukan dengan menggunakan metode eksperimen berdasarkan rancangan acak lengkap (RAL) dengan 4 perlakuan dan 4 ulangan. Perlakuan yang diberikan yaitu substitusi tepung daun ubi jalar terfermentasi dengan komposisi yang berbeda yaitu 0% (P1), 25% (P2), 50% (P3), dan 75% (P4). Pemeliharaan ikan dilakukan selama 50 hari dengan pemberian pakan dua kali sehari. Data yang diamati yaitu data indeks viscerasomatik, indeks hepatosomatik, dan indeks gonadosomatik dan dianalisis menggunakan uji ANOVA. Hasil pengamatan persentase indeks viscerasomatik berkisar antara 19,76±1,97%-21,95±3,54%; indeks hepatosomatik berkisar antara 0,69±0,28%-1,16±0,72%; dan indeks gonadosomatik berkisar antara 10,94±2,32%-12,17±5,92%. Hasil analisis uji ANOVA menunjukkan bahwa substitusi tepung daun ubi jalar terfermentasi tidak berpengaruh nyata terhadap indeks morfoanatomi ikan nilem (P>0,05). Hasil pengukuran kualitas air antara lain pH berkisar antara 6,4-7,6; amonia berkisar 0-0,25 mg/L; nitrit berkisar antara 0-0,25 mg/L; dan nitrat 5-40 mg/L.

Kata kunci: *pakan substitusi, tepung daun ubi jalar fermentasi, ikan nilem, indeks morfoanatomi ikan*

ABSTRACT

Feed is one of the supports for the success of fish farming. The relatively high price of feed is a challenge for cultivators, so it requires an alternative to feed substitutes. Substitution with local vegetable ingredients such as fermented sweet potato leaf flour has the potential to reduce production costs and potentially increase the growth of tilapia (Osteoshillus sp.) in terms of morphoanatomical index. This study was conducted using an experimental method based on a complete random design (RAL) with 4 treatments and 4 replicates. The treatment given was the substitution of fermented sweet potato leaf flour with different compositions, namely 0% (P1), 25% (P2), 50% (P3), and 75% (P4). Fish maintenance is carried out for 50 days by feeding twice a day. The observed data were viscerasomatic index data, hepatosomatic index, and gonadoomatic index and analyzed using ANOVA test. The results of observation of the percentage of viscerasomatic index ranged from 19.76±1.97%-21.95±3.54%; the hepatosomatic index ranges from 0.69±0.28%-1.16±0.72%; and the gonadosomatic index ranged from 10.94±2.32%-12.17±5.92%. The results of the ANOVA test analysis showed that the substitution of fermented sweet potato leaf flour had no significant effect on the morphoanatomical index of nilem fish (P>0.05). The results of water quality measurements include pH ranging from 6.4-7.6; ammonia ranges from 0-0.25 mg/L; nitrites range from 0-0.25 mg/L; and nitrates 5-40 mg/L.

Keywords: *feed substitution, fermented sweet potato leaf flour, nilem fish, fish morphoanatomical index*