ABSTRAK

Penelitian ini bertujuan untuk mengkaji pengaruh substitusi pakan menggunakan tepung daun ubi jalar (*Ipomoea batatas*) terfermentasi (TDUJT) terhadap kelimpahan dan aktivitas bakteri amilolitik dalam saluran pencernaan ikan nilem (*Osteochilus* sp.). Ikan dipelihara selama 45 hari mengunakan metode ekperimental dengan Rancangan Acak Lengkap (RAL), yang terdiri atas 4 perlakuan persentase substitusi tepung ikan oleh tepung daun ubi jalar terfermentasi masing-masing sebesar 0%, 25%, 50%, dan 75%. Dan 3 ulangan, dengan pengambilan sampel usus dilakukan pada hari ke-25, 35, dan 45. Hasil penelitian menunjukkan bahwa substitusi pakan tidak memberikan pengaruh signifikan ($p<0,05$) terhadap kelimpahan bakteri, proporsi bakteri berdasarkan karakter Gram, dan proporsi bakteri amilolitik. Namun, memberikan pengaruh signifikan ($p>0,05$) pada indeks aktivitas bakteri amilolitik. Peningkatan persentase substitusi tepung daun ubi jalar terfermentasi cenderung meningkatkan proporsi dan indeks aktivitas bakteri amilolitik. Dengan nilai tertinggi pada persentase 75% substitusi tepung daun ubi jalar terfermentasi. Temuan ini menunjukkan bahwa penggunaan tepung daun ubi jalar terfermentasi dalam pakan berpotensi meningkatkan aktivitas bakteri amilolitik yang berperan dalam proses pencernaan karbohidrat dan pemanfaatan nutrien pada budidaya ikan nilem.

Kata kunci: *Ikan nilem, bakteri amilolitik, tepung daun ubi jalar terfermentasi (TDUJT), substitusi pakan, aktivitas enzim amilase*.

ABSTRACT

This study aims to examine the effect of feed substitution using fermented sweet potato leaf meal (*Ipomoea batatas*) (FSPLM) on the abundance and activity of amylolytic bacteria in the digestive tract of Nilem fish (*Osteochilus* sp.). Fish were reared for 45 days using an experimental method with a Completely Randomized Design (CRD), consisting of 4 treatments of fish meal substitution percentage by fermented sweet potato leaf meal of 0%, 25%, 50%, and 75%, respectively. And 3 replications, with intestinal sampling carried out on days 25, 35, and 45. The results showed that feed substitution did not have a significant effect ($p<0,05$) on bacterial abundance, the proportion of bacteria based on Gram characters, and the proportion of amylolytic bacteria. However, it had a significant effect ($p >0,05$) on the amylolytic bacterial activity index. Increasing the percentage of fermented sweet potato leaf flour substitution tends to increase the proportion and activity index of amylolytic bacteria, with the highest value at 75% fermented sweet potato leaf flour substitution. These findings suggest that the use of fermented sweet potato leaf flour in feed has the potential to increase the activity of amylolytic bacteria, which play a role in carbohydrate digestion and nutrient utilization in Nilem fish farming.

Keywords: *nilem fish, amylolytic bacteria, fermented sweet potato leaf meal (FSPLM), feed substitution, amylase enzyme activity.*