

ABSTRAK

Penelitian ini bertujuan untuk mengkaji pengaruh penambahan surfaktan bungkil sawit (surbuwit) terhadap kualitas fisik pakan ikan, serta menganalisis kandungan nutrisi pakan melalui uji proksimat. Penelitian ini dilatarbelakangi oleh rendahnya kualitas fisik dan kimia pakan yang umum digunakan dalam budi daya, khususnya terkait kestabilan pakan di air, daya ikat air, serta kandungan nutrisi seperti protein dan lemak. Bungkil inti sawit, sebagai produk samping industri kelapa sawit yang masih kaya akan lipid, berpotensi dimanfaatkan sebagai bahan baku surfaktan alami untuk memperbaiki mutu pakan tersebut. Penelitian dilaksanakan pada tanggal 23 April 2026 di Laboratorium Hatchery dan Laboratorium Teknologi Industri Pertanian, Fakultas Pertanian, Universitas Malikussaleh, serta di Pelayanan Publik BSPJI Banda Aceh, menggunakan metode eksperimental laboratorium dengan Rancangan Acak Lengkap (RAL) yang terdiri atas empat taraf perlakuan, yaitu pakan kontrol serta penambahan surbuwit dengan konsentrasi 2%, 4%, dan 6%, masing-masing diulang sebanyak tiga kali. Parameter yang diamati meliputi uji fisik, yaitu kecepatan pecah, kecepatan tenggelam, homogenitas, dan organoleptik, serta uji kimia melalui analisis proksimat berupa kadar protein, lemak, karbohidrat, serat kasar, dan abu. Hasil penelitian menunjukkan bahwa penambahan surbuwit berpengaruh nyata terhadap kecepatan pecah dan kecepatan tenggelam pakan, tetapi tidak berpengaruh nyata terhadap tingkat homogenitasnya. Hasil uji proksimat menunjukkan kandungan protein berkisar antara 26,95-27,16%, lemak 7,34-8,37%, karbohidrat 31,50-33,29%, serat kasar 6,59-7,97%, dan abu 13,06-14,30%. Seluruh perlakuan menghasilkan kandungan nutrisi pakan yang sesuai dengan persyaratan mutu pakan ikan bandeng berdasarkan SNI 7308:2018. Dengan demikian, surfaktan bungkil sawit berpotensi dimanfaatkan sebagai bahan aditif alami untuk meningkatkan kualitas fisik dan nilai nutrisi pakan ikan pada masa mendatang.

Kata kunci: Performa, Pakan, Surbuwit, Uji Kimia, Uji Fisik.

ABSTRACT

This study aims to examine the effect of adding palm kernel cake surfactant (surbuwit) on the physical quality of fish feed, and to analyze the feed's nutrient content through proximate analysis. The study was motivated by the low physical and chemical quality of feed commonly used in aquaculture, particularly regarding water stability, water binding capacity, and nutrient content such as protein and fat. Palm kernel cake, a by-product of the palm oil industry that still contains considerable lipid content, has the potential to be used as a raw material for natural surfactants to improve feed quality. The research was conducted date 23th April 2026 at the Hatchery Laboratory and the Agricultural Industrial Technology Laboratory, Faculty of Agriculture, Universitas Malikussaleh, and at the BSPJI Banda Aceh Public Service Unit, using a laboratory experimental method with a Completely Randomized Design (CRD) of four treatment levels: control feed and feed with surbuwit at concentrations of 2%, 4%, and 6%, each replicated three times. The parameters observed included physical tests, namely breaking speed, sinking speed, homogeneity, and organoleptic properties, as well as chemical tests through proximate analysis covering protein, fat, carbohydrate, crude fiber, and ash content. Results showed that surbuwit addition significantly affected breaking speed and sinking speed but had no significant effect on homogeneity. Proximate analysis showed protein content of 26.95-27.16%, fat 7.34-8.37%, carbohydrate 31.50-33.29%, crude fiber 6.59-7.97%, and ash 13.06-14.30%. All treatments produced feed nutrient content that meets the quality requirements for milkfish feed under SNI 7308:2018. Thus, palm kernel cake surfactant has potential as a natural feed additive to improve the physical quality and nutritional value of fish feed.

Keywords: Chemical analysis, Feed, Performance, Physical analysis, Surbuwit.